

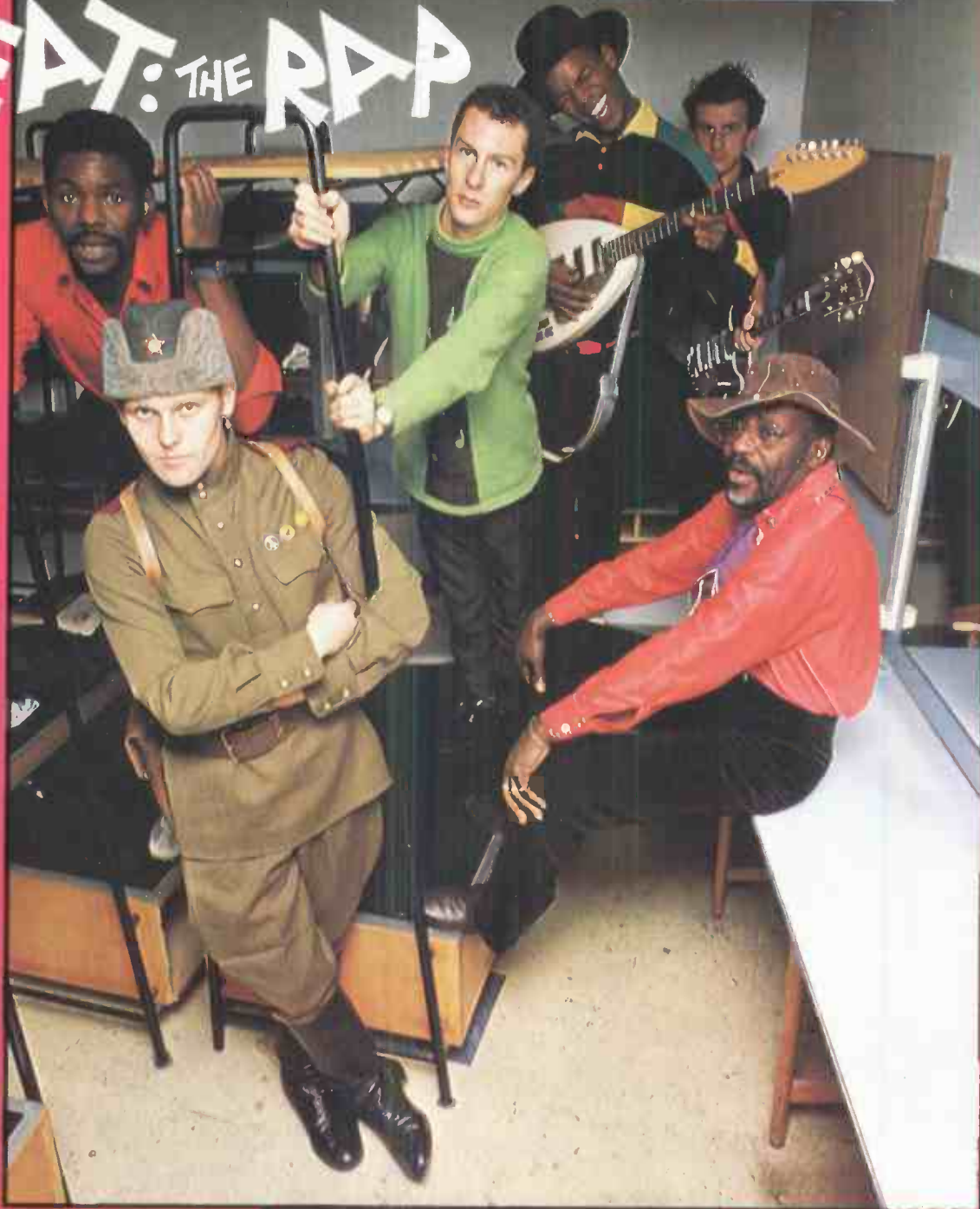
February 1981 70p \$2

# Sound

## International

incorporating **BEAT**  
*Instrumental*

### THE BEAT: THE RAP



Reviews: Prophet-10; Fender Precision Special; Ibanez George Benson

# New realms of expression from MXR.

The Pitch Transposer is MXR's newest addition to our professional line. It is one of our most innovative products, and possibly the most revolutionary signal processor in the music industry today. It is a unique, high-quality unit which provides a cost effective and flexible package for today's creative artists.

The Pitch Transposer extends your musical boundaries by creating live instrumental and vocal harmonies. It has 4 presets which allow the artist to predetermine the intervals to be processed. Transposed intervals can be preset anywhere from an octave below to an octave above the original pitch. The chosen interval is activated by means of touch controls or a rugged footswitch. LED indicators display which of the four presets has been selected.

A mix control is provided, enabling the unit to be used in one input of a mixing console, or with musical instrument amplifiers. A regeneration control provides for the recirculation of processed signals, creating more and more notes, depending upon the selected interval. This results in multitudes of voices or instrumental chords. An entire new range of sound effects and musical textures, unattainable with any other type of signal processor, is suddenly at your fingertips.

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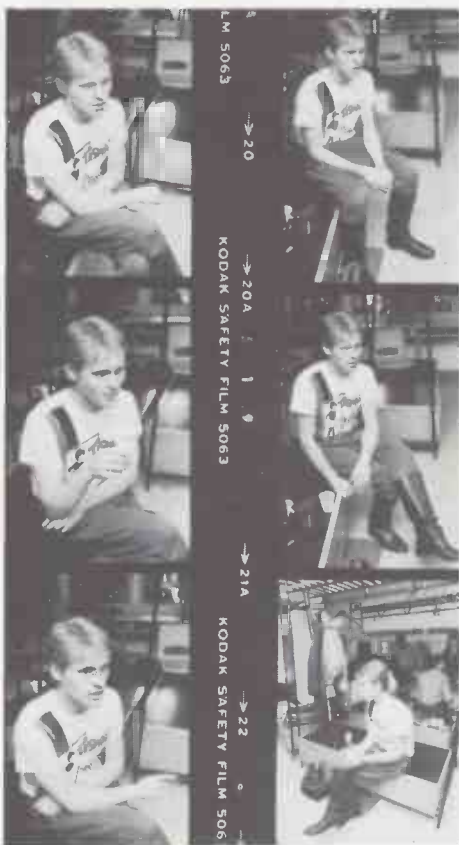


# Sound International

incorporating **BEAT** Instrumental

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Meaty John Morrish mixes with The Beat in the decidedly un-big TOTP studio as bouncy Beeb presenter flounders on song title and the band decide we're not too nice to talk to.



## 24 Allan Holdsworth

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## 29 David Hentschel

And inside . . . a revelation from the ex-Genesis producer who is more than ready to explain his plans in a non-Genesis-related scenario (the QE2, for example) to Fred Dellar.

## 32 The DIY Studio Part Five

A frightening kaleidoscope of plans, diagrams and charts as we apply sound to your slowly developing studio. Did you know, for instance, that the Sound Reduction Index has absolutely nothing to do with our Second-hand Index?

## 40 Ron Roka

How the geezer from Top Gear is still, you know, like, doing something else and doing the same sort of thing, isn't he? Anyway, Robin Millar investigates the new shop sign.



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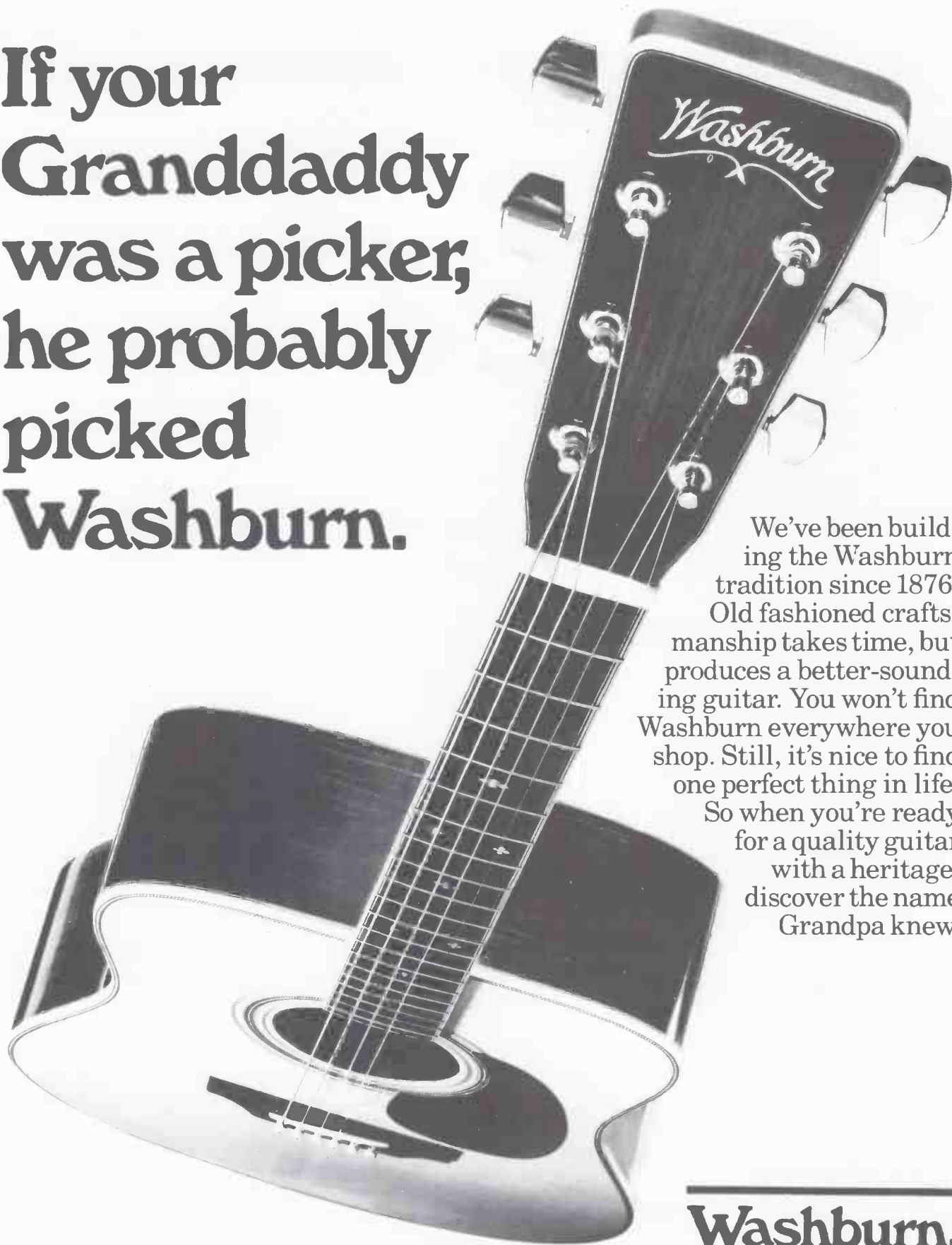
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Getting an instrument or amp repaired or overhauled can cause severe headaches, particularly if the item is fairly old. In theory, and indeed in law (Sale Of Goods Act), the retailer from whom you bought the product is liable to replace, repair or refund faulty objects, but generally (and especially if the fault is serious and if their own facilities are inadequate) this retailer will often send the ailing instrument or amp back to the UK distributor or manufacturer for specialist attention. So far, so good – again, in theory. What if the product no longer has a UK distributor, or if the UK manufacturing company has gone bust or is no longer in production for other reasons? What if you bought the offender second-hand? Regular readers may remember the demise of Orange in December 1979, and the resulting *SI* letters and news items wherein several repair shops reached Orange owners to enable failing amps to receive attention. Recently, we've also heard from a company called Allegro Music who claim to have full spares and accessories, including circuit diagrams, for obsolete Selmer amplification – reach them on Colchester 79886. Is there anyone else out there offering such services to our readers? Or are any readers having problems getting older amps or instruments serviced? With luck, we can get a reasonably comprehensive list together and publish it later in the year. But first we need your information.

Tony Bacon

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was a picker,  
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SOUND INTERNATIONAL incorporating Beat Instrumental

is written for musicians by musicians and published monthly. We aim to provide a magazine available to all for the exchange of ideas, views, techniques and experiences relating to music making, and welcome comments, opinions and contributions: this includes you and yours. Being non-bionic we do make mistakes - we want these rectified as soon as possible - please let us know about any errors you have spotted. We will always make space available for replies, corrections and counter-attacks. However, we cannot be held responsible for errors, loss or damage to items contributed. The contents of this magazine are copyright but we'll generally give permission to reprint provided this is requested in writing.

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NEWS

Vox Ltd: Waving The Flag In Criss-Cross Grille-Cloth Land



Vox V125 stack: on show at Frankfurt and Anaheim

When it comes to naming the classic British valve amp, most voters, dipping quickly into their Sixties Stacks I 'Ave 'Eard memoirs, would probably come out split between Marshall and Vox, with Hiwatt a close third. A revamped Vox Ltd, operating from the same north London offices as Rose-Morris, has been in business for well over a year now, and SI/BI recently took the opportunity to find out just what's happening in the world of criss-cross grille cloths. Chairman Peter Clarke explained that, while geographically close, Vox and Rose-Morris (who distribute Marshall until March) are separate companies: 'We didn't want Vox to appear as, or even develop into, just another amp line that Rose-Morris was going to run, so we set up a large, separate, international company: Vox Ltd.'

In 1980, Vox produced seven entirely new items - two cabs, two heads and three combos - and, although 1981 promises additional developments, there is plenty for marketing manager Jim Wilmer to concentrate

on in the current catalogue. 'The new Supertwin, for example,' he told us, referring to the mains-powered rehearsal combo launched at last year's Olympia show, 'is an updated Escort. We examined the Escort and decided we could get nearer 20 watts out of it, and we put active eq in it, +/-12dB or thereabouts, a master volume and a built-in Hammond reverb, all for £95 list.'

But how do Vox measure up to the competition? 'Valve-for-valve, the competition is limited,' claimed Jim, 'but a lot of people are making hybrids (amps with transistor front-ends and valve power sections), including the Japanese, and I think the competition will get hotter in '81.'

So, with the intention of taking Vox firmly into the 80s (Peter Clarke: 'I'm sure you'll notice that The Beatles aren't mentioned in any of our ads - that's not what we're selling...'), the company seems to have gained some sort of foothold in the UK already, and are exhibiting this month for the first time at a US trade show, the NAMM exhibition in Anaheim. But they are

not forsaking 'the good old Vox sound', by any means. 'What we've got to do is to make that relevant to today's musician,' reckoned Clarke, and Wilmer added, 'Vox has striven to maintain the sound of the AC30 - the newer models do maintain some parts of the sound, but add some things to bring them into the 80s.'

If you'd like a copy of the new Vox catalogue to see what the range offers, write to Vox Ltd, 32-34 Gordon House Road, London NW5 1NE, or phone (01) 267 0702 or 485 4553.

Roland Is Boss' Claims Washburn Man

Past and future customers of Roland, Washburn and Boss products can rest assured that their interests will be protected after the recent receivership of parent company Brødr Jørgensen. The UK arm of BJ had distributed the three lines, along with Kramer and Audio-Technica, up until the time that the Danish holding company went down, but at press time Messrs Nunney, Meade and Stoddard, all previously at BJ, were negotiating to purchase the company from lawyers handling Brødr Jørgensen's affairs.

Brian Nunney explained to SI/BI that continuity of supply of the three lines was guaranteed, that new products would appear as planned and that spares and servicing under guarantee would all continue unabated. There were no price rises anticipated 'for at least three months', he said. New and new-ish products to be shown at the Frankfurt trade show this month include: from Roland - the TR808 rhythm composer, GR33 bass synth, GR09/G202 guitar synth, JP8 8-voice synth and Cube 100amp; and from Boss - the PH1R phaser with resonance effect, MA1 pocket amp, FA1 FET amp, SD1 overdrive, MA15 monitor amp and MS100 monitor speaker.

Kramer guitars and Audio-Technica mics will not be distributed by the new company, as part of an overall 'tightening of focus' designed to make the operation run even more smoothly than in BJ days. All enquiries should be addressed to the old address, as usual: Unit 6, Great West Trading Estate, 983 Great West Road, Brentford, Middx TW8 9DN, Tel: (01) 568 4578.

Addresses

We omitted to print the addresses of the various organisations mentioned in last month's Songwriting: The Protection Rackets article by John Walters. They are: The Performing Right Society, 29-33 Berners Street, London W1, Tel: (01) 580 5544. Phonographic Performance Ltd, 14 Ganton Street, London W1, Tel: (01) 437 0311. Mechanical Copyright Protection Society Ltd, 380 Streatham High Road, London SW16, Tel: (01) 769 3181.

I Wish They All Could Be Californian Synths



Here, as hinted at in last month's Newsnotes, is the brand new Sequential Circuits Pro-One synthesiser, to be launched at this month's Frankfurt and Anaheim trade shows. The instrument is a two-oscillator mono synth, with a 3-octave C-to-C keyboard and a built-in digital sequencer storing two sequences of up to 40 notes. Sterling prices have still to be fixed, but the fact that the US list is \$645 is very encouraging, and should bring Prophet quality to more cost-conscious players. We'll bring more info and a review once we've seen it. If you want information direct, write to Sequential Circuits, 3051 North First Street, San Jose, Ca 95134, US, Tel: (408) 946-5240.

# Man in Jam says 'Vox got me into it'

We're in a caff (spelt cafe) somewhere in the West End of London. The tape recorder's on, sausages are off and the tea is verging on the drinkable. We're talking to Paul Weller and Dave. Paul Weller is the man in the Jam. Dave is the chap who looks after his equipment and stuff. We're the italics and ask the questions.

*... So when did you first get hold of an AC30?*

Soon as we got signed up. This geezer Chris Parry from Polydor came down the Marquee. Polydor were looking for a token punk band. So they signed us. Soon as we got some money, I went out and bought a few AC30's...

*How do you find them on the road?*

Ahh... well for what we're doing now they aren't loud enough... but for your small halls and middling venues they're great... we used them a lot at the beginning... and of course we always use them for recording... all the new album has been done on AC30's... most of the previous stuff too... (AT THIS POINT DAVE INTERJECTS) They need to be broken in as well... you get a new one and the sound isn't quite there... you need to burn the valves a bit... get the thing hot for a while...

*Do you find much difference between what you're doing now and what you were doing a while back...?*

... well last year we went back and played the Marquee... that was a bit of fun... it's stupid trying to hang onto that kind of thing though... five hundred people is the same as five thousand... it's the same feeling... you're not losing contact...

*How about touring now?*

Knacker and boring apart from those two hours you're on stage...

*What do you think of record companies?*

Well, the deal we've got with Polydor has got better as we've got more successful, but the thing I'd say to young bands is keep your eye on them. Even when you get successful and it's all smiles and handshakes, it's a fickle business... you see young kids getting really screwed up... when we first signed we'd take anything we could get our hands on... we were skint. It's good to see all the independent labels coming up now...

*Any final words on the business in general and Vox in particular?*

Vox I'd recommend to anyone... can't say the same for the business.

Vox Limited, 32-34 Gordon House Road, London NW5 1NE. Tel: 01-485 4553

Dear Vox, my name is \_\_\_\_\_

and I live at \_\_\_\_\_

\_\_\_\_\_ and I'd like a bit more info please

**VOX**





## Musicians Sunk on the ICs

Possibly a few of you out there were having a good chuckle at the implications of last month's column, where I attempted to part the veil obscuring the availability of valves in the future. You were either the bright young terrors of tomorrow who've thrown your lot in with the transistor and can't wait for the last valve to splutter and cough its last or, possibly, a cloth-eared retailer who just loves shifting van loads of 'louverly cheap solid-state amplification - guaranteed to make you a superstar'. Well, it's rather funny how these things turn out, isn't it, because I now have some sad tidings for you lot which might well wipe the smiles off your faces too!

I must say, though, that I really am *not* gloating about this (although I'll admit a passing devotion to the dear old valve). In all seriousness what I've turned up in the past few weeks has scared me a bit too. Read on for this month's instalment in the continuing saga of *Will You Still Amplify Me Tomorrow*.

As most of you dear readers will understand by now, the average transistor amplifier on the market (almost regardless of its source) is based on circuitry offered by the manufacturers of the solid-state devices themselves. These cheerful bodies (aided by university professors who publish designs in electronics mags and books) come up with basic circuit applications for standard solid-state devices and these diagrams are then interpreted by the majority of amp makers.

There are, however, very few genuine *designers* at work in instrument amplification these days. This was true in the past too, of course, when the valve amp makers used to lean on basic circuit data suggested by the valve makers. These days, as transistor circuitry gets more and more complex, it is even more true.

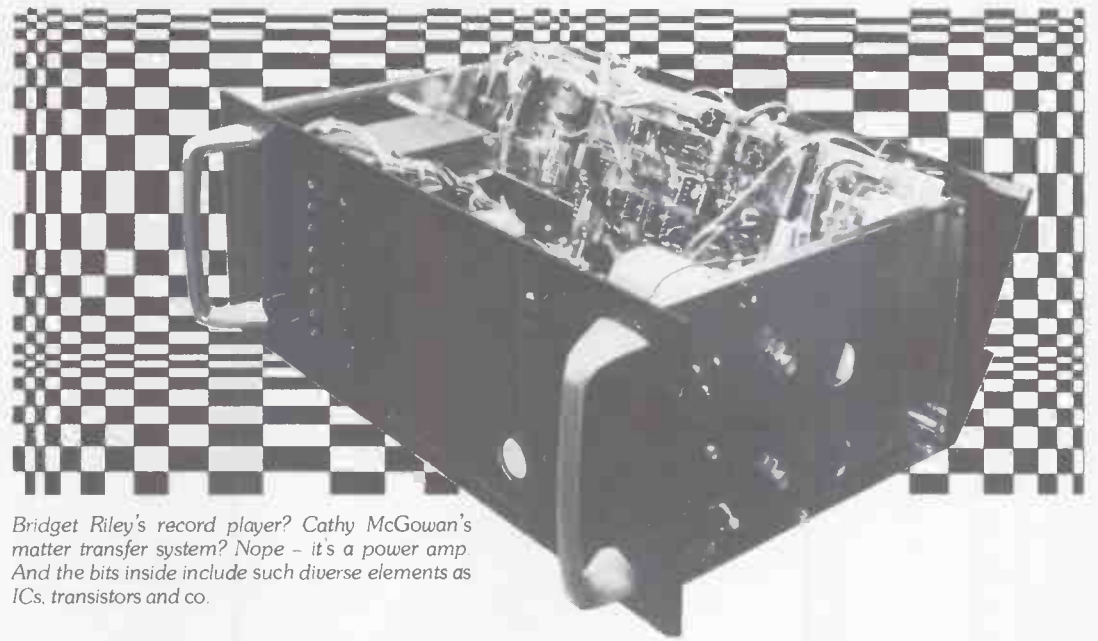
In practice this doesn't matter too much. The people who adapt these basic circuits are clever guys and can manipulate the basics to give some very different sounding products. Compare, say, a Lab Series with a Pearl - that's called choice.

Where things get nasty is in the production planning of the manufacturers of solid-state devices, particularly ICs (Integrated Circuits).

Many products these days employ ICs. Amps use them, especially in the pre-amp stages; all effects pedals rely on them. The state of service in the future depends on whether or not you will be able to buy the XYZ IC from the Matsuwhatsit Electronics Corp in five years time.

Now ICs are funny things - in fact most transistors are too. You are quite likely to find the same IC in a 100 watt guitar amp as you are in a television or a piece of industrial process control equipment, maybe even a calculator.

The secret of keeping these items cheap is volume production - and I mean *volume*. Runs of 50,000,000



*Bridget Riley's record player? Cathy McGowan's matter transfer system? Nope - it's a power amp. And the bits inside include such diverse elements as ICs, transistors and co.*

items are normal. If volume sales drop 5%, that's it, the manufacturer either drops the item in question or up-rates it in some way. If the product is dropped you're sunk, and there have been cases of amp makers who have been forced to completely redesign a circuit in a popular amp just to accommodate some new gizmo to replace a discontinued one. Other cases have arisen where a spec on an IC has been up-rated in every respect except, say, noise. For most applications (say 99% of them) noise just doesn't come into it - the audio user is small beer, you see.

Now this is bad enough for amp makers. It means they have to keep large stocks of ICs just to guarantee production levels - but what about service?

The stark truth is that only the bigger, more stable or more conscientious companies can afford to stock enough parts to keep your amp on the road. Even then they may have to do a complete new board (as in one case that I have heard of) to keep a product in working order, the vital item having been axed with no warning to the manufacturer in question. In this case it was a power supply IC that was chopped.

Even an IC as popular as sliced bread two years ago may be regarded as obsolete now. The business moves that fast.

Now where this affects you is with the older solid-state amp. If it has come from a manufacturer who is still in business, and if it's a reputable manufacturer, they should still either have stocks of the faulty part or be able to make a board which will get over the unavailability of the IC in question.

On the other hand, the maker who has gone out of business without

making a service arrangement with another company for past customers may just have left you standing. OK, I hear you thinking, I'll just pop along to a good repairer/servicer and get them to modify it. Well, I do hope you have a circuit diagram for the gear in question because (despite what I said about makers following basic circuits) there are many different types to choose from and some very interesting modifications can be made to them. Just looking at a transistorised circuit board will tell you nothing - unlike a valve amp - and the verdict of one of the most skilled amp designers in the business with whom I spoke was along the lines of, 'Well, I could *probably* sort it out but it would take me a whole day and I've got a wall full of text books to draw on.' And this, by the way, was a *genuine* designer speaking! I wouldn't give average music shop engineers much chance unless they were particularly above par for the course.

What this means to you, the player, is that you should be very careful when buying a solid-state amp. Buy from a source you feel you can trust when buying new (and that doesn't just mean big companies, of course), and watch that cheap secondhand tranny amp made ten years ago by a company who have since gone the way of all flesh, possibly having made no provision for after-sales service.

I don't want to sound too alarmist about this because in the majority of cases you'll be OK - and, after all, solid-state amps are fairly reliable (although I do rather suspect that the claimed reliability advantage of solid-state over valve amps is a myth). But it is a point worth bearing in mind - and above all something extra to be added into the valves v transistor controversy.

## Speakers Corner: HHB and Tandberg take over

As I seem to have taken the responsibility for rabbiting on about speakers over the past year or so I thought I should just mention two developments which may affect PA builders and users regarding sales and service on two major brands. Firstly, Gauss' distribution in the UK has been taken over by HHB Sales and Hire who live at Unit F, New Crescent Works, Nicoll Rd, London NW10, Tel: (01) 961 3295. Gauss, by the way, have now made the same change as JBL in that all their current speakers are using ceramic magnets in place of alnico. Regular readers may remember my comments on the world cobalt shortage some months ago as being the prime reason behind this.

Secondly, Altec Lansing ('Who?' did I hear you say?) have now been taken over, from a UK distribution point of view that is, by Tandberg Ltd, the UK arm of the famous Norwegian hi-fi makers. Henceforth, Altec data and product will be obtainable from Tandberg at Revie Rd, Leeds, Tel: 0532 774844. It remains to be seen if Tandberg can do anything to improve Altec's showing in the instrument field where they have lagged far behind JBL and Gauss in terms of UK market penetration. This is a great pity as they have a good product range including some nice studio monitors (see Stones Mobile as an example) and instrument amp speakers (see Ampeg).

# PA:CE

## DM SERIES MIXERS

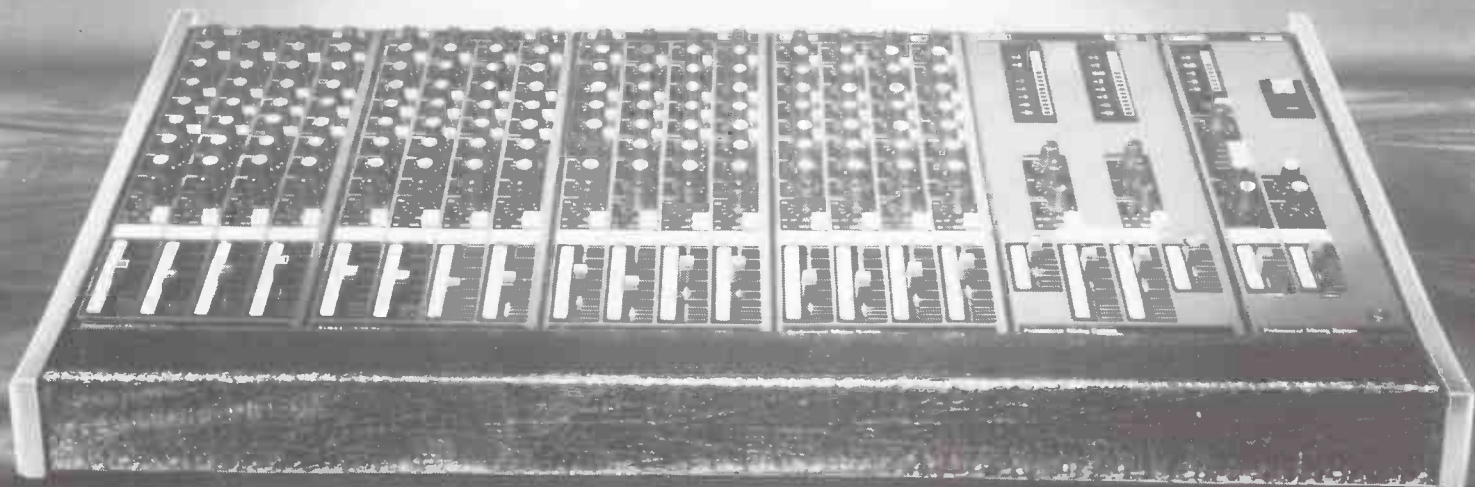
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## AES Seminar: Motown Suggest 24-track Lease; Derringer Opts for Primitivism

The Audio Engineering Society is a somewhat surprising organisation. Three times a year it holds impressive and well-organised exhibitions in different parts of the world – May and November in Los Angeles and New York respectively, and a European venue each spring. Very seldom, however, are the accompanying technical seminars of much application to the 'average' studio owner. It's all very well for academic types to gather at regular intervals and slit hairs over the psycho-acoustical effects of third-order distortion in a piece of wet string, or whatever. But quite another when one of the most important problems facing the owner of smaller – and some not so small – studios is paying his or her bills, now that bookings are way down.

All the more power, then, to the AES organising committee who, for the first time at last November's convention in New York, arranged an exceedingly interesting workshop, entitled Potentials of Personalised, Private Recording Studios. By which they mean the sort of home or demo facilities which a lot of *SI* readers will already have or are contemplating setting up in their own homes. It would appear that at long last the 'industry' has woken up to the fact that an increasing number of musicians prefer the creative environment of their own home set-up, which almost invariably offers far more freedom and flexibility, than a state-of-the-art commercial facility.

Chairman for the session was Larry Blakely, president of CAMEO – standing for Creative Audio and Music Electronics Organisation – and regular contributor to *The Mix* (the west coast's closest approximation to *SI*). Having translated the word 'personalised' studio as meaning one that has been set up for the express purpose of recording a band or musician in the comfort of their own home/garage/premises, Larry acknowledged the not inconsiderable impact that Teac caused when it introduced the *Tascam* range of budget-price consoles and multitrack machines back in 1969. Now, he explained, it is perfectly feasible to put together your own private track-laying facility for between £2000 and £4000 – just a fraction of the amount you would need to equip a 'fully-professional' studio.

The first member of the discussion panel, Guy Costa, director of recording for Motown Records in Los Angeles, surprised most of the audience by pointing out that, until 1978, Motown's studios were strictly for the sole use of artists signed to their label. It wasn't until very recently, because of cutbacks in Motown's artist roster plus

drastic reductions in the size of recording budgets being made available, that the studio was forced to open up for commercial bookings. In addition, Guy noted, over the last few years several Motown artists, including Marvin Gaye and Smokey Robinson, have set up private studios in their homes.

Coming to grips with the question of just why anybody should want to have their own studio, he offered that such a facility gives you the opportunity to set your own recording pace and, of paramount importance, create music when you need to. Also, recording budgets are far smaller these days than in the past. So if you can be fully rehearsed and prepared before going into a major commercial studio – by working out arrangements and so on in your own 4- or 8-track set up – the limited amount of session time at your disposal will invariably go a great deal further. It should also be remembered, he concluded, that very often A&R staff at major labels rely on new talent coming to them, rather than going out and finding it for themselves. So if bands can produce good-quality demos themselves which, if it came to it, could be released as a single, they stand a far better chance of attracting attention.

Guitar/keyboard player and songwriter Rob Grenoble made the point that many bands are recording commercial releases in musician-owned studios, simply because they prefer the 'undisciplined' environment to the often sterile nature of commercial studios – and where engineers and producers are invariably more cost-conscious.

New York producer Moogy Klingman has built several studios for musicians – including Todd Rundgren's early loft studio which was financed, so he says, out of the royalties from *I Saw The Light* – and has recorded many successful albums and singles in such places. The only small problem he foresaw for anybody contemplating setting up their own place was a potential invasion on your privacy (trying to retain any semblance of normality, if that's what you need from time to time, isn't too easy if a band has practically continual access to the recording hardware). He advises that anybody contemplating opening their own facility should try to keep costs to the bare minimum, and buy only what's really needed to get started. Also, if you intend to hire out the studio, then be sure to treat the place as a *business*. The easiest way to lose a bunch of friends, he warns, is to have to hassle them with an unpaid bill. So long as a clear choice is made between operating the studio as either a hobby or a business, you shouldn't go far wrong.

The last member of the panel, musician and producer Rick Derringer, felt that as commercial studios grew in size from 8- to 12- to 16-track, they became more depersonalised. Most studios, he feels, look and sound very much the same these days and have become a very competitive business. As a result he has seen an



Rick Derringer

increasing number of musicians move away from the bigger studios, towards the more conducive surroundings found in privately-owned facilities. Although Rick's experience may be slightly out of the ordinary, nowadays he prefers to work in a non-commercial 24-track studio where there are no problems with overtime working, and where he can use any room in the house to achieve different acoustic environments. He also prefers the freedom of working when and how he likes, and being able to listen to a playback as the mood takes him. He is quick to point out, however, that there is an important difference between a personalised studio that is hired out to a few discerning cognoscenti – which is the type of place he has been using recently – and a totally private studio used exclusively by the owner. If your place is going to be offered for hire, even to a friend, then you need to make sure, he emphasised, that the gear is of a similar calibre to that offered by commercial studios. And to remain competitive, the hardware will have to be upgraded at regular intervals.

But it was during the subsequent discussion period that questions from members of the large audience that had gathered for the special workshop really began to explore the pros and cons for personal/private home studios. While everybody was agreed that with the restricted amount of advance money around these days there really has to be a viable alternative to the £50 to £80 per hour studios, it was also pointed out that a home studio can be very useful for laying down basic or partially-completed tracks which can then be remixed or overdubbed in a larger, more lavishly-equipped, commercial establishment.

Despite the fact that such advice might well end up putting Motown Studios out of business, Guy Costa suggested a novel approach for making better use of your precious financial resources. Why not lease a good quality 24-track machine (apparently in the States you can lease a multitrack

for around \$400/month), and then spend a couple of hundred notes on building a simple, but high-quality, mixer. He argues that the problem with cheap'n'cheerful desks is that they often don't sound too wonderful. A very basic 6- or even 4-input mixer, with super-quiet mic pre-amplifiers and no EQ, capable of being patched between various inputs on your multitrack, should prove more than adequate for most applications. And if you really want to keep it simple, why not patch the mic pre-amp directly into the required tape track, and do away with the need for a mixer altogether.

You don't even require a studio, Guy argues, since very good results can be obtained by recording your basic tracks in the control room. Fabricating a really simple foldback system shouldn't be beyond the ingenuity of most people reasonably adept with a soldering iron. Then, when the time comes to remix your tapes, find a well-equipped mixdown room that has all the latest toys.

Guy's ideas of keeping it simple – for technical as well as financial reasons – were echoed by Rick Derringer, who finds that recording with just two microphones 'in a very primitive way', direct to the multitrack, resulted in more 'organic sounds', and does away with the need to fool around with dozens of knobs.

On a more realistic note, Moogy Klingman made the perhaps obvious point that few musicians or bands have the necessary resources to finance a leasing deal for a £20,000 multitrack, but should be encouraged to start small and gradually expand to more complex track formats. Also, to get the most out of the creativity offered by a home studio, people should have sufficient gear to cover the whole recording process, including mixdown – although he conceded that it may be necessary to hire in the more 'exotic' items of hardware.

Musician Rob Grenoble liked the idea of a simple mixer hooked up to a 16- or 24-track machine, rather than face the inevitable restrictions of 8-track on *live* working: noise build-up, cross-talk, repeated track bouncing and so on.

However, it was engineer and fellow-panellist Winn Schartau who set the seal on the proceedings by making one of the most appealing comments of the entire workshop, and one that was greeted with a round of applause from the audience. Why not, he argued, forget about studios altogether, and record a band live straight to stereo? If done properly a live recording can relate more to the *music*, if only because it is being done in real-time, rather than over a period of days/weeks/months as each instrument is overdubbed. As he so rightly pointed out, 'home' for a lot of musicians is a stage, not the inside of an air-conditioned recording studio. Many musicians contemplating setting up their own personalised/private home studios could do a lot worse than mull over that thought while thumbing through the glossy equipment brochures.



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# PAUL DAY ON... HOFNER GUITARS

## Very Thin Senator Becomes President Of Club Committee

Back in the 60s, rock 'n' roll, the Shadows and then the Beatles had sparked off a boom time for the electric guitar, and during that era the name of Hofner figured prominently in both home and European markets.

Karl Hofner's German company introduced electric versions of their already well-established quality acoustic guitar as early as 1956, and publicity shots of some of the first British rock 'n' roll idols showed them avidly clutching their ornate *Golden Hofner* and *Committee* models, while Bert Weedon, one of the first British pop guitar instrumentalists, was another prime Hofner exponent.

In 1957 Hofner made their first concession towards a more modern approach with the introduction of the *Club* series, first the *Club 40* and *50* models, later the de luxe *Club 60*. These were in effect 'miniaturised' versions of the traditional models and were thus more suitable for the 'pop' guitarist in terms of playing style and showmanship, ie it was possible to stand up and still play them! These *Club* models were similar in dimension to the Gibson *Les Paul*, but being semi-acoustic (although with no 'f' holes) they were of course far lighter. The electronics were certainly pretty basic, earliest versions having normal rotary controls, but in 1959 Hofner introduced their *New Line* flick-action console, a switching system which was to appear on virtually all their electrics. It was still rather primitive and somewhat quirky in operation, but was to become one of the Hofner trademarks during the 60s, although a variation reverting to rotary controls and separate pickup selector was later offered on many models.

In 1959 the first Hofner solids appeared, designated the *Colorama* series, together with thin versions of the normal electric/acoustics, another step towards meeting the demands from the fast-growing modern guitar market.

Next to appear was one of the best-known Hofner models, the *Verithin*, one of the mainstays of British 'beat groups' in the 60s. This model is still in production, having undergone several design and styling changes over the years. The *V* series of solids was introduced at the same time, a more up-market range from the *Coloramas*, with built-in vibrato unit. Matching basses were also produced, the first Hofner solid versions in fact, although an electric/acoustic bass guitar had been available for some time. By this time all Hofner models were fitted with an adjustable truss-rod, enabling a much thinner neck than the earlier rather cumbersome version. In 1961 the *V* series was extensively redesigned, the result being very much a Fender *Stratocaster* copy, at least in appearance, but still retaining the normal Hofner electronics.

By late '63 bass versions of all



Hofner Verithin, V3 and Club 60 pages taken from 1961 Selmer catalogue.

Hofner acoustic/electrics had appeared, being the *Committee*, *President*, *Senator* and *Verithin* models. Also around this time came the *Galaxie* solid, featuring a prodigious and somewhat confusing array of roller controls and flick-switches.

Next was the introduction on to the

British market of what was to become probably the most famous Hofner of all, the *Violin Bass*. Paul McCartney's use of a vintage example prompted a huge demand for this model and Hofner duly obliged. This had the standard Hofner electronics but coupled with a very distinctive body

shape. The Beatles 'connection' ensured instant and lasting success, instigating a multitude of *Violin Bass* copies. Cashing in on this popularity still further, Hofner produced a guitar version but it wasn't well-received. Perhaps if The Beatles had used that too it might've been a different story!

By the late 60s the range available in this country had been condensed considerably and only the *Galaxie* remained in the solid field. The *Club 70* was introduced, bearing more than a passing resemblance, at least in market intent, to the *Les Paul*, which was undergoing a dramatic rebirth of popularity at that time.

However in Europe it was a different story and the choice of models was considerable, with a wide range of solids including the *De Luxe*, *Exquisite* and *Grande Surprise*, plus all those previously available in Britain. There was an equally large selection of basses, even extending to a 6-string version. Other variations included a 12-string semi-acoustic and a bass/6-string double-neck electric. Various pickups and control configurations were also offered, plus built-in treble boost, distortion and organ 'swell' effect if required. Choice of finish was just as varied, from normal sunburst, natural and solid lacquer colours to vinyl-covered in various shades, very punk!

It should be borne in mind that the then British distributors, Selmer, only imported certain examples over the years from what was obviously a vast range, and various 'up-dating' modifications etc. as shown in successive Selmer catalogues, were in fact just different options normally available in Europe. Thus apparently 'obsolete' models were still part of the current range over there. Likewise certain model names were designated by Selmer for home market use only, no such titles being applied by Hofner themselves. *Colorama*, the *Club* and *V* series etc being some examples of this 'own name' game.

In the early 70s the choice of models over here had in fact increased. The upsurge in the copy market hadn't gone unnoticed by Hofner and they accordingly produced models based on various Gibsons and Fenders, in guitar and bass format. However by this time the Japanese invasion had begun in earnest and Hofner instruments were assuming an increasingly low profile on the home market.

As explained in my introduction to this series, it is impossible to go into any great depth on each brand within the space available, but I hope this article has given some insight into what lies behind the Hofner name. The company is still very much in business, producing quality electrics etc in keeping with modern market requirements, but the main Hofner association is with the 60s and with the many groups who used those earlier models with pleasure and to such good effect. Many of these older instruments are now quite collectable, deservedly so in view of their quality, construction and nostalgic appeal.

# Sound ADVICE

edited by

Gary Cooper

Only published letters will receive replies.

## Of Mics and Men

Having just joined a band with a decent PA system (the first I've been in with this sort of gear) we've decided to start miking up my kit and I've been lumbered with the job of buying the mics. The trouble is that I'm really limited on what I can spend. Should I buy a handful of cheap mics and replace them as I go on, or should I just get a few decent ones and make do until I can afford something better? What should I do and what would you recommend?

From: **Steve Wilson, Worthing, Sussex, England.**

What I would recommend isn't what you should necessarily do, but still! The answer would be to get a few decent mics and use them strategically. You don't say how many channels you have on your mixer, nor how much you have to spend, but I'd suggest that you write to the big makers for their recommendations and then see what you can afford and how many you really need. You can reach AKG at 191, The Vale, London W3 7QS, Shure at Eccleston Road, Maidstone ME15 6AU, and Electro-Voice can be reached at Maple Works, Old Shoreham Road, Hove, Sussex BN3 7EY.

A sample of AKGs range might be a D12 on bass drum, a D224 on cymbals, D2000s for overhead tom tom pickup and a D1200 for snare. I mention AKG only because I happen to have some information on this complicated subject from them. Each manufacturer offers equivalents to these and you may find one better or cheaper than another for any particular job. Armed with the manufacturer's information, ask other local drummers who mic-up (if any) what they prefer from the options provided.

## At Home with the Range

Does anyone still make anything like the old Rangemaster treble booster such as Rory Gallagher uses? I've got a pretty good Strat which I prefer to use through an AC30 (you've only got one guess as to who I'm influenced by!) but can't get enough top out of it.

I've tried the local shops around here and even been down to London to get one but no-one seems to know what I'm talking about. One shop told me that they aren't made any more.

True or false, and what can you do to help?

From: **Andy Collins, Sheffield, Yorks, England.**

Ah ha, you are out of date, I suspect. Reading too many back issues of Beat Instrumental, perhaps? I don't think that Mr Gallagher has used one of these in years. Still, I take your general point. As far as I know the venerable Rangemaster treble booster is not on the market any more. What might do the trick is the new Danish-made pre-amp from TC Electronics. These are a bit new and may not be in the shops for a while yet. Their distributors in the UK are Gigsville, of Aria fame, so your local Aria stockist may well have them soon. Although more modern and comprehensive than the old Rangemaster, the TC pre-amp should be capable of doing much the same job in the treble department.

## Les to be 'Worked Over'?

I have got a difficult decision to make and wonder if you can help. In addition to a very nice old Strat which I've been using for the past year and a bit, I also own an Antoria Les Paul copy which I've been thinking about 'working over' and turning into a really powerful alternative guitar to the Fender, which is, as I say, a pretty nice instrument but which won't handle everything I do.

The difficulty is trying to decide whether it's worth spending money on doing up this guitar or whether I should spend the money on buying the real thing. What do you reckon?

From: **Paul Jennings, Watford, Herts, England.**

Hmmm, very interesting. You've got to look at this one in two ways. With sufficient money and care you probably could turn this Antoria Les Paul copy of yours into a very playable and fine-sounding instrument. That would probably cost you less than buying a new or secondhand Les Paul. On the other hand, if you were to buy wisely, a secondhand Gibson Les Paul would have a far better re-sale value than a souped-up Antoria. It all depends on whether or not you will eventually want to sell the Antoria. If not then by all means have a go.

I'll assume that the woodwork on your guitar is OK. By and large the Antorias were very nice guitars although, if I remember, the early ones were a bit weak in the electronics department. A re-fret wouldn't cost you a fortune, just take it along to a

decent repairman and let him tackle that for you. Next think about pickups. Mighty Mite or DiMarzio would be the obvious choice but it depends on which sound you'd prefer. I'd recommend that you try to get to hear other instruments powered by them, also try to hear something with suitable Schecters. For my money the choice would probably be the Mighty Mite Vintage humbuckers which are less dirty than some Di Marzios I've heard but still have plenty of power combined with a lot of sweetness in the tone. If you're still not happy, why not look at buying a set of genuine Gibson pickups? They should fit and would get you pretty close to the original sound, give or take the differences caused by body materials and density etc.

I wouldn't bother with a brass nut but you might well replace the bridge and I would suggest that, once again, you have a look at suitable lines from the Mighty Mite, Di Marzio and Schecter ranges. Choose whichever looks the best for you, but measure your Antoria first. Not all Japanese copies followed the body dimensions properly.

The project is quite feasible depending on this question of the re-sale value as the parts will cost you a fair bit. Good luck!

## Acoustic Bass Info Sought

I wonder if by writing to your magazine you can help me in acquiring some information on acoustic bass guitars?

I have tried most of the local music stores in my area, but no one seems to know anything about this subject. I do know that Guild and EKO both make these instruments, but have found it impossible to get a brochure or price list.

I would be very grateful if you could give me some information, or some addresses I could write to?

From: **T B Powell, Sunderland, Tyne and Wear, England.**

Yes, it just so happens (it says here) that we are planning to review both of these instruments in a forthcoming issue, so hang on until we do! In the meantime, you can get information on the EKO from Rose-Morris and Co Ltd, 32-34, Gordon House Road, London NW5 1NE. The Guild is handled by Guild Guitars, Saltmeadows Road, Gateshead, NE8 3AJ.

## Kamikaze Strings

I've recently started breaking strings on my Japanese acoustic for no apparent reason. Looking more closely I see that the machine head posts have become worn and fairly sharp just where the string enters the hole. I don't want to play around with the guitar too much but I'm getting sick of losing top strings this way. Any ideas on this one?

From: **David Watts, Exeter, Devon, England.**

Actually yes I have, if only because my wife's Ibanez has suffered from the same thing. You could try very carefully smoothing the roughness away with a fine grade emery paper (which is what she's done on hers). This sorted the problem out for a bit but it has recently re-appeared, no doubt due to wear and tear. Try the same thing on yours but be careful, don't gouge half of the machine head away, just smooth over the snags until the metal is no longer sharp.

If that doesn't work then you could try (will probably have to try) replacing the machines. A set of Schallers might cost a bit but they'd almost certainly solve the problem for you. Most decent guitar shops will stock them and will be able to fit them if you don't fancy tackling the task yourself. Funny problem, this one. Has anyone else had any trouble like this?

## Cheaps for Oslo

I want to buy a simple bass to play as an alternative to guitar. My band doesn't use a bass player, but a couple of numbers would be good if I played bass instead of guitar. I don't want something too expensive, just easy to play and pretty good sounding. Advice, please?

From: **Peter Grønmark, Oslo, Norway.**

A bit hard to answer as I'm not too sure what is on the market in Norway. However, you should be able to get the Vantage range over there and the Vantage Witch might suit the bill - it's pretty slim-necked and has a good sound. In the UK they're fairly cheap.

If you can't get a Vantage in Norway then perhaps one of the Aria range? A final thought might be the new Ibanez Blazer bass which retails at about £140 in Britain and is pretty fantastic for the money.



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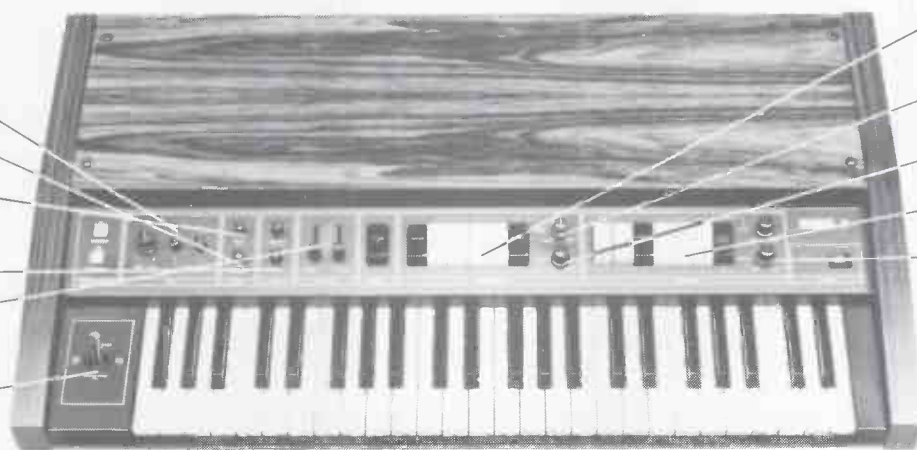
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I would like to know more about Korg synthesizers, please send me all the latest information and brochures.

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Address .....



# Penny-pinching Packages from ITA

	List	Package
4 track package. Teac A3440, Revox HS77, Model 2A Mixer	£1668	<b>£1350</b>
4 track package. Teac A3440, Revox HS77, Itam 10-4 Mixer	£2535	<b>£2090</b>
8 track 1/2 inch package. Itam 806, 10-4 Mixer, Revox HS77	£3917	<b>£3220</b>
8 track 1 inch package. Otari MX7800, Allen & Heath 16x8 Mixer	£7185	<b>£6395</b>
16 track 1 inch package. Itam 1610, Allen & Heath 16x8, Revox HS77	£9045	<b>£8185</b>
16 track 2 inch packages	<b>from</b>	<b>£13800</b>
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Welcome to the wonderful world of the second-hand index, which this time peers into the slightly confusing world of amplification – including amps, combos, speaker cabinets and the occasional mixer amp. The way we work these indexes out is fairly straightforward – this particular one is the collation of prices of about 240 items offered for sale in the weekly columns of various music papers, all of which were sorted out into a huge pile on the floor of the office here at *SI*. Weeks later the prices eventually took on the relative order and clarity which you see below.

The key (bottom right) should help you sort out how actually to use the listing, but you should bear in mind that the *SI* second-hand index is not intended to be a hard-and-fast price list. It is a guide to the sort of prices that were being asked for these amps and speakers and things in the four weeks or so leading up to press date for this issue. Although a few dealer's ads may have crept into the listing, it's hoped that the second-hand index will be a guide to private sale prices.

As usual we'd like to know whether you find this particular service useful – write to us at the editorial address if there are any changes, additions or improvements that would make this, or any part of the magazine, better. Next month in second-hand index: bass guitars.

## Second-hand Index No 3 Amplification

- |   |   |
|---|---|
| ACOUSTIC 126 bass combo £320-£420                 | CARLSBRO <i>Marlin</i> PA amp £165                          |
| ACOUSTIC 270 amp with 201 cab £400                | CARLSBRO <i>Scorpion</i> 35W combo £85                      |
| ACOUSTIC 370 amp £260-£265 with 301 cab £350-£360 | CARLSBRO <i>Stingray</i> bass combo £135                    |
| AMPEG <i>Portaflex</i> £250-£350                  | CARLSBRO <i>Stingray</i> lead amp £60                       |
| AMPEG BT2 £100                                    | CARLSBRO <i>Super Stingray</i> 120W amp +4x12 240W cab £195 |
| AMPEG SVT8x10 cab £260                            | CARLSBRO 100W PA amp £65                                    |
| AMPEG V2 cab £160                                 | CERWIN VEGA 200W reflex cab 18in £200                       |
| AMPEG V4 amp £175-£185 +cab £500                  | DAN ARMSTRONG 4x12 'tatty' £69                              |
| AMPEG V4B amp+SVT cab £650-£750                   | DARBURN 100W combo £175-£200                                |
| BOSE 802 spkrs(pr)+eq £450                        | ELGEN 50W combo+rev £90                                     |
| BURMAN PRO501 combo £275                          | FENDER <i>Bassman</i> 50 amp orig beige £150                |
| BURMAN PRO502 combo £325                          | FENDER <i>Bassman</i> 50W combo £130                        |
| BURMAN PRO2000 combo £350-£400                    | FENDER <i>Bassman</i> 100W amp. +2x15 £250                  |
| CARLSBRO <i>Cobra</i> 60W combo £165              |   |



- |   |   |
|---|---|
| FENDER <i>Bassman</i> 4x12 £140           | PEAVEY <i>Century</i> 100W amp £125                   |
| FENDER <i>Bassman</i> complete £500       | PEAVEY LTD 200W 1x15 combo £325                       |
| FENDER <i>Pro Reverb</i> combo £185-£250  | PEAVEY <i>Pacer</i> 45W 1x12 combo £125-£130          |
| FENDER <i>Quad Reverb</i> combo £240      | PEAVEY TNT 45W 1x15 bass combo Avg £131               |
| FENDER <i>Tremolux</i> amp £95            | PEAVEY VT <i>Artist</i> 120W combo £275               |
| FENDER <i>Twin Reverb</i> combo Avg £242  | PEAVEY VT <i>Classic</i> 50W 2x12 combo Avg £150      |
| +JBLs Avg £283                            | PEAVEY VT <i>Deuce</i> 120W 2x12 combo £210-£250      |
| H/H IC100 combo £185                      | POLYTONE <i>Minibrute-II</i> £175                     |
| H/H IC100L amp £100-£110                  | POLYTONE <i>Minibrute-III</i> £220                    |
| H/H IC100L combo £165                     | REDMERE <i>Soloist</i> combo £430                     |
| H/H IC100S amp Avg £93                    | ROLAND GAI20 combo £300                               |
| H/H MA100 mixer amp £130-£160             | ROLAND JC120 combo Avg £331                           |
| H/H S130 slave amp £70                    | ROLAND SB100 bass combo £350                          |
| H/H S500D power amp £295-£345             | SELMER T&B 50W amp +1x18 £100                         |
| H/H SL100 slave amp £65-£70               | SELMER 50W 2x12 £25                                   |
| H/H Super 60 combo £195                   | SIMMS WATTS 100W PA amp 'needs attention' £90         |
| H/H VS bass amp +215BL cab £220           | SOUND CITY <i>Concorde</i> combo £80                  |
| H/H VS bass combo £180                    | SOUND CITY 50W combo £50                              |
| H/H VS Musician combo Avg £142 +1x15 £175 | SOUND CITY 120W PA amp £70-£75                        |
| H/H 115 bass bin £110 pr £155             | SOUND CITY 120W slave amp £50                         |
| H/H 212 combo £100                        | TRAYNOR 50W amp+100W cab £140                         |
| HIWATT AP50 amp+cab £100                  | TRAYNOR 100W amp with reverb £80                      |
| HIWATT 100W amp £120-£130 +4x12 £180-£195 | TRAYNOR YGL3 100w combo £150                          |
| HIWATT 100 PA amp £110 +4x12 £185         | TRAYNOR 1x18 £50                                      |
| HIWATT 200 cab £125                       | VOX AC15 combo £125                                   |
| HIWATT 200W mixer/PA amp £160             | VOX AC30 combo Avg £144 with orig blue spkrs £95-£115 |
| HIWATT 200W trans amp £150                | VOX <i>Defiant</i> 100W amp+18in 100W cab £130        |
| HIWATT 4x12 £65-£75                       | VOX <i>Escort</i> £30                                 |
| IMPACT 60W amp £50                        | VOX 60W amp £80                                       |
| INTERMUSIC 80W combo +fl/cs £130          | WALLACE 120W amp £100                                 |
| INTERMUSIC 100W amp £70                   | WEM <i>Audiomaster</i> mixer/amp Avg £110             |
| INTERMUSIC 100W combo £180                | WEM <i>Bandmixer</i> mixer/amp £80                    |
| JHS 30W combo £50                         | WEM <i>Vendetta</i> columns Avg (pr) £108             |
| KUSTOM 100W combo £200                    | WEM 2x12 + horn £80                                   |
| KUSTOM 150W amp £200                      | YAMAHA B100 bass combo £300                           |
| MAINE 100W amp £85                        | YAMAHA G100 amp £200                                  |
| MAINE 120W combo £185-£220                | YAMAHA G100A combo £255                               |
| MARSHALL 25W combo £75                    | ZOOT HORN 200W slave amp £140                         |
| MARSHALL 30W combo £75-£105               |   |
| MARSHALL 50W amp Avg £106 +4x12 £175      |   |
| MARSHALL 50W combo Avg £184               |   |
| MARSHALL 50W 2x12 £50                     |   |
| MARSHALL 100W amp Avg £118 +4x12 Avg £249 |   |
| MARSHALL 100W trans combo £125            |   |
| MARSHALL 100W PA amp £95                  |   |



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| MARSHALL 120W 4x12 slope cab £85             |
| MARSHALL 200W bass amp £120                  |
| MATAMP 120W slave £95                        |
| MERSON U4-1000 combo £150                    |
| MUSIC MAN 112-65 combo £235-£260 +fl/cs £280 |
| MUSIC MAN 115RH-65 bass cab £100             |
| MUSIC MAN 210-65 combo £275                  |
| MUSIC MAN 210HD-130 combo £230               |
| MUSIC MAN 212-65 combo £375                  |
| MUSIC MAN 410HD-130 combo £315               |
| NOLAN 50W bass amp £60                       |
| ORANGE 120W amp £100-£110                    |
| ORANGE 2x15 £150                             |
| PEARL 30W combo £60                          |

## KEY

Brand and model are given in heavier type. This is followed by: one price only if just one instrument has been offered for sale; a range of prices (eg £260-£265) if two or three instruments have been offered for sale; or an average price (eg Avg £242) if many instruments have been offered for sale. Abbreviations used: Avg = Average price (see above); fl/cs = flightcase; orig = original; pr = pair; rev = reverb; slope cab = slope-fronted speaker cabinet; spkrs = speakers; trans = transistor; +4x12(etc) = with 4x12 cabinet. Any words in 'quotes' are seller's description.

# Letters

Write to: Sound International, Link House, Dingwall Avenue, Croydon CR9 2TA, England.

## Protag Triggers Angst In Pants And Wimborne

I read with interest the letter from Protag of the Instant Automaton (Nov '80), not least because they inspired the band I'm in (The Midnight Circus) to release some of our material on cassette, and have allowed us to finally appear on record through the *Angst In My Pants* double-EP, but also because the letter underlines one of the main features missing from your otherwise great mag (it beats *IM* hands down since Stephen Delft stopped reviewing guitars). That is the cassette music scene. Since you had an article on making your own record in several previous issues, how about one on cassettes, as they are an important part of the current music scene, allowing a large variety of music by bands otherwise unable to afford to release even a single to be heard (normally at a low price) by a potentially large audience. As a start-off, why not listen to the *Angst In My Pants* EP (available from 33, Tyndale Rd, Loughborough, Leicestershire) as this covers most of the different types of music appearing on cassette at the moment?

From: **Mike Sinclair** (no address given, though possibly 33, Tyn... etc.)

Two points were made by Protag/Martin Neish, Deleted Records in the Letters Page of November's *SI*, to which I should like to respond:

1 On the quantitative level, that my comments on bootlegging (*SI* June) were 'undermined by his desire to receive royalties.'

2 On the qualitative level, the 'quality of attention' required in the moment, and which Martin believes can be repeated with a recording of a live event.

1 There are two sides to bootlegging, professional and amateur. I recognise that at its real level music belongs to everyone. The ownership of music is a fairly recent historical process, at least as we understand it, developing throughout the 19th century and firming up in the 20th with the Copyright Act of 1911, the formation of the PRS in 1914, the Composers' Guild (straight) in 1944, the Songwriters' Guild (popular) in 1947 and the Copyright Act of 1956. (See last month's issue too - Ed.) All this reinforced the notion of music as personal property, and this is our market background. Given that background, if money is made by the sale of my work then I wish to receive my share of it. All the sex scenes in *Emmanuelle*, currently showing in Bournemouth, feature music lifted from *Larks' Tongues In Aspic, Part II*. Following a lengthy legal action my rights as composer have been acknowledged and a settlement made out of court. The implication that

receiving royalties for one's work is inherently bad I find very queer and peculiarly English. One of the areas of the Drive To 1981, that it involves 'action in the market place but not governed by the values of the market place', presents all the dilemmas regarding money that one might need. Having lived in America I've seen at first hand some of the contradictions of a commercial culture, and the other side of that particular American Dream. And I'm familiar with Proudhon's 'property is theft' and some of the arguments from the Levellers, Ranters and Digger movements of the 17th century, when the sanctity of property over communal ownership was really established.

Facing all the contradictions and in our given context (a broader consideration for change is outlined more formally in my article in last month's issue) the real issue is surely what one would do with the royalties? The principle I work to is that proprietary advantage involves proprietary responsibility: ie if one makes more money than one needs, there is an opportunity to use it socially. Different religions traditionally recommend voluntarily giving 10 or 15% of one's income to charities; the church tithe was compulsory; our tax system is supposed to enforce the proprietary responsibility by social redistribution of income. I recognise that different kinds of people want different standards of living, and that mine is higher than some and lower than others. The wide differences between class levels seems queer, and the exploitation and social pretension it often involves and which I've seen strikes me as offensive. The Scott Bader Commonweal (a firm in common ownership) allows for a variation in income from top to bottom

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**FRIPP BOOTLEGS.** Jim Baillie, 3 Kingsborough Gardens, Glasgow G12.  
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Despite Mr Fripp's protestations here, NME managed to print this in their Records Wanted ads late last year...

of a factor of seven, which is one solution. What I've chosen to do is to support a farming project in Cornwall, an adult education experiment in America and a naturopathic hospital in England. The hospital is bankrupt, and the farm and school in serious trouble. The League Of Gentlemen have a deficit of £15,000; my house has no hot water and rain comes through the roof; and I wish to remain financially independent of the industry so that my musical choices remain musical. And then Martin reckons my desire to collect royalties undermines my arguments! Forgive me, but I find this exasperatingly naive.

The amateur level of bootlegging, where enthusiasm is the motive, is an area for which I have sympathy. After all, all the best Parker tracks are live bootlegs. And quite a few performers don't mind, as the Instant Automaton, but I do (as I'll explain). My views are generally known by my audiences and to bring a cassette along to a show is a deliberate violation of the ground rules, at best wholly lacking in courtesy: rather like taking notes of a personal conversation to circulate or publish later. This from someone who has been appearing in bootleg lists for at least seven years.

2 There is a quality of attention, of being in the moment without expectation and without history, that shows us the difference between a human being and the human animal which behavioural psychology so terrifyingly describes. Blake put it: 'He who binds to himself a joy/Does the winged life destroy.' Experiencing a piece of music repeatedly in an active state has its own qualities and merits, but they are different. On tape music is music: good, bad, lively, spinted, lethargic, or whatever and the relationship is between the music and oneself. In live performance the music is still music but there is another element. The music mediates a relationship between the player and the listener. The higher end of this relationship is very fragile and easily spoilt. To try and pin it down disrupts it, rather like someone writing up their work notes during a meditation. For some players this presents no difficulties, as with cameras, but it does for me. After all the years and miles I've covered with music, the quality of relationship between player and listener seems so valuable and yet is treated so cheaply.

The novel and intelligent idea of allowing outboard facilities for the audience seems excellent for those happy to work in another way and I wish the venture well. 'This will prove a brave kingdom to me, Where I shall have my music for nothing.' William Shakespeare: *The Tempest*, III, 2.  
From: **Robert Fripp, Wimborne, Dorset, England.**

Gibson Explorer II in 'flashily-equipped guise': see 'Exploring' above

## You Can Ring My Be-ell-ell, Ring My Bell...

I read with interest your review of the Bell Electrolabs ADT unit (*SI* Sept '80), and am interested in buying one of these units. However, I am having great difficulty in obtaining details of the stockists of this equipment.

I would therefore be grateful if you could supply me with the address of the manufacturers of Bell Electrolabs equipment (I believe the company is called PACE Musical Equipment Ltd) so that I may be able to obtain further information from them.

From: **W Lynas, Glasgow, Scotland.**  
It's PA:CE Ltd, 63 Kneesworth Street, Royston, Herts.

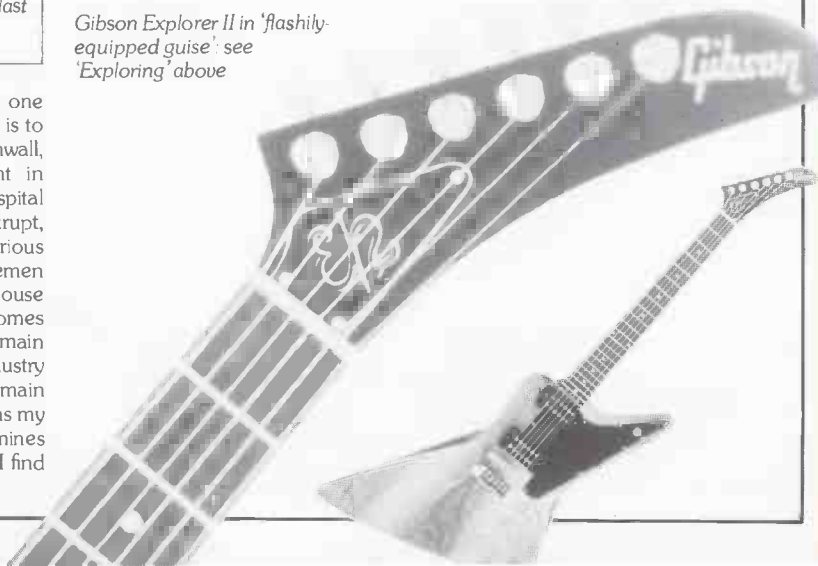
## Exploring With Flash Gibson

With reference to Roger Adams' review of the Hamer Standard rrp £790 (*SI/BI* Dec '80), your readers might like to have the missing price tag (£000) of the Gibson Explorer II filled in.

In its 'flashily-equipped guise' the Explorer II, in either maple/walnut or walnut/maple sandwich, has a current rrp including VAT and case of £665. Specifications include 'Dirty Fingers' humbucking pickups, TP6 fine-tuning tailpiece and gold-plated fittings.


Furthermore, we would encourage readers to visit their local Gibson dealer to test colleague Robin Millar's belief that Gibson are currently making excellent up-market guitars. They can then draw their own conclusions about price tags as they relate to built-in quality, pedigree and investment value.

From: **Jeremy Unwins, European Marketing Manager, Gibson, Braintree, Essex.**





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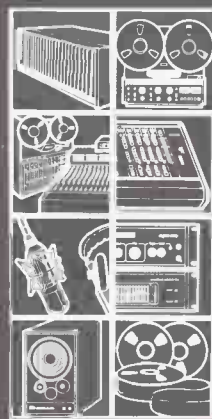
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# BEATTITUDES

With four hits under their belts, The Beat maintain a quizzical outsiders' attitude to popstardom, opting for freedom over money, artisan over artiste. John Morrish follows them to *Top Of The Pops* and speaks with Comrade Wakeling.



It is eight days before Christmas and we are in a dressing room at the BBC TV centre, where The Beat are waiting to appear on the last proper *Top Of The Pops* before the annual Yuletide specials. It is exactly a year since they first appeared on the programme. And what a year it has been. A string of hit singles, a highly-acclaimed album, and tours of Britain, Europe and America. No wonder The Beat look slightly shell-shocked.

Appearing on *Top Of The Pops* is a whole day's work for a band. There are two rehearsals, one in the morning and one in the afternoon, and then exactly 24 hours before the programme goes out the actual recording is done. When I meet The Beat they are waiting for the second rehearsal to begin. Various Specials are wandering around too, and a crafty plot is being hatched to swap some of the members of the two bands around during

the final rehearsal and recording. The first plan is for the unmistakeable Jerry Dammers to swap with The Beat's charismatic toaster Ranking Roger, but this goes by the board because Jerry can't dance and Roger doesn't know the words of the Specials' song. Eventually the two bassists agree to swap.

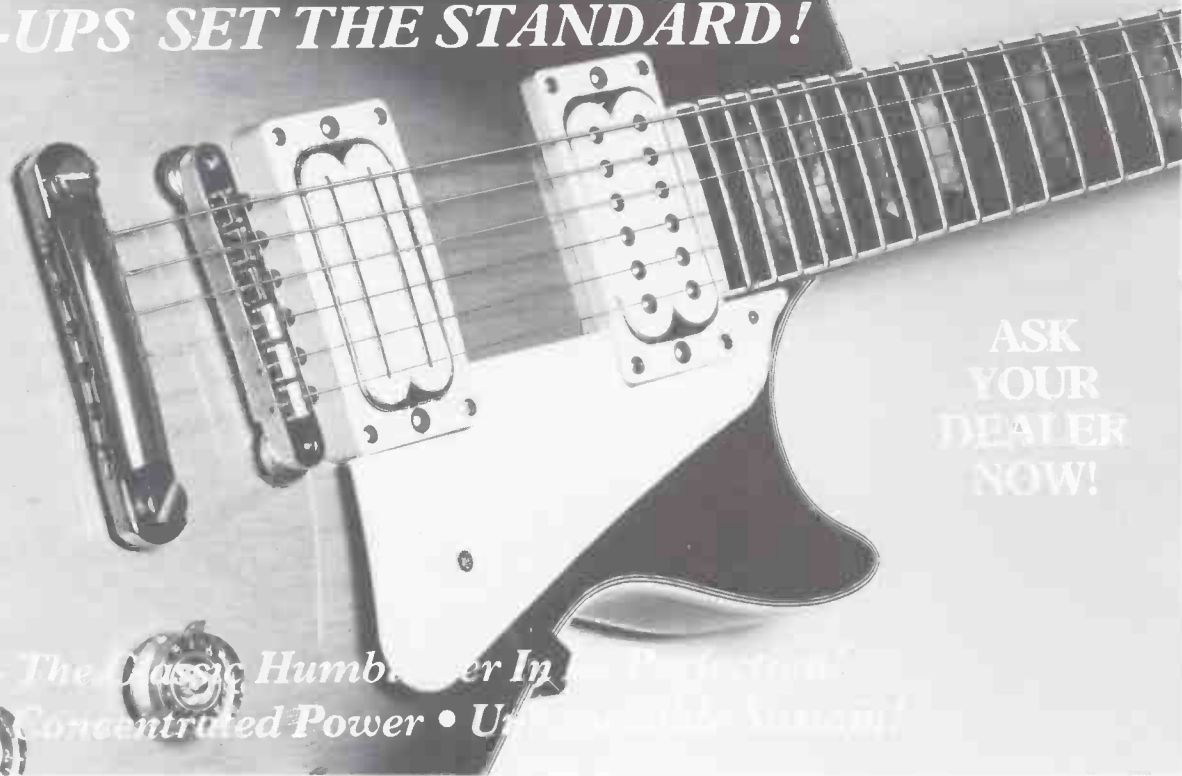
Meanwhile vocalist Dave Wakeling is storming around the room in a very authentic-looking Russian soldier's uniform. 'Let us drink vodka together,' he says, 'and then I will massacre you.' He seems rather worried that this particular bit of pre-Christmas silliness might be misinterpreted and spends an inordinate amount of time fretting about whether to wear the red star in his fur cap. Eventually he replaces it with a CND badge.

Before long we all go up to the studio for the final rehearsal. And what a surprise the *Top Of The Pops* studio turns out to

be. Firstly it is small. In each corner of the room is a low stage and in between there is a narrow sheep run where the assembled teenyboppers will later this evening be herded up and down by a team of experienced but bad-tempered handlers, after waiting for up to 18 months for the privilege. The studio is surprisingly tatty, especially those high-tech pieces of angle-iron that hang over and behind the stages, forming an appropriately industrial backdrop for people like the Nolans. Chaos appears to reign.

But then they switch the lights on, the cameras weave into position, and if you look at the monitors somewhere up in the roof you can miraculously see the familiar *TOTP* studio complete with the expected high gloss. Take your eye off that screen and you are back inside a brightly-lit shed full of electrical wiring and badly made-up celebrities. ▶▶

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Talking of which, our host and ringmaster for tonight is a slightly slurred Simon Bates. Off screen he looks older than you would expect, and fatter: perhaps the camera needs its width control adjusted. But before too long we are ready for a run-through. The opening music booms out, and Mr Bates gives a hurried *resumé* of what goodies we can expect so that we know whether to switch over or not. And then he introduces the first act: 'It's The Beat, with *Too Much To Think Of*.' Er, well, the song's actually called *Too Nice To Talk To*, but nobody except the band seems to notice the error and the music's started before they have time to protest. What a strange skill miming is. By now The Beat have had lots of practice and they look really quite good. Roger bashes a pair of congas, Dave keeps his head down between verses so that the eagle-eyed can spot his subversive badge, and the incomparable Saxa gets his instrument into his mouth only slightly after the start of the solo.

When their three minutes are over The Beat clamber down from the stage. We all watch, open-mouthed with horror, as the indestructible Barron Knights regale us with their latest seasonal offering, which includes a parody of *Day Trip To Bangor* with the words, 'Didn't we have a lovely time when we went to the office party.' Well frankly, no. It is then that I feel a steely grip on my shoulder, and hear the command, 'You will come with me,' in clipped East European tones. Dave Wakeling is ready to be interviewed.

Down in a dressing room deep in the bowels of the Beeb, we discuss *Top Of The Pops*. 'I quite like it,' says the singer, 'I don't say it's a good programme, a moral programme to be on. A lot of groups say they wouldn't go on *Top Of The Pops* because it's sort of un-moral, but I think the whole business sucks basically, I don't see *Top Of The Pops* as being any better or worse than the rest of it. It's all pretty false ... because of what happened with punk music, I thought the whole idea of the pop star had been ridiculed beyond belief. It's very hard to think that this year there's a whole new batch of pop stars and kids react to them just the same as they did before. I find it really hard to imagine.'

Especially hard when one of those pop stars is you? 'Well, I think if we'd had to have worked for it we wouldn't have bothered, because it is such a disposable, like fun but very transitory, thing to do. So I think if it had been a matter of paying the dues, like three years in a Transit van, I'd have given up, because it's not an ambition to be a star at all. It's a big joke really.'

The Beat's rise to fame has been one of the most rapid in living memory. Their first gig took place in a pub in Birmingham on March 31st 1979. By the end of the year their first single was in the Top 10. A combination of the right sound at the right time seems to have been responsible, if the band are to be believed, since they all



All pix Roger Phillips

deny any burning ambition. According to guitarist Andy Cox, they put the band together 'because it's so boring working in a factory, and this is something nice to do in the evening. Then it just took off ...'

Inexplicably, this solidly Brummie band came together in the first instance on the Isle of Wight where Dave and Andy were making solar panels and playing guitar together in their spare time. After meeting bassist David Steele in a record shop on the island, all three headed back to the Midlands in search of a drummer, whom they found in the excellent Everett Moreton. Much experimental thrashing ensued until they came up with a sound that 'everybody could just about listen to ... like a mish-mash of everybody's different styles.'

From the beginning the new band's style reflected what the members had been listening to, and the racially-mixed culture of the area in which they were living. Explains Andy: 'The funkier thing



you can do in Birmingham if you wanted to have some fun, the best thing to do was go to a blues dance, because you could drink after hours and get stoned. It was just cool, and they had really loud reggae. I think if you walk into a blues in London you get "vibed", you know? You can go to places like that in Birmingham, there's like a slightly less tense atmosphere racially. We'd been listening to reggae and obviously punk music. All the parties we'd go to, they'd have like four punk tunes and a couple of really spacey dubs. We wanted to get the power or the energy of rock 'n' roll and the spaciness and dancing qualities of reggae, which we tried to get to fit together. We couldn't play reggae. We can't now, we play a very peculiar form of it. Everett could, which gave us a lot of trouble at the start, but eventually, like I was saying, it started to intermingle.'

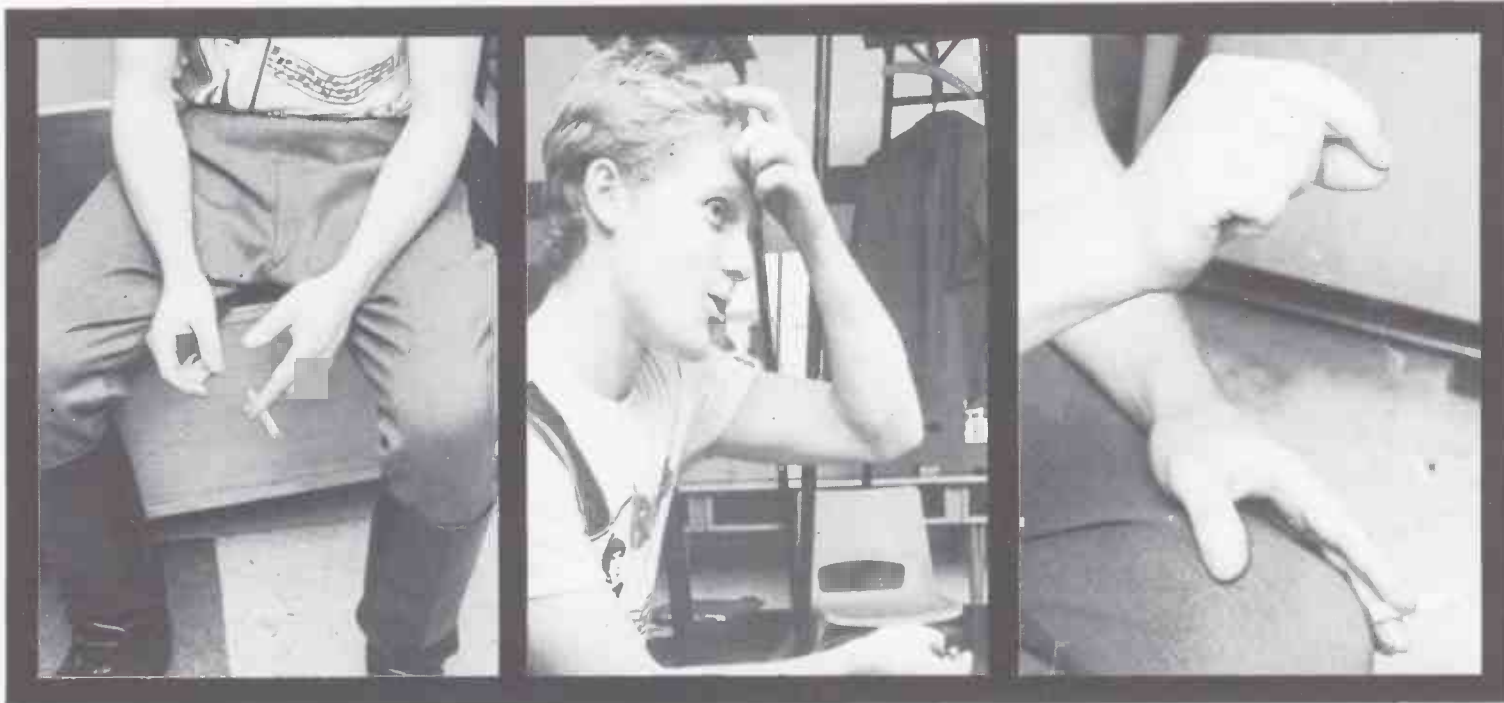
But The Beat were not the only ones working in the middle ground between punk and reggae, as they found out very shortly when they heard *Gangsters* for the first time. And then came *The Prince*, and before they knew it there was a whole movement. But let us not get ahead of ourselves. The next important event in The Beat's burgeoning career was the arrival of the unique Ranking Roger, whom they first met when they were playing support to a punk band he was drumming in. When that band folded, Roger took to following The Beat, bringing a sizeable audience with him. Roger 'knew a lot of people' says Andy, so they did not put him off when he started coming on stage to sing and launch into the toasts that are his trade mark. He learnt this craft and made his name in Barbarella's, a famous Birmingham club, now closed.

For those not familiar with the term, a toast is the name given to the wholly or semi-improvised stream of words that the DJs in Jamaican sound systems recite over a dub backing. It is like a kind of sound poetry. Each toaster has his own style, but all use a heavy Jamaican dialect that makes them largely impenetrable to outsiders. Roger's toasts are no exception to this, but the sheer joy in the sound is infectious. They work best live, but a couple of good examples are found on The Beat's album, of which more later. Roger is less than convinced about his own talents as a toaster: 'I used to think I was crap ... I still do.'

The upward spiral in the band's fortunes began when they supported The Selecter at Shrewsbury in their first gig outside Birmingham. So impressed were the headliners that they asked The Beat to do as many more of their gigs as they could manage, offering them £20 each time for petrol. The tour ended up at the Electric Ballroom, where they met The Specials and were offered the chance to do a single on 2-Tone.

The band thought hard about what to





issue. Their live repertoire at that stage was roughly what appears on the album with the addition of a version of *My Boy Lollipop*. The single needed to be something that would stand out in the Christmas rush, so they opted to cover Smokey Robinson's classic *Tears Of A Clown*, as 'something that DJs on the radio could relate to. We wanted really to do *Mirror In The Bathroom* but we thought if we release that now it's just going to disappear under the Wings and Abba records. And also, *Tears* was good because we could all play it, we could keep together for the three and a half minutes of the record, just,' confesses Andy.

It was at this stage that the final component of The Beat's sound arrived in the shape of Saxa the veteran saxophonist. Estimated to be somewhere around 50 years old, Saxa's past is shrouded with mystery, but he is thought to have played on a whole batch of early ska and blue beat records by the likes of Laurel Aitken, Desmond Dekker and Prince Buster. When The Beat met him he was the resident sax player at a pub in Handsworth where Everett used to drum. The band fancied the idea of having some saxophone on their single, so they asked Saxa if he'd like to do it. They asked him along to play at a couple of gigs to start with, and his reaction amazed them: 'After the end of the second gig he said he wasn't going to leave, that this was the group he'd been looking for all his life, and that what he'd really like to do would be to die on stage playing saxophone with us,' recalls Dave.

Saxa's tenor playing is to these ears the single most attractive aspect of The Beat's sound, being rich in tone and evocative in melody. But sadly, Saxa's future position in the band seems to be in some doubt. When they met him Saxa was not in good shape, 'He used to be typically jazz, a pint and a half of brandy every day for 13 years,' says Dave, 'so he was like well-

pickled, and it was just constantly keeping him in ill-health, he'd just get 'flu all the time. He's in much better health than he was 12 months ago, but whether he's healthy enough to want to go traipsing round Europe for another two years I don't know.' So The Beat are making contingency plans in case Saxa drops out. They are looking for a second player to take some of the weight off Saxa on stage, perhaps playing the riffs and leaving him the solos. As for Saxa, his idea is that he should continue to play in the studio but that the band should get another player for live work. 'I don't think it will work out like that, not quite like that,' says Dave.

The timing of The Beat's first single was just right, coinciding as it did with the high point of '2-Tone fever'. Any later and they would have suffered the fate of The Bodysnatchers and the Swinging Cats and all the other latecomers. As it was they found themselves a hot commercial property. 'We were on 2-Tone, we had this record on 2-Tone, we were a ska band and suddenly Chrysalis were making a lot of money and every major record company, literally every one, they all wanted a piece of the action,' recalls Andy. 'We were playing gigs, and we'd finish the set and go into the dressing room and there would be wall to wall A&R men, all beaming smiles and open cheque books, offering you like, "Do you want a trip to Mars, we'll give you a trip to Mars." Some of the money we were offered was just staggering, you know, "Whatever the top offer is, we'll double it." But we just thought if they've got so much money, maybe we could have less money and more freedom.' The upshot was that the band decided to ask for their own label, along the lines of 2-Tone, and Arista proved most amenable.

With a Top 10 single for their first release the band found themselves under a lot of pressure. When the time came for an album they turned to Bob Sargeant as

producer, who had recorded them already for a John Peel session. 'We did two weeks just doing basic tracks at Ridge Farm, but that was in February and we were not really an experienced group then ... we were not musicians,' says Andy. The result was that they had little more than the drum tracks to show for their efforts when they went into the Roundhouse in Chalk Farm to 'finish things off'. One interesting point is that they were the first band to use the studio's new digital gear. 'We were like guinea pigs, because they had just had it installed and they wanted somebody who wasn't going to sue them if it cocked up. So we got it cheap.' But what is Andy's verdict on this latest miracle of technology? 'Very clever, but when we got to the editing stage it just used to go wrong every ten minutes.'

Despite the band's inexperience, *I Just Can't Stop It* is a convincing debut, including eight original songs and a varied selection of covers. In fact variety is the key to the album's appeal with a number of styles represented, from the orthodox neo-ska of *Hands Off* ... *She's Mine* to the jangling pop of *Best Friend*. Lyrically the songs concern themselves with situations, personal and political, concisely drawn up and maturely considered. Even the much-criticised *Hands Off* carries an implied condemnation of the attitudes expressed.

One interesting point is that all the original numbers are credited to The Beat even when it is clear that different individual personalities are at work. Dave explains: 'The way we think of it really is that whatever different member might write the words or might write the tune for that particular song, it's to be thought of as being collectively done. Basically, if Andy's got a tune on guitar he'll play it to Everett, and by the time Everett's turned it inside out, Andy's playing a totally different tune, so it's really unfair to say music by Andy Cox or whoever it is. And also we thought it was a fairer way to do it financially, that it



was wrong for whoever thought of the initial tune or the initial idea for the words to make 10 times as much as the others. That seems to be a problem in groups, anyway. It seems to be one of the places where the bitterness and wrangling starts, so we thought while we had nothing we'd set all these real idealistic rules.'

Dave himself has written most of the lyrics so far, although that's something he wants to see change. Ideas for lyrics go down on paper, then may have to wait months before being matched up to music: 'Really you don't know what words are going to fit until you've got a mood off the song.' And happy accidents can play their part. *Stand Down Margaret* started life as a dance lyric, all about letting your backbone slip, until magically they discovered that *Margaret* fitted. 'You just get one silly idea and that opens the floodgates,' says Dave.

Musically the band's identity seems secure. Although they may play in different styles, The Beat's sound is always recognisable by its rhythmic energy and effervescence. For this we can thank Everett Moreton's highly musical drumming and the guitars of Cox and Wake-ling. A year of virtually continuous live work has whipped the band into good shape, because when they started the only members with real musical expertise were Saxa and Everett. Andy had been in a band at school and continued to play guitar in the evenings: 'It made me feel a bit better, it's much cheaper than going out getting drunk and you can go to work in the morning.' David had been playing bass for about a year, and Dave had been in a couple of other bands singing, though not for very long. He'd been playing guitar for some years too, but his progress was somewhat hindered by a slightly unorthodox method of tackling the instrument.

Dave plays his guitar left-handed and upside down (even though he's right-handed), 'with the fattest string at the bottom. Which is only because I'd seen the Beatles and Paul McCartney and I used to play my cricket bat like it when I was about nine, so when I got the guitar when I was about 12 I just started strumming it like that. It was only when I met Andy when I was 17 and at college, he said "You're playing that the wrong way round you know."' Among the disadvantages of the technique is that it precludes the use of orthodox chord books. 'I used to play the chord the wrong way round and think that sounds vile.' But Dave was primarily interested in being a singer, the guitar was there originally to help him write, and for this purpose he tuned it to open G 'à la Keith Richard, so that I just sat there using one finger, or I did for a long time, just working out melodies. But then I started learning to play chords on top of the G chord, so now I can get some quite nice chords that I can't seem to reproduce on a normally tuned guitar, and that don't

sound too much like Keith Richard.' One interesting side-effect is that when Dave and Andy are playing together, Dave's upstroke is Andy's downstroke, which gives them a sort of instant off-beat.

To make this happy accident work, Dave uses one of those pear-shaped Voxes, fitted with Fender pickups, and a Roland 160 combo. Because the controls of the guitar are in the wrong place when he's playing it upside down he keeps them taped down for live work. Andy apparently uses a Gibson L6 and a Fender Twin, although nobody seemed to know for sure. Bassist David uses a white Fender and an Australian amp that he assures me is called a Bidet. The band don't find instruments a very interesting topic of conversation. According to Dave, 'I only play guitar because it's something to hold on stage.'

This year has seen The Beat touring America, an experience they did not enjoy: 'I liked the weather and I liked the cowboy skies, but the rest of it was just Babylon,' says Dave. Even so the American audience seems to have responded better than the band feared: 'We'd go on some nights, particularly with The Pretenders, and you'd have loads of people sitting down, the first three rows eating hamburgers and drinking milk shakes and stuff, wallowing in their seats, and you thought, "No, you aren't going to move them," then you'd get a couple of encores and you'd have them standing up dancing, acting like they were expressing themselves, you know, "Ooh, I'm really glad I'm doing this, I've meant to dance for the last three years and I haven't really had the nerve".'

But the tour was not a success in business terms. The Beat's American jaunt coincided with Sire, their US label, being absorbed back into Warner Bros, with consequent chaos. 'The best thing that came out of it, we got good reviews for the English music papers, you know, people who were in New York and reviewed it for *NME* or whatever.'

Generally speaking, The Beat have been lucky with press coverage. Their album won favourable comments in everything from the Guardian ('Britain's most subversive band') to the *NME*. And their current hit *Too Nice To Talk To* is apparently Julie Burchill's single of the year. What makes this all the more surprising is that The Beat have made no secret of their political interests. Recently they donated the proceeds of their single *Best Friend/Stand Down Margaret* to the Anti-Nuclear campaign, though not without a lot of thought. Solar power enthusiasts Dave and Andy seem to have been the driving force here. 'It just seemed worth it, because the whole thing really, we never expected 2-Tone, we never expected singles, we never expected *Top Of The Pops*, didn't expect any of it, so I think we should try to keep it in perspective. We didn't think we would be here at

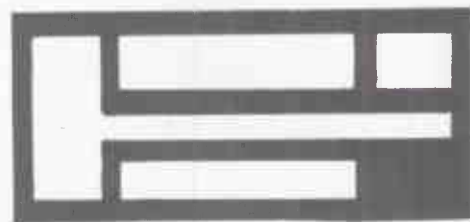
all, so while we're here we could try and do something that is a bit better than blowing up our own egos... I wonder sometimes whether you should say anything at all, but generally I think you should really. I think our music is like sort of contemporary folk music in as much as the music I'm interested in bears special relevance to what's happening outside of the record machine, outside the radio. Sort of "artisan" rather than "artiste", at the moment anyway. I'll get all high-falutin on the third album, I suppose, and start really expressing myself,' promises Dave.

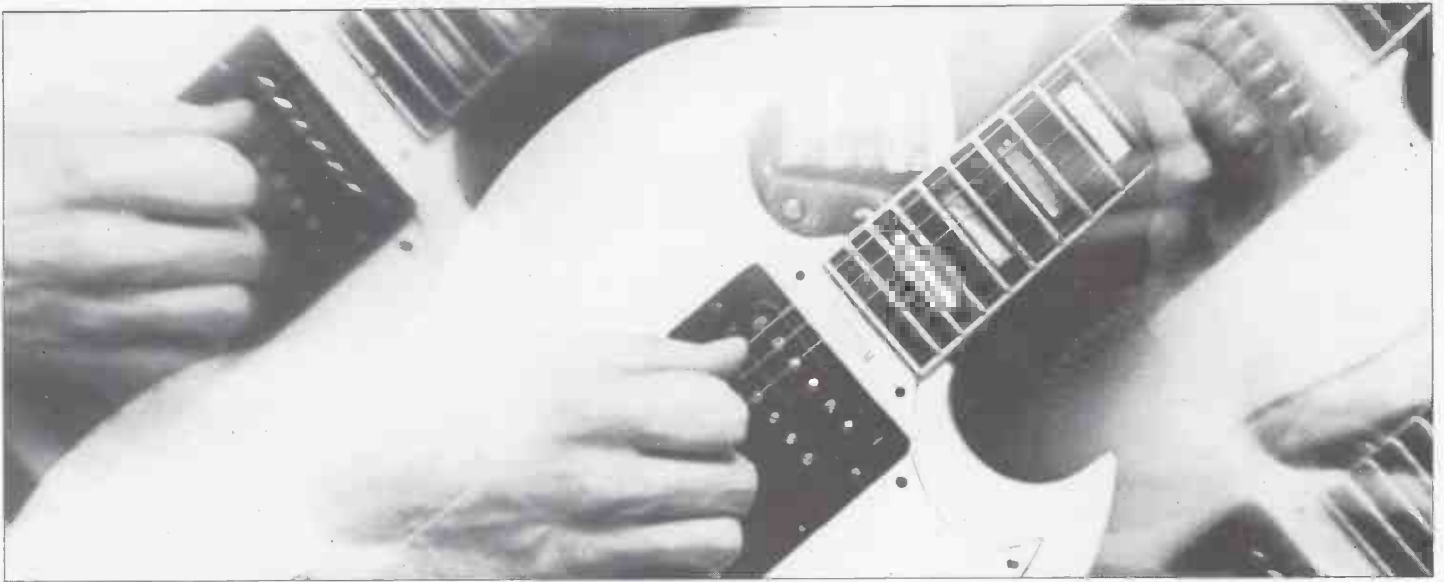
But before that there remains what Roger refers to as the 'crucial second album'. These are not easy times for the various members of the 2-Tone fraternity and its offshoots. The Specials have boldly gone where no ska band have gone before, but it would be wrong to expect anything so revolutionary from The Beat. Not that they are immune to change. On one leg of their American tour they were supporting the Talking Heads funk orchestra and the word is that they were very impressed, which sounds promising. We will no doubt find out in the next month or so when the new album appears.

Of course, if the worst happened The Beat might just quietly fade away, and Dave for one thinks this is quite likely: 'Yeah, I think it's probably a good thing. Probably the whole of next year will be OK, we'll probably handle two years of it, but I couldn't see it going on for years, it starts to become real cocooned. As it is I've hardly seen anything of Birmingham. I've hardly seen anything of my friends, hardly seen anything except the pop world which is sort of plastic and disposable. I think quite honestly you'd lose your grip on life if you were in it for too long.'

But before anybody loses their grip on life there is still work to do. When I spoke to them The Beat were just finalising plans to go to Ireland with The Specials, to play some benefits for that organisation which takes Catholic and Protestant kids from Belfast on holiday together. Another good deed: 'There's lots of things you've got to do for financial reasons or tactical reasons, there's lots of places that you're meant to play but if you can tie it in with some actual real reason for playing there, pass your good luck on to someone else it sort of makes it worthwhile,' says Dave.

As I leave the dressing room, Dave has put the Russian uniform on again. 'Could you see the badge?' he asks, addressing himself to no-one in particular. ■





## Two Pints of DiMarzio and a Packet of Tetleys, Please...

Yorkshire-born guitarist Allan Holdsworth is currently living in Kingston, Surrey. When I arrived at his home I found him hovering over a DiMarzio Stratocaster-style guitar body with a hefty electric hand drill which he was using to increase the hollowed-out section which accommodates the pickups and electricals. The object of the exercise was to increase the recess to make room for some custom pickups which had just arrived from the States. The parts will eventually make up a complete Stratocaster style guitar with humbucking pickups. None of the parts will actually be made by CBS/Fender or Gibson.

Allan first came to the attention of guitar fans as a member of Jon Hiseman's band Tempest. Stunning technique, fingerboard fluency, musicality and creative ability are the qualities he went on to display with bands like Soft Machine and Tony Williams' New Lifetime, soon elevating him to the position of being a guitar hero's hero. He spent a year working in the States with Williams before returning to Britain to work with Bill Bruford and UK.

The climate prevailing throughout the British music business has not been suited to Holdsworth at all. He has no interest in such things as the fashionable aspects of music or street credibility and all the rest. He's just extremely interested in playing his guitar as well and as creatively as he can. We'll probably lose him to America soon.

Over there they are far more appreciative of his abilities and the work possibilities are proportionately increased from zero to considerable. In a last ditch attempt to resist the call of the New World he has formed a trio with two young musicians and is currently seeking the usual business deals. He is excited about the group which has yet to play in Britain. His bank balance may be low but his spirits are high on the new group and a feeling within himself that he is playing better than ever.

The connections for live work on home turf have not yet been made so the trio has only played in France. Hopefully by now some British dates will have been set up. The trio is made up of Paul Carmichael on bass, Gary Husband on drums and the axeman himself. They don't call themselves the Allan Holdsworth Trio but the guitarist describes the

combo as 'My team'.

'Gary is absolutely incredible, inspiring to work with. He's just a monster. Very young and full of fizz. He's a monster piano player too. One of the big problems is the management thing and trying to get people in the business interested in what we are doing. Another problem is that the music is very original – that's my own opinion of course – and people are scared to take chances now with the way the record business is screwed up. If it's fashionable it's OK. A fashion usually lasts for about two years in popular music and when you look back often you think, God, that sounds almost hilarious!

'The thing is I want to play music that can stand up a little longer than that. I also think there is a very good chance we're going to achieve that too. But that seems to terrify record companies. The silly thing is that our music doesn't fall into the jazz/rock category which I think has got to be very Noddy over the past few years.

'In fact jazz/rock has become a very Noddy kind of music. Now it's become jazzak or funkak. It's really weird and I know that record sales for that kind of music are not happening and that's probably rightly so because most of it is pretty *has been*.

'I think the music that we are playing with the trio now is new enough for it not to fall into that category although there is a large amount of improvisation involved, obviously. I don't think it falls in as what people call jazz/rock at all. So I'm really sad that the record company people in particular feel that our music falls into the jazz/rock bag. At the same time, this is by no means an attempt on my part to be commercial. If I wanted to do that I could have kept on doing what I was doing with UK, if I thought in commercial terms. I just decided I had had enough and that it was about time that I got something together of my own. I've spent five years playing in other people's bands playing other people's music. And the last two bands – especially UK – that band brought me to my knees, really. I hated it. They were good guys but the music, man. Oh God, I found it really horrendous.'

Now this is an unexpected turn. UK was a supergroup which came on the scene long after the public at large was interested in such

**Tempest, Lifetime, Gong, Nucleus, Jean-Luc Ponty, Soft Machine, John Stevens, UK, Bruford. Allan Holdsworth's been there, seen it, done it. Confessions Of A Guitar Hacker was told to Ralph Denyer, who took his camera along.**

ventures. The group comprised Allan on guitar, Eddie Jobson on keyboards and violin, John Wetton on bass and Bill Bruford on drums. Their music fell somewhere between jazz/rock and improvised rock. As it was generally presumed that they were playing the kind of music they wanted to, Allan's attitude surprised me. I asked him to explain why UK had been such a bad experience for him.

'It was the first time that I have been money motivated in my life, ever. I think the first mistake I made was getting interested in the thing in the first place. You always live in hope, you always think that although something doesn't go too well to begin with it may get better. But usually what tends to happen is it gets worse and it did. So it was good that it ended up the way it did. Then I joined Bill's band (Bruford) 'cos I like him.'

Asked to qualify his statement in musical terms, Allan had no hesitation in telling me that with UK there was 'no spontaneity about the music at all. The most creative things I ever played with that band were on the album simply because they did everything in bits. They recorded the bass and drums, the keyboards and then the guitar. So I'd just get called in to do the guitar solos and some guitar parts.

'When I heard the track it was like hearing the tunes for the first time because they were nothing like they were in rehearsal. I was hearing it for the first time so all I had to do was play to the track. I found that quite creative but then what happened was it had to be like that on every gig, the same solos and things like that. Obviously I couldn't do that anyway. It was just a horrendous experience all round. I'm glad it happened because I learned a lot from the experience and it won't be happening again, folks!'

Still at least playing in the band had brought him to a wider audience? 'I suppose it did but that's a downer as well because I never played well with that band ever. I was always pissed because that was the only way I could keep from picking up a plane ticket and disappearing. We'd go to a gig and I'd get on stage and think, oh, here we are in America. Great, I love coming here to play to all these people. Then I'd think, well, shit. I'm not playing.

'I felt so bad about what we were doing that I





'Now I've got just the one Strat and an old Gibson SG Custom ...'

just wanted to hide, man. Just crawl away off the side of the stage. So in that respect it was a downer as well. I probably made a few enemies. I probably lost a few as well as gaining a few. You never know what is going to happen with a band like that.

'I'd played on Bill's solo album before UK and that was the first time I'd experienced going into the studio and played parts without playing them all together. On just about all the recording I'd done in the past, the guys played at the same time. Then if there was anything that was tracked on afterwards to the main recording then that was cool, there's nothing wrong with that approach. It was just that UK took it to the extreme and made it so that eventually I couldn't stand working with Bill either. If I hadn't experienced UK then I would have probably been able to keep my head together in respect with working on Bill Bruford's solo records.'

During the period when Allan was still in UK he had a chance meeting with drummer Jon Hiseman with whom the guitarist had worked in the band Tempest. They spent time together once again and stayed in touch. Hiseman phoned Allan one day to say that Jack Bruce had been on the blower and wanted to have a play. Did Allan want to go down to Jack's place and steam along a little?

'I went down to Jack's place to have a play with them and I enjoyed myself so much not only because of the musicians but also because it was the first time for years that I'd actually felt the electric thing that you can get from people when you actually play *with* them, that magic. Even though nothing came of it and it fell away, it let me see again what it actually felt like. Because the last time that I felt that way was when I was working with Tony Williams which was about four years ago. That band was really great, I really enjoyed it. After that, like I said, I changed. When I played with Jack and Jon it reminded me of what it is actually like to play spontaneously. We were playing tunes of mine and some of Jack's. But it was just the empathy, the spirit thing came back and as soon as that happened to me, I knew I couldn't go on with Bill any more. Like I said, if UK hadn't come along I probably would have stayed with Bill because his own band wasn't as bad as UK in that department.

'The trio with Jack and Jon didn't work out for various reasons but I had seen the light and decided to try and find musicians I could get this thing with. I'd been told about the drummer, Gary Husband. We tried a few bass players but we couldn't find the right guy. We couldn't find anybody who didn't impersonate Jaco Pastorius and we don't really like impersonators very much. Eventually we came across Paul Carmichael and he got on well with Gary. They're both great players, so there we are.

'We did a couple of weeks in Paris - we've been there twice - at the *Riverbop* club. The last time I was in France playing was for the seven weeks just before Christmas when I was playing with Gordon Beck's group which I really enjoyed. I thought it was going to be a real pain as it was so long but it was good. But now I'm really concentrating on the trio thing to see if we can get it off the ground. I think it's called perseverance.

'I've nearly swallowed it all twice now. Twice I've thought that things were getting so bad that I should just give up. The thing that has depressed me is that I've had lots of calls from American magazines and companies who want to assist and want to know when I'm going over there. In England I can't get anyone interested in the music that I want to play at all. Yet in the States it seems that they can't wait for it.'

On the subject of management Allan said he could 'just about manage a pint of Tetleys. That is the frustration, trying to find the right guy who can find a door to gigs and working in America. From everybody I know in the States people are saying, "Where is this Holdsworth guy?"'

'I'd love to go there and play but here I am doing nothing. If I was getting a negative response everywhere I would probably cope with it better than knowing that there's a thing going on over there and I can't get there. I can't find the door, they're all dummy doors.'

Whoever it was who first put a Gibson humbucking pickup on a Fender guitar sure started something. The habit of taking bits off guitars and putting other bits on is growing all the time. Would-be guitar chopper-uppers would do well to study the following *précis* *Confessions Of A Guitar Hacker* before plugging in the chainsaw.

With his face partly shrouded in darkness Allan began to speak haltingly in a quiet voice. 'When I first started experimenting with guitars I was always intrigued by the idea of sticking Gibson pickups on a Fender. When I was with Tony Williams I bought a Fender *Stratocaster*. They were very cheap then because CBS had just taken them over. I think it was about 150 quid including the case. I didn't like the neck so I took it off and sold it and got Dick Knight to make me a new one. He built the sides up because I wanted the fretboard to be pretty wide. I like quite a lot of fingerboard each side of the E strings. I don't like the E strings to be too close to the edges because I tend to roll them off. I like guitars with a big chunky neck. It's just a feel thing.

'So I hacked the *Strat* up and put Gibson pickups on it. I liked the sound but realised that the pickups didn't make the guitar sound like a Gibson at all. I started to understand that there is more to guitars than just pickups which I should have realised a long time ago. The scale length is greater, 25½in as opposed to the Gibsons which are I think 24½in. The extra string length of the Fender seemed to give

more harmonics in a note. There is something more bell-like. When I play my Gibson *SG Custom* - and I love the guitar - I know that with the shorter scale when I play the low notes, they start to choke a bit. They sound more strangled than on a Fender or another guitar with the longer scale. The other thing is that the bridge on the *Strat* does a lot for the sound as well.'

Allan feels that the fact that the strings on a *Strat* are anchored to the bridge as opposed to passing over the bridge and then being anchored to a tailpiece is a major factor in terms of the sound achieved. Also he likes the modular approach with Fenders, something which facilitates customising and recurring repairs such as a re-fret.

'Then I noticed that the neck affects the sound. I used to have a couple more *Strats* that I had done up. The one I play now is the original one which I hacked away at and it is pretty tatty as you can see. On the next one I got, I had the same things done but by Dick Knight so it was *very neat*.

'It was a nicer neck and a nicer body, I just generally refined all the things I'd learned about the first one but it didn't sound as good as the first one. I thought: There's summat weird 'ere.'

A trifle confused, Allan put the difference in sound down to the fact that the first guitar's body was made from alder (birch family) and the newer one was maple. He bought another *Strat* and tried the neck from it on the guitar Dick Knight had customised.

'I was absolutely amazed by the difference the neck made to the sound. But absolutely none of the guitars sounded as good as the first one. Some of the *Strats* that I've had - even when I took off one set of pickups from one guitar and tried them on another - sounded terrible. So there is no way that it will work every time, it's just like a freak. I don't know if the first one sounds good because I've played it a lot. I decided that none of them sounded as good as that one even though it's been hacked away and looks dreadful. And it's not particularly nice to play either. I decided to sell all the others because I don't really like having a lot of guitars. So I just got rid of them. Now I've got just the one *Strat* and an old Gibson *SG Custom*.

Allan has a loose agreement with DiMarzio to endorse their products and they use his name for promotion purposes, but mainly in the States. The guitarist liked the fact that people from DiMarzio came along to a couple of gigs and having sussed that he used their stuff anyway, asked him to endorse the product. Moving on to the subject of pickups Allan had quite a few enlightening things to say as a result of his own considerable experience.

'I don't like the sound of hot pickups, there's something in the sound that I don't like. There's only so much you can do with a coil and a magnet. If you make the pickup self-inductive you lose the treble and so on. It goes on and on. If you put big magnets in, they stop the strings from vibrating. One of the pickups on my *Strat* is an original Gibson *PAF* but there is hardly any magnetism in it at all. It doesn't affect the way the strings vibrate, it's absolutely marvellous. I remember once that DiMarzio sent me two *Super-Distortion* pickups. There was nothing wrong with the pickups if you like that sort of sound but for me the first thing I noticed was that when I played the guitar just acoustically, the strings were sort of choked. I



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thought that was really weird.

'I plugged it in and of course there was twice as much power as usual and the amp was distorting away merrily. I just didn't like the sound because it was *too* nasty. The actual sustain of the guitar had been taken away. When I put the old pickups back on the strings started singing away again. So I learned that I don't like hot pickups and that pickups with really strong magnets really do affect the vibration of the strings. So you destroy the efficiency of the thing which is giving you the sound in the first place, that is the string vibration.'

Allan has also found that the lighter strings he uses, the more these problems are accentuated. 'I use a D'Addario *Rock 'n' Roll* set of strings with gauges from .008 to .040. I've tried all gauges and experimented so much with strings that there's no way you could say I use one particular brand. I've found that a slightly heavier string is easier to play. You can feel them under your fingers more but I don't like the sound as much. I find that there is a kind of singing quality with the thinner gauge strings that I really like. I put up with the fact that they feel maybe a little bit too slack - especially the D string - but they really do sing.

'It's the same with that guitar. I don't really like playing my *Strat* but when I listen to it I forget that it is uncomfortable, and you can pick up the most beautiful guitar that is physically great to play but when you listen to the sound it'll put you off playing the thing. So I put up with the way my *Strat* feels simply because of the way it sounds.'

On the subject of the art of the luthier Allan agreed with me on the fact that although great skills and much thought have gone into guitar construction, it is not a complete science and in many cases people have done the right things for the wrong reasons. A certain amount of mystery remains as to why one guitar should sound much better than another.

'I think they're getting closer to finding out why but originally they had all the wrong ideas about which type of wood would sound better than another. DiMarzio have just sent me this neck and body. I asked them for a complete maple neck (inc fretboard) and I'm sure it will sound different again.'

One name hot on the lips of everyone with an interest in guitar customisation is that of

American Seymour Duncan. He specialises in making pickups and after reading an interview with Allan in a magazine, got in touch with him. Allan had mentioned in the article that he was still looking for his ideal in pickups. The guitarist was unhappy about the fact that as Gibson guitars have the strings closer together than Fenders, the individual polepieces on a Gibson pickup do not match the string spacings on a Fender. He wanted the design to be based on the vintage Gibson *PAF* pickup with no extra coil windings or extra big magnets to pull away at the strings. In other words he wanted a pickup similar to the vintage Gibson humbucking *PAF* but with polepieces spaced to match up with his *Strat*.

'Also I still can't get used to pickups without adjustable polepieces. I've seen a lot of pickups where they don't have any polepieces whatsoever. They try to tell you that the magnetic field is such that it picks up all the strings evenly. It doesn't, it *really* doesn't. I notice it because of using thin D and E strings. So I always like adjustable polepieces. I don't have too much trouble with loss of sustain due to string bending because I don't bend notes very often nowadays. I just use vibrato (side to side) now.'

Allan is currently using a Hartley Thompson amp for single-note playing and uses a Pete Cornish custom-made routing box which has a footswitch which allows the guitarist to switch the guitar output to two Lab Series amps in stereo for playing chords.

'Both amps are good for different things. I like the Lab Series very much for chords but the Hartley Thompson is the best amp that I have found for single note playing. I'm not saying that the Hartley Thompson is no good for chords - 'cos it is fantastic - or that the Lab Series are no good for single-note playing. It's just that this is the particular combination I've been using and I like it a lot.

'With the Hartley Thompson, the only time when the sound suffers is when the volume is below a level at which the speaker can work efficiently and the guitar is not hearing itself back. It has two separate channels. I use the red one for single-note playing. It also has the advantage in that the second (green) channel is extremely clean. With for instance a *Boogie* amp I could never get a good sound until the

volume was so high that it was unworkable. I found it even more oppressive than Marshall. I didn't get a good sound until the master volume was up to about number 8. So working with an amp that has to be loud to get a decent sound if you have the master at 8 and the pre-amp at around 6 or something like that, when you change to the chord channel it is going to be just as distorted as the single note channel. With the Hartley Thompson you don't get that because the two channels have their own individual amps. It's a great amp, really expensive but very good. Also it's got separate EQ for each channel which is something I haven't seen on any other amp. Also the EQ is very wide with low bass, high bass, low mid, high mid, low treble and high treble controls so it is a really comprehensive amp.

'The Lab Series absolutely knock me out as far as using them for the purpose that I do. They are absolutely superb, they're really clean. I wanted an amp that would give me as strong a sound as I was getting with the Hartley Thompson on single note playing. I had used Marshall and found that I could put anything alongside the Marshall when it was fairly well cranked up and no other amp could ever compete on chord work. I've found that the Lab Series sounds just as big and beefy as the single note sound on the Hartley Thompson so I'm highly delighted with Lab Series amps as well.'

The main routing box also houses a couple of noise gates and an EQ facility. His number one system is completed by a foot volume control and a digital delay unit, currently a Yamaha. Allan seems to be getting more and more into sound and has various plans and ideas which he's still working on and keeping on the secret list for the time being.

'I'm very interested in some more ideas that I'm still working on. That's another reason why I like working with the trio, it leaves me room to do all that kind of stuff which I wasn't doing before really in bands with keyboard players. When you get the heavy denture mob in you get into trouble. In a lot of respects it is always difficult with piano and guitar because they always want to use different chord voicings. Unless you are two very careful and sympathetic guys you can get into all kinds of trouble.' ■



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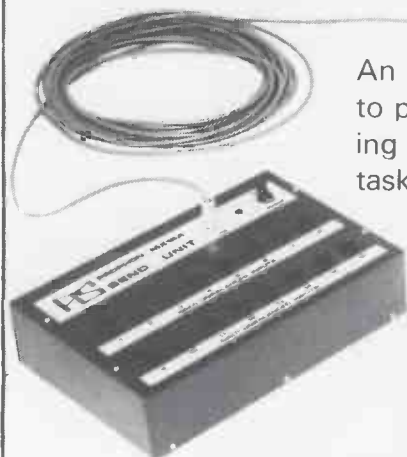
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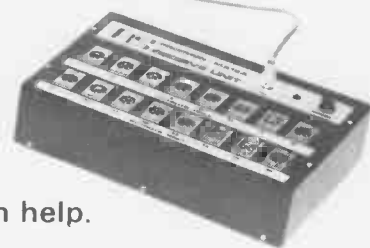
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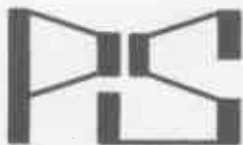
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## DAVID HENTSCHEL

**Best known as the award-winning Genesis producer, Hentschel's career includes such oddities as being commissioned to record an album of synthesiser cover versions by Ringo. All this and the inside view from Abba's Polar Studios checked out by Fred Dellar.**

I shove an *NME* clipping from '73 in front of his eyes. The main caption reads: 'I don't think we will ever be massive in England,' this being a quote made by Genesis' Tony Banks.

David Hentschel grins. Quite rightly too. For last year he was awarded the *Melody Maker's* 'Producer Of The Year' plaudit for his work on *Duke*, and Genesis cleaned up on just about everything else that was to be had. If their Grannies had been eligible for a section of the poll, they'd have probably won something too. Banks as a soothsayer makes a helluvagood keyboardist.

*Duke*, the band's last album, hasn't done at all badly. In fact it climbed to the top of the album charts just one week after release and went platinum faster than a Buddy Rich paradiddle, thus providing Hentschel with yet another trophy to add to the 30 gold discs and one platinum already bagged.

Traditional tea-sipping ceremony and small-talk intro over, we settle down to the main action. My Sony is put on red alert and Hentschel finds himself immediately faced with providing all relevant biographical details.

It seems he hails from Sussex, not five miles from where he currently lives. At the age of four he began piano pounding and later won a music scholarship to Cheltenham where he studied both piano and clarinet, spending most of his spare time playing with the school band instead of practicing. 'I didn't know what I really wanted to do,' he recalls, 'except for the fact that I wanted to get into music somewhere. So I took a year off before going to university and somehow wangled a job as tea-boy at Trident (studio in London). The place was fabulous in those days – only about 10 or 12 people worked there and it was all very chummy – all mates down the pub and that sort of thing. The studio had a great atmosphere and we were part of an expanding company which, fortunately, had early success – which meant that a lot of big names began coming in early on.'

I used to visit Trident quite frequently in the early Seventies. Situated in an alley that led through to my then favourite record shop, the studio became a habitual stopping-off point for a while. I bumped into Carly Simon, Harry Nilsson, Al Stewart, Jim Webb and Elton there and I

watched some of the engineers turn from nobodys into world-beaters. Probably I'd met David Hentschel then, though most of my memories involve the doings of Robin Cable.

Hentschel nods. 'Robin was the first staff engineer there to actually come up from the bottom – he came in originally as a tape-op. Ken Scott was another staff engineer: he arrived from Abbey Road, while Roy Baker came in from Decca. It seems that everybody at Trident during that period is doing very well now. I think what started it all off was that Elton John black album. It proved very big in America and everybody started coming over for what they called The Trident Sound. We said: What Trident Sound? But they all insisted that there was one.'

'The place was very primitive really. None of the tape machines were in the control room, everything had to be done over the intercom upstairs – buzz, buzz, tape operator's asleep etc. They were good days though. I remember that Harry Nilsson was a great bloke, so intelligent. We used to spend hours in the studio, just talking and not getting any work done at



all. Then, some of the projects took a long time. I remember Ken spent months on one album. But the thing that really knocked me out was when he worked with Bowie because I was assistant engineer by then and also got to play my first session. I was so green that I thought it was fabulous – though I contributed just one orchestral cymbal crash!

The would-be sessioneer managed to persuade Trident to buy an ARP synth around this time and soon edged himself on to various recording dates including those that produced Elton's *Yellow Brick Road*, which he also engineered. Impressed, the album's producer, Gus Dudgeon, introduced Hentschel to one John Gilbert, who heard some of the tapes the young musician-technician had made in the free time at Trident and, in turn, took them to Ringo Starr. A worldly 22 by this time, Hentschel was promptly signed to the ex-Beatle's ill-fated Ring O'Records label and commissioned to provide an album comprising synthesiser versions of songs that bedecked Starr's own *Ringo* album.

'A curious idea,' agrees Hentschel, 'but it was good for me in that it got me out of the engineering situation and being employed in a studio where I'd been for five years.' At this point, John Gilbert became his manager, an event which led to an involvement in the cinematic world.

'John was brought up in the film business. His father was Lewis Gilbert, who directed *Alfie*, a couple of the Bond films and many others. I was asked to do the music for *Operation Daybreak* (a 1975 release about the Czech patriots who killed the hated Nazi Heydrich during World War II) and that was a great break too because it enabled me to write for orchestra for the first time. I managed to teach myself to do that, but it was very traumatic facing some 50 musicians at De Lane Lea. One of the things John had noticed in my early efforts was my ability to write thematic material which would fit movies. And something I had always wanted to do was to fit my synthesiser into the combined act with the thematic material and try to use orchestral work in a slightly more modern way. We tried many different things and were the first people to actually put the music sections on to video. When you've got the sections on video at home and have little timers going all the time, it's so much easier to do.'

One of the musicians employed on *Operation Daybreak* was noted workaholic Phil Collins, whom Hentschel had originally met in 1971 when he'd engineered Genesis' *Nursery Cryme* sessions at Trident. 'We'd kept in touch through a mutual friend and when Peter Gabriel left Genesis, the band began looking for a complete change in the studio, the way they worked and in their entire approach. Phil put my name forward at that time and that's how I became their producer.'



And then there were two: be-jacketed Hentschel pleases photographer with mirror placement

*Trick Of The Tail* was his first involvement with the band as a producer. Then followed *Wind And Wuthering*, *Seconds Out*, *Then There Were Three* and *Duke*, plus the solo offerings of Banks and Rutherford. After such a relationship it might seem that Hentschel could be considered as the band's fourth member. But he claims this isn't so.

'All their writing they do totally on their own, though when they get into a studio. I'm involved on an equal basis. Obviously they have strong ideas on what they want or sometimes don't want but, having worked together now on several albums, we have established a very close understanding. I do sometimes try to suggest changes in the structure but usually things are fairly planned out before the band get into a studio. I feel I have contributed a lot on sound ideas and arrangements – things like programming synths as well – though I don't particularly have to help Tony nowadays because he's very proficient at programming a sound himself.

'In the early days I used to help a lot, though. Looking back, I think *Duke* took longer than any of the other albums to put together simply because there wasn't as much pre-planning done. Primarily because Tony and Mike had only just done their solo albums – Mike's had only been finished about a week or two before we went into the studio for *Duke* – so they didn't have as much time writing together as usual.'

*Duke* was recorded at Sweden's Polar Studios, home of the Anna and Frida *derrière* shuffle and Hentschel's favourite place of work. His beard fairly bristles as he enthuses about the place. 'Recording in Sweden is fabulous. Polar's the best studio I've ever worked in – and that's on every level. The equipment just can't be faulted. It's immaculate, simply the best of everything – in fact, two or three of the best of everything. The layout is fabulous, too. They have about four or five different

rooms, all with different acoustics. And they're laid out in a semi-circle around you so there's perfect visual contact. The atmosphere is great and there are no coloured lights or carpets up the walls. It's just bright and spacious and very tastefully done. It's also the first studio I've ever worked in where there's no sense of getting tired. You tend to feel as fresh at midnight as when you first started at mid-day. I've been there three times now – with Mike's album, with Tony's and with *Duke*. And I'd go back anytime – though, unfortunately, it's not one of the cheapest studios around.

'By the way, we did the mixing at Maison Rouge, that's a nice little studio. I hold a lot of store by studios that have only a handful of people working for them, I find the atmosphere far more conducive. The sounds I've had out of Maison Rouge have been excellent. The last two albums I did there were cut completely flat, no problems at all. Yet a lot of people gave me a rather quizzical look when I said I was working there, but that was all a year or so ago and I think the place has become more accepted now. The Town House would seem to be the place to be right now. I haven't actually worked there, I've only been in on a couple of sessions. I like the look of the place though, it's all very well laid out, well equipped – and, again, the atmosphere is nice. Phil produced his own album there. I would have quite liked to have produced it but, maybe having done both Tony's and Mike's... well!' He shrugs as if to indicate that one can have too much of a good thing.

'Phil's into so many things. He likes people like Steve Forbert and he's knocked out by Earth, Wind and Fire and anything they do. I feel the same way about them, and Maurice White is one of the few people I'd really love to see working. He can do no wrong in my eyes. Stevie Wonder too – I came very close to working with him once at Trident but it all



fell through.' Time for tape tum, so I cover the gap by relating how I once attended Wonder's sessions at AIR, a free-for-all, partylike event involving Eric Clapton, members of Osibisa and fish and chip suppers all round. Hentschel has also been witness to similarly haphazard working conditions.

'The killer was a Frank Zappa session at Trident. That really was lunatic. The studio was normally informed how many musicians to set up for and on this night we were told to expect about six or seven guys. But throughout the evening, the doorbell would keep ringing and, one by one, musicians kept coming in. One musician would bring in a tuba or something. We'd find a corner for him, then a flute player would appear, then a violinist. We ended up with something like 30 people!'

Further chat encompasses various subjects – like Peter Gabriel ('I thought his last album was tremendous, totally original. Steve Lillywhite did an excellent job on that'); his two albums with Renaissance ('Everybody in the band was trying to go different ways musically – and there was poor little me in the middle!'); and Hentschel's later film scores for *Seven Nights In Japan* ('That was with Michael York, it was loosely based on Prince Charles' exploits in the Royal Navy'); and the David Hemmings-Stacy Keach starrer *The Squeeze* ('We ended up using half of Brand X plus myself as the nucleus of musicians on that one').

Currently, it seems, the Hentschel mind is firmly set on completing an album of his own. 'It's my burning ambition. I feel the time is right for my own project. In fact I'd already started on it when Mike Oldfield's *QE2* album came along. That was something very special because he was someone I'd always wanted to work with, I'd always loved his stuff. We did the

album in Mike's living room, while Eddie Veal finished building a new studio upstairs. Mind you, his living room is quite large, I've seen studios smaller than that. And working with Mike was marvellous, he's such a strong musical person, just as the members of Genesis are – but in a totally different way. Mike's from a different environment, a totally different background. All his ideas were fresh to me and all mine fresh to him. It was all great fun and I believe that it's got to be fun if you want to do a really good job.

'It was a total shambles there in some ways – we were working on two of his PA desks which were hooked together by miles of cable everywhere – but it all worked perfectly. We got on very well together, although it was a little strange at first because he didn't seem to know too much about me and it took a few days to get together – but in the end it all turned out very well.

'I think Mike's really happy where he is now, he didn't like it where he was living before. Phil came in to do a couple of things on the album and Mike let me do quite a lot, which again made things very enjoyable. I played synthesiser and drums too, I also provided some brass arrangements which were played by some very good guys – an amazing trumpet player named Guy Barker and a tenorman called Phil Todd, they always try to get work as a section and I must say that I was very impressed by them. I'm having some guest musicians on my own album. But, by the same token, I want to do some tracks entirely on my own. Sometimes I find that a great bonus can be had by having a musician play an instrument that isn't his naturally. I mean, I'm basically a keyboard player but I find that if I'm playing drums – and I don't claim to be a drummer of any ment – I come up with ideas that a drummer would not come up with. An

extreme example of this is Stevie Wonder, who's not a true drummer even though he's got a great natural rhythm. But he plays things which other drummers would never think of – and it's so effective. I'll be doing some of my album in my studio at home: it's an MCI package, the new Sheenan 600 computerised desk, plus a fair amount of keyboard equipment, a piano, CS80 synth, ARPs, drum kit, four or five guitars, assorted percussion – but when I'm working with other musicians, I'll be recording in town somewhere. I'm very limited for space at home and the way I've set it – everything is all around me ready for one-man operation – there's no room for anyone else.'

Finally, the killer question. Have Hentschel and Genesis gone as far as it's possible to go together? Surely, after so many liaisons, the interchange of ideas must be wearing a little thin? Much to my surprise, my interviewee concurs. 'We have consciously tried to develop the sound – I think *Duke* sounded different while, initially, *Trick Of The Tail* had a very individual sound too, but I do agree that we've probably reached saturation point and feel that the time is just about right for us to part ways now. I think the time has come for a change and I was aware of that on the last album – for though we were desperately trying to develop it, one is always conscious of doing things that one has done before – and that just takes the spark off a bit. That really was why it was so refreshing to work with Mike Oldfield, who had a totally different set of ideas.'

As Bob Dylan might have said, the exodus from Genesis would seem to be on. □



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# The DIY Studio: Part Five

**John Morrish continues his exploratory journey into your imagined (or otherwise) self-built studio, and on this visit takes a long hard listen to the sound going in, around and out of the room in question.**

This month's instalment of the DIY Studio is the usual blend of art, science, economics and law, bound together by a veneer of highly-polished ignorance. But this month at least, that ignorance presents no disadvantage, because we are dealing with acoustics.

Acoustics is apparently a science. And yet, so complex are the variables involved, that any attempt to study the subject by normal scientific methods seems doomed to failure. Even the highest-powered theoretical account of the behaviour of sound in an enclosed space has to descend to recounting the effects of practical experiments before it is of any value. The result is that in practical terms acoustics is about the collection of information. In the first place information is collected about the behaviour of different materials in certain situations. In the second place, and rather more problematically, information is collected about people's subjective reactions to different designs of acoustic environment.

But acoustic design is not the only problem to be considered in planning your studio conversion. No matter how small it is you will have to work out the physical layout, entrances and exits, plumbing, lighting and electrical supply. If you are touching the structure of the building you will have to design alterations that are practical and safe: you will have to convince your local building inspector that they are so. You will have to put your ideas down on paper in such a way that they can be understood by a builder. You will have to specify all the materials and quantities required. Then when work starts, you will need to watch over your builder's workmanship. Alternatively, you can opt to do the work yourself providing you have the time and the patience.

You may, of course, consider getting professional help at the design stage, and here the key figure is the architect. Let us look at what an architect can offer. An architect is trained in the design of buildings. He or she starts by analysing a client's requirements and then translates them into detailed plans and specifications. The architect can supervise the whole conversion job, from initial planning application to final completion, including close supervision of the builder's work.

All this will cost you money, although the architects argue that you may actually save money by having an economically designed building and detailed drawings and specifications with which to negotiate a price with the builders. Architects do not

compete with one another on price. Their fees are fixed by their professional body, the Royal Institute of British Architects, and are based on a percentage of building costs. For work on existing buildings, the rate starts at 13% for the very cheapest jobs and goes down to 10% for the most expensive jobs. That covers the whole job from start to finish. If you wanted the architect to handle just a part of the work, for instance just detail design and specifications, you would only have to pay part of the fee, again in a proportion set by the RIBA.

Architects are not allowed to advertise. To find an architect with experience in the type of work you want done, you can write to the Clients Advisory Service at the RIBA, 66 Portland Place, London W1N 4AD, or you can go through the Yellow Pages.

Of course, the average architect is not particularly knowledgeable on recording studio design. Sound insulation he or she will know about, but in a domestic or commercial context, where it is not so critical. And if you want the internal room acoustics of your studio designed then the architect will have to bring in a sound consultant. Now this is where things start to become really expensive. It is extremely unlikely that anybody who is thinking of putting together a budget-priced DIY studio will be able to afford the services of a professional sound consultant.

Before taking on the Stretham school Spaceward had been seriously considering another building, and they actually went so far as to bring in a firm of sound consultants to draw them up some plans. For one day on the site and a set of drawings they were charged nearly £600, and that was two years ago. But Gary says they learned from the experience: 'I've learned not to employ them – not on our budget. I think if you're completely floundering in the dark, if you've got no idea at all, then you have to go and talk to someone, but once you've talked to them for about 10 minutes then you don't need any more.' When it came to designing the Stretham studio, Gary and Mike were able to lean heavily on the designs they had had drawn up for the other site, and together with many hours spent in the Cambridge University library, this enabled them to do the sound insulation and acoustics themselves. The consultants' plans provided the practical guidance they needed, so that the mathematics fell into place.

The various problems connected with

the design and construction of buildings are outside the scope of this series, and are in any case well covered elsewhere. But literature on acoustics for recording studios is at best inaccessible, so it is worth taking a brief look at the difficulties and some practical solutions.

## Studio Acoustics – in theory

When we talk about acoustics in this context, we are really talking about two separate problems. In the first place we are trying to prevent unwanted sound from getting into our recording room, or from our recording room into our control room. This is called *sound insulation*. The second problem is controlling what happens to sounds generated inside one of our insulated rooms, in terms of the way they reverberate and decay. This is called *acoustic treatment*.

These two problems are different and entirely separate, and require separate handling. The old idea of sticking a few egg boxes or polystyrene tiles on the wall and hoping to tackle both at once is, therefore, based on a misconception and bound to fail. The exception to the rule is that when sound has passed through an insulated partition into an acoustically treated room it will give a higher sound pressure level in a 'live' room (*ie* reverberant) than in a 'dead' room. But this does not alter the practical sound insulation, because sound sources inside the room are affected to exactly the same extent as incoming sounds. Thus the ratio between wanted (internally generated) sounds and unwanted (external) sounds remains the same. The only way of improving this ratio is by attention to the actual sound insulation.

Now sound insulation is much more amenable to scientific investigation than acoustic treatment because it is not subjective like the latter, but a simple question of measuring the transmission loss experienced by a sound of given sound pressure level when passing through a partition.

As all long-time readers of *SI* will know, the method used to measure sound pressure is the decibel (dB) scale. The how and why of the dB scale is quite beyond this correspondent, but the practical features of its use are much easier to grasp. It is a scale of sound pressure level ratios going from a reference point at 0dB (the threshold of hearing) up to about 130dB (the loudest tolerable sound), see figure 1. Each one decibel step on the scale represents the same ratio of sound



## 1. Approximate noise levels in decibels of everyday sound

Decibels	Type of Noise
130	Threshold of pain
120	Jet aircraft close
115	Pneumatic drill
100	Propellor plane engine
95	Noisy Tube train
75	Symphony orchestra
70	Factory
65	Shouting
60	Loud speech, heavy traffic
55	Quiet train, normal traffic
50	Normal conversation
45	Car passing
40	Quiet restaurant or street
35	Distant traffic
30	Quiet room, clock ticking
25	Cinema audience
20	Recording studio
10	Quiet whisper
0	Threshold of hearing

pressure levels, that is 1:1.122. This bears a close relationship to the way the ear assesses relative sound pressure levels, which is by the ratio between them.

A few examples should give some sense of the way the scale works. A 1dB change in sound is barely perceptible. A 3dB change is generally considered the smallest significant difference in level. In dealing with sound insulation in buildings, improvements of less than 5dB are not considered significant, because 5dB is the smallest change most people can detect when making comparisons of sounds separated by some period of time. The average reaction to a change of 10dB is that the apparent loudness has been doubled (10dB up) or halved (10dB down).

The decibel scale is used not only to define sound levels, but also to define sound insulation performance. This is sensible because whatever amount of sound falls upon a barrier, the amount of sound which penetrates to the other side will be in a fixed ratio to the original sound. This ratio is easily expressed on the decibel scale, because it works logarithmically. If a sound level of 90dB falls upon a barrier having a sound reduction index of 40dB the sound penetrating to the other side will be  $90-40=50$ dB.

Unfortunately the simple decibel scale is not entirely accurate as a true loudness scale. This is because the human ear does not recognise two sounds of identical sound pressure as being equally loud if they are at different frequencies. The amount of difference of perceived loudness also depends on the basic strength of the sounds. Hearing is non-linear over the sound frequency range and the character of the non-linearity varies depending on the level at which the sounds are heard. The effect is quite marked: a pure tone of 50Hz at 30dB level is completely inaudible, whereas a tone of 3,000 Hz at the same level is clearly heard.

A good starting-point for the consideration of sound insulation is to consider what level of background noise will be acceptable in your studio. Some of the

textbooks give curves of background sound level plotted against frequency that have been found acceptable in broadcast use. But these are almost all intended for use with distant microphones. You may feel that higher background noise levels are acceptable in a multitrack studio where the vast majority of work uses close-miking and loud sound sources. But it is still probably a wise policy to assess your acceptable background noise level on the basis of the most demanding likely use. Who knows, you might one day have to record a solo classical guitar track while they are digging up the road outside.

There are two sources of background noise in studios. The first is inside the studio, primarily from ventilation and air-conditioning equipment and ductwork. The second is outside the studio, and this may come in either as airborne sound or structure-borne sound, and will take the form of traffic noise, aircraft, footsteps,

noisy equipment and so on. Obviously immense care will have to be taken in the installation of ventilation equipment to keep the internal noise level down as low as possible, otherwise you are wasting time and money in going to great lengths to keep noise out.

## Sound Insulation

Let us look first at airborne sound. When designing a partition for airborne sound insulation it should be borne in mind that sound does not always follow the direct route. This explains why some partitions fail to perform as well as would be expected. Sound simply goes round or over or under them if it is given the chance.

The simplest form of sound insulating partition is the solid single-leaf wall. Its performance as an insulator is called its *sound reduction index (SRI)*, measured in



Fig 2. Equal Loudness Contours: the frequency response of the ear

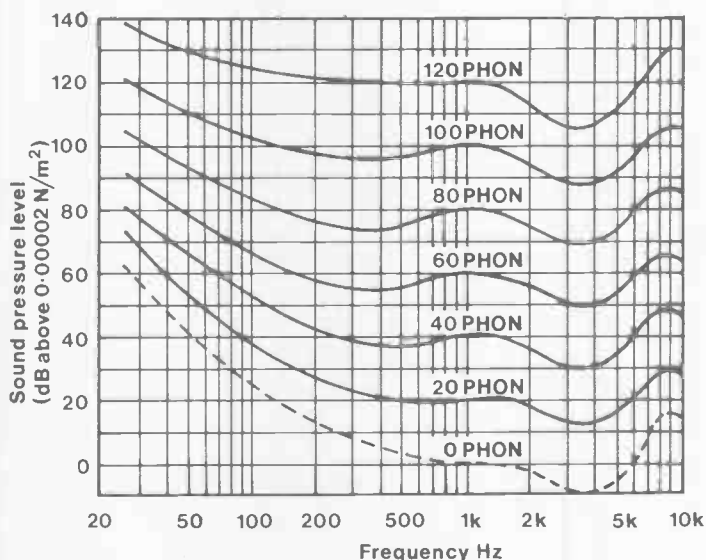
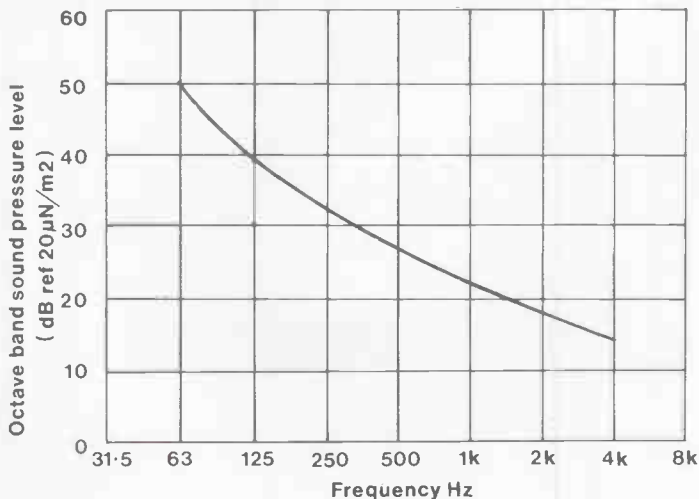
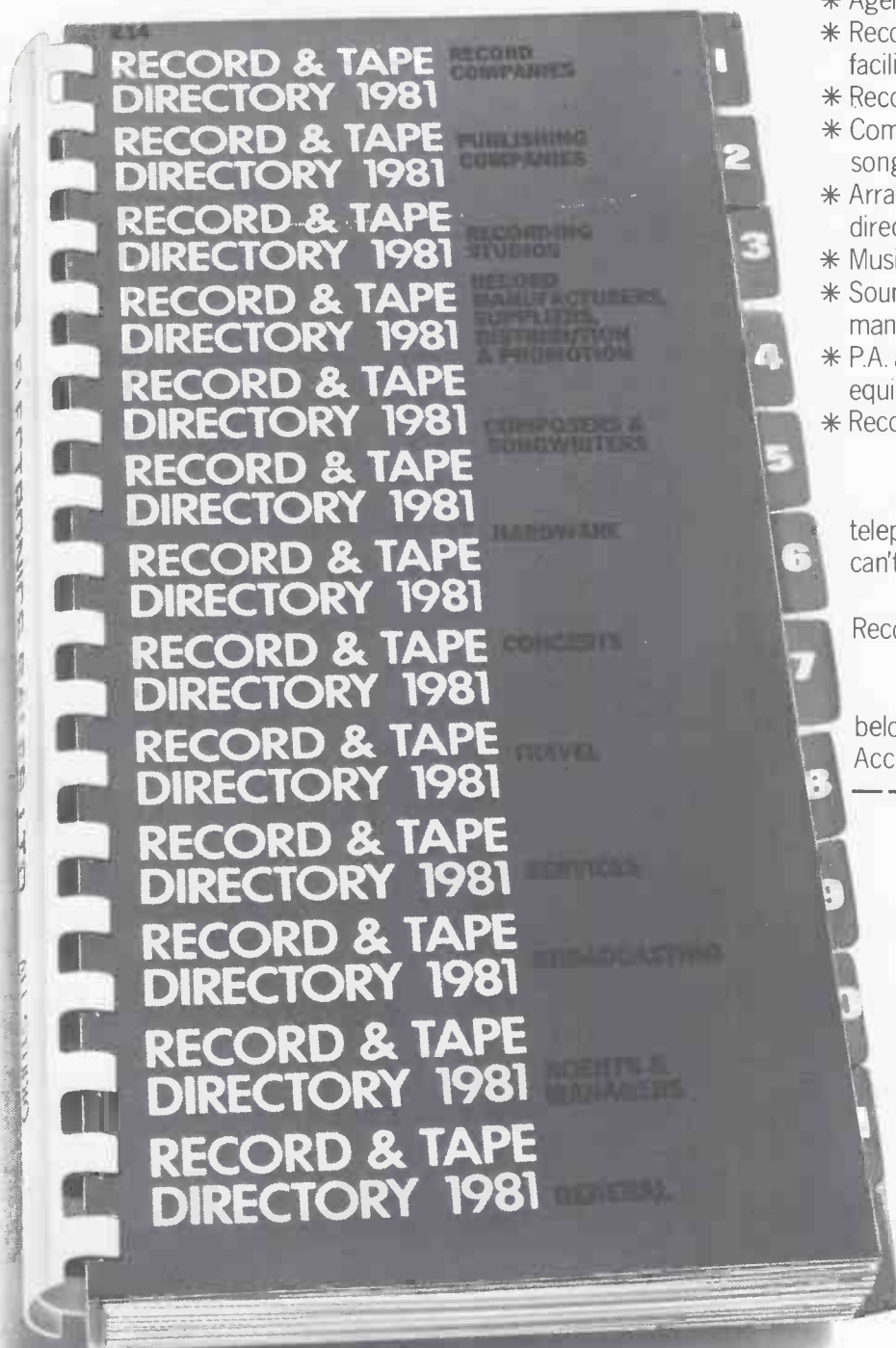


Fig 3. Recommended Studio Background Levels in British Broadcasting Practice



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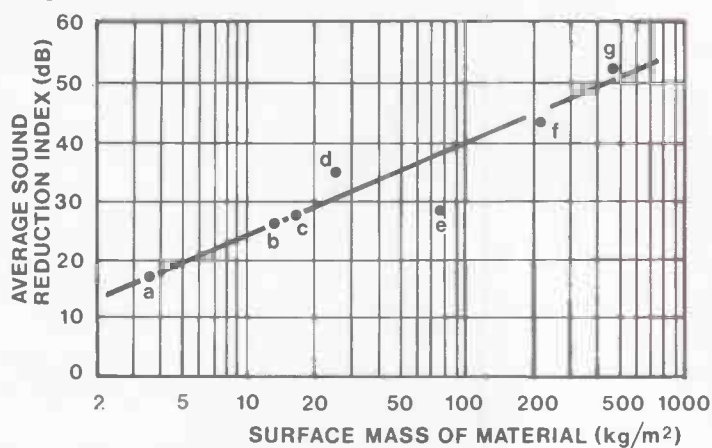
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(S2)



**Fig 4. The Mass Law of Sound Insulation**



decibels, and usually averaged over the range 100-3150 Hz. Within a certain range of frequencies, all partitions follow what is known as the mass law, which means that the SRI is proportional to the product of mass per unit area and the frequency. Thus for a given material the theoretical SRI will increase with frequency by 6dB per octave: and for a given frequency the SRI will increase by 6dB for each doubling of the surface mass, *ie* a doubling of the wall thickness or a change to a denser material.

Unfortunately this simple law is modified in practice by the fact that any wall structure is subject to a variety of resonance conditions, of which the most significant, the coincidence effect, results in a serious loss of insulation over a certain band of frequencies. This means that to be really useful, SRI should be given as a graph showing insulation against frequency, rather than as an average figure which can obscure the important facts about a partition's performance. But SRI tables are designed for house-builders and other such users where performance is not so critical. Nevertheless they can be a useful guide. A full range of SRI figures for various materials and designs of insulating walls, ceilings and floors can be found in the very useful HMSO publication, *Sound Insulation In Buildings*.

As figure 4 shows, if we double the mass of a partition, we gain about 5dB (theoretically 6dB) in sound reduction provided we are in a region where the mass law is obeyed. For example, a brick wall of 120mm thickness has a SRI of 45dB, and one of 240mm gives 50dB. So if we wanted to build a wall to keep out traffic noise, with an SRI of 60dB, we would require a thickness of 0.84m and a mass of approximately 1800kg per square metre. This would obviously be prohibitive.

One way round the problem is to build two walls with a gap between them. You might think two separate walls, each 120mm thick, would give 90dB sound

reduction. Unfortunately, this would only happen if they were so far apart that they acted on the sound field quite independently, and that could only happen if they were separated by a distance equal to several wavelengths of the lowest-frequency sound. If they are any closer they start to act as one wall.

If you thought the behaviour of a single-leaf partition was complicated, then the behaviour of the multiple-leaf partition is quite beyond human comprehension. The best textbook on the subject, Christopher Gilford's *Acoustics For Radio And Television Studios*, concludes that the best way to discover the exact sound-reduction index of a partition is to measure it, before hastily moving on to a consideration of practical partition designs, where, it appears, most of the rules can be broken, even the fundamental mass law.

But before we move on to practical partitions, a word or two about structure-borne sound and how to deal with it. Structure-borne sound is where mechanical vibration is transmitted through the floors, walls and ceilings of a building to places far away from its source. It is particularly bad, and largely incurable, in steel-framed buildings. I once heard of a studio built on the first floor of a warehouse. Underneath, the proprietor installed a night club. Not only that, he built concrete bass-bins into the club's walls. Not surprisingly the studio was unusable while the club was in operation which made it less than viable. The studio closed before it opened.

Less severe cases of structure-borne sound are best dealt with by isolating the source. Cave found that despite their efforts to insulate themselves from the floor above with a new suspended ceiling, sand and fibreglass, they could still hear anybody walking about upstairs. So they put down several layers of thick rubber carpet underlay on the upstairs floor, with good results. A particular source of structure-borne sound is the vibration from

ventilation equipment. Spaceward went to great lengths to isolate this from the structure of their studio.

## Practical techniques of sound insulation

Either of the books already mentioned will give detailed examples of various well-tested sound insulating floors and partitions. But their performance *in situ* depends very much on the standard of their construction. In particular there must be no holes or cracks in the walls. Research has shown that an open passage of typically 100mm<sup>2</sup> area will increase sound transmission between two rooms by 1dB. For this reason it is a good idea to start any conversion by checking on the condition of the original walls, and if necessary repairing and replastering them. Then you can consider what additional insulating partitions you can afford to install in terms of both money and space. You should bear in mind also that the performance of any partition is inevitably degraded by windows and doors, so attention should be paid to these points.

If we look at the plans of our two studios we can see some of these techniques being put into practice. Considering Cave's conversion (see p37) it is immediately obvious that space was their big problem. Even after ripping out the existing stud walling they were left with a space only about 5m across. To get the layout right, they planned out various studio arrangements in Andy's back garden using skewers and string. But however they set things out it was plain that there was no room for elaborate insulation treatment on the side walls. The main source of external noise is the road outside, so across the glass panels that form the entrance they constructed a wall of concrete blockwork. In the wall is set a heavy blockboard and glass-fibre sound door of their own design in a rigid wooden frame. Similar doors are fitted to the other exits from the studio area. Between studio and drum-booth and studio and control-room are walls of blockwork again, with large double-glazed windows.

The design of studio observation windows is quite critical. Firstly they must be double or triple-glazed. Secondly the two pieces of glass used must be of different thicknesses. This is so that their resonant frequencies do not coincide, causing a catastrophic loss of insulation in the critical frequency band. Thirdly the air-space should be at least 200mm deep. Finally attention must be paid to the frame to ensure the whole arrangement is airtight, and the reveals should be treated with some absorbent material to damp reverberations within the cavity. Cave's window design incorporates all these features. They have also set the two panes of glass out of parallel with one another, but this is primarily to prevent awkward



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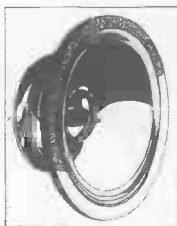


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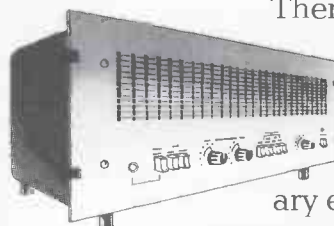
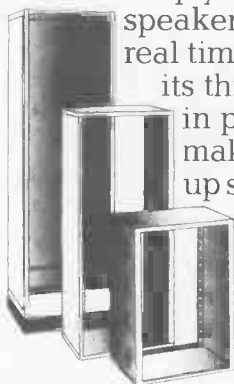


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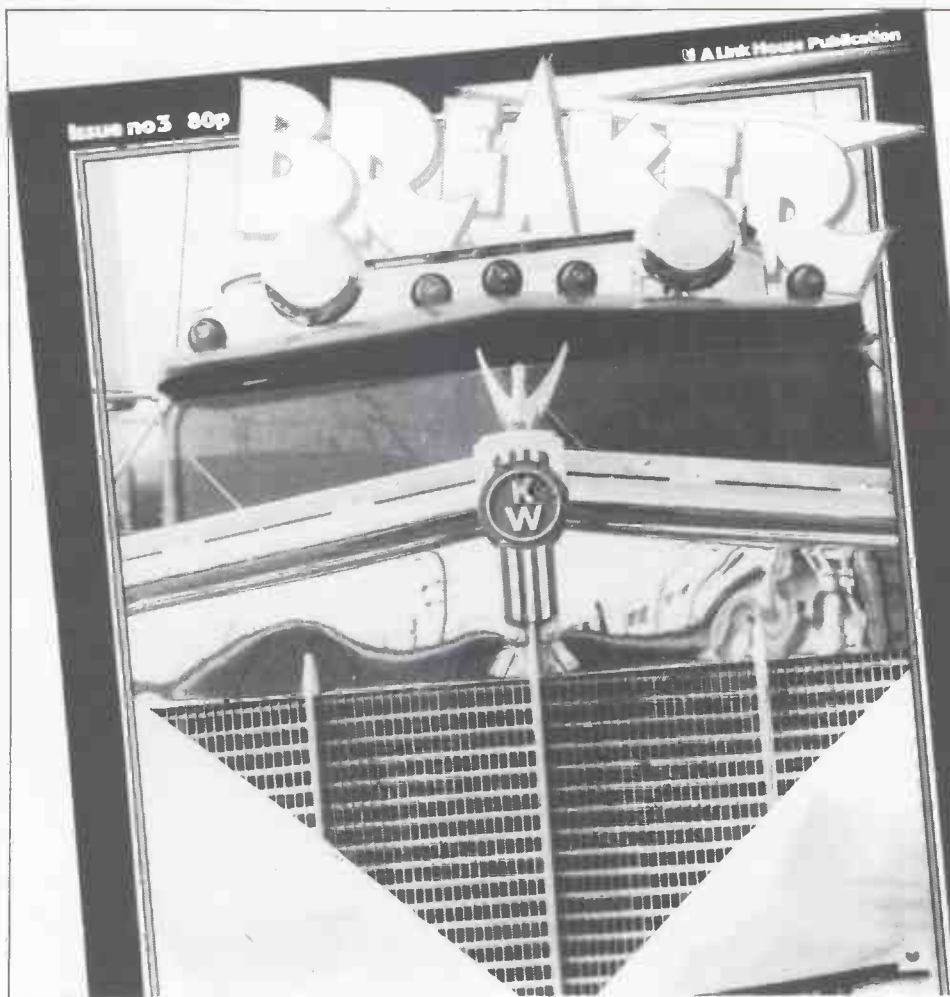
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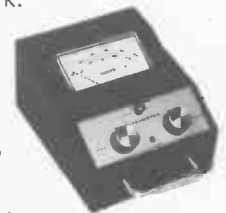
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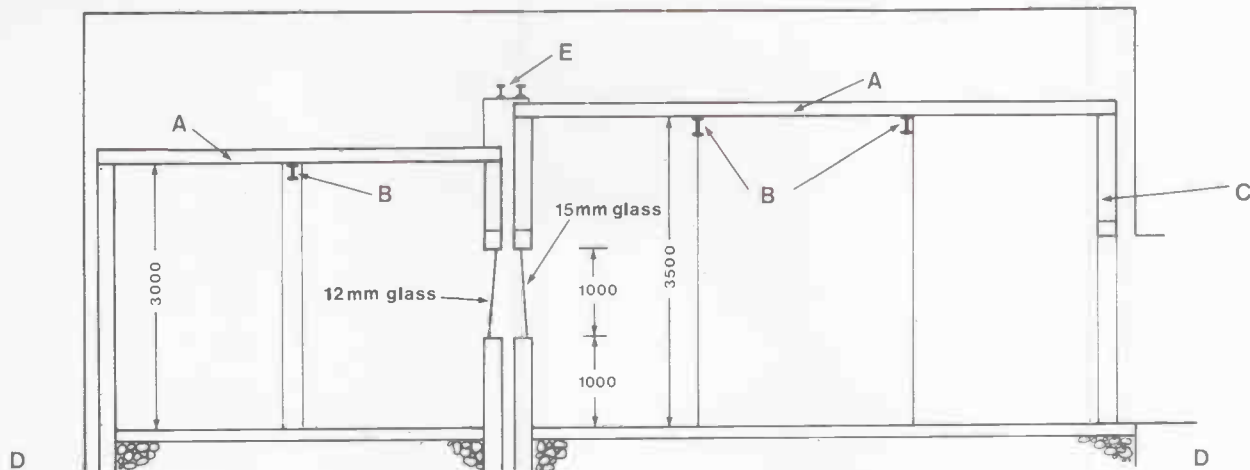


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Spaceward Studio Plan: Section A-A showing isolation of foundations



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And while we're on the subject of air-conditioning and ventilation, attention needs to be paid to the design of any ductwork passing through and along your insulating walls. In particular, short sound-paths along the ventilation ducts should be avoided. And all ductwork should be carefully lagged to avoid resonances: think of shouting down a piece of pipe. But once again, ventilation and heating design is a subject well outside the scope of this series ■

**Essential Reading**

*Sound Insulation in Buildings: Cost And Performance Of Walls And Floors*, by H R Humphreys and D J Melluish. HMSO, 1971.  
*Acoustics For Radio And Television Studios*, by Christopher Gilford. Peter Peregrinus Ltd, on behalf of the Institution of Electrical Engineers, 1972.

And for those who are completely lost, there is a useful chapter by Alex Burd in *Sound Recording Practice*, edited by John Borwick, Oxford University Press, 1976.

**John Ono Lennon**

In case you were wondering, the reference in last month's issue to John Lennon – 'so if you see him...' – in Rick Nielsen's article *Cheap Tricks For Expensive Guitars* was entirely due to the fact that we'd passed that particular page for press just a few days before Mr Lennon was murdered in New York and were therefore unable to change it.

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Anyone who has been playing the guitar long enough to have progressed past first inversions and strumming along with *Donna Donna* and who has ever made sorties into London's musicland of Charing Cross Road must suffer a small heart murmur when the name Top Gear is mentioned. It drew budding Alvin Lees like a magnet to its Denmark Street premises and even walking in the door somehow made you feel at least semi-pro, rather than a snivelling amateur. Here alone stood the shop which not only seemed to have a never-ending supply of vintage *Firebirds*, 50s *Les Pauls* and ex-Rory Gallagher *Strats*, but wherein you could also get away from the creeps who served (and still serve) in all the other local stores. They either carried on reading *MM* and ignored your whimpering or took delight in demonstrating on one of the shop's instruments that they were such bloody geniuses that you should not even dare to be standing on the same piece of green carpet. 'Try Top Gear ... grunt ... don't touch that ... sniff ...' Having taken the advice, you found in Top Gear helpful, knowledgeable guys as happy to sell you a pick as a Precision.

Many will lament the passing of Top Gear but fewer may perhaps realise that within those self-same walls now resides Ron Roka (or Ron Muriel as he really is), carrying on those traditions and providing a unique service to players living and working in London.

Once upon a time, in a tiny corner of the Denmark Street basement, there was a little figure huddled over a small bench piled high with bits of amps, speakers, valves (yes, valves!) and disembodied Fender motifs, soldering iron in one hand, defunct capacitor in t'other. That young man was Ron. Nearly a decade later, Ron has engulfed the whole premises and now offers the most comprehensive range of guitar parts – necks, bodies, pickups, bridges, nuts, washers, bolts, machine heads, fretwire, picks, strings and so on for every leading brand of instrument. He also has a complete guitar repair and making service downstairs at really good prices, as well as the amp and other gear repair, still tucked in its little not-so-dingy corner. He stocks a good range of new and used guitars of all types and prices and is a Fender and Martin accredited agent. This means that those companies have looked at his work and reckon he's good enough to service their instruments for the whole of their lifetime; who am I to disagree?

In fact, Ron started work in Wardour Street, a stone's throw away, even earlier. After abortive attempts at journalism (no comments here, please, Ed) for a tenpin bowling magazine, he answered an ad for a wirer at Pan Music, above the Whisky A Gogo. Here Ron and two others built those Pan slope-fronted armoured cars they called Pan amps. He says that he learned a great deal from the two Panniers alongside him and that building amps from scratch is the best way to understand them. Pan sent Ron on day release to technical college to formalise his training. Then Les (surname forgotten in the mist of time) left and Ron moved on. He tried making hearing aids but saw no future in it, so he decided to go back to music

# RON ROKA

**Robin Millar steps carefully through the plastic bagged rubbish of Denmark Street, avoids 'something rotten' puns and delves into the past and present of ace repairer Ron Roka.**

on his own account.

Pan by this time had gone bust, so Ron took over the premises and equipment and started his own business for £150. He shared the premises with drum sage Eddy Ryan, and worked and worked repairing amps and maintaining group gear. Then in 1971 he moved to Top Gear, where owner Rod Bradley took Ron under his wing. Ron holds Rod in the highest

esteem and remembers those days fondly. He also started guitar repairs, though he admits to being a bit of an amateur by comparison with today's whizz kids.

Then Ron got an offer from Arbiter (CBS/Arbiter distribute Fender, Rogers and Rhodes products in the UK) to come in on the Fender Soundhouse, a large musical instrument and amplification store in Tottenham

Court Road – also not far from Denmark Street. As a concept, the Soundhouse had all the answers and Ron felt that he could not afford to compete. So he went in. The Biggest Music Store In The World was underway in 1973. Ron was working 12 hours a day, and took on Peter Groves as his No 2. Peter is still with him, as Ron's all-round right-hand man, as well as being an ace repairer himself. CBS asked Ron to manufacture a range of amps in his spare time! Sleep became a thing of the past and food a ship that never seemed to pass in the night or day. He soon realised that he was going to die a rich man – probably within a couple of years!

So he pulled out of the Soundhouse and went on the road with Robin Trower, for a change of air. He toured the States with Trower, looking after Robin's equipment on the road. Ron says wistfully that he would have stayed on, but he had too many responsibilities at home. He had all the Fender warranty repairs to do, as well as his staff waiting for him to re-open. The Soundhouse had burned down, and Rokas moved into new premises in homid Endell Street. 'We had to have space. We were doing all Genesis' gear, Elton John, Mick Ronson, Peter Frampton, Al Stewart – even Hank Marvin.' Hank still uses Ron for his equipment servicing and is a good friend.

At Endell Street, Ron first had Seymour Duncan as guitar repair man. Duncan went off to make guitars and pickups on his own and Ron filched Roger Griffin from Top Gear. Griffin too wanted his own business and Ron was at a low ebb. Then along came Pete Fluskett, an unknown quantity who turned into 'a real winner'. I had a look at some of Pete's recent work and he certainly is a superb craftsman. His acoustic guitars particularly are little gems, but space unfortunately forbids me from raving on too long about them. Go and see for yourself.

The lease on Endell Street expired, and Ron had an army of clients – by then including Led Zeppelin, Elvis Costello, The Sex Pistols and Kate Bush – to cater for. He knew Rod Bradley had closed the Top Gear shop and was now concentrating on Strings And Things, his wholesale business, so he gently enquired as to, 'um, er, well Rod, er, it's like this, er, what do you think the chances of, er ...' 'For you, me old mate, no problem.' I gather it went something like that. Anyway, Ron was in, and from there on has never looked back.

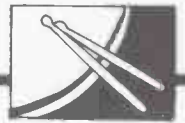
Ron admits freely to being a frustrated musician, but he reckons it has a positively beneficial effect on the way he can deal with people and their problems. This combined with his road experience (he also roadied for Cliff Richard) means that he feels he can understand professional problems as well as anybody and find the right solution. Mind you, Ron also admits that life is not a bowl of Schallers. In his early guitar repair days he was given a guitar to repair which had a tiny scratch on the front. Ron attacked it with the sandér but went too deep. In a panic he drove down to Dick Knight, guitarman to the stars, who told him the whole guitar would need re-layering. This was duly done at great personal expense to Ron, and he



Tony Butler







# Jack DeJohnette: Sonor Drum clinic

David Sinclair

Drum clinics are not, as the name would suggest, places where you take injured or ailing drum kits for medical attention. They are drum demonstrations sponsored by manufacturers of drum kits where particularly meritorious drummers display their skills to an audience of (usually) less meritorious drummers and drum buffs, and in the course of so doing also display what wizard wares the particular sponsor has on offer at that time. After the drummer concerned has done the stuff, and assuming all has gone well (ie the drum kit hasn't disintegrated into a heap of mangled rubble under the onslaught), questions are invited from the floor. There is always a slightly uncomfortable mixture of genuine educational/musical service and hard-nosed sales talk in evidence. The Paiste rep, being not wholly unaware that the cymbals on the Rodgevig kit just showcased are Paiste's finest, will be waiting in the wings. The tone of innocent enquiry in his voice rings somewhat hollow as he bawls out immediately after the 'Any questions?' invitation: 'Tell us about your cymbals Bill.'

Drum clinics usually take place rather discreetly in hotel function rooms in Russell Square or off side streets of the Tottenham Court Road. But when the drummer in question is Jack DeJohnette, making his only British appearance on a European tour, and he's demonstrating the prestige Sonor Signature kit (rrp £2912.50p inc VAT) it seemed only fitting to find myself in the rather more exclusive confines of Ronnie Scott's jazz niterie. Here you can enjoy a pint of Carlsberg for a mere £1.30 or, if you're with friends, why not get a bottle of whisky, a snip at £28.50 (inc VAT and waitress service). I quickly deduced that people don't go to Ronnie Scott's or for that matter buy Sonor drum kits for reasons of economy.

Jack DeJohnette, considered by many to be next in line after the all-time jazz greats such as Elvin Jones, was recently voted world's number one drummer in the readers' poll in *Downbeat* magazine. He has performed with innumerable artists including Betty Carter, John Coltrane, Jackie McLean and Thelonious Monk, and played the drums on Miles Davis' landmark album *Bitches' Brew*.

He now plays with his own group Special Edition who were voted number one band in the *Downbeat* poll and their album *Special Editions* won a Grammy award in Munich. He

makes a quiet unannounced entry to a deserted Ronnie Scott's about half an hour before the kit arrives. Facially he looks a bit like Muhammad Ali, especially in profile. He's dressed in a well-cut grey suit, and resembles one of those affluent hoodlums in a *Shaft* movie. 'Anyone like a ceegar?' he says, waving a box of Indonesia *Puritos* at anybody in sight. Clearly the man has style.

'This is my first European clinic tour for Sonor and it's been very good. We did Munich, Frankfurt, Milan, Berlin, Hamburg, and now here,' he explains to me. 'To me, clinics are fun because I just sit down and play and improvise for an hour or so; I answer questions. I enjoy the questions-and-answer thing. I try to explain the musical possibilities of the drum kit as opposed to just banging away at the instrument. I feel like I'm entertaining and in answering the various questions I'm also performing a service.'

Jack started his musical career playing piano. He was classically trained from the age of four, and only took up the drums when he was 16. Perhaps because of this background, a frequent comment about his drumming is that he employs a highly melodic approach to this percussive instrument.

'I've been told that,' he laughs. 'You know to me it's just the way I hear the instrument. It just so happens that everyone seems to think that that's an unusual or fresh way of playing the instrument.'

Who are your inspirations? 'Max (Roach) and Elvin (Jones), Philly Joe Jones, Roy Haynes to name a few. I like a lot of guys, not all of them well-known.'

What do you see happening to the jazz scene in America? 'It's hard to get work over there right now and recording contracts because bigger companies are not signing instrumental artists for a while because they're cutting back. Really they don't want to spend as much money for jazz as they would for a rock group. They really don't support the artist. Of course some of the musicians want to make big money but sometimes that's just not possible if you've got a reputation as a jazz artist - trying to play fusion. Unless you happen to be lucky like George Benson...'

I point out he's never done that. 'You've always been considered a purist in that sense, haven't you?' I ask. 'Well,' he replies, 'I did a thing on Columbia Records which was an attempt to try and bring fusion and rock and creative improvisation into a more commercial, sensible type of music. But even that music

turned out to be not exactly something you could put your finger on, so that wasn't successful. But with ECM I've fortunately found a home and a good strong relationship.'

ECM, Jack's current label, is a German specialist-interest label distributed by Warners in America and imported into Britain by IMS. 'It's a company that in the early Seventies decided to take the risk of making records that a lot of the American companies wouldn't attempt to even do anymore. Nowadays all the small record companies can't get good distribution and the big labels don't want to take a chance; so for the American musicians who want to pursue the kind of music they really want to play, ECM actually is the only label going. I feel really good being associated with the label. I'm glad that it exists or else there would be nothing happening actually. It's been under a siege of criticism - the sound of the records and some of the music - but in the final analysis people have to see that it's the only company that's come out with some unusual combinations of musicians, which more than likely wouldn't have come together otherwise. And some experimental types of music that also would not be happening if it weren't for ECM taking a chance. I wish there were more labels that had the concept of supporting the artist, starting small and letting it grow.'

Jack's regular drum kit is a 5-drum Sonor Phonic rosewood kit: 18in x 14in bass drum, 14in x 5 1/2in snare, 12in x 8in and 13in x 9in mounted tom toms and 14in x 14in floor tom. It's a small kit and suits his jazz style. Had he ever experimented with bigger kits? 'I've had double bass drums. Two 18in bass drums. It was fun, just another colour. There's nothing spectacular about having two bass drums. I tuned them in fifths which made a nice kind of effect, but one bass drum is all you need really. I even had a 16in x 18in bass drum - it sounded really great. I used it on *Bitches' Brew*.'

What about sticks? 'I use a 5A stick. It's intermediate, not too big and not too small - for me it's just right. I can play heavy or light with it.'

Cymbals? 'I use Paiste cymbals. Dark ride, flat ride, 16in crash, 22in China type, dark sound-edge hi-hat cymbals.'

Does anyone impress him in the rock drumming field? 'Not too much. For the rock drummer, drums don't really have that much feeling. They really have to hold it together and not deviate too much. I liked Mitch Mitchell when he was with Hendrix. He employed more of a jazz approach to rock drumming. Ginger





Baker, too. They both came from jazz backgrounds. They were allowed more freedom than the average rock drummer and they were looked upon as better players in those times. Mitch Mitchell was the only guy I heard use brushes on one track (*Up From The Skies* – on the album *Axis: Bold As Love*). Never hear of those guys now.'

What does he think of Billy Cobham's more recent effort? 'I haven't really heard it. I saw Billy earlier last year at the Frankfurt International Music Fair and we had a chance to play together. I like Billy. He's a well-rounded drummer; he has his direction and I hope he has success with it. He does a lot of clinic work for Tama.'

At this point the *Signature* kit arrived at the club. Jack wandered off to get started on tuning it, a job that he undertakes with meticulous care. I watched the kit being assembled. One reviewer described it as 'the Rolls Royce of drum kits' and the tag seems to have stuck. The regular kit (*HLK 2028*) is of eight drums, all a bit deeper than ordinary drums: 22in x 18in bass drum; 14in x 8in snare; 10in x 10in, 12in x 12in, 13in x 13in, 14in x 14in tom toms; 15in x 17in, 16in x 18in floor tom toms. They also do a six-drum and a 14-drum set-up in the series. The drums are all 12-ply shells, hand-finished in African bubinga or macassar ebony wood.

Sonor has a 'resident expert' stationed in the Cameroons on the west African coast, 'whose job it is to select from many hundreds of bubinga trees the very best for our *Signature Series* shells'. Just above this note on the promotional pamphlet is a picture of a bloke who appears to have no trousers on standing over a felled bubinga tree. Perhaps that one was a reject for which he was showing his contempt in that internationally understood procedure first popularised by The Rolling Stones in 1965 at an all-night service station in Stratford, London. There is no mention of quality-control methods used for the ebony, but doubtless they are equally stringent. Whatever, there can be no doubt that the materials used in the manufacture of this kit are of the very highest quality. It has the most beautiful look to it – a rich, natural finish.

The stands are all made especially for this kit with extra large precision steel tubes and stabilising double-strutted legs. The hi-hat stand features an interesting device to prevent the loosening of the top cymbal holder. Instead of using a conventional screw to secure the holder to the centre pull rod they use a roller locking device. When the hi-hat is being used, two small rollers housed in the top cymbal holder are automatically pressed against the centre rod. The harder the pressure is on the pull rod the more secure the device becomes. The bass drum pedal is a single post device with eccentric repeater action, double roller bearings and a steel chain.

The snare, which is also made of either bubinga or ebony, has a parallel action snare release mechanism. The profile tension hoops are manufactured from extra heavy duty material. The sound qualities are the same as die-cast hoops but stability is enhanced. The tom toms are all double-headed and Jack had this kit fitted with Remo *Fibreskin 2* heads on top and clear heads on the bottom. He prefers the *Fibreskin* heads to the all-plastic variety. They are good for brushwork and give that

traditional jazz sound a bit like old calf-skin heads.

An unusual feature is that the dampers on all except the bass drum are fitted externally. It's hard to say if this is of any real benefit or whether it's just a 'fashion feature'. Jack didn't use any dampers at all; the advantage here is that there is absolutely nothing inside the drums to interfere with their true tonal response. It is sometimes claimed that a damper works more efficiently if located externally on the top head, but I'm sure if I was using them I'd be forever bashing them by mistake. The bass drum has a sophisticated internal damping mechanism controlled externally. Such an obvious idea – I think every bass drum should have this. No more removing chopping-holes in the front head to avoid that Salvation Army noise. Even the cheapest tom tom or snare drum has a damper – why not the bass drum?

Jack: 'As it stands now, the *Sonor Signature* kit is basically aimed at the bigger money rock bands. But they're bringing out a jazz series *Signature* kit which will be 18in or 20in bass drum, smaller diameter shells, and it'll be 9-ply instead of 12. It should be a very interesting sound.'

Meanwhile, Ronnie's has filled up to capacity. Two lads have come down from Kendal in Cumbria for the occasion. A waitress appears at their table: 'Would you like a drink?' 'Eighth of lager please,' quips one of them. The bar has done better business. Basically, people are there to see the drummer.

There are some preliminary introductions from Chris Stevens, the man from Hohner (who distribute Sonor in the UK). And then Jack DeJohnette takes the stool behind the kit.

He plays for a marathon one-and-a-quarter hours without stopping. Starting incredibly slowly, he almost casually taps the drums and cymbals one by one. Gradually, by ever increasing steps, he accelerates his efforts. Changes in patterns and tempo seem to flow in a logical form that belie his earlier comment to me that he just sits there and improvises. He reaches an awesome crescendo of power and speed about three-quarters of the way through and holds it at that fever pitch until just before the end, when he winds down briefly and ends up as he began with a clink on the cymbals. The performance has a coherence and sense of direction not normally associated in my mind with improvisation (though I suspect the word has a slightly different meaning in Jack's mind). The effect is like hearing a (drum) symphony.

The applause only stops when Chris Stevens finally raises a hand and starts to say his thanks to Jack for the demonstration. The performance was marred by only one minor technical detail. Having heard at some length how well the *Signature* kit can 'hold up under a lot of pressure' etc imagine my surprise half way through the demonstration to see Chris Stevens in a rather undignified position, head buried beneath the snare drum, arse in the air, adjusting the bass drum pedal which had somehow come loose. Jack very considerably switched to brushes at this point (thus saving Stevens from at best a severe headache, and at worst terminal concussion). Chris explained to me afterwards that due to the late arrival of the drums at the club there had not been enough time to ensure that the pedal was properly adjusted and securely in position.

Question time: 'Tell us about your boot laces Jack.' There's the Saxone rep.

DeJohnette does have a melodic feel to his playing, especially in his use of cymbals. As I mentioned he pays particular attention to tuning the drums, which contributes to the melodic effect. He has them tuned high without dampers and the result is that clatty jazz sound which personally I'm not too keen on in itself. But it's his sound, and he knows how to get the most from it.

'You can tune 'em to Egyptian scale or maybe triads or diminished scale or fourths, it depends...' he says. 'Sometimes I just tune 'em in relationship to each other – pick a tone and start from the highest and work down. One interesting thing about tuning the drums is that if you play in an ensemble that has electric bass, electric piano, rhythm guitar, lead guitar and maybe an organ – if you tune your drums down so that you get that real funky sound, you'll find that the drums will never come across as strong as the amplifier, because they're different decibel levels than the drums. So therefore, you're playing away and bashing away and guys come up to you afterwards and say – "Man, I couldn't hear your bass drum, I couldn't hear your tom toms." If you tune your drums up out of the register of all those bottom-end instruments then they'll come through. For recording it's OK pitching the drums down like that because it's isolated, but on stage all those low sounds merge together and you can't hear the distinction. But if you tune the drums up higher out of those registers, not so high that it's like timbales or bongo drums, but up enough where you can hear some separation, it makes a big difference. Guys say, "Oh, but I'll lose that funky sound." Maybe, but the drums will really project to the audience. and the band'll all be looking round saying "Hey, we got a drummer!"'

Me, I'm one of those people afraid of losing that 'funky sound', but there you go. For me the sound highlight of DeJohnette's set was the cymbals – each one a very distinctive sound and each used in a sympathetic and effective way. 'The cymbals to the drum set are what the sustain pedal is to the piano. Basically they sustain tones so that when you're playing round the drum set you get some continuity. They're a big aid to that so-called melodic quality that drummers can get.'

The questions come thick and fast: 'How do you develop your left hand?' asks someone. 'One exercise for that is to practice without the fingers round the stick,' replies Jack, 'especially if you use marching grip. Your power comes from the wrist. Practice triplets with the accent on the first beat without the hands wrapped around and that will develop the fulcrum between thumb and forefinger.'



'I've developed a thick pad in there so that I don't need too much pressure to hold the stick.'

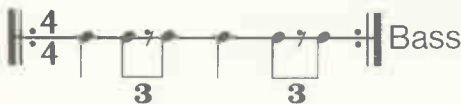




The stick is free to bounce and I can stroke it. Practice at a slow tempo and build up to a fast speed.'

'How do you sustain the power over such a long period of time?' asks another. 'I get the power from relaxing. I can play for long periods of time very intensely without burning myself out. I concentrate on relaxing, concentrate the energy, slow down my breathing . . . make it slow . . . the heart operates slower and I pace myself. It's a discipline. When you play very intense music the tendency is to tighten up; everything tightens up from the emotion, and if you do that you cut off the circulation to the vital parts of the body that you need to send blood and oxygen to. The obvious thing to do is to relax and balance that against the tension, so that you can breathe for long periods of time. The whole thing is based on concentration and relaxation. Then the ideas flow.'

'Tell us about your underpants Jack,' asks the Y-fronts rep. 'How do you develop a fast right foot?' asks a drummer. 'What I do basically is practice ride cymbal patterns with the foot, ie the classic jazz swing rhythm.



'Play the foot with the right hand and without it, first slow then fast. It seems a natural way to develop the foot, and it worked well for me.'

'Do you use toe or heel on the pedal?' 'I play it anyway I can get to it. Either with the toe, or with the foot flat on, or sometimes with the foot off to the side.'

'What about right-hand technique?' 'Again it's practice, practice. Everything I play, basically, if it's fast it looks like it's bounced, but really it's stroked. I stroke everything. If you don't you can't get any power. I just practice everything very slowly and then I build up the speed gradually, gradually, gradually - always keeping relaxed, that's the key to it. When I'm playing ride I switch my right hand on to automatic pilot - it just goes by itself. So start slowly, build up and try and get it so you don't have to think about it - your subconscious takes over.'

Jack DeJohnette has a calm but intense love of his instrument and a gentle respect for others interested in that instrument which he understands so fully. His group Special Edition have a record due for release on ECM in March entitled *Tin Can Alley*, and he has a drum tutor in the pipeline called *The Art Of Improvisation In Jazz Drumming*, published by the Long Island Percussion Centre.

Perhaps he should have the last word in answer to a question about technique in general: 'Technique is just a means to help you express a musical idea. Some guys have more technique than they have imagination, or you can get a guy who has more imagination and less technique but he's still a better player because he's playing from his heart not his head. Put all things together - the head, the heart, the technique and you'll have a nice combination. I try to keep up a constant dialogue between my mind, my hands, my feet, and my emotions.' □

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# Prophet-10

Dave Crombie



Now this is the instrument I've been wanting to review for a long time – in fact, it first appeared at the Atlanta NAMM show back in the Summer of '79. It seems to be an annoying trend of manufacturers to announce a fantastic new instrument and then not to have it in the shops for over a year. Sequential Circuits (and many other manufacturers) claim that the delay is to ensure that the product is 'right' both in design and reliability, which is all very well and praiseworthy, but: (a) I'm sure that this gap could be narrowed considerably by holding back the unveiling of the instrument in question till nearer the time that the machines are in the shops; and (b) in many cases, sales are lost because, by the time the instrument is actually in the shops, some other company has let on that they have a new super-doooper version of the same type of machine, but at a lower price or whatever, and, of course, prospective purchasers of the first model want to wait and see what the new instrument has to offer before buying. This can be taken to ridiculous lengths; for example Roland, a company with a particularly prolific product range, have been known to do this sort of thing against themselves.

This 'annoyance' is more marked in Britain than in American or Japan because, of course, they get their new models ahead of us, but I still reckon that it is a most frustrating occurrence which I know bugs many of the musicians I talk to.

You'll be interested to learn... sorry, you will be interested to learn that this isn't the first version of the Prophet-10 ever to appear. Those of you who managed to get hold of the July 1978 *SI* (you may have had some difficulty, however, as I bought most copies of that issue – you'll have to refer back to see why) may remember that we gave the Prophet-5 a going over and I mentioned that a Prophet-10 was initially launched alongside the 5. In appearance, the only difference on the outside between the two synthesizers was the ID sticker – they both used a single five-octave keyboard,

however, the 10 enabled you to play up to 10 notes simultaneously. The problem with this early 10 was that it went badly out of tune – there was just so much electronics crammed into it that no room was left for any air to circulate and the instrument got too hot. The Prophet-10 was, therefore, discontinued almost immediately after it had been launched (end of '77).

The Prophet-5, as I'm sure all the keyboard players amongst you (some guitarists do read my column, and so does my grandmother) are aware, has become the most important polyphonic synthesiser so far. You only have to look at the OGWT each week to see either a synthesiser rock outfit or a west coast wimp-rock band using a Prophet-5; it is such a perfect instrument to use both for recording and performance. Sequential Circuits Inc. and, more specifically, president and head of design Dave Smith, has continually been pressed for a 10-voice version of the Prophet; I know that many people would have been prepared to buy an old 10 and put up with the tuning problems, but it was obvious to all concerned that a Prophet-10 was really in demand – so they built one.

Over the years, I have reviewed many instruments, and very occasionally I have come across one that I would buy for myself, and even more occasionally I have actually bought one. I did, however, invest nearly all my hard-earned cash (and much of other people's) in a Prophet-5, and I have never once regretted it. So, although I'm not reviewing this instrument from a biased standpoint (heaven forbid), I do have a soft spot for the Prophet-5 (it's in my wallet).

OK, I'll get on with it. The Prophet-10 is a voice-assignable synthesiser – there are 10 voice modules, so for each key pressed, a control voltage and trigger pulse is generated and fed to any spare voice module. Fig 1 (p47) shows, in spectacular detail, what each voice module consists of.

One of the limitations of the Prophet-5 (and the first Prophet-10) was that every note played would have the same characteristic, ie there was no keyboard split and the controls operated to give the same 'patch' for each voice. So when it came to designing the 10, it was decided to go for a dual manual system enabling two completely different sounds to be set up and played simultaneously. Obvious really.

As it is a dual-manual synth, it's pretty big, and it isn't pretty; in fact, it's ugly in comparison with the attractively styled 5. It also needs two people to move it – not because it is that heavy, but it is awkward, and a dropped instrument isn't going to endear you to your friendly insurance broker. The Prophet-5 fitted snugly on the back seat of all but the smallest cars, but no way will the 10, especially in the enormous flight case in which it comes; therefore, I can see that it will appeal far less to session players, both recording and live, than its little brother. In fact, apart from the polyphonic sequencer

section (see later), there isn't much point in studio musicians having a 10 in preference to a 5, as two tracks are all that are required to achieve nearly all the same effects.

The keyboards themselves are identical to the 5: 61 notes, C to C, with the performance controls located to the left of the upper manual, and the digital sequencer and cassette recorder (yes, there's a micro-one built in) to the left of the lower manual. All the other controls are located on the main panel above the keyboards. There is one set of controls which is used for programming both manuals, so an upper/lower select switch is required to determine which manual the controls will affect. There is an interesting, if not particularly useful, set of ten LEDs arranged in two rows of five, which indicates which notes are being played and to which set of five they are each routed. Good television camera fodder here, methinks.

OK, back to the voices and figure 1 for a quick lowdown. There are two 'syncable' oscillators for each voice: Osc A, providing sawtooth and square (width adjustable) waveshapes; and Osc B, sawtooth, rectangular (width adjustable) and triangle. It's a pity that Sequential Circuits still haven't included a triangle wave for Osc A (obviously my reviews aren't law, as I'd always imagined). Noise completes the sound generators, which are fed into a 24dB/octave low-pass filter with four stage envelope (attack, decay, sustain, release) and on to the voltage controlled amplifier with a similar envelope. Figure 1 shows all this quite clearly.

In addition, there's the poly-mod section which enables each voice to cross-modulate itself – eg you can modulate the filter oscillator B, or vary the pulse width of oscillator A's rectangular wave automatically with the filter envelope generator. All these are very useful facilities that go into making the Prophet a fantastically versatile instrument. Part of this is also due to the very clean and clear filter characteristic, which doesn't colour the overall timbre of the instrument. Those who regularly read these definitive articles will know what I'm rabbiting on about.

Right then, so each voice offers exactly the same parameters, and these voices are arranged into two groups of five (one group for each manual). It's almost the same as having two Prophet-5s on top of one another. So, considering one set of five voices, there are the modulation and performance controls to take into consideration. Unlike the poly-mod section, the straight modulation, or mono-mod, consists of a single low frequency oscillator generating ramp down, triangle and square waveshapes (strange that they've switched to ramp down – the Prophet-5 has ramp up) and a noise generator. The modulation signal derived from a mixture of these sources can be routed to control: Osc A frequency, Osc B frequency, Osc A pulse width, Osc B pulse width, or Filter frequency, in amount de-



# Rod Argent's Keyboards



We are the sole U.K. distributor of all Sequential Circuits products, and are pleased to announce the introduction of the new Prophet 5 and Prophet 10 polyphonic synthesizers.

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These new features, together with those that have made the

Prophet 5 the synthesizer chosen by nearly every major keyboard player in the industry, make this instrument unsurpassable in every respect.

Now from Sequential Circuits comes the Prophet 10. Like the Prophet 5 it is completely programmable and polyphonic. It has 10 voices, two manuals (for playing two sounds at one time), a polyphonic sequencer with built in computer cassette, multitrack facilities and, of course, the incredible Prophet sound. For more detailed information or demonstrations contact us at our address given below.

Sequential Circuits Prophet 10	£4,600.00
Sequential Circuits Prophet 5	£2,450.00
Monophonic Sequencer	£550.00
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terminated by the modulation wheel, or by the footpedal. This modulation can be used on either, or both, manuals simultaneously. Neat.

Also relevant at this point is a section that wasn't found on the earlier model – the Equalization. Each programme has programmable low, mid and high eq, each giving, I would estimate, a 15dB boost or cut (I don't know for sure about that figure, but I would imagine it to be a pretty accurate estimate). This is a useful feature, which I wish my 5 had, as it facilitates accurate construction of acoustic simulations and most notably those ever-requested string sounds. Every *Prophet-10* comes with two footswitches and two footpedals. There are controls on the front panel that assign these pedals to relevant sections. Pedal 1 can control Osc A freq, Osc B freq, Filter freq, VCA amplitude, and mono-mono amount. Pedal 2 looks after just the Filter freq, and VCA amplitude. Oh so useful this bit, and no other instrument I've come across offers this quick patch facility.

Everything that I've mentioned so far, except the modulation wheel amount setting, can be stored in the *Prophet's* programmer section. There are two such sections, one for each manual, which can store up to 32 programmes. These are arranged into banks of eight, and indicated by a smallish LED display, so 42 would mean that the instrument was recording/operating in bank 4, memory 2. Needless to say, these settings are held even when the power is turned off, by means of a little battery (10 years of life, I'm told).

In addition to being able to programme each manual to run in unison mode (each set of five voices running in parallel to give a fatter monophonic sound), there is a little section known as keyboard mode, which is rather interesting. (I have to say that, as it helps to keep your attention on this review, and not to wander off to the letters page to see who gets slagged off this month.) Four buttons are to be found in this bit of the instrument, marked Normal, Single, Double, and Alternative. This is where those little LEDs come in handy, though once you understand what's happening, they return to their main role, of decoration.

Normal does as it says: running each manual independently of the other, ie five voices play on the upper manual with the upper programme, and likewise on the lower. In Single mode, all 10 voices play the same

programme (upper or lower, whichever is selected), and the notes can be played on either keyboard. Double mode layers the two manuals together, so any note played on either keyboard will sound two voices, one from the upper with an upper programme, and similarly, one from the lower. In this mode, the instrument can obviously only play up to five notes simultaneously. Alternative mode causes any new key to sound a voice from the upper programme and the next new key struck will sound from the lower programmes.

The most versatile of these modes I found to be the Double, which enabled some beautiful layering effects to be attained – very rich strings can be achieved, as well as some classic electronic organ voicings, using one programme just for the harmonic percussion, and the other for the main body of the note. This is possibly an effect that would be difficult to stimulate in the studio with just a five-voice *Prophet*.

I'd better get on with this because, at the time of writing, there are only two *Prophet-10s* available in the country and George Harrison (the well-known dropped name) is buying one of these this afternoon, so they're going to want this review sample back mighty pronto.

Performance Controls: yes, they're here – the medium used is that of the wheel. There are two of them, one for modulation (already mentioned), the other a centre-stopped pitchbender. In addition to these excellent controllers, there are two pairs of transpose buttons, one pair for each manual. These shift the programmed voice either up or down an octave when pressed. Nice idea this, as it saves having to edit the programmes. Whilst on this subject, the *Prophet-10*, and also the most recent version of the *Prophet-5*, have a new

*These initially mind-boggling diagrams should, given patience, assist you in your understanding of the inner workings of the Prophet-10. 'Yeah, yeah, you say in clipped Mancunian tones, but can it play Tubeway Army?'*

FIG 2 BASIC SYSTEM BLOCK DIAGRAM OF PROPHET 10

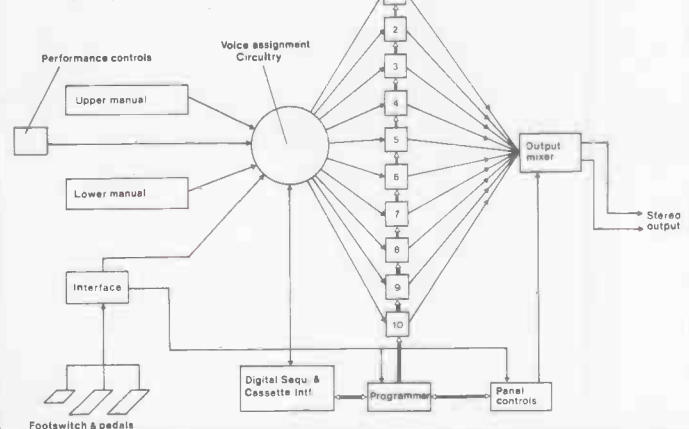
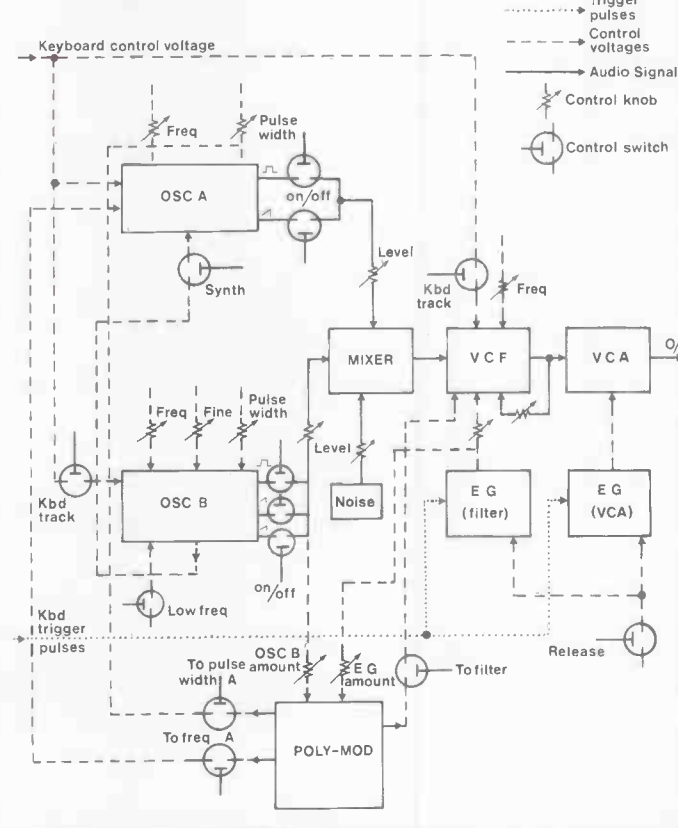


FIG 1 PROPHET 10 VOICE BLOCK DIAGRAM 'MAIN DETAILS'



system of editing. This revolves around the idea that the front panel controls are always in EDIT mode.

Let me explain: say you've selected a programme from the *Prophet* memory, and you want to change the filter cut-off frequency – all you have to do is to turn that control on the front panel and the parameter will be incremented, or de-incremented, accordingly. You can then either rewrite the original programme by pressing the record button and the relevant programme location, or return to the original programme by simply pressing that button corresponding to that memory location.

*Polyphonic Sequencer and Cassette Section* Well, Sequential have come up with another first and another winner here. I know that there have been organs with built-in cassette recorders around for several years, but this is the first instrument that I have come across to have a recorder that stores data, not audio signals. But first the polyphonic sequencer...

Korg are the only people to have produced a true digital polyphonic sequencer: there was the Roland *Microcomposer*, but that doesn't really count as you can't programme polyphonically in real time. The Korg failed to materialise in Britain, so again it's really all down to Sequential Circuits. Unfortunately, this unit isn't available as yet on its own, or as an update to *Prophet-5s*, but if it does become available as a freestanding unit, I'll be there waving my pounds. The sequencer enables you to load and play back 5-voice polyphonic sequences on the lower manual and even to record programme changes into the sequence. The demonstration cassette that comes with



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the instrument really shows off the capabilities of this section with some wonderful classical and rock synth work, though there was some rather doubtful timing on one piece. Mmmm. They've even put in a passage from *Tarkus* (ELP) featuring a Hammond simulation. I wonder how the recording of other people's numbers in a digital sequencer fares with the Performing Right Society?

Six separate sequences can be recorded, or they can be linked up to give a single sequence up to 2500 notes in length, which, once programmed, can be replayed at varying speeds, and also transposed with the lower keyboard. Step-by-step programming can be used to record particularly complex programmes, and in this manner the unit can be used to great advantage in composition, working out harmonies *etc* with the upper manual. The six sequences, along with all the data stored in the 64 (32x2) voice programme memories, can be dumped on to an ultra-small continuous loop cassette (I don't know what they are called, but that seems as good a name as any); thus it is possible to build up a library of sequences and programmes.

To be honest, I found both the cassette interface and the sequencer (but especially the sequencer) very confusing to use. Eventually, though, you do get to grips with it, and after losing only a few sequences I was pretty confident. I can't see that they can make this section much simpler, though, without losing out on some of the facilities.

From the rear, the *Prophet-10* looks equally ugly, though there are a lot of interface and pedal sockets to be getting along with: audio jacks for stereo and mono balanced and unbalanced audio output signals; CV in jacks; Sequencer Interface for hooking up to a Sequential Circuits *Model 800* digital sequencer (monophonic); Gate and Voltage outputs, which follow the last note played on the keyboard; Release footswitch, which turns the release of the ADSRs on and off; programme increment footswitch socket; Sequencer start/stop footswitch socket; and, finally, an enable/disable switch to prevent accidental erasure of programmes. Is that enough for you?

Internally, it is, to say the least, beautiful. The *Prophet* revolves around a *Z80* micro-processor system, which controls pretty well everything. Access for servicing is very easy (hinged front panel) and almost all the ICs are socketed. Sequential Circuits have now switched their production to use Curtis Electronic Music chips, instead of the notoriously unreliable SSM ones. Doug Curtis has designed a set of integrated circuits that offers voltage controlled oscillators, voltage controlled filters, voltage controlled amplifiers, and envelope generators of outstanding spec, and since using his chips, Sequential Circuits' returns for repair have dropped drastically. The *Prophet-10* does have a voice-delete system, which means, should a voice fail, the instrument will continue as a nine-voice quite happily.

Well, along with an Anvil flightcase, two footpedals and two footswitches, that's what you'll get if you cough up £4600 and wait for a couple of months. It really is a Rolls Royce job in everything but looks (and that's purely a personal thing, anyway). I've been trying to think of improvements that Sequential Circuits could make to the *Prophet-10*, and, in terms of construction, I've found it very difficult to come up with anything but the most nit-picking of criticisms. But, let's face it, it's the sound that really counts. Many people criticise the *Prophet* for having a 'weak' sound, not as fat as some of the competition; it's true some polyphonic synths do have a fatter sound, but the *Prophet's* sound, as I've already stressed, is uncoloured, making it a superb imitative instrument, and one which people can't immediately place as a *Prophet* synthesiser or whatever. The *Prophet* has the most popular string sound (which I find is always in demand from studios), as well as a versatility surpassed by none.

A *10* or a *5?1*, personally, wouldn't consider a *10*, were it not for the sequencer and cassette unit (most of my requirements revolve around studio use, so a *5* is quite adequate). But for live work, if I had the readies, I'd be after a *10*. £4600 is a lot of money, but you get more than one instrument with a *Prophet*. ■

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# Mighty Mite Rock II

Steve York

Mighty Mite is an American company which has specialised for the last six or seven years in making quality replacement parts for popular factory-made guitars and basses, most notably for Fender. Vintage Fenders command a high price (I recently saw a mint 50s *Stratocaster* with gold-plated parts advertised for \$15,000) due to the theory that Fender had better quality-control before their takeover by CBS, especially in the selection of woods, and that pre-CBS instruments can almost be regarded as hand-built.

There is a certain amount of truth in all this, but there are also a large number of duff vintage instruments. However, anyone buying a Fender bass in recent years would certainly be well advised to sort through as many as possible before making a selection, as the quality does vary highly from bass to bass.

It's likely that this has always been the case and that the reason vintage instruments seem to be so much better is that the good ones have simply mellowed and stabilised with age, whereas the duff ones have not survived.

Certainly it's true that Fender, up until the launch of the *Precision Special* and the *Strat* last year, have failed to keep abreast of modern ideas and fashions. This has left a market for companies such as Schecter and Mighty Mite to produce quality replacement parts such as brass bridges, nuts and knobs; high output pickups and pre-amps; high quality machine heads, and replacement necks and bodies in fine quality and exotic woods. This has inevitably reached the point where it is possible to build your own guitar entirely from replacement parts.

Recently Rosetti, the UK distributor of Mighty Mite, have taken the story a stage further by marketing a complete bass pre-assembled from Mighty Mite parts. This has been put out in a 'Special Limited Edition' of 100. Each is accompanied by a card which states: *'Peter Cook, internationally famous guitar luthier, has devoted all his production facilities, for a limited period, to the making of a special limited edition of Lead and Bass guitars, made entirely from components issued by Mighty Mite. In addition, each of these (guitars, basses) will be personally checked by Neil Charlesworth of Rosetti, dated and signed out as perfect before release to your dealer.'* The rest of the card provides seven spaces for successive owners to list their names and addresses in order to provide a log book for the history of the guitar.

The Mighty Mite *Rock II* bass resembles a *Precision* in shape. The Limited Edition is available only with a maple neck and fingerboard coupled with a one-piece mahogany body. It features two pickups, a *Precision*-type split pickup in the normal position and a *Jazz*-style straight pickup in the bridge position. These are selectable (1, 1+2, 2) by a three-way metal mini-toggle switch. In my experience these switches tend to be rather fragile and snap easily, especially the hollow type. I was unable (without breaking the sample) to establish whether these are hollow or solid.

The machine heads are similar to the Fender design and are gold-plated. They are



made by Kluson, who also supply Rickenbacker. Strangely enough, they turn the opposite way to most other machine heads – ie clockwise to raise the string and anti-clockwise to lower it. I thought at first that left-handed machine heads had been fitted to this bass, but when I called Peter Cook to check he informed me that Kluson often make them this way. I am sure that one would get used to this, but it would be confusing for anyone regularly using more than one bass, especially on stage. The machine heads are certainly up to Fender standard, but Kluson do make a better machine than this, as do many companies, and I am slightly disappointed that Mighty Mite have chosen to go for a deluxe Fender-design head rather than something better.

The maple neck is similar to that of an early 70s *Precision*, and feels very nice. The intonation is excellent and there are no problems with fret buzz or dead spots. The instrument sounds good acoustically and has exceptional sustain in the top register. The fret edges are smooth, but unfortunately the edges of the brass nut are noticeably sharp.

The bridge is brass and conforms to standard Fender design. Turn to the bridge page of the Mighty Mite catalogue: *'How many times have you been in the middle of a choice riff and had one of the bridge saddles slip to the side with a horrible noise? Well, put your mind at rest with our new Trax and Supertrax bridges. The height adjustment screws ride in a precision-machined track, preventing any sideways movement of the saddles.'* A good idea, which Mighty Mite have pioneered, but surprisingly the bridge on the *Rock II* lacks this feature.

The body on the *Rock II* has a matt oil finish. This looks good on an exceptionally interesting piece of wood; although the mahogany of the review sample is a nice piece of wood, it is not sufficiently interesting in appearance to benefit greatly from an oil finish. This has obviously been done to keep costs down and tends to give the bass a rather home-made look.

Although Mighty Mite make a fine selection of *Precision* pickguards in vinyl, aluminium or

brass, they have chosen to do away with a pickguard on this bass. This doesn't bother me, but I'm told by others that this would put them off, especially when looking around a shop. The jack socket is on the side of the bass, unlike a *Precision* which has the socket on the front. Apart from the fact that one has to loop the lead around the strap to prevent it from accidentally slipping out on stage, this, combined with the toggle switch, means that one could not fit a standard Mighty Mite pickguard on to this Mighty Mite bass without modification. Perhaps someone will start making replacement parts for Mighty Mite basses! Instead of the pickguard, Mighty Mite have fitted brass surrounds to the pickups.

The pickups themselves are Mighty Mite's own. The *Precision*-type pickup is very impressive and more than adequate on its own. When switching from the neck pickup to the two pickups there is a noticeable drop in volume. The bridge pickup (*Jazz*-type) on its own is a good deal quieter again, making a quick switchover a little odd.

I have long been impressed by Mighty Mite's products but, while I feel that this is a fine and versatile bass, it certainly doesn't excite me. The whole concept of marketing this as a 'Limited Edition' bass implies that it is really special, but by Mighty Mite's own excellent standards, this isn't. While the maple neck on the *Rock II* is certainly very good, I have seen many superb necks by the same company, most notably the ebony macassar fingerboard version. The most valuable part of the Mighty Mite concept is that it allows discerning players to choose their own parts and to end up with a virtually custom instrument. As the *Rock II* is available with no options, it seems to defeat the concept, and it doesn't seem to me that this bass fills any particular gap in the market as it is, after all, merely a quality Fender copy with no innovations.

The quality of the parts used is not Mighty Mite's best. This has obviously been done by Rosetti to keep the price competitive, but I would have thought that most bassists who are prepared to pay over £400 for a bass would be prepared to pay more for something really special. Seeing that only 100 are being made, I'd have thought it would have been a better policy had Rosetti made the services of Peter Cook and Neil Charlesworth available to choose and select parts, to build and set up Mighty Mite basses, all to individual custom order for a limited period. Indeed, if Rosetti were to establish a network of talented and undernourished guitar makers across the country to assemble Mighty Mite parts to custom order for an indefinite period this would be even better. (Support your local guitar maker/repairer!)

As it is, I feel that the talents of Neil and Peter are a little wasted on this instrument. I also feel that Mighty Mite are doing themselves an injustice by implying in their promotion for this instrument that it is the best they have to offer. This bass is certainly worth a look and a play, but I would advise anyone who likes it to check out the rest of Mighty Mite's excellent range of alternative parts and to consider paying a little more for the best that they have to offer.





# Fender Precision Special

Steve York



I mentioned earlier that the *Precision Special* marks Fender's return to competitive styling and features. The instrument is available with either a maple or rosewood fingerboard. The review sample featured a fine rock maple neck and fingerboard, and the neck dimensions are taken from a standard 1961 *Precision* neck. I have played about half a dozen *Specials* with both rosewood and maple fingerboards, and all had a pleasantly solid and positive feel to the neck.

The fingerboard is fairly narrow at the nut end, and is a bit deeper than most vintage *Precisions*. Fender have chosen to ignore the current brass nut fad in favour of bone. The reason they give for this is that the slots tend to cut too sharp on brass and ruin the strings. Personally, I don't feel that the use of brass nuts on basses is a particularly great improvement and I am quite satisfied with the bone nut.

Fender have changed the design of their D and G string retainer from the old disc design to a smaller, neater, grooved brass rectangle. I have used one on my 1957 *Precision* for some months now as I have had occasional problems with the D-string slipping out from under the old disc, particularly when fitting a new string. The new string retainer is cosmetically more pleasing and has cured the problem.

The machine heads are similar to the standard Fender design but are brass. I have found the average life of Fender machine heads to be only about four or five years, and only time will tell if these wear better. The strap pegs are also of brass (it is worth mentioning that Fender claim to have found a finish to prevent their brass parts from discolouring or corroding). I would have thought that if Fender are going to go to the trouble of producing brass pegs, they might as well have introduced some kind of strap-locking system.

Fender have long been the only company I know of who still insist on fitting a thumb rest to their basses. Most bassists remove these, but it's there if you want it, and on this bass they've changed from the old plastic thumbrest to a brass version. Although I must concede that

this changeover obviously aids sustain, enhances brilliant highs, breaks the ice at parties and impresses the person at the pawnshop, I found it to be very cold to the touch if you do choose to use it. I am glad to see that Fender have finally abandoned the chrome pickup and bridge covers which most bassists remove anyway. The bridge cover used to house a piece of sponge which acted as a damper and which was pretty useless. These covers were really irritating when trying to assess a new bass in a shop.

The bridge is brass (at last – brass where it really counts!) and follows the old proven Fender design with the difference that the tailpiece is far more substantial than the old design. Fender have finally added grooves to prevent the bridgepieces from slipping sideways. (Handy Hint: If this is a problem on your Fender and you don't want to change the bridge, try joining the bridgepiece shafts together with paper clips.)

I don't know what the body wood is, but it has a nice weight and the whole instrument has a strong resonance when played acoustically. The bass comes finished in a choice of either Lake Placid Blue or Candy Apple Red, both of which are metallic finishes, beautifully applied. The pickup is now white, to match the pickguard. Fender have now chosen to apply the serial number to the headstock. They reckon that the lacquer they are using will ensure that the transfer is pretty much permanent.

One of the main innovations of the *Precision Special* is the use of a pre-amp which is operated by a sturdy little switch located next to the jack socket, enabling active operation. With the pre-amp off, the front two controls of the bass function as volume and tone as on a normal *Precision*. With the pre-amp circuit switched on, the centre pot acts as an active treble control, giving up to 15dB treble boost or cut. The bottom control, which only functions when the pre-amp is on, gives 15dB cut or boost to the bass frequencies.

The tone range available from this active arrangement is remarkable, yet the sound is always recognisably Fender. The system is very straightforward, unlike many other active systems which can take a lot of getting used to. This pre-amp system should almost eliminate any need for extensive eq in the studio. It is also good to know that, in cases of battery failure or unavailability, the *Precision Special* will still function more than adequately in passive mode.

The pre-amp is powered by one 9V PP3-type battery which lives in a hole in the back of the body. The battery compartment is covered by a piece of plastic which is held in place by two screws. Considering the amount of brass already used on the bass, and the fine quality of the overall finish, I feel it would have been far nicer to have used a brass cover here, which would also be more durable – but this is a minor criticism.

The string tension is excellent, particularly on the E-string which has been a problem in the past. I think that the extra width of the tailpiece probably has a lot to do with this.

After many years of obliviously churning out some rather dubious instruments, Fender finally seem to have woken up to the fact that they can no longer rest on their laurels, and are finally making the best Fender-type instruments on the market again. My only reservation about the instrument is the price and after-sales service in the UK. This bass lists for around £562 with case, which is what one would expect to pay for a good quality 50s *Precision*.

CBS/Arbiter, the UK distributors, were complacent enough not to bother to show the *Precision Special*, or any of the new Fender range, to the general public at last year's summer British Music Fair, preferring instead to operate their own little dealers' and salespersons' binge up the road at the Hilton. When I went along to look at the bass I was promised a review sample within a week, but otherwise given a cold reception. Over the next three months both *SI/BI* and I made calls to CBS and were promised a review sample within a few days on each occasion. Still no bass. We finally called Screw at Guitar Grapevine in Denmark Place (Tel: 836 3300, plug, plug) who was willing to let me take a bass home for a few days whenever I wanted, despite the fact that they only had one in the shop at the time. Grapevine has apparently been importing the bass directly from the States and offer it at £425, which is roughly the equivalent of the American list price, and they offer good after-sales service.

The bass is otherwise, as far as I know, available only from 20 or 30 Fender 'Star' dealers around the country and I don't know whether or not any of them match Grapevine's discount. But my experiences with CBS in this country leave me sufficiently dubious about the speed and efficiency of their service for me to recommend that you know your dealers well before buying from them.

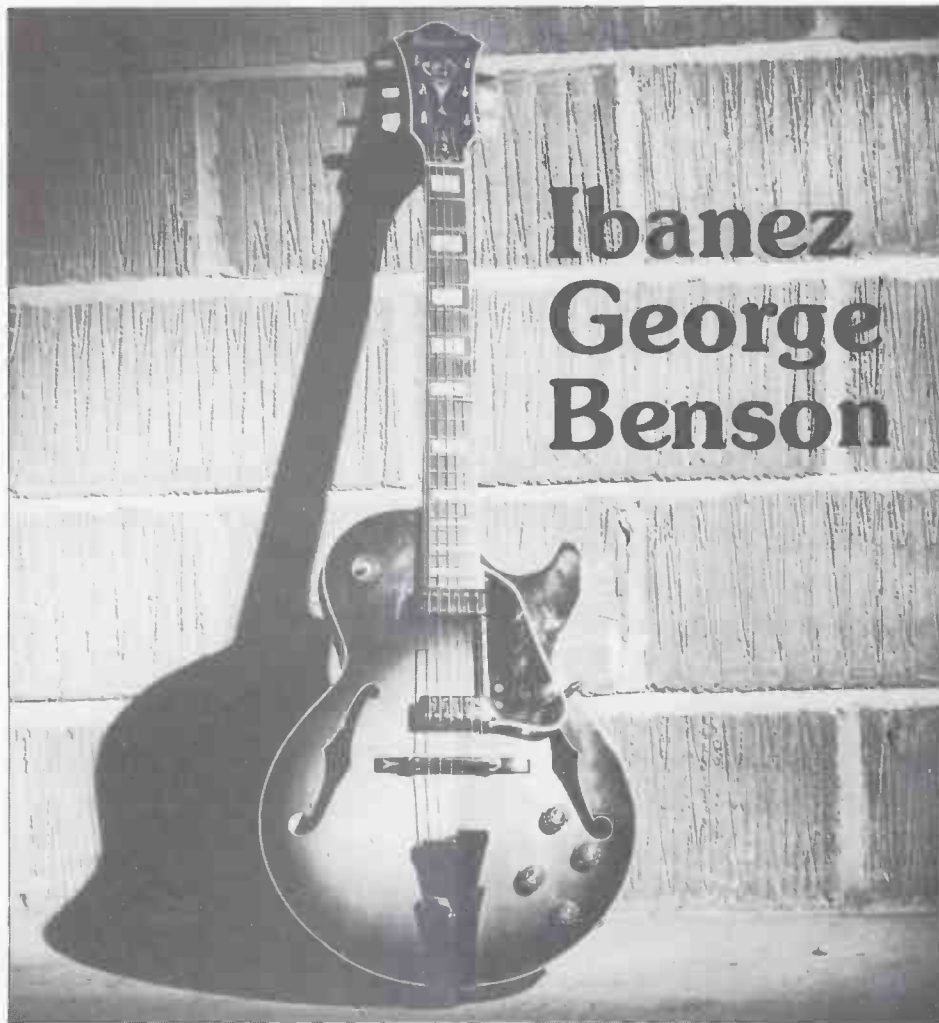
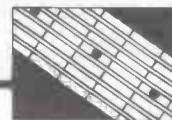
Fender have finally broken with their design and manufacturing complacency to produce a bass which is one of the finest on the market today. It would be a shame if their marketing in the UK is not as competitive as their product. ■



Schecter Bass review October '80

I feel I should advise readers of two problems I have had with this bass since writing the review. Firstly, when a truss rod adjustment was required to correct a bow in the neck, the truss rod proved impossible to turn. It was found to be twisted to its fullest extent and was so tight that it was forcing out the rosewood strip at the back of the neck. In layman's terms (ie mine) the truss rod had gone after approximately a year's use. The neck was also twisted – in other words there was a larger bow on one side of the neck than on the other. The neck would have also required planing down (re-shooting) on the portion of the fingerboard where the neck joins the body. This section had risen up, causing bad fret buzz on all strings in the upper registers. While these problems are obviously not on every Schecter neck, I would advise anyone buying these (or other) replacement necks to try to get an expert guitar repairer to choose and fit the new neck.

John Knox



Peter Mills

## Ibanez George Benson

### Roger Adams

The development of the 'jazz' or amplified f-hole acoustic guitar has been fairly well chronicled in recent years, and those who have taken the trouble to delve into the history books may have come to the conclusion that a great deal of the mystique surrounding this branch of the electric guitar family was based on self-delusion on the part of the player.

In any reasonable-sized venue, taken in context with a modestly hard driving band, even by jazz standards, the only sounds heard from the guitar are those emanating from the loudspeakers in its amplification set-up. Its acoustic properties are negligible to all but the player, who is able to feel the resonance of the instrument rather than hear it. This is not to say that the acoustic guitar body has no effect on the amplified sound – far from it, in fact. But it does mean that the old-style giant-bodied jazz instruments were found by many to be unnecessarily clumsy, and often detrimental to the electric sound because of their excessive tendency to feed back at any volume. The same warm tones could be achieved by a substantial reduction in body size, provided that certain features essential to the acoustic tone were retained, notably in the area of the bridge. Semi-acoustics of many shapes and sizes have thus come and gone, and some, particularly Gibsons, have achieved widespread popularity in rock music, for

example Steve Howe's *ES175* series guitars and the *Byrdlands* favoured by Ted Nugent.

George Benson is an artist who has 'crossed over' from straight jazz to jazz-funk, and more recently still, a sort of disco pop style centred more on his considerable vocal talents. No doubt a performer of his ability will go on to even more diverse projects. Perhaps he might even get round to playing the Ibanez which he wore like some excessive bit of jewellery for his recent promotional video! (You can file that remark under sour grapes.) George's crossover into commerciality was accompanied by a move from the more established guitar manufacturers, such as Guild, to the newer Japanese firm of Ibanez, which undertook to build not one but two George Benson models, to the great man's own specification. The *GB20* is the more purist (whatever that means) of the two instruments, featuring a larger body, a single pickup and one solitary volume control; presumably for use when Benson (not the butler in *Soap* – the musical one) fancies a bit of mellow jazz. The *Grievous Bodily IO* is the instrument under scrutiny.

#### Acoustic

The first impression on seeing this guitar is that it is a true reflection of its endorser – handsome and flashy, and perhaps rather commercial. There is something utterly intangible about the

Ibanez guitars which prevents me from enthusing about them, a sort of too-good-to-be-true feeling. The finish of the wood, the predominance of gold hardware, all strive to impress a sense of quality, and yet no Ibanez I have played has had any heart or character at all.

The *George Benson* model pulls out all the stops in its attempts to gain respect, and probably comes nearer than any other Ibanez to doing so. I think it only fair to point out here that its main competitors are American instruments costing a great deal more. However, £565 is a lot of money to most of us, and you could be forgiven for expecting a very high quality instrument indeed for the price. You could also be forgiven for expecting a case to keep it in, but here you will be disappointed, to the tune of an extra £115 (for which, incidentally, you could have bought my old Guild solid from me a few months ago, complete with flight case!).

The business of owning a semi-acoustic is patently not for those with meagre resources; underpaid guitar reviewers for example. Another thing to bear in mind is that the financial rewards for playing in the style to which this guitar is suited are few, on this side of the pond at least, and most professional players would opt first and foremost for a high quality solid, which would offer greater versatility in everyday use; or, failing that, something like a *335* which is probably least prone to feedback of any semi-acoustic.

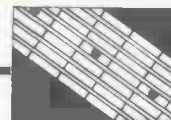
As a purely acoustic instrument, and like most other guitars in its class regardless of price, the *GB10* is a non-starter. The small body (it only just fails to fit into my Yamaha *SG2000*'s case), thick spruce top and centre block are not designed to perform acoustically, but rather to provide, in conjunction with the movable ebony bridge, that specific envelope essential to the jazz guitar sound without the drawback of size. In other words, it is only as acoustic as it has to be!

Credit should go to the designer, whether it be Ibanez or George himself, for economy and efficiency in this respect. The decreased body size allows extra access to the higher frets, and greater comfort for the player all round.

This light and manoeuvrable guitar features a good slim rock maple neck stemming from an obtrusive heel, culminating in a typically Ibanez-shaped head. The curvature is very comfortable, and combines with a low action to provide a very easy-to-play instrument, despite a heavier gauge of string than I normally use – though lighter than the heavy tapewound strings fitted to most jazz guitars in the shops, which are enough in themselves to deter many a would-be convert from the rock guitar school.

As previously stated, the bridge is of the traditional, movable, two-piece type which allows overall adjustment for scale length and action height but not individual string intonation. This means a slight compromise is necessary when placing the bridge, and if too light a gauge is used, things can start to get pretty messy. Although individually adjustable bridge saddles are not incorporated, the bridge has been shaped so that relative scale lengths are set for each string, which reduces the extent of the compromise in setting up the octaves.





The drawbacks of this type of bridge must be tolerated in order to achieve the jazz sound, of course. No metal bridge can approach the warmth of the wood-on-wood design, despite its bygone technology, and that really is all there is to it.

The tailpiece, however, is another matter. All too often the tailpiece of a semi-acoustic is very ornate, but lightweight at the point where it is screwed to the body. Ibanez have designed a very chunky unit indeed, which is both attractive and useful as it offers adjustability of string angle across the bridge, the three upper strings being independent of the lower three, each group being variable by means of knurled knobs which in effect lengthen or shorten the tailpiece. This unit, although difficult to describe, is straightforward in use and its operation is easily understood at first glance, so I suggest you toddle along to the music shop and have a butcher's if you're curious.

The nut is well executed, featuring a partially brass construction for clearer definition of the open strings. Actually, it seems a little strange to me to use a half-brass nut in conjunction with a wooden bridge, but as the guitar gives the impression of being well-researched in most respects, I am prepared to believe that there are valid reasons for this choice of apparently conflicting materials. The resultant sound, as I have said, is a sweet tone appropriate to jazz, but exhibiting no unusual qualities of attack or sustain.

Regarding the finish of the fingerboard, there are no complaints. The fretting, which is done with a wire which few people will find fault with, suits my left hand. String bending is, of course, not an important consideration on this instrument. The ebony fingerboard has rectangular block inlays with broad diagonal mother-of-pearl finished stripes, which are a little more than my taste caters for. Some may think them attractive, however.

On the subject of inlay, the design featuring the letters GB on the head is not for the purpose of identifying the instrument's nationality as it speeds down an *autobahn* – but you knew that all the time, didn't you? On closer examination, this inlay looks a little flawed and blotchy around the edges, but there again so would you if a lot of Japanese craftsmen had been working you over with the tools of their trade for any length of time. While examining the head, I should point out the machines which are an original Ibanez design with pearl-finish plastic buttons and enclosed gears. This makes a welcome change from imitation Schallers, especially as the Ibanez machine heads seem to do an equally good job.

Just before moving on to the electrics, it's worth mentioning the attractively-grained maple used for the instrument's back and sides – or rather, the visible surfaces thereof. Taken in conjunction with the ebony, the gold-finished metalwork and the imitation tortoise-shell of the pickguard and tailpiece decoration, the overall effect is a bit much for my taste. But I would still put the instrument on the right side of the line dividing flashy from gaudy.

## Electrics

To detract as little as possible from the

amplified acoustic sound, the designers of the instrument have opted, even on the two-pickup version under review here, for floating pickup mountings. This came as quite a surprise to me, I must admit, as the original publicity material I saw a couple of years back for this range appeared to indicate more orthodox mounting procedures for the two-pickup model and a floating pickup on the GB20. However, it is more than possible that I wasn't paying proper attention – I used to be a bit like that, you know. Now, what were we talking about? Oh yes. The neck pickup is mounted by means of a U-shaped bracket fixed permanently to the pickup cover, and screwed to the sides of the portion of the neck which overlaps the body. The height of the pickup is not adjustable and is set fractionally lower than the fingerboard, which puts it slightly less than a quarter of an inch from the strings.

The bridge pickup, on the other hand, is adjustable for height by means of a screw and spring arrangement in the pickup, to which the pickup is mounted. Adjustment raises or lowers not only the pickup but the pickguard as well, and the angle of the pickup to the strings varies as well. When the pickup is brought near the strings, the bass end tilts higher than the treble end. However, despite such limitations, it seems that Ibanez have carefully chosen the pickup height for the instrument in the first place, and as the sort of player who uses this instrument is unlikely to want to wind the pickups right up close for maximum output, extreme adjustability is not really missed.

The pickups themselves are about the same size as small Gibson humbuckers, with gold metal covers and adjustable polepieces. I am wary of commenting on their sound, as they are obviously going to behave far differently on this acoustic body from the way they would if mounted on a solid; suffice to say that I am assured by Summerfields, the distributors in this country, that the pickups were specified by George Benson himself – to what detail no-one seems sure – and that they are unique to the *George Benson* guitars. Oh, all right, if you really must know they give a sort of 'George Benson' sound. Happy now?

As far as output level is concerned, I wouldn't recommend the pickups for overload and distortion, but there is ample signal to get a strong clean tone, which is surely the purpose of having a guitar like this in the first place. I found the middle position on the selector switch seemed to reduce the output a little; the neck pickup is my favourite sound, and is probably the sound that the guitar was originally aimed to give, with the bridge pickup added to give bite to more attacking pieces of music. Overall, the guitar's sound is subtle and clear but perhaps not outstandingly strong or expressive.

The tone and volume controls perform adequately, and have attractive, comfortable knobs fitted with non-slip rings to help sweaty fingers. The jack socket is on the bottom edge of the body, which, as regular readers are aware, is a pet hate of mine – and there is plenty of fine maple to carve up with your heavy-duty brass jack plugs on this instrument. In addition to this, with the high-quality, heavy,

coiled leads that many players use nowadays, even a socket with good gripping power (and I am afraid I cannot include the Ibanez unit in this category) can come off second best in a tug-of-war if Isaac Newton is chucking his weight in on the side of the lead. At least if the socket is on the *front* of the instrument the pull is not direct, and accidents less persistent. A good test is to stand with your back to your 100 watt Marshall stack, guitar plugged in and ready to go. Get a roadie to fire a starting pistol or shout 'Go!' and run away from the stack as fast as you can. A good, reliable lead-and-socket arrangement will pull the stack over on top of you – well worth a try in your local music shop before buying a new guitar lead.

Finally, a detail of the electrics I like is the rubber surround where the three-way selector is mounted on to the body. This is to muffle the amplified bang transmitted through the acoustic body when flicking the switch, and it is quite effective.

## In Use

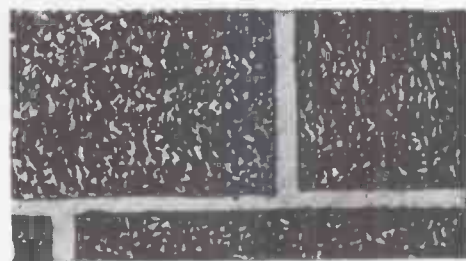
If you want a guitar to drown out the rest of an ill-disciplined, volume-crazed gang of heavy-metal herberts, then forget it. At really high levels, the *George Benson* will feed back in an uncontrollable manner, and no matter how much you may think you'll like an instrument that does that sort of thing, it will soon drive you nuts.

However, the guitar behaves itself up to quite a usable level in more controlled and sound-balanced musical environments, and should suit players of taste and knowledge. It's the sort of instrument your parents will approve of – 'Ah, now that's better, dear, why can't you play like that all the time' *etc, etc* – and will encourage you to play in a melodic, chord-based style as opposed to going *KERANGG* and bending the G-string twice round the neck.

It will either annoy you because it highlights your shortcomings as a player up a musical *cul-de-sac* (or 'arse of bag', literally translated), or it will encourage you to explore *Joe Passtures* new. That's if you can afford this sort of dabbling. For others among you (us?) I would just conclude by saying that I recently experienced *Jim Mullen* having a blow at our local jazz and booze club during which he pulled some beautifully fluent jazz out of a *Tele* and an *AC30*. It is, of course, all down to the player in the end. Buy the Ibanez *George Benson* model, as you should any instrument, if you like it and it suits your music – not because you think by so doing you'll find out how to play like Benson.

## Measurements

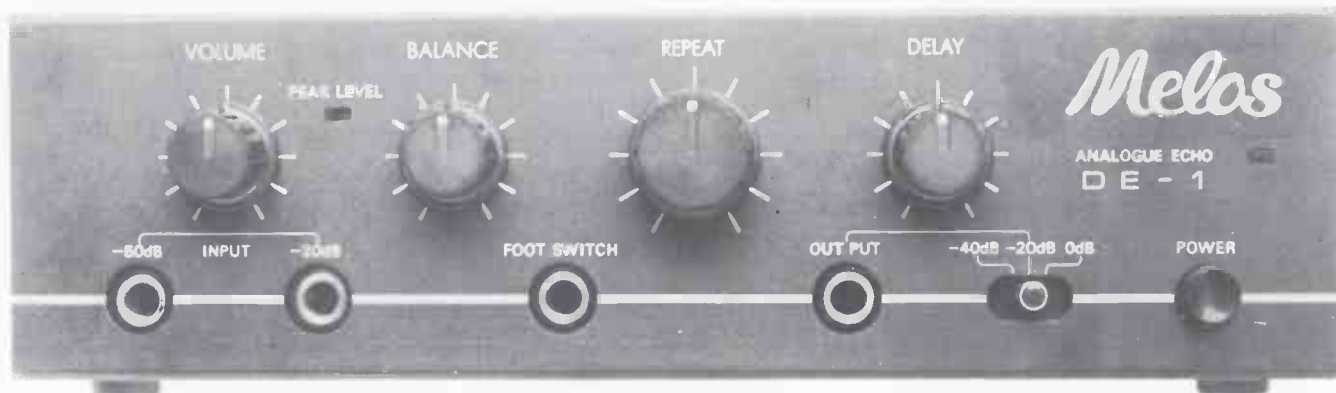
Scale length: 24½in; Fingerboard width at nut: 1½in; Overall length: 41½in; Maximum width: 14½in.





# Analogue Echo Boxes

Roger Phillips



Analogue boxes are generally neat and tidy and very controllable, but they do tend to suffer a bit in the quality of the delayed signal when compared to the tape echo boxes reviewed in the December ish. Advantages are, that they can produce shorter delay times for double voice effects *etc*, and they need no regular servicing (like tape replacement or head cleaning).

There are five boxes in this review coming from Melos, Evans, Korg and Yamaha, and all owing allegiance to the land of the rising sun. I think it's about time young Freddie Laker got involved in the electronics business. Every item in December's review and this month's either comes from Japan, or from that nice, new Mr Reagan's country, and I reckon any public-spirited, fully paid-up members of the world ought to think good and hard before putting any more money his way.

You might like to check out the reviews of the Roland *DC-10* and Ibanez *AD-150* Analogue boxes in the August '79 ish of *SI* before parting with any of your hard earned Yen. Yep, you guessed, they're Japanese too!

## Melos DE-1 Analogue Echo

**Price:** £85 inc VAT **Size:** 10x6½x3½ ins **Weight:** 3½ lbs **Controls:** Volume, balance, repeat, delay **Construction:** Metal case finished in black **Distributors:** Fletcher Coppock & Newman Ltd, Kent.

Like the Melos *Echo Chamber*, the *DE-1* Analogue Echo is superior to its direct competitors in one very important respect – price. It's cheaper than any other analogue machine of the box or foot pedal variety, and, in fact, the only cheaper repeat echo device on the market is the Melos *Echo Chamber*.

On the left of the front panel the *DE-1* had a -50dB input for mics and a -20dB input for instruments, both of which are

connected to an Input Volume control and a Peak Level warning light. To the right, accompanying the Output socket, there's a switch for three output impedance settings of -40dB, -20dB, and 0dB, and a push-button type mains switch with indicator light. The Balance control, second from the left, is a conventional Mix type that pans from direct signal only at 7 o'clock right through the mixed sounds to echo only at 5 o'clock. (Unfortunately, unlike its sister unit the *DE-1* does not have numbered controls). I found a fair difference between the direct and delayed signal quality on this box, the delay losing a lot of treble and thus a lot of bite, but the quality isn't at all bad when you consider the price.

An effect by-pass footswitch socket separates Balance from the Repeat control which gives the usual single echo at 7 o'clock, and adds more repeats until reaching the runaway condition at around 3 o'clock. The Delay control offers continuously variable delay times from 30mS at 5 o'clock, right through to 200mS at 7 o'clock on the dial, giving good double voice effects (with single repeat) at one end, through reverb sounds and slap-back, to multi echo effects at the other. However, when a fair amount of delayed signal is mixed with the direct you can hear quite a bit of background hiss coming in. This is especially noticeable when you pass the half way mark on the Balance control, and is substantially greater than on the Evans *EP-50*, but I don't think it's

bad enough to cause too many problems in practice.

The Melos *DE-1* is undoubtedly excellent value for money, as long as you don't expect it to perform as well as units costing three or four times as much.

## Evans Echopet EP-50

**Price:** £125 inc VAT **Size:** 8½x6½x2½ **Weight:** 3lbs **Controls:** Volume, balance, repeat, delay **Construction:** Black aluminium case and moulded plastic fascia **Distributors:** John Hornby Skewes & Co Ltd, Leeds.

With its moulded plastic control panel the *EP-50* looks more like a car radio than a piece of musicians' hardware, but other than that, it's very similar in nearly every respect to the Melos. It has similar controls, in the same order, volume, balance, repeat and delay though they're a little more squashed together on the Evans as it's quite a bit smaller than the *DE-1*. Like the Melos it has two jack inputs, this time marked Mic and Instrument, and the same three output impedances to choose from. Again it has a push button mains on/off switch on the right, but this time connected to a green indicator light, to distinguish it from the red Peak Level indicator situated between the Volume and Balance controls.

The Evans offers a slightly wider range of delay times, 20-200 mS, and so as well as all the effects that the Melos can

▷▷





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achieve, the *EP-50* will also give a slightly harsher more metallic double voice or reverb effect when the Delay control is turned down to its shortest time. All the other effects are good, and it offers a quality of delayed signal that is as true to the direct sound, as any analogue machine I have ever heard. This is especially noticeable on vocals where the Evans seems to retain the high frequencies that most analogues lose along the way.

There's a fuse holder situated on the back panel, and beside that is the effect bypass footswitch socket, with plastic footswitch supplied. Doesn't look as if it would last too long under the average size 10 boot though. The *EP-50* is the junior member of a trio of boxes from Evans comprising the *50*, the *100*, and the *250*. The *100* offers a similar delay range to the *50* but also has two Mic and two Instrument inputs with a Volume control for both types, stereo output facility, and an effect Tone control. The *EP-250* offers Delays of 60-400 mS, the same inputs and outputs as the *100*, separate Bass and Treble controls, and a built in reverb.

#### Korg SD-200 and SD-400 Signal Delays

**Price** SD-200 £160 inc VAT, SD-400 £245 inc VAT **Size:** 15½×6½×2¼ ins **Weight:** 4½ lbs **Controls:** SD-200, Two Volume Controls, delay time, feedback, effect level, tone; SD-400, Two Volume Controls, mode selector, delay time, feedback, effect level **Distributors:** Rose Morris & Co Ltd, London **Construction:** Aluminium box with silver panel on SD-200, and brown panel on SD-400.

Apart from the obvious difference in colour, these two units from the Keio Electronic Laboratory Corp are almost identical in appearances. This is somewhat deceptive, however, and though they share similar input, output, footswitch, and mains facilities, there are significant differences in the rotary control department. These again appear identical in layout but closer inspection reveals that the *SD-200* offers some control over the tone of the effect signal, while the *SD-400* boasts instead a click-stop Mode Selector with six different sounds to choose from. I'll take a look at the *SD-200* first and then explain how the 400 differs.

To the left of the control panel are the Channel A and Channel B input sockets complete with a three-position level selector for Channel A. The owners manual very helpfully suggests that the -20dB position is for synths, other keyboards, and PA mixers etc, -35dB is for electric guitars, high output mics etc, and the -50dB position is for microphones. Channel B is -50dB and is for mics only.



#### SPOT THE DIFFERENCE.

*Korg Signal Delays, SD-200 (top) and SD-400 Deceptively similar but significantly Different.*

Channel A and B have separate Volume controls and above these is a sequential Peak Level indicator comprising six green and three red LEDs.

To the right of the rotary control section there's the effect bypass footswitch socket, the mains on/off button with indicator light, and two output sockets with a three way Output Level Switch. The two output sockets give Effect signal only, and Effect plus Direct respectively, and the owners manual again gives some helpful hints with regard to the best use of the Output Level switch. They recommend that you should use position -20dB through the Aux inputs of your home stereo, or a PA mixer, or power amp etc, position -35dB for guitar or bass amp, and -50dB on vocal amps, or into mic input jacks on vocal mixers etc.

However, the manual gives no indication whatsoever as to the range of Delays on offer from the Delay Time control, but a comparison with the 400 gave an estimated 40 - 400 mS, a comprehensive enough range to allow for double voice, slap-back, reverb and multi-echo effects. The Feedback control acts in much the same way as any other Repeat Period device, and the Effect Level gives direct signal only, at 7 o'clock, and mixes more and more effect signal to it, when turned in a clockwise direction, ending up with a slightly louder echo than direct signal at 5 o'clock.

The Tone control is very much the saving grace of this unit where vocals are concerned. Because of the electronic method used in analogue boxes to delay the signal, some of the clarity is lost. When the delay time is increased the bandwidth is gradually reduced as the same circuitry is used for both functions. So while short delays produce reasonable quality, longer delays become muted and less distinct. While a tape echo can give a good facsimile of the direct signal for up to half-a-dozen repeats, analogues have a tendency to turn a word like 'six' into 'ix' on the first repeat, and 'umph' from there on. This obviously matters far more for vocals

than for instruments, but if you're fussy about your sound you might care to bear it in mind. To get a delayed sound from the *SD-200* that was anywhere near as true to the direct vocal sound as the Evans *EP-50*, I found I needed to have that Tone control turned full up, giving as much treble to the sound as possible.

Unfortunately, as I mentioned earlier, the *SD-400* has no Tone control, and unbelievably the one sound it offers is the equivalent of the *SD-200* with the Tone control turned right down. For that reason I definitely would not recommend the 400 for vocal use, but for guitarists the Mode selector makes it a very useful performance-orientated machine indeed. There are six different settings on offer, labelled Direct (self-explanatory), Short Delay, Long Delay, Swell 1, Swell 2, and Double Track. The Short Delay setting gives delay times of 25-100 mS (depending on the Delay Time control) and is ideal for producing double voice and slap-back effects. Long Delay offers 100-400 mS delay giving a very full range of echo effects. The curiously named Swell 1 and Swell 2 settings produce irregular echoes that are difficult to explain verbally, but if you've ever tried selecting different combinations of tape play heads on a WEM Copicat, you'll know what I mean. Because these two settings offer a greater concentration of repeats they can be used along with the Feedback control to produce very convincing reverb effects. Last on the dial is the Double Track effect which varies from a double voice sound in that it brings into play a low-frequency oscillator which continuously varies the 30-70 mS delay time throughout a two-second cycle. This gives a true Automatic Double Tracking sound that again is not too hot on voices but sounds really great with guitar - very Pat Metheny.

One other difference between the two machines is the numbered control dials on the *SD-400*. Strange really, if it was a good idea for the 400, why not for the 200? Oh well, perhaps that's what you pay the extra 80 odd quid for.





### Yamaha Analog Delay E 1005

**Price:** £255.60 inc VAT **Size:** 15½ x 8½ x 3½ ins **Weight:** 7½ lbs **Controls:** 2 Input Volumes: delay, feedback, mixing, modulation speed and depth **Construction:** black aluminium **Distributors:** Kemble Yamaha, Milton Keynes.

The *E 1005* is quite a bit larger than the other boxes in the review, but despite that it's very handsome in appearance and neat in layout. All the rotary controls have numbered scales and are recessed in their own separate housing; jack sockets and selectors are recessed beneath.

Under the gold Yamaha logo, to the left of the front panel, is the sequential Input Level display and the mains on/off button and light. There are two inputs on the *1005* each with its own Volume control, and Input A is strictly for mic use, while Input B is switchable from Mic to Instrument. The range of delays offered by the Delay control varies according to the position selected on the Short/Long switch. The Short delay range offers 4-9 mS and can be used together with the Modulation section to produce such effects as Vibrato, Flanging and Chorus. Long Delay gives 65-400 mS delays and can therefore be used to produce slapback, repeat echo, and reverb sounds, and in conjunction with the Modulation department, can also produce a true ADT sound comprising a single 65 mS echo and slight pitch deviation to thicken the sound. The Yamaha produces a very good, clean delay sound for an analogue machine, it's certainly better than either of the Korgs for vocal use and guitar.

The Feedback control offers the normal repeat facilities giving single echo at zero, and as the owners manual explains, 'when the Feedback control is turned close to the position of 10, the so-called oscillation phenomenon will generate because of the excessively increased feedback amount. It, therefore, is not to be mistaken as an abnormality of the set', so there! Mixing, is a straight forward mix control offering direct signal only at zero panning to delay only at 10, and the output socket beneath gives the mixed sound. The Delay Only socket offers just what it says, and to its right there's an effect bypass footswitch socket.

However it's the Modulation department that makes this machine different to

all the rest. Like most Phasers, Flangers and Chorus units the *E1005* has Speed and Depth controls that alter the rate and intensity of the pitch deviation introduced into the sound, thus enabling you to produce all those effects already mentioned. The owners manual gives diagrammatic instruction on how to achieve some of these effects, but unfortunately shows the true ADT setting under the heading of Chorus. Good, subtle Chorus effects are available, however, with a delay setting of 9 mS, no Feedback, and settings of 8 and 3 on Speed and Depth.

This is a great machine for PA use especially if you have someone to twiddle the knobs for you. Sounds just as good with guitar too, but it is not a performance orientated machine and it would be quite difficult to program up all those effects during the course of a gig. But I reckon this unit is just about ideal for the home or budget recording studio, and certainly wouldn't be too out of place in a top professional studio either. Yamaha also produce the *E 1010* Analog Delay which costs £385 inc VAT and sports just one Input and Output, but offers instead Bass and Treble controls, and a five push-button Delay Selector with a continuously variable range of delays from 3-300 mS.

A direct comparison of the five units in this review reveals, once again, that basically you get what you pay for, with one or two exceptions. The Melos *DE-1* is amazingly cheap and reasonably cheerful but lacks the quality of the Evans *EP-50* which costs around £40 more. In fact the Evans offers as good a delayed signal sound as the Yamaha *E1005*, but falls behind a bit on input/output facilities, long delay times, and a few other refinements. The Korg *SD-200* is around 35 quid more than the *EP-50* and comes reasonably close to its delay sound, with the treble turned full up, and has double input/output sockets. The Korg *SD-400*, at around £80 more than its brother, has by far the worst delay sound for vocals, but it does have that six stage mode selector which makes it a very useful on-stage unit for guitarists. Lastly, another tenner will buy the Yamaha *E1005* which sounds as good with voice as it does with guitar, and it has all those modulation effects as well.

Pick of the cheapies is the Evans *EP-50*, but if money's no object, then it's definitely the Yamaha *E1005* for me □

# MADE FOR EACH OTHER



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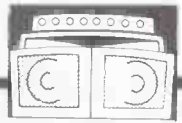
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# PA: Speakers 1

Ben Duncan

The heaviest and bulkiest and most imperfect parts of any PA rig are the speakers. These objects seem frequently to need to be thrown into trucks at unsociable times or carted up endless flights of narrow stairs. Unless your musicianship takes second place to masochistic urges, it can only make sense to use the most efficient speakers, with the ultimate aim of getting brain damage SPLs (Sound pressure levels) from something pocket sized.

The commonest types are rectangular boxes or direct radiators, domestic hi-fi versions of which are typically 0.2% efficient. In exchange for sound quality, the efficiency can be raised to 2%, as in disco and small PA 'cabs'. At low frequencies, we can use reflex enclosures, which look substantially similar, except for the presence of a vent or duct. These are typically 2-4% efficient in the bass regions, whilst highly tuned versions of these, identified with the name 'Thiele', can achieve 8-10% efficiency. But the mainstay of the world's most powerful sound systems and the most pragmatic hi-fi enthusiasts alike is the horn-loaded enclosure.

Horn speakers were developed in Britain and the US in the 20s. Later, they found wide acceptance in cinema and stadium sound systems, particularly in the US. These venues were duly subjected to rock'n'roll bands, who made use of these house PAs. Later, bands started to take their own monster bins out on the road. At the same time, British bands started to tour the States *en masse*, and on returning, they too wanted to adopt horn-loaded PAs. And so the rock PAs of the 70s were largely based on cinema speakers designed in the 30s, 40s and 50s. In the past decade, people have been discovering how to realise the theoretical beauty of horn-loading and, hardest of all, how to make it sing sweetly on behalf of rock music.

Horn speakers are typically 20-50%

efficient and can provide arguably the most realistic and transparent sound reproduction available. The muddy sound of direct radiators (due to IMD) is exchanged for low order harmonic distortion, so horn-loaded systems at their best can sound 'punchy' – not unlike valve amplifiers; they empathise with rock. High efficiency means that a 300 watt horn loaded stack is as loud as some 3000 watts of 'PA cab' type direct radiators, or 30kW of top notch hi-fi monitoring speakers. And naturally there's a saving in size, weight and cost, without even mentioning the greatly improved sound quality at high levels.

Bins, bullets and horns are all expressions for horn-loaded loudspeakers; that is, cone speakers or compression drivers that are coupled to a horn – which



usually limited to three octaves, or fewer in the best systems, for the sake of clean sound. So if a midrange horn has an  $f_c$  of 150Hz, it would be used between 300Hz and 1200Hz (or thereabouts). Fortunately, it's permissible to make bass and/or treble horns cover slightly more than three octaves, so we can comfortably cover 18Hz-20kHz (10 octaves) with a minimum of three horns. It's impossible to get acceptable sound with fewer, particularly at high levels.

The size of a horn's mouth is governed by the wavelength of the lowest frequencies it handles, thus bass horns (bins) are inherently big-mouthed. This means all horn-loaded systems have a minimum size, regardless of power; my domesticated bass horn used for shaking the neighbours out of bed on 1 watt is no smaller than a 600 watt bin used on the road – music needs low bass – so both need to be big-mouthed. In theory, for a tolerably smooth response down to 18Hz, a mouth area of at least 40ft<sup>2</sup> is required – that's 6ft x 6ft! Practical on-the-road anti-hermia-campaign-recommended bass horns are usually smaller than this, and compromises have to be accepted until one day musicians mutate into a race of giants.

A single, sensibly-sized bass bin will rarely have a smooth response below 80Hz or thereabouts, and frequently has an  $f_c$  of 50 or 60Hz. Fortunately, it's possible to drive one of these down to  $f_c$  without damage because the ordinary cone speakers used in these horns are rugged, but nonetheless, the bass won't sound too smooth. In a big rig, a lot of

is essentially an expanding tube. The idea is to couple the speaker to a large volume of air, and get the stiff cone to couple more tightly and efficiently with the floppiness of the surrounding air. This is rather like a brass instrument – trumpet players are really horn-loading their vocal cords. As a result, trumpets are rather loud instruments . . .

All horns have a low frequency limit – the cutoff frequency ( $f_c$ ) – below which they cease to couple tightly with the air, and the output falls sharply. Below this frequency, the driver is no longer loaded and is prone to flop around; a compression driver may well self-destruct. For a smooth, uncoloured sound it's usual to crossover the horn an octave (an octave is a doubling of frequency) above  $f_c$ . The band over which the horn is driven is





these small bins can augment each other provided they are tightly stacked, but if you only have one or two bass bins, they won't make a big enough wall to help the bass frequencies launch into the hall. This wall-loading effect, which extends the bass response, can be improvised by adding baffles either side of the bass bins. These need be nothing more elaborate than bits of plywood, say 3ft x 4ft, clipped on to each side of the bin. If the stage reaches to the edge of the hall, you can do one better and put the bins in the corner; this corner loading will extend the bass by an octave. Whilst trying to eke the lowest bass from your stacks, it's worthwhile bearing in mind that speakers of a given diameter vary in the amount of bass they give. 'High sensitivity' usually means lots of midrange at the expense of good low bass response.

Since bass bins don't need to reproduce anything above 300-500Hz, they positively thrive on very large diameter speakers – or multiples thereof; 2 x 15in, 2 x 18in, 4 x 30in(!). Such speakers are frowned upon in direct radiators because of their poor midrange sensitivity. By contrast, it's fair to say that many bass bins are not working to their full potential simply because the speakers aren't able to work hard enough at low frequencies; there is little point in carrying around an enormous hulk of wood capable of inflicting sonic destruction if the puny 10in speaker inside decides it's had enough at 120Hz. Lastly, if the bass is boomy or floppy, it can be 'tightened' by rolling the bottom end off sharply in the crossover. Better a smooth response to 60Hz, which cuts off sharply, than attempting to get 20Hz from a bin with an fc of 50Hz.

Apart from having big mouths, bass horns are often long, and to make them more manageable, it's common to curl them up. Provided the bend is correctly designed and well placed, these *folded* horns are as good as any other, except that high frequencies have difficulty in getting around the bend. But since the intention of a bass horn is to reproduce bass – y' know, de low notes man – complaints about poor response are purely a misapprehension; horns are specialised speakers, tailored for high efficiency and low distortion over a narrow range of frequencies, usually three octaves at most.

## Dispersion

PA speakers must have moderate and well-controlled dispersion; a speaker which splashes out sound in all directions is wasting power – particularly outdoors – and is likely to aggravate any feedback tendencies or excite anti-rock campaigners. On the other hand, a speaker which projects a laser-like beam of sound isn't much good for covering your audience, unless you forgot to advertise the gig! One of the many advantages of horns

is that, unlike other loudspeakers, their dispersion characteristics are readily tailored.

The dispersion characteristics of a speaker are governed largely by the diameter of the sound source (the diameter of a direct radiator's cone speaker or a horn's mouth) in comparison to the wavelength of the frequency it's handling (eg: 40Hz = 28ft, 400Hz = 2½ft, 4kHz = 3½ft). When the sound source's diameter equals or exceeds the wavelength of a particular frequency, the dispersion narrows to a beam. At the other extreme, when the sound source is much smaller than the wavelength being handled, the sound dispersion tends to be very broad – even omni-directional. This explains why direct radiators and bass reflex cabinets have such a disappointing bass sound in a large hall; a 12in speaker is much smaller than low bass wavelengths, so the low frequency dispersion is omni-directional – it almost tends to cling around the speaker, only sounding good when you're close up. A bass bin's mouth diameter, however, whilst not necessarily equal to the wavelength of a 40Hz note is certainly a step in the right direction; the result is that most of the bass is channelled towards the audience. Bass 'bins' have throw – they *project* bass.

Direct radiators are also a nuisance at high frequencies. When a 12in speaker tries to reproduce 5kHz (eg: upper guitar harmonics) the sound dispersion is just a narrow beam: if you stand in direct line with the cone, you'll hear some treble. Otherwise, not. This effect is circumvented to an extent by sticking on a small, subsidiary, co-axial 'tweeter cone'. So once again, the cone (typically 3in in diameter) is big again to give wide dispersion at high frequencies. Unfortunately, this trick also introduces lots of intermodulation distortion. Ugh!

Treble horns on the other hand can be designed to provide almost any dispersion pattern: not necessarily by making the horn's mouth very small, but by shaping the horn's flares (the curved bit before the mouth) so that they channel the emerging sound waves as well as amplifying them. Much the same goes for midrange horns – hence their frequently grotesque, bizarre yet lovable shapes! Now since dispersion is related to frequency for any given mouth diameter, it's obvious that a PA using three or more horns to cover the audio band has a good chance of providing inherently uniform dispersion. Mid horns for instance are never asked to reproduce frequencies which are sufficiently high or low for their dispersion properties to wilt to searchlight beam proportions or balloon out to engorge the stage and microphones and so cause feedback □

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# Sound REVIEWS

## Slurs, Stops Tremolo & Damping

Laurence Canty  
*Electric Bass Guitar – A Complete  
Guide*  
Chappell £4.75

I remember, some years ago, when I bought my first bass guitar tutor book. I remember it particularly well because I spent weeks touring music and bookshops trying to find a tutor that was even reasonably up to date. My efforts, though, seemed to be in vain. Although the musical theory in the tutors I looked at was all there, the way that it was presented and, indeed, the overall content, seemed to bear no resemblance to the way that I wanted to learn to play bass.

They all seemed to be lacking in adequate tuition as far as playing technique was concerned. For instance, all the books I saw told you that you played bass guitar with either a plectrum or your thumb, and left it at that. No mention was made of playing with the right hand in different positions to get different sounds; of damping the strings; of obtaining and playing harmonics, etc.

They all had the basic sections concerning position playing, scales, exercises and, worst of all, a bunch of 'popular' tunes for you to learn to play along with. These usually had a maximum of four chords for which you used root notes.

And there I was, trying to relate root note playing to what I was listening to and wanting to play at the time. Jack Bruce was the man for me, and he certainly didn't play only root notes, nor did he play with a plectrum or his thumb. Why were there no tutors which explained finger technique, inversions, harmonics? They were certainly being used at the time.

Happily, things have changed a lot since then. Tutors are now written by 'real' bass players who have no doubt had the same problems as I did and who know what it is that today's learner wants and needs to know.

*Electric Bass Guitar – A Complete Guide* is written by Laurence Canty and I wish it had been around when I was learning. I've never actually heard of Mr Canty, but he certainly must be one of these 'real' bass players.

The book is in five sections. Firstly *Basics*. This is for the absolute beginner, who might not even know a bass from a bassoon. It deals with how to actually hold the bass; right-hand technique (including finger-playing); left-hand technique; exercises; the fingerboard (note positions); tuning; notation, etc. This first section has large, clear diagrams to illustrate some

of the points, and is very readable and very easy to understand. What I find encouraging is that it isn't crammed with hundreds of exercises – very off-putting to a beginner – but instead has a few basic ones and then, to hold the reader's interest, passes to another topic before introducing a few more exercises. Also, instead of pressing the reader to learn the fingerboard, more emphasis is given to *understanding* it: understanding the relationships between the strings and the relative positions of octaves, fifths, etc.

When it comes to explaining how you tune the bass there is an explanation not only of open string tuning but also of 12th fret and fifth and seventh fret harmonic methods of tuning. You would be surprised how many tutors don't refer to harmonics when talking about tuning.

Part two is *Harmony*. Basically, this chapter explains how to fit bass notes to chords played on other instruments. It starts with root notes, fifths and thirds. Following that there are a few more exercises, this time in various chord sequences, and an explanation of the sixth, minor seventh, ninth and eleventh notes. Under the heading of 'Other ideas' are inversions, passing notes and major-minor combinations. Now, these are the sort of terms that can easily put off the would-be player if they are just introduced, and even explained. What is necessary – and what this book does – is to relate everything to playing bass and to explain the relevance of it all. For example, that if the music is to be heavy or solid then generally you need something solid, ie a root in the bass. There are similar explanations of the other terms, but at the same time the tutor stresses the need for flexibility, making students think for themselves rather than following hard and fast rules.

The chapter is closed with a short but very informative introduction to sheet music which adequately explains chord symbols, augmented and diminished chords and key signatures. Many tutors fail by being packed with

too much musical theory – most of which is already printed in countless books on that specific topic. To include it in a tutor is, therefore, mostly padding and is often totally useless. It can also alienate the student from the more important task of learning to play. Happily, this book doesn't go in for padding.

The chapter on rhythm is a very straightforward explanation of music notation in terms of relative duration of notes and rests, and of time signatures. What is covered in this chapter is, therefore, available in lots of music theory books. Bearing that in mind, it's good to see that it isn't stretched out too much to incorporate intricate patterns. It goes as far as introducing semiquavers (16th notes), has a few rhythmic playing exercises in common time, and finally a useful section on triplet feels. Readers are then urged to revise the exercises, writing down their own lines to help improve their reading. This approach is much better than having exercise after exercise for the student to wade through. It's much more interesting and it makes students feel that they're actually making progress by being urged to create their own exercises.

The fourth chapter, *Further Techniques*, is the one that makes this book. As it says at the beginning of the chapter, it is not meant to be an exhaustive study of the techniques described, but it should provide some ideas to explore.

First is extended fingering – explaining what it is, when it is necessary or helpful, how it is done, and a few useful examples: eg chromatic runs. There are illustrations and explanations of slurs, double and triple stops, registration, tremolo, damping, percussive effects and, lastly, a good section on harmonics.

This chapter scores well because it covers modern techniques that today's learners want to know about, and talks about them in a language you can understand. The section on harmonics starts with an explanation of what they are and then goes on to

show where and how natural and artificial harmonics can be obtained. There are also a couple of simple pieces to play entirely on harmonics.

The final chapter deals with choosing equipment – guitars, strings, amps, speakers, cases etc, adjustments of pickups and bridge – and lastly, a list of several tutors and general music books as recommended reading.

When I first got this book and quickly flicked through it I had my doubts. There didn't appear to be an awful lot there and the diagrams seemed ridiculously big. On closer reading I changed my opinion. True, there isn't a lot there as far as bulk is concerned but what's there is good, relevant and important (sounds like *SI – Ed*). The diagrams are big, but you can at least *really* see what they are illustrating. Those things, coupled with a modern approach and the stress on individuality and flexibility on the part of the student make it a worthwhile tutor for the beginner on electric bass.

Paul Henderson

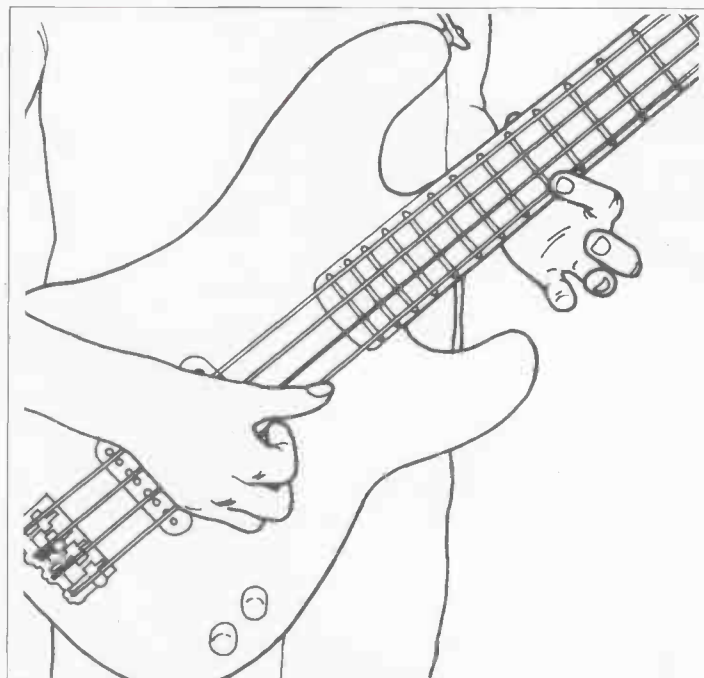
## Beyond the Valley of Edmundo Ros ...

John Storm Roberts  
*The Latin Tinge*  
OUP £8.50

Forthcoming months threaten to prove to be the winter of our greatest discontent for some time – nevertheless, the signs suggest that Latin music may finally be on the way to some of the recognition it deserves in our cold and recessed little island. Certainly, reading the music press unearths references to salsa, Brazilian rhythms or Tex-Mex music on almost every page. Ry Cooder and Joe Jackson like it, as do Chic, Aswad and BowWowWow. The appeal is pretty much across the board, so why is it that a more widespread popularity fails to catch fire?

In 1975, despite the initiative of Island Records under the guidance of their A&R man of the time, the knowledgeable Richard Williams, albums by Brazilian star Jorge Ben and a variety of salsa groups made little impression. Even a well-attended and highly enjoyable Lyceum concert by the Fania All Stars couldn't prevent the whole exercise from being a resounding failure.

Aside from the obvious factors which militate against Latin music – our lack of a Hispanic population or an uplifting climate (salsa makes much more sense in summertime Central Park, New York, or on the freeways that dissect Caracas) – there is a general unavailability of records or basic information. This latter problem is now remedied to a large extent through the publication of this new book. In case anybody thinks this is another unreadable academic text solely about people they have never heard of, I should quote the full title: 'The Latin Tinge – The Impact of Latin



Instructive diagram on artificial harmonics from Laurence Canty's *Electric Bass Guitar* tutor





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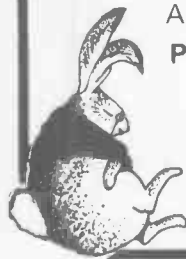
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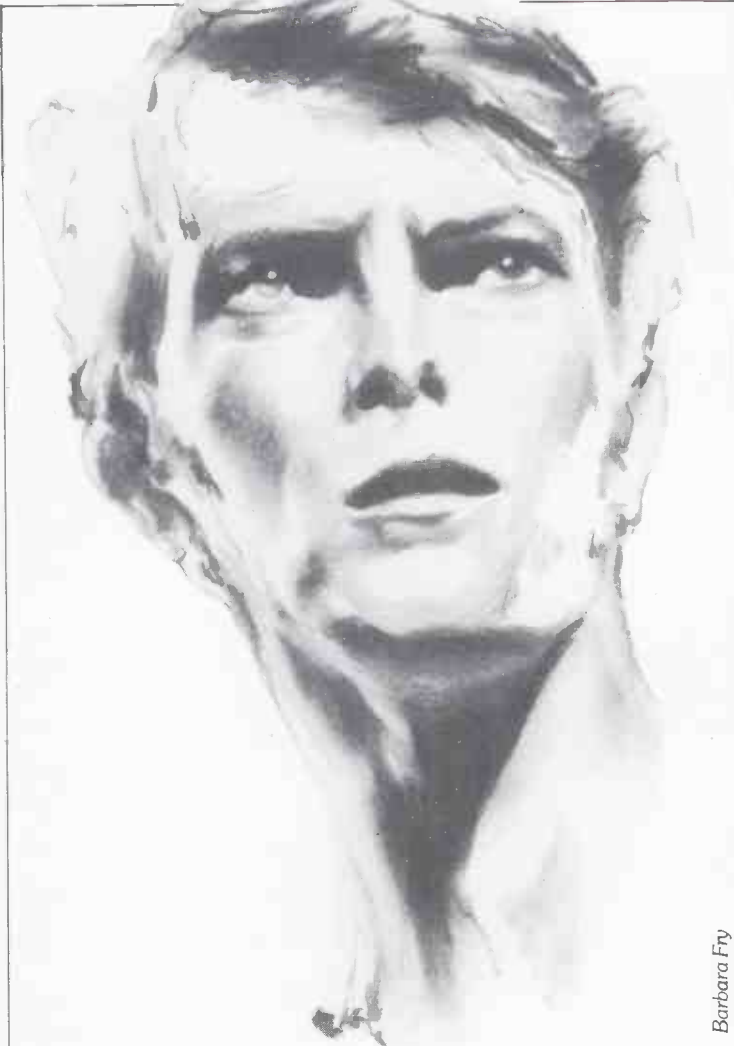
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American Music on the United States'. In other words Roberts touches on the development and effects of dance-based styles such as tango, rumba, conga, samba and bossa-nova; the Texan hybrid of Central European and Mexican influences called *norteño*; Latin jazz from Jelly Roll Morton through the Cubop of Dizzy Gillespie to Chick Corea and Gato Barbieri; the 19th century Cuban-based compositions of Louis Moreau Gottschalk and the rock-salsa of Santana. He shows conclusively that Latin influences have pervaded every facet of American musical life, not to mention its effects in England, Africa, Finland and Japan (would you believe the Tokyo Cuban Boys?).

Since it's the first book on the subject written in English there are times when the quantity of information is bewildering. This is not so much the fault of Storm Roberts, whose writing has an admirable clarity, but more a reflection of the complexity and excitement of the fusions that have characterised popular music in this century. As example follows example of Latin contributions to such fusions, it becomes only too evident that our ignorance of such a huge and diverse quantity of music, with its sources in the Caribbean, Mexico, Central America and all countries south down to Argentina, is shameful. Hopefully, all those confusions about 'South American' music can now be eradicated.

There may no longer be any excuse for factual errors, but can English prejudice be overcome? Right at the end of his book Roberts locates one of the main problems – namely Edmun-



Barbara Fry

do Ros – and has this to say about him: 'At first Ros attempted to play fairly authentic smooth Cuban dance music. But like Cugat, he found that mass acceptance did not lie in that direction. On the advice of British musician friends he got rid of most of his percussion and emphasised the melody – a formula that brought him long-lasting success, at the cost of persuading the musically minded of two generations that Latin music was contentless and banal.'

I, for one, can attest to the torture of family midday meals on Saturdays eaten to the accompaniment of Edmundo Ros on the radio. Fortunately, there is about as much similarity between his diluted, utterly undanceable music and the bands of Tito Puente, Charlie Palmieri and Larry Harlow as there is between Judge Dread and Black Uhuru.

Latin music is, and always has been, under transition, whether it's the tango of Astor Piazzola, the rock-samba of Gilberto Gil, the Chicano *norteño* of Flaco Jimenez, the traditional Cuban *tipica* of Cachao or the experiments with salsa, electronics, free improvisation, strings, popping bass and what have you by Eddie Palmieri, Hector Lavoe or Willie Colon. Anybody who still thinks that Latin music is all frilly sleeves and elevator muzak should check out John Storm Roberts' book for the best guide available to the ways in which such transitions have changed the music they listen to or play themselves. The best Latin music ranks as the most infectious in the world and *The Latin Tinge* is the best book for reading about it.

David Toop

## ... Behind the Shoulder of the Avant-Garde

1980 may well prove to have been one of the more significant years in the career of David Bowie. Or rather, the *careers* of David Bowie, because 1980 saw him finally establish himself as a legitimate actor.

By all accounts, Bowie's performance as John Merrick, the Elephant Man, in Bernard Pomerance's stage play was a remarkable one and would seem to point in the direction of further theatrical work. Where this leaves Bowie's musical career remains to be seen. Perhaps it will become a secondary activity, eventually fading into insignificance. On the other hand, it may be that having proved his acting ability, he will return to music with renewed interest.

Either way, this looks like a good time for taking stock of Bowie's achievements over the last few years. And something of the same spirit seems to have touched the man himself, for there on the cover of the 1980 album we see a paste-up of Bowie portraits from the last three albums.

Every Bowieophile has his or her own time-chart of the artist's development, with significant moments inked in and crucial works underlined. My personal interpretation marks the watershed in Spring 1977, with the release of *Low*. As RCA's crafty publicity put it, there is old wave, there is new wave, and there is Bowie. The album prompted a re-orientation of rock aesthetics that is still bearing fruit today, for better or worse.

More important than that, the album pointed out one of the most important of Bowie's qualities, that is the ability to surround himself with the right people at any one time. And in 1977, the right people were European in outlook and background. Of these, the most significant was Brian Eno.

It is to Bowie's credit that he was able to get the most out of Eno, whose previous record was one of dilettantism and sporadic brilliance. Eno brought new areas of enquiry, new experiences and, most useful of all, new methods of working.

The results of the collaboration are obvious: they are most evident in the instrumental textures of the work they produced together. The formalism of the proposed trilogy is another reflection, although whether the fragmentary *Lodger* actually completes the trilogy is a moot point. *Low* and *Heroes* were opposites: *Lodger* reflects by turns both the former's gloom and the latter's bravado. Bowie has called it a 'sketchpad' album: it is also, as its artwork makes clear, a collection of postcards home from exotic places and cultures.

And that is one of the dangers of Eno's magpie approach to music. I have a daydream, or rather daynightmare, in which I see Eno, Bowie, Byrne, Fripp and the rest of rock's intellectual *élite* flying round the world in a private jet. From time to time they stop in a remote desert or jungle or valley and leap out, cassette recorders at the ready, and note down each new musical form almost before it has emerged. Then they take the whole lot back to New York and start putting together a whole set of unlikely musical fusions. Unfortunately, some evil genius steals the master tape and starts pressing up copies of this universal music. Before long every radio station in the world is playing it, and on street corners from Bolton to Bangkok kids are doing their best to imitate it. Goodbye cultural diversity, hello homogeneity.

Far-fetched, of course (though think of McDonalds . . .), but the story points out a worryingly colonialistic trend in certain musical practices. Rock music started with a cross-cultural fusion, but it was a natural one that had had time to develop and gain strength before it was marketed wall-to-wall. That is not the same as deliberately engineering artificial fusions for the sake of stylistic variety.

*Scary Monsters And Super Creeps* marks the end of the Bowie/Eno collaboration, at least for the time being, and a return to the mainstream. It is also a resounding critical and popular success, with the ever-adaptable nucleus of Davis, Murray and Alomar in fine form. The new sound this time round is carried along on searing lead-guitar lines, mainly from one Robert Fripp, and Bowie's vocals have a new presence and urgency.

It could be argued that the album does not represent anything new, but then, despite appearances, innovation has never been Bowie's *forté*. He has always preferred to follow just behind the shoulder of the *avant-garde*, pick up some idea and bring it screaming into the market-place. He may not do things first, but he usually does them better. Even today his electronic experiments, for instance, sound rather better than anything else in the same vein either before or since.

Meanwhile, Bowie himself remains as much a mystery as ever. He seems to have mastered the art of giving long and wide-ranging interviews without actually saying anything. And while that makes life difficult for journalists, you can see his point of view. Besides, his records give us more than enough to ponder upon.

John Morrish



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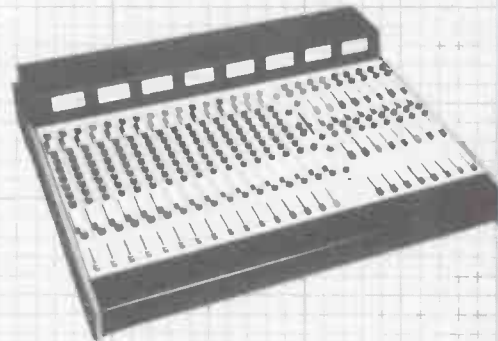
## TEAC A3440

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## TEAC 80-8

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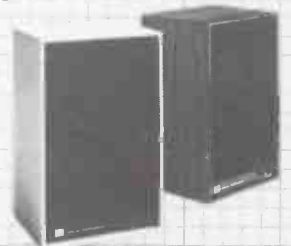
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The high quality modular mixer for the quality 4, 8 or 16 track studio. Available in virtually any configuration up to a maximum frame size of 24/8. This mixer is available together with the Brenell Mini 8 at a special package price.



## ALICE 12-48

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TEAC engineers created a totally unique format for Porta-Studio. Four tracks in sync on cassette tape at 3 3/4 ips. It's fast, simple, reliable and economical. Rehearse on it. Learn on it. Create on it. Just plug in a microphone or instrument and go to work on it.

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The full-logic cue system in Porta-Studio lets you hear everything you're

doing all the time. Input and tape cueing, monitoring for recording or mixdown are all available. And every signal can be metered. Coming or going.

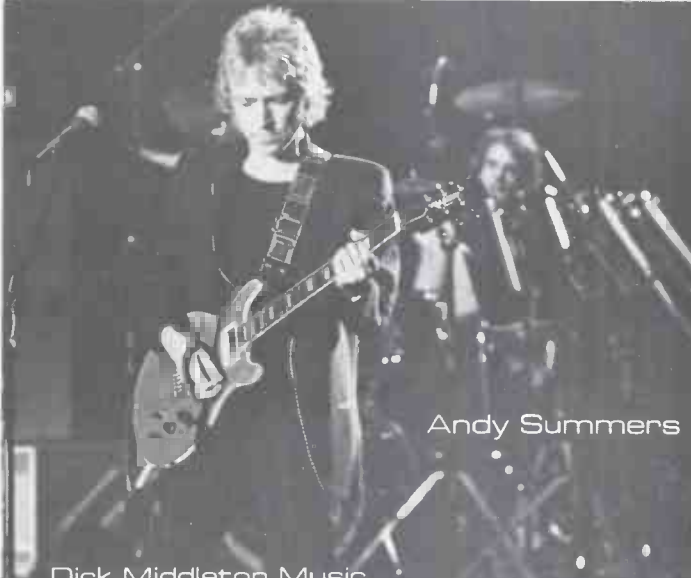
Porta-Studio's drive system is built specifically for the rugged needs of multitrack recording. Transport controls are all solenoid-operated for faster, easier switching. And you get a built-in variable speed control that lets you add special effects, fix a flat note or solve timing and cueing problems.

You can work with Porta-Studio using nothing more than headphones. Or send the output through your home audio system. You'll also find the patch points and controls that let you use Porta-Studio with equipment like echo or delay units, equalizers and additional mixers.

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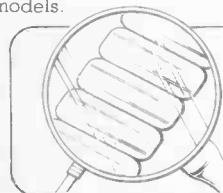
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