

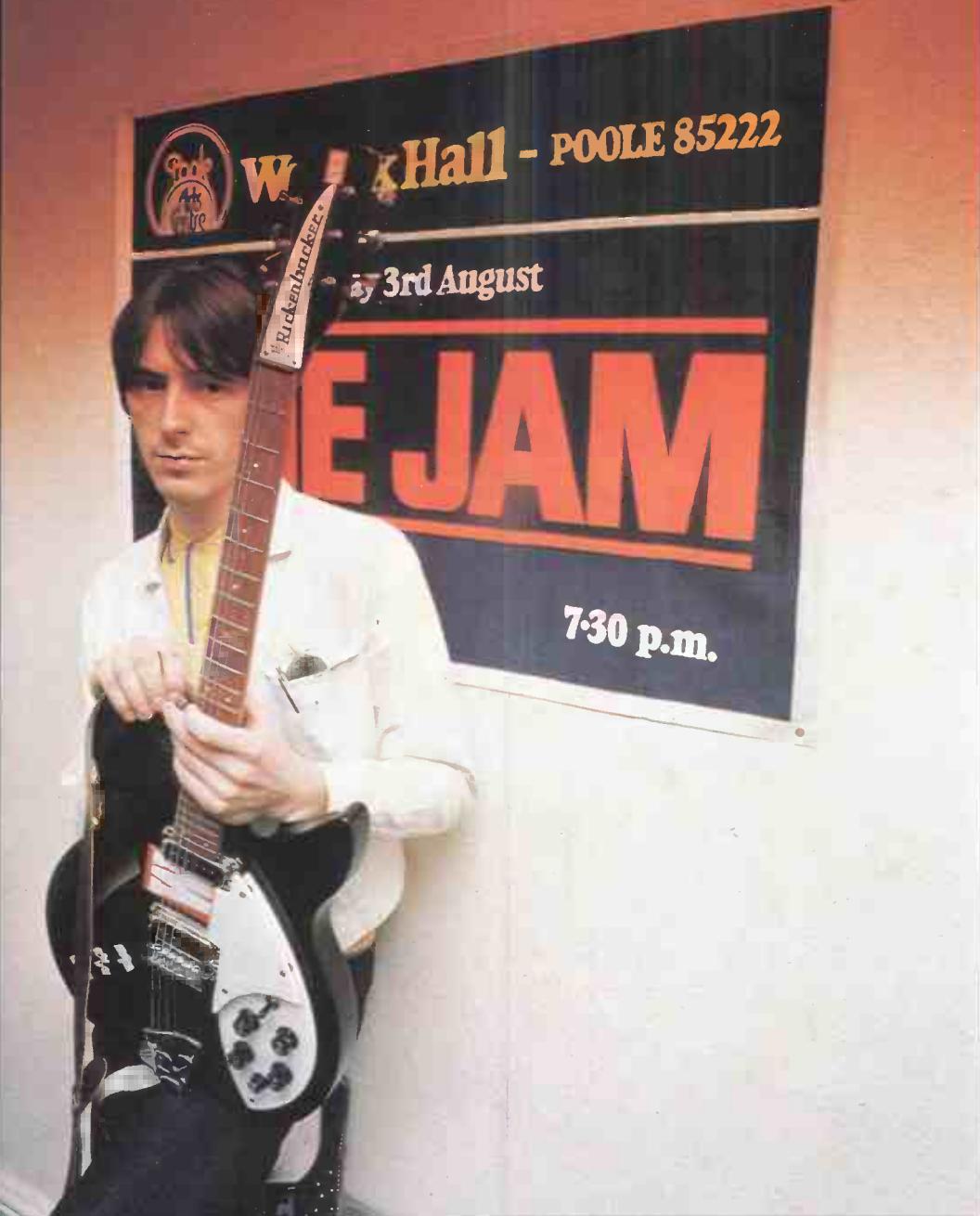
March 1981

70p \$2

Sound International

incorporating **BIA**
Instrumental

Weller mused...



PLUS NEW STRAT, OLD HAGSTROMS,
NEW KORG, MORE FRIPP...

moog
MUSIC INC.

INTER-OFFICE MEMORANDUM

DATE: Design Engineering
TO: Marketing
FROM: New Product Design
SUBJECT:

DISTRIBUTION: This may be an impossible task, but we've dreamed up an instrument geared to today's musician. It has to have the best function-to-price ratio that you can design into a keyboard.

Here's what we're looking for... very easily

A totally polyphonic synthesizer that can produce STRINGS, ORGAN and BRASS and still be variable enough to be used as a LEAD SYNTH.

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A realistic BRASS VOICE must be available at the touch of a button. There should also be a variable mode passing it through our patented filter. This should allow the player to program filter contour, cut-off, emphasis and contour amounts to create some powerful polyphonic synth effects.

The ORGAN must have 5 footages mixable from 16 feet to 1 foot with a tone control available. This ORGAN VOICE should be panned into either the chorus circuit or the VCF or both while still available as a direct signal.

LFO modulation and be routed to either the VCF or used as FM for vibrato. (lets include a pitch wheel for holding notes or chords)

The output section must provide separate levels for each voice, on-off switching for preset mixes and individual L-R panning into a stereo output.

Finally guys...the real crusher! This product must be manufactured to the highest Moog standards and still priced lower than any comparable instrument on the market!

Please respond as soon as possible.

HERE IT IS!

APPROVED



OPUS 3

by **moog**

2500 WALDEN AVENUE, BUFFALO, N.Y. 14225

(we're the people who started it all!)

MARCH 1981

NUMBER 35/172

20 Weller, Weller, Weller

Winners of everything in the recent NME poll except 'Most tendentiously copacetic dresser' were The Jam, whose lead, rhythm, singer, songwriter and, some might add, meal ticket and *raison d'être*, Paul Weller, talks to Adam Sweeting and proves to be quite a severe critic of The Jam.

24 My Friend The Bastard

Ex-C Mangione, W Report, B Cobham, G Duke etc bassman Alphonso Johnson kills various birds with one article by putting together a definitively diagrammed piece on the Bastard (Bass Amplification System Through Added Regenerated Devices, actually).

30 Mick Glossop

Progressing from well-known engineer to quite well-known producer, Mick Glossop is a self-confessed Zappa fan who turned down a regular gig with Frank, a producer for the PiL company and a man who doesn't like the production on *Bop Till You Drop*. Is this man mad? Ralph Denyer investigates.

34 Morgan-Fisher

The singular career of self-made minimalist Morgan-Fisher aka Pipe Records. So light up, put Ron Grainer's fabulous *Maigret Theme* on the Dansette and settle down to grab some fax'n'info courtesy of fascinating Fred Dellar.

36 The Troubadour Today 2

'Written music, and records, even more so, preserve the state of the art but fail to develop it.' More thoughts on touring and art from SI's resident sage & onion, Robert Fripp.

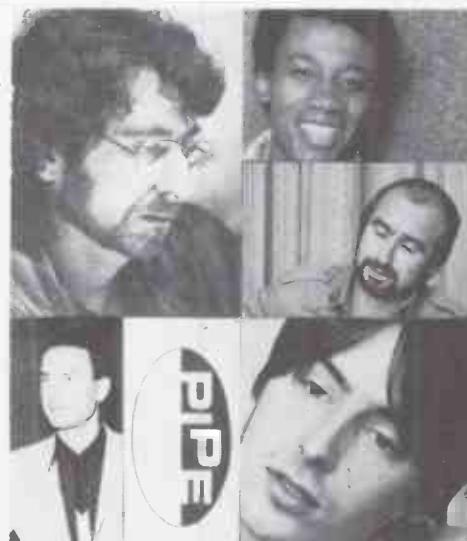


1ne, 2wo, 3hree, 4our

As in Wuntoofreefour Da-na-na-na-na-na-nang. Jim Betteridge considers how best to approach your first studio demo - knowledge Einstein never dreamed of.

41 The Daily Slog

It was just another day in the non-stop, pell-mell, willy-nilly, hectic-apoplectic life of CBS Records' ashen-faced Supremo David Betteridge (no relation). What's it really like having gold discs for wallpaper? Didy Lake finds out.



Clockwise from top left: Mick Glossop, Alphonso Johnson, David Betteridge, Paul Weller, Pipe, Robert Fripp.

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One of your doubtless many demands, having paid your 70p or two dollars for this highly developed piece of printed matter, is to know what's going on. 'What's going on,' you ask, noticing the space in your wallet. 'I s'pose you sit around all day doing nothing.' Well of course this all revolves around your definition of 'nothing', but we won't go into that right now. What we will go into is last month's issue – not quite the totally retrogressive step you may fear. For it was then that we had a change of paper, and were not able to inform you, dearest, of this dramatic bid for typographical clarity. Reason? We weren't told exactly when the change would occur – you know, paper stocks and so on. Now, however, the air is clear for an explanation, and the crowd grows restless. 'You don't get glare when you read it on the bus no more,' shrieks someone near the front, while a distant cousin with cerise hair retorts, 'And the black-and-white reproduction of half-tones is much improved,' her having been to art school and all that. What is more, we'll be attempting to, er, push back the horizons of the visual experience as regards SI in the upcoming months, helped by artists hired for a meagre pittance who are willing to demonstrate their resourceful and creative work for not much more than 69p a month. Is that any clearer? Well buy it next month then.

Tony Bacon

EVERY GUITAR PLAYER NEEDS FEEDBACK. BUT ONLY FROM THE AUDIENCE!

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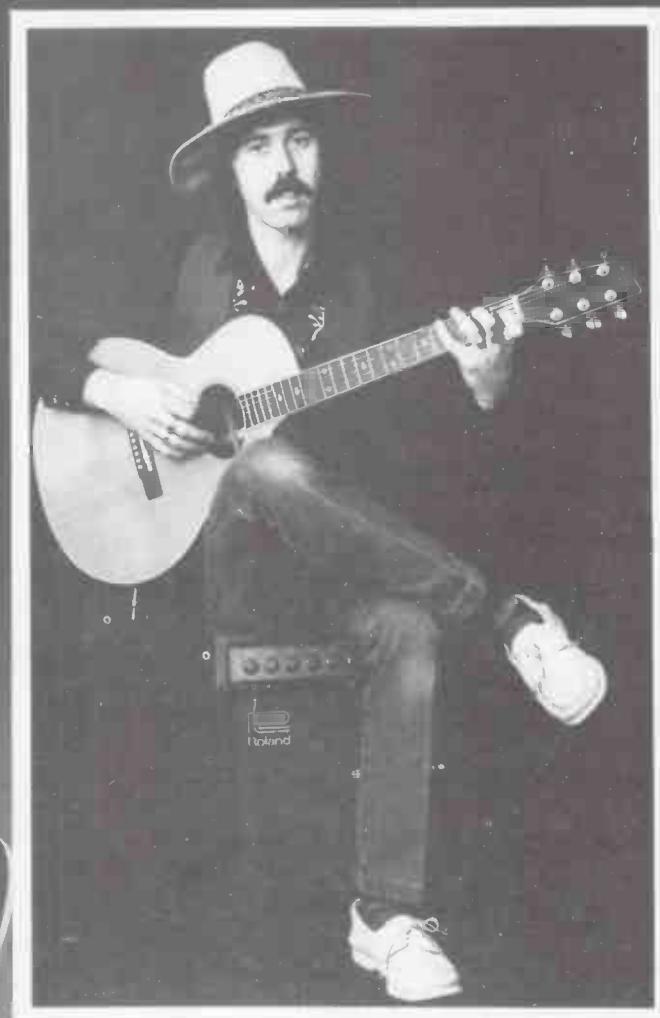


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*"The one thing I like about this
Washburn guitar is everything."*

Micky Moody
Whitesnake

NEWS

Yamaha 2 Casio 2: New Boards Please

At last there are some exciting new keyboard products on the horizon, but unfortunately they mostly seem to be coming from Japan. Two companies concerned are Yamaha and Casio, and they seem set to do battle in 1981 for what can be considered a relatively new market - low-priced consumer-orientated polyphonic ensembles (or LPCOPEs, to use the jargon).

Yamaha have made some pretty sweeping changes in their sales personnel right across the country. You may have noticed an advert in the Sits Vac section of *Melody Maker* a while ago, placed by Kemble-Yamaha for 11 sales staff, from which it isn't to be deduced that business is so good extra reps are required, but that most of the musical instrument sales team had been asked to leave (sacked). As to whether this change will have much effect on us, the instrument-buying public, it remains to be seen, but as far as we can gather the new sales force is going to be engaged in heavy promotion of the two new keyboards - the PS10 and PS20.

These two new models (priced at, or around, £199 and £299 respectively) employ the new Yamaha PASS (Pulse Analogue Synthesis System), whatever that is, and are both portable instruments that have built-in amplifier and speaker, and can be mains, battery, or 'car cigarette lighter socket' powered.

The PS20 offers a full-scale, mechanical, four-octave keyboard, with up to 10-note polyphonic capability. There are 10 preset orchestral voicings - organ, piano, vibraphone, clarinet, trumpet etc, and an integral rhythm unit with eight patterns. Also included are auto-chord, auto-bass and arpeggiator facilities which may not appeal too much to many rock or jazz musicians but which can be used by beginners and solo club/cabaret performers (and even by the electronic music guys). The whole thing is styled in white moulded plastic and weighs



13½lb. The PS10 offers the same basic facilities but with fewer presets, rhythms and automatic features.

One of the new products from Casio will compete directly with the PS20, and that's the Casiotone CT401 (the CT301, which is already available, compares more with the Yamaha PS10). The CT401 again offers a four-octave keyboard, integral amp and speaker, 14 preset voicings (somewhat better than those of the PS20), a rhythm unit (with a really neat 'fill' facility), and those automatic chords and bass patterns. No firm pricings were available at the time of going to press, but the Casio 401 is expected to have a rrp of around £300 - discounts will probably make it cheaper than the Yamaha in the shops.

The most exciting new product of

the bunch, especially to you, our predominantly rock-orientated readership, must be the Casiotone MT30. This is a slightly larger version of the M10, with a reduced scale three-octave keyboard, eight-note polyphonic capability, 22 really good presets, built-in amp and speaker, headphone output and, wait for it, it should be in the shops for under a hundred pounds!

All these new instruments were at the Frankfurt Music Fair last month, and some will inevitably be reviewed by me. There were also a few other new items at the German show, so keep reading this excellent mag, cos we're always the first to know about anything - and if there's nothing new we'll make it up, it's all part of the service.

Dave Crombie

Apology?

Very sorry indeed, Trevor Newman of Rosetti (EMI) Ltd. You can tell all your cronies that you definitely were not the very serious young representative of the music business referred to in the intro to my Morley Chorus/Flanger review on pages 64/65 of the Nov '80 issue. After all, you're not really all that serious, and I don't think anyone could actually accuse you of being young (Oh dear, second apology appearing next month...).

Seriously, though, the very serious young man in question actually had some connection with the company that makes the *Clap Trap*. Unfortunately, it seems that he had forgotten that it's the job of a magazine to entertain as well as to inform, and if he cares to read the *Clap Trap* review (July '80) once more, he may find that the article in question does both.

One piece of information included in that review was the name and address of Musicaid, the manufacturers of the *Clap Trap*, but obviously our reader Mr T J O'Neill of St Neots, Cambs, didn't spot it. He too assumed that poor old Trevor at Rosetti was the serious young man in question and promptly wrote to him thus, on the subject of 'his product' and my review:

Dear Trevor: Reading Roger Phillips' article on the new Morley Chorus/Flanger, I see that you and Mr Words have had a slight bust-up about 'the' article on the *Clap Trap*. I emphasise *the*, because it's the only review about this cursed machine I can find. Point one: Don't get upset about the article: it was a breath of fresh air to have a new bit of gear that the whole of my band could benefit from. Point two: Rather a happy-go-lucky review tempting people like myself than a technical jargon bit for technocrats who wouldn't bother even thinking about buying it! Point three: In our opinion (Paul Neon and the Highlights, rock'n'roll band), we thought the review was simply spiffing, wot! Please don't knock it if you don't read it every month. I'm taking out a second mortgage to buy *SI* 12 months in advance! Seriously, I find reviews in the *Clap Trap* vein the most buyable, and it's most enjoyable to read without any detriment to the product. Best of luck with your great Clapper.

Did I hear a ripple of applause?

Roger Phillips



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MEET THE STAFF NO. 1.
TONY BACON: EDITOR

SOUND INTERNATIONAL
incorporating **Beat Instrumental**
is what you are holding. It welcomes
comments, opinions on its merits
and demerits, and contributions on
the experiences of music-making.
Like most people in the last 2000
years or so, we get things wrong now
and then. Please let us know about
mistakes; we'll correct them as soon
as possible. We prefer being right.
Replies, corrections and counter-
attacks will always find a place in the
mag. We can't be held responsible
for errors, loss or damage to items
contributed. The magazine's contents
are copyright, but we'll generally
give permission to reprint if we're
asked in writing. That's about it,
really.

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?

Knacking 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.

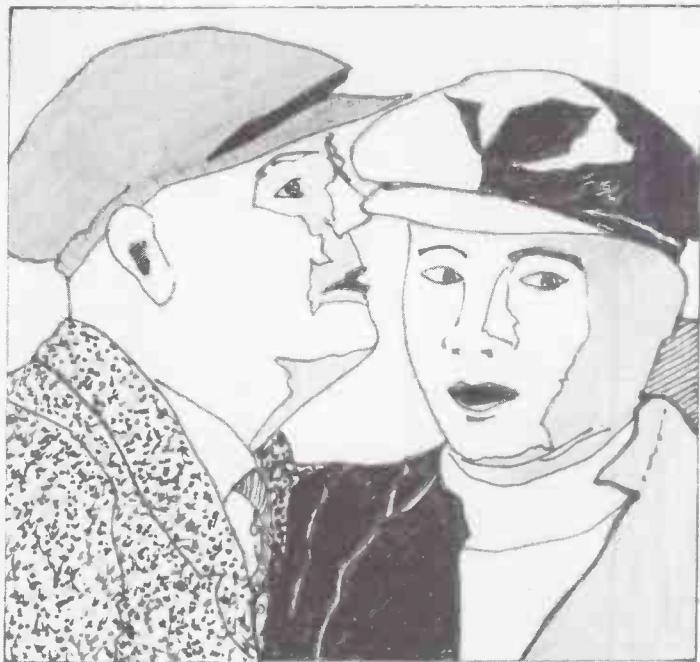
Dear Vox, my name is _____

and I live at _____

VOX

and I'd like a bit more info please.





It's All Lies, Honest!

That people need their myths and legends is an axiom of psychology, one which is touchingly demonstrated by people's faith in religions, political creeds, social institutions – just about every field of human involvement. No, you've not picked up *New Society* or the *British Journal Of Psychiatry* – what I'm about to say is that this very human need is just as strong when related to music, musicians and musical instruments as when it is applied to the pathological belief in man-made gods from Hitler to Stalin.

Back when I first started developing an interest in music from a playing point of view, rather than just as a listener, I rapidly found myself getting involved in the fantasies and fables surrounding certain products. It was distinctly uncool to be seen on a stage with one brand of guitar which, for whatever reasons, one may have preferred to the more acceptable instrument which one was being expected to favour. Much the same is still true, with some very good guitars, drums, keyboards, amps, mics and what have you just failing to sell through a lack of charisma, rather than through any defect in quality.

As a regular reviewer over the past seven years, I have had literally hundreds of guitars pass through my sweaty paws. Some of the big names have been bad, some of the little ones good. Whether they sold or not, however, didn't seem to depend on that perhaps rather-too-obvious criterion. Other reviewers would have played the good instruments and they too would expect them to sell well, but the stuff would often just sink without trace however hard the manufacturers or importers tried to sell them. For some reason the buzz just wouldn't work in their favour. As a result we'd sit back shaking our heads watching some highly suspect line take off like it was going out of style.

Elsewhere in this august and learned journal, Paul Day has begun discussing some lesser-known guitars of the past and, no doubt, he will tell you that some of them were veritable demons. What happened to them? Take away the obvious failures of business people and production methods and I would suggest that you will find that many of them died at the bottom of a pile of bullshit, a pile crowned by another instrument which had been supported and elevated by that very same substance.

For some reason, still unknown to me, one instrument will be embraced and adopted as the best thing since penicillin, another is ignored or even abhorred. It's not even just a case of me having suspect taste, because often one can drag these failed products out of a dusty cupboard and show them to people who will agree with one's own feelings about them.

If a failed product is lucky, succeeding generations will revive it. This happened to the Gibson Thunderbirds and Firebirds and the Flying Vs. The opposite happened to Fenders which were crowned kings of the 1950s, only to be shunned in favour of, of all things, the Gretsch line in the early 1960s when both secondhand Fenders and Gibsons were cheap to buy simply because they were unfashionable. Impossible to believe though it now is, even the Les Paul had been dropped during this era as it just wasn't popular enough. And yet, if it was such a lousy guitar, how come so many players use it today?

This irrational attitude to products embraces the features found on the instruments, too. Currently, the most sought-after features of guitars are those which are supposed to improve sustain. Now this quality can depend on many factors (often the ones ignored by people spending hundreds of pounds on 'importing' their instruments) such as string gauge and

height, playing technique, wood density, amplification types, pickup pole-piece height etc, etc. And yet what do these people who want extreme sustain go out and do? They buy brass nuts, that's what they do!

Now I'm no nuclear physicist but, as I understand it, a fretted instrument produces its sound by the vibration of the string between the fret at which that string is stopped and the bridge-piece which effectively terminates it. Thus the fitting of a brass nut to an instrument can only possibly improve the guitar's sustain if only open notes are being played. Ho Hum!

Much the same is true of straight-through necks, another much-vaunted feature of many Japanese guitars. Now I will concede that a bolt-on neck may suffer in comparison with a glued-on or straight-through design, but even then only up to a point. If bolt-on necks are so lousy, how come a good Fender will sustain quite adequately? And it will, believe me. However, is a straight-through neck so desirable? Some guitar makers have said that they, in many cases, prefer glued joints as it enables them to a) make more precise adjustments during manufacture and b) choose the right piece of wood for the neck and the right piece of wood for the body. Yet how many guitar catalogues ignore these points and rave on about 'superb brass nut for extra sustain'?

They also ignore the fact that a glued neck joint renders the neck and body virtually one piece of wood and thus sustains just as well as a straight-through type. Don't believe me? Try a Les Paul and see what you think about glued neck sustain, then!

But still the myths perpetuate and manufacturers, eager to give the public what it wants, are forced to go against what they know to be common sense often ending up providing these features, even regardless of good practice from a mechanical point of view.

Of course, I'm not saying that straight-through necks aren't nice or that they don't sustain, it's more that I do not believe that they are *de facto* better than other ways of doing things.

Pickups, too, are the source of great volumes of waffle. There is a point beyond which the output of a guitar pickup becomes detrimental to its tonal qualities and (as our own Japanese guitar test in January '80 showed) the guitars with the highest output pickups are not automatically reckoned to be the best. Yet people still tear perfectly good humbuckers out of their mountings and fit abominably insensitive monstrosities in their place, all because they believe that the hardware alone is the key to a player's sound.

It becomes even more depressing when guitar players who should know better lean across during the course of an interview, switch off your tape recorder and whisper that the secret of their sound ('and don't you dare print this') is that a Fender Strat will only sound A1 when the varnish has worn off the back of the neck. It's cobblers, to put it plainly, and a tremendous pity that people don't realise that their sounds are usually coming from their

fingers as much as their equipment. That subtle difference between the way, say, Eric Clapton's fingers manipulate a pick, the angle of attack, the power with which he hits the string, the tremendously complex variabilities of left-hand style he has and the way in which a no-hoper like me attempts to do the same thing.

The mythology is also spouted as in: 'Oh, I wouldn't buy one made in September '63 if I was you, mate, that was when the pick up winder's wife had left him and all his pickups made that month were crap. Try and get August or January ones, they're really good.' The truth, of course, is that all guitars vary due to the fact that they are made by human beings and from natural materials which, in themselves vary, and thus are individually good or bad due to a wide variety of circumstances. Of course, factories and individuals do go through bad patches, but they can also get better, too. Both Gibson guitars and, I suspect, Fender guitars have improved markedly in recent years compared with a low ebb which they reached in the mid-60s when both had their problems. Martin too suffered from a similar bad patch. But recently I have lived with a new Martin which was fantastic, a new Fender Precision Special and a Gibson and they were all three of them excellent in their own ways.

It is only natural when musicians (or golfers or photographers or racing drivers) meet that they should discuss the tools of their trades and that much of the information passed from one to another should be useful and accurate – after all, tips from a pro or specialist can be absolutely the most useful way of mastering a difficult problem – but a lot of rot is also talked and this is the cause of many wasted hours and a lot of badly spent money.

Hardware, I believe, is very important to a musician, more so than some would have us believe. But even a real hardware nut like me isn't fool enough to believe that it's everything. Moreover I am certain that it is wise not to be conned by the latest fad in design or manufacture. Not all progress is good (ask the people of Windscale!) nor is it all bad. It's just that people seem to have a strong and deep-rooted need to believe in mysteries which may offer benefits to the player's psychology and sense of well-being (after all, it's not inconceivable that if you really believe that a brass nut will make a difference to your sound, you will relax and play better and be happier). But if these mysteries lead us up the garden path, waste our money, divert attention from worthwhile innovations or established principles, or stop us perfecting our own styles so that we may better express our own personalities and ideas through our music, then we have conned ourselves and will only lose out in the long run. So, next time some shopkeeper, manufacturer or friendly local guitar expert tells you that the only good-sounding Gibson is one that has got a cracked neck which has been repaired using Araldite, take their word and smash the bloody thing over their head!

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Reel to Reel Cacophony

Despite the costs involved, a visit to the thrice-yearly Audio Engineering Society Conventions, such as the one held in New York during early November, can be a real eye-opener. If you are at all interested in finding out which direction the recording industry is heading, then there is nowhere better to satisfy your curiosity than at an AES Show. It's all there: state-of-the-art consoles, with or without elegant fader automation; sound benders that'll make you go weak at the knees with envy (if the price tag doesn't get you first); and digital recording demonstrations that simply defy description. (I still wonder how the record companies intend to obtain comparable results once the mix has been transferred to yet average quality vinyl, but that's a different story.)

But expensive exotica aside, there's always something to tempt the small-studio owner, or musician on the look out for good-quality – yet budget-priced – recording hardware. November's AES gathering was no exception. Stand-out exhibits, to my mind at least, included some very interesting looking tape machines, both large and not so large.

Soundcraft unveiled the eagerly-awaited 24-track on 2in version of its SCM-382 transport, which now features a slim-line remote control unit for safe/ready record and input/sync/output switching. It even comes complete with a built-in nine-memory autolocator, specially designed for Soundcraft by Audio-Kinetics. UK price of the new SCM-382-24 is expected to be around £12,500; remarkable value-for-money.

The New York AES also saw the American unveiling of Trident's new TSR multitrack, of which the company has now sold some seven machines. Three of the seven have disappeared into studios as part of TSR/Series 80 console package deals, including new installations for Eddie Harding and Cliff Cooper.

Possibly of greater interest to the majority of *SI* readers, Teac has been busy over the last couple of months on the development of a pair of very attractive machines. The new Tascam 22-4 and 22-2 are cheaper versions respectively of the A3440 4-track and 32-2 stereo mastering machines. (In reality, the 22-4 is derived from the 40-4, a machine that was never made available in the UK, but there's no point in splitting hairs.) Both machines feature 7½ and 15in/s operating speeds (the 22-4 also offering ±7% varispeed).

Major cost savings have been made by restricting reel sizes to 7in rather than 10½in spools; since the feed and take-up reel motors now need to do less work in hauling tape around, Teac have fitted smaller, less-powerful

versions. Also, the 22-4 is fitted with only line inputs – unlike the switched mic/line sockets on the A3440 – which means that some form of mixer is pretty much essential. US price of the 22-4 is just over \$1400; prices in this country should be comparable.

And for the musician working on his or her own, Teac has developed a special footswitch that simply plugs into the remote control socket of your A3440 or newer 22-4 machine. Two large pressbuttons enable the transport to be dropped into record mode during overdubs, or stopped at the end of a particular track. Great for operating either machine while both your hands are fully occupied with playing. US price should be around \$40.

There's also good news for those of you contemplating buying a 32-2, but who were slightly put off by the fact that you cannot record on individual tracks (see my review in the October '80 issue of *SI*). At New York, Teac unveiled the eagerly-awaited 32-2B version which, at long last, offers switched safe/ready record mode and source/tape monitoring for individual tracks. UK deliveries should start soon.

Studer/Revox has also been giving some thought to problems of editing tape on its excellent B77 machines. Although the amount of clearance is a great deal better than on the older A77, during long editing sessions the lack of decent access for a wax crayon – not to mention having to pull the

head shield out of the way – can be rather a pain. The new PR99 Series stereo machines feature radically-improved editing facilities, as well as a lot of other goodies: balanced line input and outputs on XLR connectors; automatic sync/input switching; choice of calibrated (internally preset between -20 and +9dBV) or uncalibrated output levels; and dump edit. As far as I could discover, no definite price has yet been set on the PR99 Series, but they are expected to cost between 10 and 20% more than basic B77 machines – still good value for money though.

Otari has been no less sluggish in responding to the challenge of improving its range of multitrack machines. The company has now developed an improved version of the MX5050 4-track, which features microprocessor-controlled transport logic; plug-in headblocks; choice of NAB/CCIR record EQ and switched +4/-10dBV operating levels; electronic display of elapsed time (in contrast to a simple tape counter); automatic monitor switching during drop-ins; headphone monitoring (similar to the A3440's 4-pushbutton design); separate mic and line input level controls for each track; plus peak-reading LEDs on each VU meter. Cost of the new MX5050 Series II 4-track is just under \$3000 – check with ITA for UK prices.

For those of us who run into problems successfully interfacing a tape machine operating at Teac-style

-10dBV levels, with a console that has been set up to operate at +4dBV, a new box of tricks from a company known as **Sleepy Hollow Products** should fit the bill nicely. Known (for reasons I was unable to discover) as the *Headless Horseman*, the unit simply does a very quiet, distortion-free job of bumping -10 up to +4dBV. Designed to operate from its own separate 50V power supply (*à la* Accessit processors), the *Headless Horseman* costs just \$175 in the States.

Once you've established a meaningful rapport between a tape deck and mixer, some form of noise-reduction may be next on your list of priorities. One complaint that could be levelled against dbx is that its products tend to be rather pricey. The new *Model 150* stereo unit should help to put an end to such accusations. Costing only \$325, the *Model 150* offers two channels of simultaneous encode/decode – no problems with monitoring dbx-encoded tracks during overdubs – and has the bare minimum of operating controls.

An increasing number of bands and musicians are making use of **Aphex** processing not only for overall 'embellishment' of a stereo mixdown, but also concert sound front-of-house and stage monitoring. (Paul McCartney and Led Zeppelin, to name just two, have been quoted as finding the enhanced stereo effect particularly useful for improving apparent separation between acoustic instruments or vocals in a composite stage monitor mix.) The original Aphex *Aural Exciter*, however, doesn't come cheap, and takes a bit of getting used to. In a laudable attempt to make the technique available to more budget-conscious bands, **Novasystems** has developed a simple-to-use device, known as the *Aphex Audio Exciter*, which costs just \$449 in the US. Front-panel controls comprise a 'D-Factor' knob that sets up the amount of stereophonic enhancement, a mix knob (for adding variable amounts of frequency-dependent phase shift), plus on/off, monitor and in/out pushbuttons; couldn't be easier.

Two other interesting effects units caught my eye at the New York AES Show. The new *PCM41* digital delay from Lexicon offers up to 400ms of delay at full 16kHz bandwidth, plus a X2 scale that extends the delay to 800ms over a restricted 6kHz frequency range. Delay can be adjusted manually via a 4:1 sweep, or controlled automatically by means of a built-in VCO for flanging, reverb, chorus and other time-domain processing. The VCO has a 0.1 to 10Hz range, and its waveform is continuously adjustable between sine and square-wave. Other features include a repeat switch, plus switchable low and highpass filter in the feedback loop. US price of the *PCM41* is just under



\$1100.

MXR unveiled a two-channel limiter occupying just 1½in of standard 19in rack space, and which, according to Bob Wilson of Atlantex (UK agents for MXR gear), should cost less than £300. Front-panel controls enable attack and release time to be con-

tinuously varied over the respective ranges of 0.5–50ms and 0.1–5s, and compression ratio or slope from 4:1 to infinity (hard limiting). Above the threshold point, however, the compression slope increases smoothly (a 'soft-knee'), thereby ensuring a gradual transition into compression. In

addition, both channels may be used independently, or strapped together for true stereo operation; the level-sensing circuits can also be accessed via a rear-panel connector for external processing during de-essing of vocals and other frequency-dependent limiting.

Very few low-cost mixing desks were to be seen at New York – apart, that is, from Soundcraft's new Series 800 range of modular recording, concert sound and stage monitor consoles. Available with a choice of 'standard' or monitor input, recording or PA output, plus master and effects return modules, an 18-in/8-out configuration will set you back around £5000, and a larger 32/8 £7500. Although each standard input module (for recording and concert sound) offers pushbutton routing to a total of eight group busses, plus a dedicated stereo remix/front-of-house output, each recording output module is provided with two monitor sections for full 16-track monitoring and cue/foldback sends. Metering is via 30-segment LED bar graphs mounted at the top of each output module. A console definitely well worth checking out.

And last, but by no means least, if you haven't yet had the opportunity to hear for yourself the sort of results that can be achieved with the new range of Crown/Amcron PZM microphones, I would suggest that you do so without delay (give HHB Sales a ring).

Pressure-zone microphones work on a totally different principle to normal dynamic, electret and capacitor mics. Instead of detecting the changes in air velocity, PZMs are sensitive to pressure changes caused by sound waves impinging on a fixed surface. As a result, they are totally immune to sound reflections from nearby objects, and have a hemispherical pick-up pattern. While such a large area of sensitivity rules out the use of a PZM where you are interested in masking out certain ambient sounds (such as for certain on-stage applications, or in a live studio), for recording solo vocals, pianos, acoustic instruments, large string sections, etc, they are just about perfect. In fact, the quality of a PZM just has to be heard to be believed. They have a practically flat frequency response from 50 to 15kHz, and are far less susceptible to handling noise than conventional microphones. They are also capable, so the manufacturer claims, of reproducing sound levels up to 150dB without distorting (mounted on the floor in front of a kick drum, a PZM is said to produce a very powerful result). At present a PZM with power supply – the mics come in a choice of two base-plate sizes or as a Lavalier model – costs around \$350 in the States; something tells me though, that when more people become turned on to wide range of applications they have, increased demand will cause the price to drop way down. □



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Sound International March 1981

Letters

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The SP7 in question...

Honest, Decent, Truthful, an' that?

In your November edition appeared a review of our SP7 Reel-to-Reel Recorder by Mel Lambert. Whilst in general we accept the findings of any independent reviewer and are ready to have constructive criticism as well as praise levelled against us, we feel some comments made in this review were both unjustified and erroneous.

We feel that not enough time was taken by the reviewer to fully study the machine's capabilities or operation. This would undoubtedly explain some of his comments. Indeed, he states in his summary that he 'had the opportunity to fool around' with these recorders, and to me that appears to be exactly what he did. We cannot accept this review as a serious judgement of our product against its competitors for the following specific reasons.

The SP7 is not designed to be a self-contained domestic-type recorder. Whilst this may not be suitable for the users that Mr Lambert seems to have in mind, it is surely unfair to criticise a machine for not having features which have (been) specifically omitted at the request of the professional user. These 'missing features' are generally carried out via the mixing desk.

All unnecessary knobs, switches etc, are considered to be a disadvantage in a studio environment.

Mr Lambert claims he had to undo 22 screws to gain access to the electronics. If he had bothered to either consult the manual or the company, he would have found that only six screws need to be taken out. In fact, he disassembled the entire case construction instead of simply removing the main body of the recorder from the case.

He does not seem to understand the purpose of the reverse control in conjunction with the variable speed wind control. This feature is included on the SP7 because it greatly assists many of our customers in editing. The tape can be slowed down during spooling so that individual words are audible and rocked across the heads using the reverse control to give precise location.

There are many other small points in the review where we would disagree and are extremely unhappy with the general tone and presentation. The grading in his summary is, in our opinion, contrary to the contents of the review and totally illogical.

Tape Threading – This is just as quick and easy on the SP7 as the other recorders reviewed. Even if you accept Mr Lambert's criticism, it hardly should rate two stars whilst the others all rate five.

Front Panel Layout – He states the 'front panel is remarkably free of controls' and is designed this way for easy operation and free access for editing. And yet only three stars are given against four for the other three brands.

Ease of Operation/Transport Logic – Despite the fact that in the review Mr Lambert states the transport 'proved totally reliable and handled the tape smoothly and gently', he nevertheless marks the SP7 down very badly on both ease of operation and transport logic.

VU Meters – These are again marked lower than the other brands and yet are exactly the same as the others and in size terms; are larger than the Revox.

Access to Heads – This again is marked lower than other brands yet there is no restriction at all to the heads. Nothing needs to be removed for cleaning. On the Revox B77, for example, there is a large restriction to the heads and yet does not seem to be penalised for this.

Our overall conclusion to this review is that it has not been carried out in a fair or unbiased manner.

I sincerely hope that you are able to publish this letter in your next issue.

From: **Tom Batey, North East Audio Ltd, South Shields, Tyne & Wear, England.**

Mel Lambert replies:

Firstly, my use of the expression 'to fool around' was only meant to be taken light-heartedly; after all, how many times can you say in a long two-part review that a particular machine was tested, put through its paces, got to know, assessed, etc, etc. In no way does this imply, as Tom suggests in his letter, that I didn't spend sufficient time with each deck. All in all the four machines under review were in regular use for three or four weeks, during which time I recorded a wide range of material and, I assure him, got to know the operational facilities of each one very well.

It was only after I had fully come to terms with how each of them would stand up to regular use in the hands of a small studio owner, musician or home-recording enthusiast, that I actually sat down to write the reviews. Also, during the time each machine was in my care, several people were invited to offer constructive – and other – comments on what they thought of them. Almost without exception, it was the SP7 that came in for the most unfavourable comments: such expressions as 'ugly', 'bloody difficult to thread tape', 'noisy' (Neal/

Ferrograph really should do something about the machine's cooling fan), 'unconventional transport controls' and so on. With or without front-panel mixing controls, as the reader may gather, the SP7 wasn't regarded very highly considering its relatively high price.

To answer Tom's specific points: I disagree about the number of screws that need to be removed to gain access to the SP7's electronics. There are certainly a lot more than six to be undone, some of which were exceedingly stiff and badly positioned.

Having spent many, many hours editing tape on a wide range of domestic, semi-pro and professional machines, I found the reverse spooling control to be unusual in the extreme. As far as I know, no other company offers such a facility which, to my mind at least, is more time-consuming and troublesome to use than it's worth.

The SP7's method of tape threading is bizarre; there's simply no other word for it. To have to push down and then release a cumbersome and stiff lever every time you want to lace up a tape can be a real pain – especially during editing sessions. That's why I only rated the machine two stars.

Since the front-panel layout – in particular, the positioning of the transport push buttons, rotary spool control, lack of tape lifter, and non-matching colour scheme – is so clumsy, it lost a star against the other three machines.

Points were also lost in the Ease of Operation and Transport Logic sections because of several factors: the bizarre tape path, unconventional transport controls, slow start speed after hitting the play button, and – a particularly unfortunate oversight – by the fact that nasty clicks were placed on the tape while dropping in and out of record mode.

And again, it was my subjective assessment of the SP7's VU metering and ease of access to the heads that caused it to lose a couple of points against the Revox B77, Teac 32-2 and Otan MX5050 machines.

In summary, I cannot but disagree with Tom Batey's remark that my review 'had not been carried out in a fair and unbiased manner'. While the Neal/Ferrograph SP7 is, without doubt, a reasonable reel-to-reel machine in many respects, I don't think that anyone who has ever used one for any length of time would fail to recognise that, compared to a more conventional B77, 32-2 or (admittedly rather expensive) MX5050, it really doesn't offer particularly good value for money.

Tony Bacon replies:

As a matter of magazine policy, reviews are published only when we are satisfied that they have been conducted impartially and in an unbiased manner. Anything less would compromise readers and manufacturers alike.

Deaf? Pardon?

Ben Duncan ('Does Rock Make You Deaf?' Dec '80) seems to be of the opinion that because hearing damage due to loud music can't be proved, we should all be given the opportunity of finding out for ourselves. Similar arguments have been used for years by the tobacco companies – 'Some people are prone to cancer', etc. He seems to think that industrial noise cannot be equated with music. In the absence of any other information it is a good starting point at least. I have heard bands not dissimilar to industrial noise and what about that pre-performance feedback belting through the auditorium at 130 dB? I like loud music but have been to gigs where it has been so loud as to be physically painful even with cotton wool stuffed in my ears.

It is my opinion that the hearing of many bands' mixing engineers has been damaged by continuous exposure to high levels and they don't realise that if it is 'deafening' at the back of the hall, where they are, it will be even louder at the front. When even hardened rock fans find it too loud, is it any wonder that Leeds City Councillors are appalled?

If we want bands to continue to play at realistic levels then we must make sure that too high levels do not occur and bring about a backlash from the authorities.

If we are going to have these sort of articles in SI, let's have some that are less biased and full of half-truths and more factual. Why don't we sample an audience, test their hearing and ask them what they think? Are some bands too loud?

As a sometime musician, amateur recording engineer and music lover, I value my hearing. I like it loud, but I want to be able to continue to hear it for many years to come. I would rather err on the side of caution. It doesn't have to be so loud.

If you think my letter is biased (see above), I am only trying to redress the balance.

From: **Jeremy Saltmarsh, Gt Beddow, Chelmsford, Essex, England.**

Ben Duncan replies:

Sigh! You appear to have missed the point. Grab tongue and place firmly in cheek, then take a careful look between the lines of the 'propaganda' which, after all, only redresses the balance a little on behalf of those of us who like to live intense, exciting lives whilst we await firm evidence to the contrary. I would agree, however, that everyone in the business should be made aware of the vaguely possible dangers of high sound levels. Anyway, if you hate Lemmy, then Motorhead is not music (to you) and you can expect to suffer the perils of industrial noise exposure. Solution? Ayatollah decibel and stick to music!

Sound Advice

No Necking, Plucking and Vibrating, We're British!

About six months ago I bought a new Fender Precision bass for which I paid cash. The day I bought it I noticed the neck was bowed in the direction of the strings towards the head. The dealer told me that this was common and OK as long as the instrument played all right.

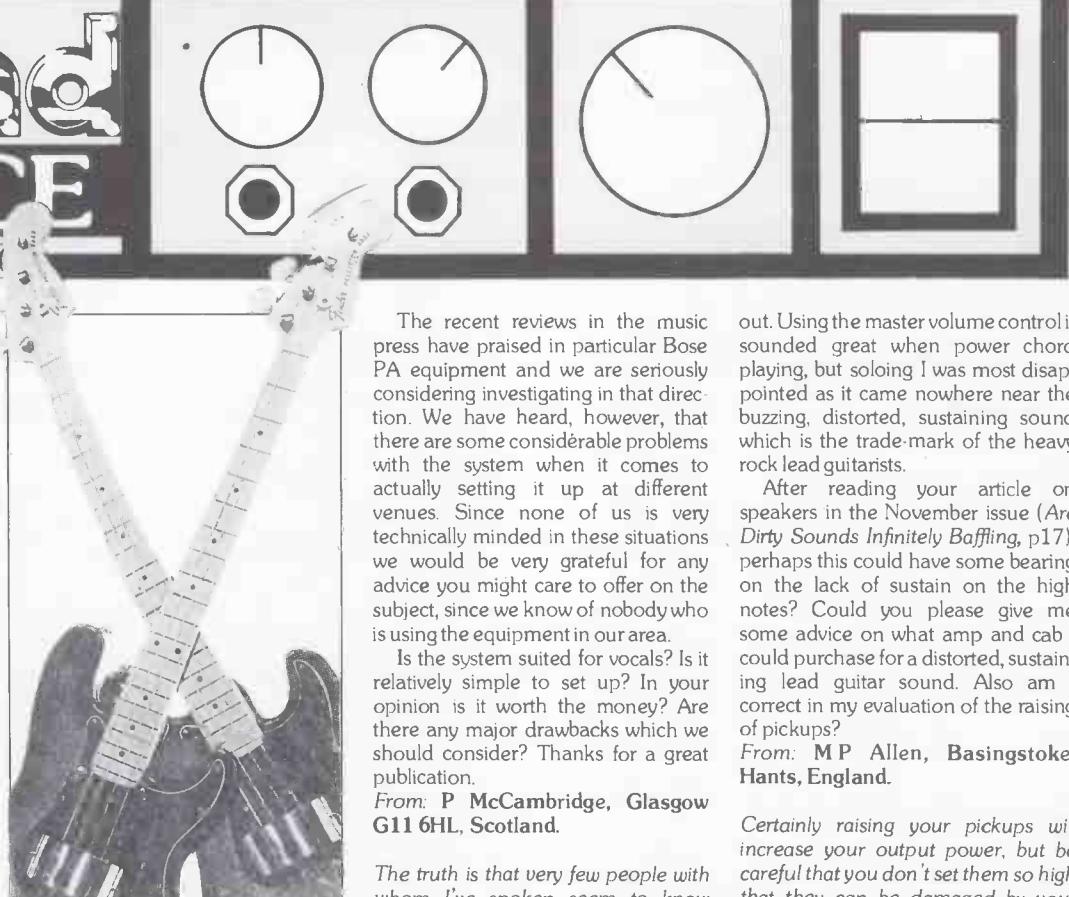
I foolishly accepted his word, but recently the bass has been giving a lot of fret buzz. On my return to the shop the dealer said that the neck needed more of a bow put in it to counteract this. He explained to me that the strings, when plucked, vibrate in the middle of the neck and there needs to be a dip at this point to avoid fret buzz. I have been told to take the bass back if it needs any more adjustment but so far I have not done so. This is because a friend of mine had a Precision some time ago on which the neck was perfectly straight. He told me the people in the shop were giving me a load of sales talk.

As I don't like being taken for a ride I am writing to the magazine and would be obliged if you would confirm whether or not a Fender bass should have a straight neck.

From Glenn Totham, Trowbridge, Wilts, England.

The answer to this one, Glenn, is that it all depends on what you mean by straight. A little learning is a dangerous thing, as they say, and it is quite wrong to believe that all guitars should have dead straight necks. What your dealer told you is more or less correct. Most (if not all) guitars have necks with a slight dip in them to accommodate the simple fact of string vibration being greater in the centre of the neck than at either end. How much it should dip will depend on the instrument and various individual factors like the choice and height of your strings. The amount of dip in a properly adjusted neck can vary from anywhere between .005in to .020in depending on various factors. The point is that your retailer sounds like he knows what he is talking about, so take your Precision back to him and allow him to compensate for this fret buzz. The main factor which should concern you is whether it plays in tune and whether the neck buzzes like a hive of bees.

Frankly, how that effect is achieved is academic, even if it does mean a slight bow in the neck. If your dealer fails to sort the buzzing out you should contact CBS/Arbitrator at Fender House, Centenary Estate, Jeffrey's Road,



What do you mean by straight?

Brimsdown, Enfield, Middx. But give your dealer a go first: he's telling you the truth and that is a reasonable indication that he will be able to sort out your problems. This business of straight necks is, of course, yet another example of the mythology of instruments which I've waffled on about in my column on p 7 this month!

Beating the Fuzz

I play guitar through an H/H VS Musician amp and I get my sound by overdriving it with an MXR Micro Amp, which gives a nice bit of raunch and good sustain (ie I don't use the valve-sound fuzz). But what I would like to know is, is it damaging to the amp to increase the input of the pre-amp in this way? I have heard that valve amps can be safely overdriven by this method, and I wondered if the same thing applies to transistor amps?

From: Gareth Wicke, Horfield, Bristol, England.

Yes, overdriving your amp in this way is perfectly safe with all transistor amps that I can think of, and I checked with H/H who agreed. The only damage you could do would be to your sensibilities if you screwed the input up so high that it sounded terrible! In fact boosting gain is one of the commonest ways of obtaining a good distorted buzz and has a lot to commend it.

A Bose By Any Other Name

We are a four-piece club band comprising drums, bass, lead and keyboards (ARP Omni II, Wurlitzer piano). All four of us are vocalists and we are currently using a 300 watt Leech PA.

The recent reviews in the music press have praised in particular Bose PA equipment and we are seriously considering investigating in that direction. We have heard, however, that there are some considerable problems with the system when it comes to actually setting it up at different venues. Since none of us is very technically minded in these situations we would be very grateful for any advice you might care to offer on the subject, since we know of nobody who is using the equipment in our area.

Is the system suited for vocals? Is it relatively simple to set up? In your opinion is it worth the money? Are there any major drawbacks which we should consider? Thanks for a great publication.

From: P McCambridge, Glasgow G11 6HL, Scotland.

The truth is that very few people with whom I've spoken seem to know much about Bose systems. They are very expensive and quite rare, but whether the latter is due to the former or some technical problems I'm not at all sure. I have had it said to me that Bose systems can suffer from phase-like problems, that they suffer from inadequate projection in larger venues and that they lack bass. This is, however, hearsay and thus inadmissible evidence. The only way in which I can advise you is to say hire before you buy. Try to use a rig or several different venues before you splash out on such an unusual system. A retailer hoping to sell you such expensive equipment should be prepared to let you try a rig in a live environment - otherwise, how can you tell what it will be like on the road? Bose themselves should also try to help, why not drop them a line? Address is: Bose UK Ltd, Milton Regis, Sittingbourne, Kent. My only experience of Bose has been very limited but what I've heard I've rather liked. Any readers out there capable of helping? If so please write in with your experiences.

Coming Home To Roost

I play the guitar in a heavy rock band. I have a problem. I have a Westbury Standard and up to now I have been struggling with a Zenta practice amp. I found it impossible to overload this amp so I raised the pickups nearer the strings. This seems to give the effect of better sustain and distortion.

Soon I hope to buy a new amp and cab, probably the normal 100 watt amp and 4x12. After noticing that my local music shop had a Roost 100 watt amp and 4x12 cab I decided to try it

out. Using the master volume control it sounded great when power chord playing, but soloing I was most disappointed as it came nowhere near the buzzing, distorted, sustaining sound which is the trade-mark of the heavy rock lead guitarists.

After reading your article on speakers in the November issue (Are Dirty Sounds Infinitely Baffling, p17), perhaps this could have some bearing on the lack of sustain on the high notes? Could you please give me some advice on what amp and cab I could purchase for a distorted, sustaining lead guitar sound. Also am I correct in my evaluation of the raising of pickups?

From: M P Allen, Basingstoke, Hants, England.

Certainly raising your pickups will increase your output power, but be careful that you don't set them so high that they can be damaged by your pick. This question of master volume v natural full tilt sound (ie the one your heroes use) is a vexed one. I maintain that the two sounds are quite different, but possibly only to the more experienced ear. I reckon that your problem was that the sound you were getting with the Roost was dirty enough for power chords but not dirty enough for lead lines - a common problem but equally matched by others where the sound is dirty enough for lead but too dirty for chords. To me there isn't a perfect compromise, except to get a smaller amp and run it flat out instead of relying on the master volume circuitry of a bigger amp. Possibly a Marshall 50 watt combo might fit the bill? If you want to play at home, or in places where a 50 watt amp would be too loud, though, you'll have to find a master volume circuit which you like. My advice would be to try the bog standard Marshall 100 watt head, the Hiwatt ditto and, if you really do like dirt, the latest Vox V125 head which can be made really dirty. I personally feel that the standard Marshall 4x12, using Celestion speakers, is the best for heavy lead guitar but it's all a matter of opinion. If you don't like any of those I'd like to suggest you try Ampeg but it's so bloody expensive in the UK (and almost impossible to get). If money isn't a problem and it's a heavy sound you like, you might also try a Burman head - they're very versatile and might give you the sound you're after. I doubt that speakers are really your problem. It sounds like you're after the impossible: a master volume which sounds great for lead and chords and as good as a flat-out valve amp. Try the ones I've mentioned and draw your own conclusions. Good luck!

SECOND-HAND INDEX

Welcome back my friends to a slightly truncated version of the second-hand index, the brevity of which is due to this particular listing being drawn from papers published over the Christmas period, when everyone gets too pissed to bother about trivial things like classified ads and selling things. So this month's list is a compilation of the prices of just over 75 bass guitars offered for sale in the weekly columns of various music papers, all of which were chucked around the office for a few weeks and then magically fell into the cool order you see displayed below.

The key (bottom right) should sort out how to actually avoid split infinitives and use the listing, but you should, as usual, bear in mind that the second-hand index – a *Sound International* first, music lovers – is not intended to be a hard-and-fast price list. It's a guide to the sort of prices that were being asked in the papers over the four weeks or so leading up to press date for this issue. Although a few dealers' ads may have crept into this listing, it's hoped that the second-hand index will be a guide to private sale prices.

How do you like this second-hand index, then? How's it settling in? If you've got some constructive criticism, bung it in an envelope with the editorial address firmly attached to outside, and we'll be sure to respond. Next month: drums (oh no!).

Second-hand Index No 4 Bass Guitars

ARIA SB1000 £270
BURNS Vistasonic (1962-64) l/h £175
DAN ARMSTRONG 'sliding pickup' bass £125
FENDER Jazz Bass Avg £237 fretless £225

'pre-CBS' £325
1962 £440
FENDER Musicmaster £85-£100
FENDER Mustang Avg £153
FENDER Precision Avg £212
1962 Avg £403
1963 Avg £365

fretless £190-£210
fretless 1974 £230
GIBSON EB0 Avg £150
GIBSON EB3 £175
GIBSON EB3L +fl/cs £160
GIBSON Grabber £185
GIBSON RD Artist bass +cs £340



GIBSON Triumph +cs £300
GUILD acoustic bass +cs £450
GUILD B301 £160-£195
l/h £200 fretless £140
HAYMAN 40-40 £100-£150
HOFNER Professional +cs £65
HOFNER Verithin Bass +cs £135
IBANEZ RS800 £130
KRAMER DM24001 £395
MUSIC MAN Sabre £250
MUSIC MAN Stingray £265-£280
+fl/cs £325
PEAVEY T40 £180-£225
BC RICH Eagle £495
RICKENBACKER 4001 Avg £291
SHAFTESBURY Rick4001 copy +cs £125
SHERGOLD Marathon £110-£150
SHERGOLD Modulator +cs £245
WAL Pro II +cs £320
WAL Pro III Avg £435

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 £85-£100) if two or three instruments have been offered for sale; or an average price (eg Avg £237) if many instruments have been offered for sale. In this way the listing also indicates which are the popular instruments on the secondhand market.

Abbreviations used: Avg = Average price (see above); +cs = with case; +fl/cs = with flightcase; l/h = left-handed instrument.

Any words in 'quotes' are seller's description.



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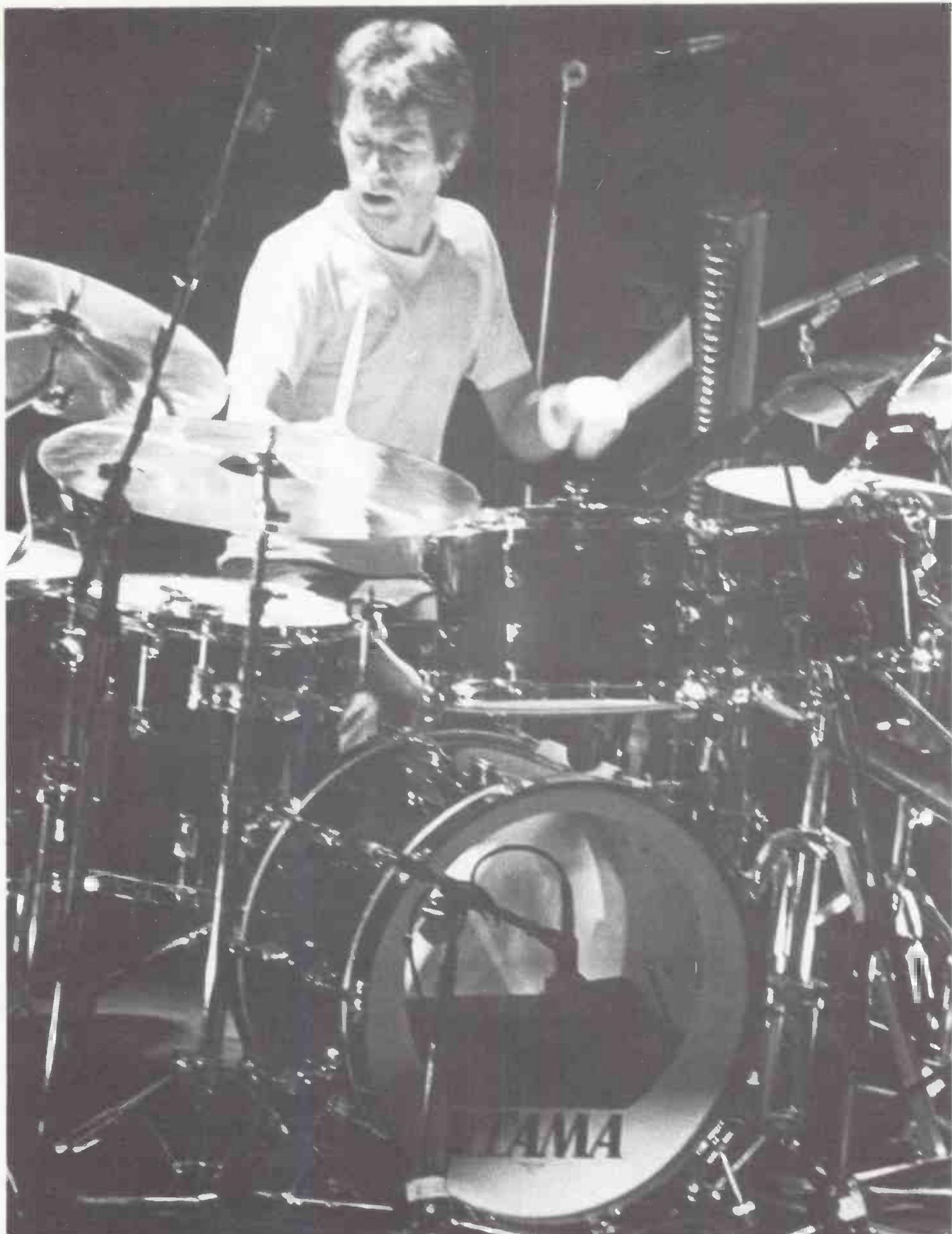
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PAUL DAY on... HAGSTROM

A lbin Hagstrom's long-established company provides Sweden's contribution to the hierarchy of the electric guitar. Eldest son Karl succeeded his father as head of the company, and Hagstrom electric models appeared during the late 50s.

One of the most distinctive of these was the *De Luxe* four pickup solid, produced between 1957 and 1962. This, like the two pickup *Standard* and bass versions, was available in a variety of very unusual colour schemes: jet black or white pearl body, neck and head, with the body face finished in turquoise, red or gold 'glitter', also in jet black or white pearl. The plastic fingerboard was likewise finished in white pearl. The innovative pushbutton selector control panel contributed to what was a very eye-catching instrument - somewhat over the top, but certainly unmistakable! This vintage model achieved later recognition via its appearance on a Roxy Music sleeve, and more recently in the Blondie video *Eat To The Beat*, although that example, belonging to Chris Stein, bears the American Goya brand-name.

This problem of alternative tradenames also afflicted Hagstrom instruments in the UK, the majority sold on the home market during the mid-Sixties bearing Selmer's *Futurama* trademark, these models being the successors to the original *Futurama* guitars.

The Hagstrom *Futurama De Luxe* series (3, 2 and Bass versions) bore more than a passing resemblance to the Fender *Stratocaster*, at least in outline. Earliest examples had a somewhat clumsy headstock design, later modified to a distinctly Fender pattern. The finish on the early models was again something of a departure from the norm, being a curious half-and-half combination of lacquer-fronted and vinyl-backed body. However, later versions were finished in conventional solid lacquer colours. All featured novel electronics, comprising a row of pickup selector switches and a single master volume control, all mounted on a moulded cream-plastic scratchplate. Pickups were the standard Hagstrom high-quality single-coil type, and the simple, but effective Hagstrom vibrato unit was fitted as standard, this unit also appearing as an option on the earlier 'glitter' solids.

In 1963 the range was extended with the addition of the *Futurama Coronado* series. The *Automatic* model was Fender *Jazzmaster*-based in its shape, featuring an impressive array of switches and roller controls. The other *Coronado* models were the 4- and 6-string basses, these having an original and distinctive body styling, again with comprehensive pushbutton



pickup selector circuitry. All three *Coronados* featured the novel 'Speed-o-Matic' acrylic fingerboard fitted with stainless steel frets.

The *Coronado* bass styling was shared by two guitars, arguably the most attractive of all the Hagstrom solids, but which unfortunately didn't appear on the British market. These were the *Corvette* (three pickup) and *Impala* (two pickup) models, again with 'Speed-o-Matic' fingerboards and pushbutton circuitry.

By mid-1964 the body shape of the Hagstrom solid range and their *Futurama* equivalents had been restyled along Gibson SG lines, a

design retained for subsequent models. Randy Meisner of The Eagles used a Hagstrom bass of this type to great effect.

Other models to appear during the mid-60s included the *Kent* series (not to be confused with a Japanese make of the same name), a 12-string version of the Hagstrom *De Luxe* (SG-style), and the *Viking* semi-acoustic guitar and bass models, the latter being introduced onto the British market via the Selmer catalogue.

In the late 60s came the *Concord* bass, a 12-string *Viking* and the unusual 8-string solid bass, a pioneer of its type and later used by Noel Red-

GUITARS

ding of the Jimi Hendrix Experience, among others. This followed the normal Hagstrom SG styling, with two pickups and multiswitch circuitry. The re-designed *Hagstrom II, III* and *Bass Special* solid models then underwent certain changes: the Fender-style headstock being superseded by a double-sided design, humbucking-type pickups replaced the single-coil units, and a conventional rotary volume and tone plus three-way selector system replaced the multiswitch selection circuitry. The vibrato unit was now an optional fitting on the *Special* guitars.

In 1971 the *Swede* was introduced, a high-quality alternative to the Gibson *Les Paul* without being in any way a copy, and this model has proved to be one of the most popular Hagstrom guitars. The *Swede Bass* was also added, together with the *Jimmy*, a top-line acoustic/electric model, designed by famed American luthier Jimmy d'Acquisto. This was later made available in an alternative oval-hole version. The head-styling of the *Viking* was then changed to match that of the *Swede* and *Jimmy* models. By now Hagstrom instruments were well-established in America. Even Elvis Presley wielded a *Viking* at one time!

Later additions to the range have been the *Scandi*, a three pickup Fender-styled solid, the matching *Scanbass* (previously designated the *Jazzbass*) and most recently, the *Super Swede* and the *Patch 2000* guitar synthesiser.

While preparing this article I received news (as yet unconfirmed) that the Hagstrom company intends to cease all guitar production this year, preferring to concentrate on the retail music side which has always been the major part of their business operations throughout Scandinavia.

Hagstrom instruments have always enjoyed an enviable reputation for consistent quality and design and although something of a minority name in this country have been brand leaders in many Scandinavian countries while successfully exporting throughout the world. However, this sad news is further indication of the diminishing world guitar market - Hagstrom appear to have decided to opt out of this increasingly competitive field.

So, with yet another famous name destined to disappear, perhaps the only benefit will be to make at least some of the many excellent Hagstrom models even more desirable. Collect before it's too late!

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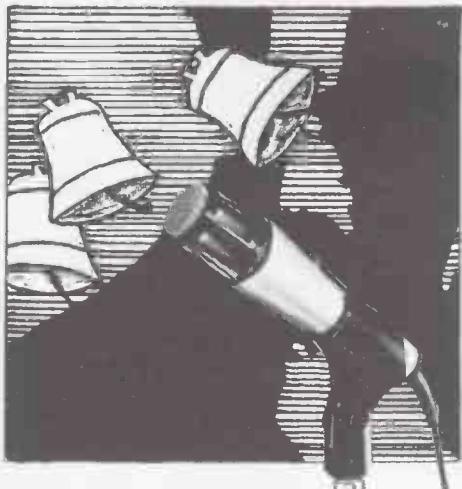
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ET CETERA



SAYDISC; Hits By Word of Mouth

One of Britain's more successful record companies can be found tucked away in a valley in the Cotswold Hills. In a year when most companies saw sales decline, Saydisc Records have done better than ever.

While CBS chases megabucks with Abba and WEA assaults the universe with The Pretenders, Gef and Genny Lucena of Saydisc are planning another album by the deceased George and Dorcas Juggins, or maybe a series of night-time recordings of steam trains, or even an album of hits made famous by Gertie Gitana, Marie Lloyd and Flomie Ford, performed on a twelve air cylinder music box.

It may seem fanciful. To a mainstream record company it would be commercial suicide, but Gef and Genny operate in a world far more real than the simulated oak panelled boardrooms of most record companies.

'We're having no difficulties at all. This is the best year we've ever had,' explains Gef, settling into his armchair. A coal fire burns in the hearth, Brambles (the Saydisc dog) nestles at his feet and outside cows graze freely on the open common. This is the cottage HQ of Saydisc. 'What we do is totally unconnected with the mainstream industry. We offer roots.'

Roots to Gef Lucena means everything from traditional English bell ringing to classical music played on original period instruments, to octogenarian shepherds reminiscing about rook starving and 'oss muckin'.

'Over the years we've also released a lot of old blues, old jazz and contemporary folk music,' Gef points out, going on to detail the Saydisc approach. 'Our customers want quality recordings and we try to keep standards the big companies don't approach.' He and Genny have little respect for the standards of the industry at large. 'We used to have our pressings done by EMI and Pye but they were so bad, so many faults and so much degradation from our master tapes that we had to hunt around to

find the best pressers available. We found Nimbus whose plant, in a mansion overlooking the Wye, is all state of the art equipment. They cut, process and press in the mansion and we rarely have to return anything.'

Like Gef and Genny, the people at Nimbus had been making records for about 15 years and, sick of the quality of pressings available outside, decided to do it themselves.

Quality is a watchword at Saydisc. 'We're so fussy about sleeve artwork,' laughs Genny, 'that if we didn't pay our bills promptly our printers would hate us.'

Saydisc's reputation for quality is such that a team of American bell ringers recently contacted them and, preferring Saydisc to any American company, will fly here later this year to tour and record.

'We can't operate like most companies. Almost all our work has to be done on location, so our equipment has to be portable. We've adapted a caravan to use as a mobile studio, and are fortunate to have an excellent sound recordist in David Wilkins.'

Mr Wilkins has to cope with an incredible variety of sounds. 'It's a mixed bag,' he says, 'but that's half the interest. One day it's a barbershop quartet, then a brass band, a choir, an early piano or a set of church bells.' The problem with bells is not the wide range of tonalities, but eliminating extraneous wind and traffic noise. I could clean it up with our Orban Parametric Equaliser (622B), but I prefer to go for a clean recording from source. Generally we use AKG 414 mikes, but for the bells I prefer AKG 451s.'

The main mastering machine is a Revox A700 ingeniously adapted by David Wilkins so it can be used as its own mixer with Dolby units, giving more flexibility for location recordings. 'Our main mixer is a Chiltern 10/2, not too sophisticated, but we're the first to admit that much of our equipment is semi-pro. Judged by results we think we match up to the bigger companies, and with Gerald Reynolds

at Nimbus, I know I'll get back exactly what I've given him.'

In fact, several Saydisc albums leased to major companies, attracted more than favourable reviews.

Location recording is not easy. For one early venture, *The Sounds Of Bristol*, featuring music, poetry and well known sounds from the area, they wanted to catch three distinctive local sounds, ships hooting under the Clifton suspension bridge; the tolling of the bell 'Great George' and the chiming of the quarter jacks in Christ Church. With release date fast approaching, Gef Lucena set off into Bristol. As luck had it 'Great George' was down to be cleaned, a dock strike stopped all ships coming up river, and 'the quarter jacks' mechanism had broken down.

Fortunately, the strike ended two days later, 'Great George' was reinstated and Gef persuaded a local clergyman to strike the Christ Church chimes as the quarter jacks would have done. The record came out on time and was a best seller.

In Saydisc terms, a best seller doesn't have to do a million. Genny explains, '*Sounds Of Bristol* did about 24,000, but the bells are generally our biggest line. We regard anything over 3000 as successful, and we've never lost money on any of our 250 releases.'

Sometimes they release albums which they are sure will never sell. 'We make them because they have to be made. They are important social documents with a historical value, and if we don't record them, nobody will.'

This philosophy obliges them to release records in a logical manner. 'We try to cover all aspects of a theme. We've covered all aspects of bell ringing, including handbell change ringing on 20 bells, something never before heard on record. Our spoken word recordings cover all aspects of Cotswold dialects, and next year we'll be doing the Forest Of Dean. On the mechanical instrument side we work chronologically, decade by decade starting with early music boxes and

working up to the first 78s, covering barrel organs, street pianos, symphonions, polyphones, all playing melodies originating from the time they were built. It has to be put on record or it will die out.'

The equipment at Nimbus recently enabled Saydisc to release an album of readings by Timothy Davies from *Kilvert's Diary*, the journal of a Victorian parson, (recently serialised on BBC television). Interspersed with music on Welsh harp, harmonium, flageolet and concertina the single album lasts an hour and a half. It is the first album of its type ever made at 33 1/2 rpm and they now plan to release all of the Haydn sonatas on original pianos in this extended format by 1982, the 250th anniversary of his birth. 'I heard a Nimbus test run of 52 minutes a side of music. It sounded good, and they plan to improve on that,' says Gef.

In the 80s, many people have become distrustful of large corporations, and are seeking more personal care and attention. 'We wouldn't want to be bigger. We're a stable-state company with no thoughts of major expansion. People usually hear of us by word of mouth, or by seeing our records in a friend's house. We like it that way.'

There you have a surprising parallel for the explosion of small labels on the mainstream pop market. In the beginning it was word of mouth that sold Stiff, Factory, Chiswick, Rough Trade and the host of independents that sprang up to challenge the giants. Word of mouth against big budget advertising.

Not that Saydisc plan to launch any budding rock bands. 'Oh no. We won't even release a version of Beethoven's Fifth, unless we could maybe do it on original instruments. Otherwise it has been done too often. We're now really focusing on the recording of a heritage. Oddly enough, the public seem to love it too. Dialect recordings and Victorian musical boxes are becoming more popular. For obvious reasons, we also sell huge amounts by mail order to expatriate Britons living overseas.'

Being small means customer service can be remarkable. 'One chap wrote to us asking for a mechanical music cassette,' Genny remembers, 'but didn't put his name or address on the letter. We hunted through our mail order file to find everyone who had previously bought mechanical music on cassette, then matched those against the postmark on his envelope. He got his tape, and later wrote to thank us for our detective work.'

Not having the big companies' overheads means they can also keep prices down. Their mid-price range is £3.99, full-price is £4.99 and double-length single albums are £5.99.

You can obtain the Saydisc catalogue by writing to Genny Lucena, Saydisc Records, The Barton, Ingleside Common, Badminton, Gloucestershire, GL9 1BX, or phone 045 424 266. Take my word, there's nothing like it anywhere. Johnny Black

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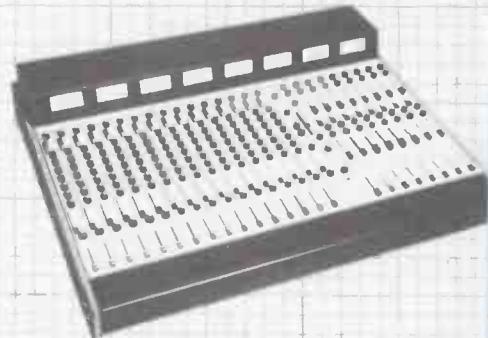
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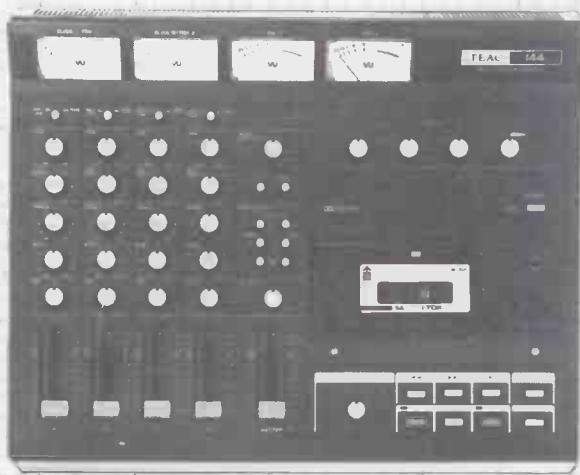
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I remember seeing The Jam at a Mecca ballroom called The Cat's Whiskers in York. It must have been the summer of 1977, when punk was reaching an incandescent peak across the country. Though part of punk's front line, The Jam bore little resemblance to the many-zipped and multicoloured crowd packed into the hall. Austere and tidy in neat dark suits, guitarist Paul Weller and bassist Bruce Foxton were all blurring motion, a flurry of harshly-lit snapshots whipping past at breakneck speed as they leaped like salmon heading upstream. The sound was terrible - a giant ringing noise like a string of telephone exchanges wired into a PA system. But The Jam were not going to be forgotten. That was obvious.

Now, after 11 singles and with their fifth album, *Sound Affects*, in the charts, The Jam are almost senior citizens in British music. Without ever performing do-it-yourself open heart surgery in front of the media like some of their contemporaries, they've reached a stage where chart success in Britain is guaranteed. Their last-but-one single, *Going Underground*,

Weller, Weller, Weller Little Things That You Say And Do

reached number one in a single giant bound. It was almost as if they sneaked up behind success and overpowered it, silently. They don't look likely to let it go again.

Paul Weller, now carrying the weight of 23 years on his shoulders, finds himself rated as one of rock's classiest writers. He and The Jam were flayed by the press after the second album, *The Modern World*, but staged a counter-attack with the impressive *All Mod Cons*. It had been preceded by the singles *David Watts* and *Down In The Tube Station*, the first a Ray Davies song, the second one of Weller's which he now rates as The Jam's best single. Since then it's been up all the way, with the 1979 album *Setting Sons*, and most recently *Sound Affects*, the latter arguably the best yet.

Though The Jam were credited with starting a Mod revival which had virtually nothing to do with them or, more pertinently, with Weller's personal direction as a writer, and though Weller will readily admit to steeping himself in Who records and playing guitar chords like Pete Townshend, the band have always been true to themselves. The fact was buried for a while under the apparently shared ideas of the punk movement which washed The Jam up on the uncharted beaches of the public domain. But since then, the band's sound has grown harder and more concentrated, and Paul Weller's songwriting more resonant and more ambiguous. 'The public wants what the public gets,' he sang in *Going Underground*. And it gets what it wants too, and it wants The Jam badly.

On a cold and snowy day in January, Paul Weller arrives at the band's offices near Olympia. He enters the room almost furtively, a thin, pale figure wrapped in a long overcoat which falls around his ankles. The room is full of beefy members of The Jam's road crew, who have just spent a long time discussing motor bikes, guitars and the finer points of roadying etiquette. Now they're discussing with Paul Weller's father John how to set up the stage PA for an unspecified European date. John Weller is a burly individual with a voice made gravelly by too many cigarettes. He's craggy and silver-haired and bears an incongruous resemblance to Jock Ewing. He bears no resemblance whatsoever to his son, who suggests we go next door for pictures and interview. He's an hour late.

'D'you like doing interviews?' Paul Weller asks me, unexpectedly. It's particularly unexpected because Weller is behind me when he asks it, having just re-entered the room carrying cups of coffee. A few minutes before, I'd watched, fascinated, while Paul lit himself another Rothmans and held it in a left hand which shook visibly as it rested on the table. 'I used to be really cocky in interviews,' he admits. 'Now I just get more and more nervous every time I do one.' I'd switched off the tape recorder during the coffee break, and Weller was visibly more relaxed, like a man who'd just been relieved after an arduous spell of guard duty at a border post frequently raided by terrorists. I switched the recorder on again, of course, but the ice seemed to have been broken.

... make you sound just like the Who-a-whoo. But that was then and the Jam have moved on to territory that's all their own. Adam Sweeting discusses Jam '81 with Paul Weller.

The conversation rambled for the best part of two hours. I'd expected Paul Weller to be cold and hard and probably arrogant. Instead he started off edgy, blurting out sentences in sudden bursts, and became increasingly animated. Behind his galvanic stage persona, he's an avid reader who writes a lot of poetry, and a stringent critic of The Jam's track record so far. If he finds fault with anything the band has done, he doesn't shrink from accepting the largest share of blame. Likewise, he's blunt in his criticism of things outside the band. These include Mrs Thatcher and America, as well as Dexy's Midnight Runners and Geno Washington ('Have you 'eard his live LP? It's really terrible.') But he has an intense pride in The Jam and what they can achieve. After all, the band has been his *raison d'être* since about 1973.

Adam Sweeting: Your writing seems to have got more introverted as The Jam have gone on.

Paul Weller: Well, maybe more personalised, but I wouldn't really call it introverted. I'm writing maybe more from ... I was gonna say from a personal angle, but I think I always have done anyway. Maybe it sorta shows more now.

Maybe because you arrived in the middle of the new wave, people at that time didn't pay that much attention to individual lyrics?

PW: It's more acceptable now anyway – all the bands. Whereas when we first started people sorta looked down at us. It seems like people have gotta take notice now. We've sorta stayed there – we didn't sink without trace a year later. We've not only stayed there, we've also progressed.

I was surprised that Going Underground went straight in at number one. I thought it was a good song but I didn't think it was commercial enough to do that.

PW: Yeah, but I think that whole commercial sound has been made redundant anyway in the last two or three years. There's loads of good bands. The good thing now is that a song doesn't have to be immediately commercial anyway to be good or to be a single. *Tube Station* I still think is the best single we've done, and it's not that commercial on first hearing. I think people are getting more into actually listening to the songs and that, not just the first hook line or something.

But there's still a lot of formula stuff in the charts.

PW: Well, you consider all the different bands and different types of music in the charts. You've got like the Stray Cats, Spandau Ballet and stuff, and it's all different styles. And not all of it is blatantly commercial. If punk's done nothing else it's changed that, so that any sort of music can get somewhere.

What have you been listening to lately?

PW: Well everything really. Mainly records rather than the radio, cos the radio's just boring, innit? I have been listening to the Teardrop Explodes LP, that's really good. The sound's really good on that. But mainly I listen to singles, really. I've always preferred singles.

With the turnover of groups being so rapid, The Jam are fairly senior people in the scheme of things now.

PW: I think that keeps us on our toes, cos there's so much competition you can't afford to sit back with the frame of mind like you just said, like 'we're a senior band'. That's the good thing about it, cos like bands can just come up overnight. A band like The Specials have only been going for like two years, record-wise, and all of a sudden they've become our contemporaries.

Let's talk about the Sound Affects album. I thought the sound on it was really good.

PW: We ain't really entirely pleased with it. I think it's the best sorta collection of songs we've ever done – not necessarily the best LP, but I think the songs are the strongest we've done. We were a bit pissed off about the sound, actually. I thought it was pretty weak. A lot of people said our sound was really strong and hard and that, but I mean, it's nowhere near as hard and strong as it is live. And I also liked the sound of the album on tape before it was transferred to disc. When we recorded it, we purposely tried to get it as live as we could, and the sound was all there but we just lost it somewhere along the line. I dunno if it was when it was cut or what it was. And a lot of the volume was lost as well. So if people thought it sounded good, it could have come out 10 times better if it had come out the way we wanted it.

What I call a realistic sound is like the old Motown records. They'd never heard of digital recording or that crap, so I don't really go along with the technical side. I think the essence of a record is what you need to capture – y'know, the soul of it, which we've got, but to me I don't think we've ever got it on record. That's one reason why we wanna have a go at producing ourselves on at least one single, just working with an engineer and trying to do it really straightforward. Try and get more of a live sound, or closer to what we hear ourselves.

How do you work in the studio? Do you do a live vocal, for example?

PW: I did on *Sound Affects*. Like *Scrape Away* on the second side, we done that just live with bass and drums and me singing. I did the guitar afterwards. We did that all in one take. *But I'm Different Now* was live. I can't think of them all off-hand, but quite a few tracks were live. That's the first time we've worked like that, really. With *Start*, the actual single we recorded in one morning. We just rehearsed it, and the first time we played it we just made up the middle eight and the rest of it, and then just recorded it in about four hours. That's got a good live sound. We added a bit of brass on the LP version. I



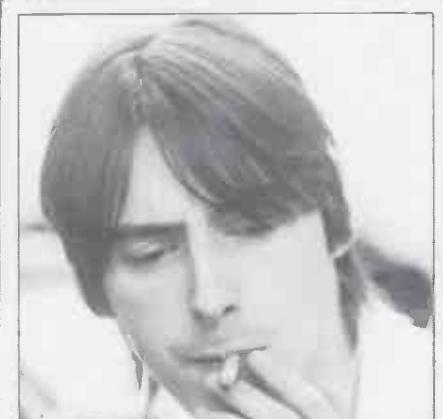
think we might extend the brass idea a bit in the future.

Some of the songs read like they started out being poems, rather than songs. That's Entertainment, for example.

PW: It depends how I write them. That's Entertainment was written as a poem first of all, whereas in other songs I get the music first and write the words afterwards. Then they turn out more like song lyrics. A lot of the songs do start off sorta like poems.

Listening to Man At The Corner Shop with most lyrics about God creating all men equal, I was wondering if you find that the song format is limiting to the kind of ideas you're trying to express?

PW: Yeah, but that still depends how you do it, don't it? If you can be concise enough I don't think that matters. You can say just as much in two minutes as you can in five. I wasn't really conscious of trying to do that. I'm still really into the idea of three minute songs – I still think you can say just as much. It all comes down to how well you can get your ideas down. The main idea I've got is to try and simplify things even more than I have done, and try and progress at the same time. The words, the way we play,



everything. Everyone always thinks that progress means becoming more and more complex, whereas I'd like to progress and become more and more simplified. I suppose that would be mainly the words, making them more conversational rather than dressing them up with a lot of imagery, which I've done in the past. That was especially true on Setting Sons, which does come across a bit sorta liberal, y'know. We are sort of accused of just sort of sitting on the fence and reporting, and I suppose it's right really. Setting Sons does come across like that – it's a bit easy. On Sound Affects, on the other hand, I tried to make more my own personal statements. I intend to go further than that and make more direct statements.

When you meet the kids after gigs or wherever, how much are they into your lyrics or how much are they just into The Jam as a dance band?

PW: I would say the majority of kids get into the words. I'm only going on the kids we meet afterwards and I suppose on a good reaction in the letters we get. A minority of people might just like the sound of it. I like to think they get into the words, because it is an important side of it.

Some groups or writers would say that the music is the thing it's really about.

PW: Yeah, but I think it goes hand in hand. I wouldn't want to make the music just a vehicle for the words, that would be pointless. You've got to be conscious of both, really.

Did you write words before you started playing guitar, or did you just start out writing complete songs?

PW: I never used to bother too much about the words. I've always written songs, ever since I started playing guitar. I only started concentrating on words more about four or five years ago, since I saw The Clash and the Pistols. Like the time Joe Strummer was saying to me people have gotta start writing about more important issues and that. That made an impression on me. That was in about '76.

How about your guitar playing? You use a lot of open strings for chord playing, don't you?

PW: Yeah, most of the time. You can get more power from open chords. I got that from Pete Townshend, but there's a lotta chords I try to suss out myself to get more power. If I can find a way of playing open strings I do. (Paul picks up his trusty Rickenbacker at this point and strums a few favourite shapes. For example, the E shape G major and A major in the third and fifth positions can be played with their tonic strings left open, while the G7 shape at the 12th fret which is the first chord of Start can be played with an open G. Dead easy when you know how, John.)

What did you think of the article in Melody Maker where your conversation with Pete Townshend was printed? (October 11, 1980.)

PW: It was all right, but there was a lot chopped out of it because we were talking for about two hours. A lot of it read a bit disjointed. I think it was quite a good idea, but it wasn't really the event a lot of people thought it was gonna be. There wasn't really that much said, and I also

disagreed with him about a lot of things, which was strange.

Why was that? Do you think people have compared you with him too much, perhaps unfairly?

PW: Yeah . . . I always thought there was some kind of affinity between us as well. But there were a lot of things I disagreed with. It was all right. I got some of me records signed. I think he's a good geezer.

In an interview in The Face from June 1980, you mentioned you used to listen to groups like The Herd long before you heard The Who.

PW: Yeah, I didn't really start listening to The Who until about 1975. Strange as it sounds, I don't remember their early stuff at the time. I'd mostly listen to pop bands like The Herd, who I suppose were real teeny sorta bands at that time. Like The Nolans or somebody are now – well, a bit better than that. I also liked The Move.

What about other guitar players who have had an effect on your playing?

PW: I tell you a guitarist I really do like, and that's Syd Barrett – some of the early stuff. His style's really good. I've started using a Copicat on stage, just for a couple of numbers. But I mainly got it cos I was tryin' to copy some of his styles, y'know. I liked the guitar on the Beatles' Revolver album, too.

Where did you get the idea for the backwards guitar on That's Entertainment? Was that from The Beatles?

PW: Yeah, I suppose it might have been. That was really difficult actually, I had to work out a figure and then I had to reverse it. It was really hard to get it to fit in the right place. It was the first time I've tried doing that. You have to work it out in reverse so it comes out the right way round backwards. (Got that?) There's a lot more things I'd like to do, really. I've been listening to Michael Jackson a lot, I like the guitar styles on that. Maybe Gang Of Four started that interest in disco. I saw 'em at The Nashville supporting somebody – they were really good. It was the first time I'd seen a white band with that sorta disco rhythm section. That geezer's a really good guitarist (Andy Gill) – it's like half Wilko Johnson and half funky. Wilko's good too. He was brilliant with the Feelgoods.

One of the strongest things that strikes me about The Jam's music is a sense of Britishness. That's especially true of Setting Sons, with the cover picture of the three soldiers, Eton Rifles, the camaraderie in Thick As Thieves. Then there's the sort of Victorian seaside postcard idea on the inner sleeve. Then on Sound Affects, there's the poem by Shelley on the back. There's a sense of a loss of innocence.

PW: But a lot of that stuff's sorta tongue in cheek anyway and I think a lotta people miss out on that. (Paul thinks I'm accusing him of being like Ray Davies and trying to preserve village greens and public schools. I try to explain what I mean, but don't do it very well. What I think I mean is that The Jam's Britishness is about facing up to the way history and social change have forced everybody into new attitudes. New and ever-more-complex

realities have to be accepted, however harsh.) A couple of songs were kind of about the loss of innocence, but only from my own schooldays, y'know? Like me and a few of my friends who had ideals that would never change, and all that stuff.

But that's part of it, when you realise that there are things you have to live with and which are put upon you.

PW: That can also come down to what I was saying, that people seem to be getting more and more closed-minded about things. It's kind of a spiritual thing as well, do you know what I mean? People don't seem to have that same sort of spirit inside them. Or maybe they have but they're losing it more and more.

Why did you put the Shelley poem on the sleeve of Sound Affects?

PW: Well, I thought that applied quite a lot to what's going on now. But it's our environment, innit? We come from Britain and we're affected by British things. What else can you do? Our environment reflects into what we write and how we sound, so there's no way you can change it. It's just a compromise to do anything other than that. That's why we'll never be successful outside of Britain, I don't think. I mean, you listen to any British records that make it in the States, for instance, that are supposedly by new bands. It's always like Joe Jackson and The Police. It's all American-sounding, or if not American sort of universal-sounding. The one Clash single that made it into the American charts was *Train In Vain*, which was like the fucking Doobie Brothers or Nils Lofgren or something. But I can understand it. I mean, to some Yank or something listening to *That's Entertainment*, it probably sounds like a load of gobbledegook.

How well have your records done in the States?

PW: I think we sold about 150,000 copies of *Sound Affects*, which is a drop in the ocean over there. It's not a defeatist way of looking at it, it's just, what else can you do? It's our sound and we ain't gonna change it and that's it. It doesn't really stop us playing anywhere. Every place we've played we've always gone down really well and communicated anyway, despite language barriers. So it's only the records that don't sell, and in the States a lot of that's only due to radio. People won't pick up on us cos it doesn't sound right. Our records are rated, er, what's the phrase ... AOR. Is that right? 'Adult Oriented Radio' – it's sorta like late-night crap. Music over there's really conservative. People talk about conservative England, but America's far worse.

Time for a fast edit here, because the conversation became a little fragmented. Talk of conservatism led to observations on the right wing tendencies which Paul fears are becoming all too visible in Britain – a situation perhaps mirrored in the music press.

'I think the press have got to face up to a lot more responsibility,' says Weller. 'Like Sounds propagating all that boot-boy thing. What's that all about? It's ridiculous. But I'm never too sure how much power they've got anyway. They slagged off Adam and the Ants for years, they were really despised by the press, but they've come through it anyway. They wrote us off a few years ago, but the thing is if you've got a strong enough following you can come

through it anyway.

'But the papers can be really useful - they could use it to good ends. Some of the articles in *NME* are OK, like that 1984 thing. It was a bit long-winded (too true) but I think it's the sorta stuff that papers should go in for.'

Weller is particularly upset that the currently visible right-wing movements seem to be gaining a lot of working class support. He thought the latter would have more sense. As ever, though, any diagnosis of social problems remains desperately lacking in solutions. Certainly The Jam have never staked themselves a place in any political arena, though Weller's vehemence about fascism burns deeply. The only real way forward lies in persuading people to think for themselves, which, as Joe Strummer once pointed out, should have been the point about punk. Weller agrees.

'This new sort of punk feeling that's coming back, all the new punk bands, it's just fucking reactionary. It's like, 'We're going back to the grass roots of punk, fuck this, fuck that, coppers are all cunts.' That is totally fucking irresponsible. It doesn't matter if it's created by young kids or not, they should have more sense.'

'That's the trouble - I don't think there's enough responsibility. Either people don't take it up themselves or it's not given to them in the first place. In the Western world, all your responsibilities are taken away and done for you. It starts at school, like losing that individual spirit and replacing it with a cosy environment where your only responsibility is to get up every morning to go to work.'

So, Paul Weller takes his role seriously as someone who can at least help to show the right direction. I suspect one of rock music's chief limitations may be that it can only preach effectively to the converted – whatever the actual or potential content of ideas or provocations, it remains only a gut feeling for too many people. It's difficult to see this state of affairs changing because the mass-media of television and the popular press don't understand music. With the exception of a few individuals, Fleet Street and TV are not involved personally with music and they don't want to be.

Nevertheless, Paul Weller isn't standing still, because he's started a publishing company called Riot Stories. So far it has published a collection of poems by Dave Waller called Notes From Hostile Street, and a mixed bag of poems called Mixed Up Shook Up by a variety of writers. Paul has also compiled and designed a pop art magazine called In The Car, which contains poems, prose, drawings, etc. He's been deluged with contributions from all over the country.

Further adventures in media: Paul volunteered his services to the producer of BBC-2's Something Else programme, asking if he could take over a show one week. He was due to meet the producer a few days after this interview. And finally, The Jam collectively are considering hiring a club maybe once a week to showcase new groups. It wouldn't serve alcohol so that younger kids could attend.

For The Jam themselves, the next main event in the calendar is a European tour starting this month, with Ian Dury and The Skids. A single will probably appear soon too, though Weller hadn't written it yet. And, of course, the search for the perfect recorded sound goes on.

'I really do feel we've never really captured our sound whatsoever,' he protests. 'But I suppose in some ways it's quite inspiring. It leaves us something else to go for.' ■

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During the spring of 1978 I decided to impose a limit on the amount of extensive touring that I would commit myself to. After touring the world with Woody Herman, Chuck Mangione, Weather Report, Billy Cobham and George Duke for several years, I felt a strong need to establish home life and basically take a break from it all.

Since 1975, I've been receiving a lot of mail from various people (mostly musicians) enquiring about how I got certain sounds – either at a concert they attended or on a recording that they've heard. Well, I am probably the world's worst when it comes to answering letters (especially in those numbers) so I've put this communication together hopefully to answer your questions and explain to you about my friend the BASTARD.

I guess that I should make mention of the fact that I'm aware of a great many people who are not interested in a technical article about some expensive toy. Well, this article is really intended to do several things: 1) To share with you some first-hand experiences; 2) To help those of you who are pursuing a career as a bassist and/or composer; 3) Maybe to avoid having to answer all of those letters. The method I used was mostly trial and error and, although this is the method I still use, hopefully some of you out there will be able to save yourselves some time and money.

Background

It's still hard to imagine, but just 15 years ago I picked up the electric (Fender) bass and became totally fascinated with its sound. Up to that point I played the bass violin in school (mostly arco – with a bow) and had played all classical music, which was without electricity.

As I became more and more influenced by what I heard on the radio it became clear that the electric bass was going to greatly influence popular music... more and more the electric bass was being liberated from the traditional role of the bass. To me one of the greatest musicians to start this trend is Monk Montgomery. He was not only one of the first electric bass players but he got a variety of sounds out of the instrument, as well as playing with taste and articulation. The styles of James Jameson (Motown), Noel Redding (Hendrix Experience), Paul McCartney (Beatles), Chuck Rainey (session player) and Chris Squire (Yes) were capturing my ears. I noticed that each player had not only his way of playing but also his own distinct sound.

It became clear to me that there were four basic dimensions of sound: lows, middles, highs and depth. Most players usually capitalised on one or more. Later it was brought to my attention that each of these four dimensions could apply to the sounds of music. As I adopted my ear to hear what was going on around me (on and off the bandstand) I learned how to practice in front of an audience. Supporting a band and supplying the bottom does not have to be boring. Sometimes when listening to a group playing I'd hear one or more musicians playing in the same dimension – and usually because they were limited by their ears, equipment or the style of music. However, this does not have to be the case for those of you who have lots of imagination.

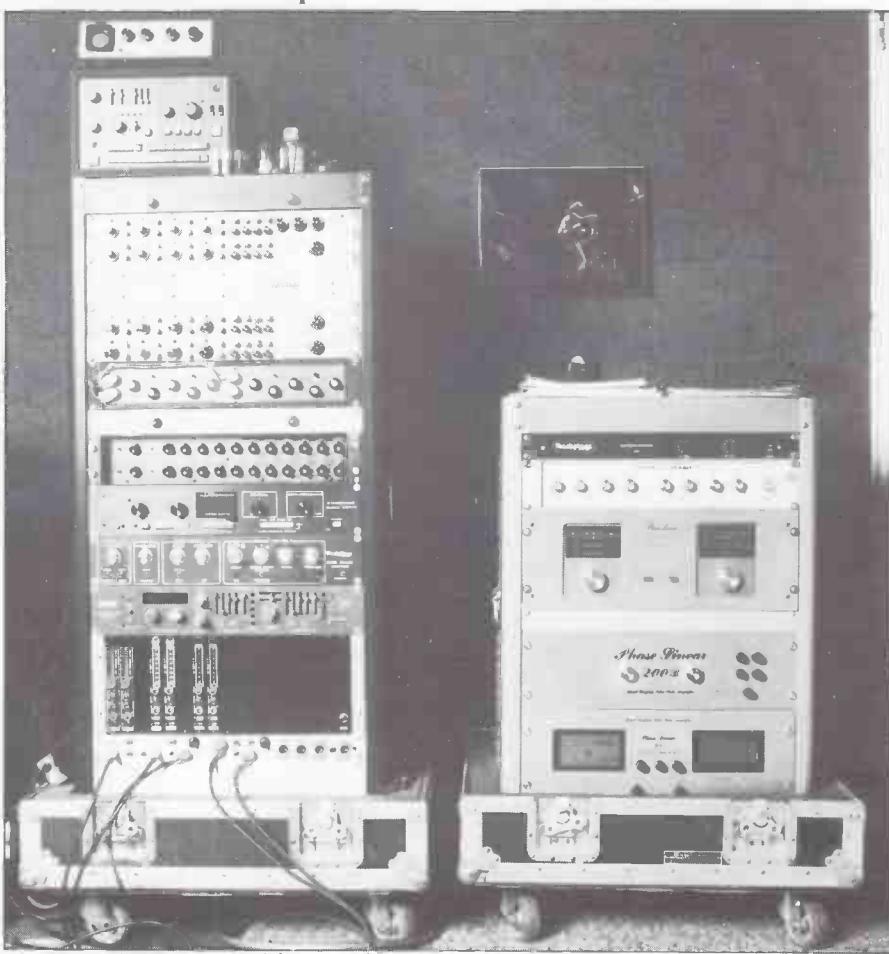
In 1973 I got an opportunity to join the Chuck Mangione Quartet, which consisted of bass, drums, sax and flugelhorn. Whenever the horn players would solo (there was an electric



All photos Glen LaFerman

My Friend The Bastard

The offspring in question is the Bass Amplification System Through Added Regenerated Devices, a mass of boxes, wires and basses owned by Alphonso Johnson, who's played bass with Weather Report, Billy Cobham and others, and here identifies the Bastard's constituent parts.



Bits of the BASTARD: processing left, power right



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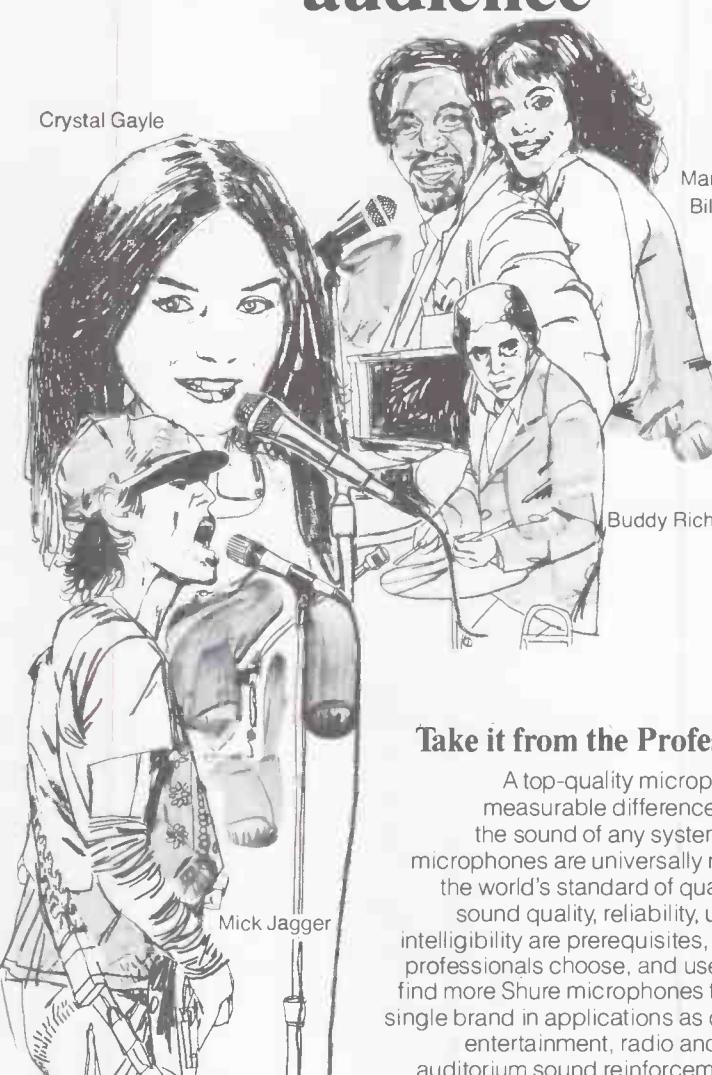
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piano on stage) the band sounded one way, and when the introduction of the song started, the band would sound different. With the piano dropping in and out during a song it helped me to appreciate the space (or depth) in the sound of the group. It also opened up the harmonic, rhythmic and melodic possibilities for the bass. It was during this gig that I started realising the limitations that my ears, equipment and previous styles of music had placed on my playing. Eventually I learned how to apply the basics of melody, timbre, rhythm and harmony to the four dimensions of depth, lows, middles and highs. This led to a search for equipment that would give me access to the demands of my imagination, and would handle the different needs of recording and live performing.

I should assume that as I explain things and try to simplify the explanations that any recording engineers reading don't get bored. Since we (musicians, critics and parents of both) are all involved in electricity it would be a good idea to visit the local library and find out some basics on electronics: it's something that helped me tremendously as I started to play with super hot pickups, synthesisers, amplifiers and oversized, amplified drum sets.

The more I toured and recorded, the more frustrated I became. 'How come I can't get that great sound I had in concert the other night?' Or, 'On such and such a record the bass sounded fine,' or, 'The bass sounds too boomy.' or, 'Could you be a bit faster when switching from one instrument to another,' etc. As most of us know (unless you play with E, W & F or ELP or LTD), when you have to do it yourself it's a long uphill climb. I needed something that was dependable, flexible, portable, roadable and affordable.

In 1976 I attended the Los Angeles NAMM convention and had the pleasure of meeting Mr John Fly of Malatchi. After talking to him about my ideas he invited me to Boulder, Colorado to get together with Mr Tom Beaman and Mr John Herchenrider (now with Backstage) to discuss how to get all of my ideas down on paper and then into a real instrument.

I wanted to be able to play very loud with a full range (dimension) to the sound and yet play very soft without sacrificing any range. I wanted to be able to play an effect as another instrument (not just a gimmick) and blend their sounds together... I needed to be able to preset controls for seven different types of inputs. And I needed to have it all foot controlled. I wanted the flexibility of being able to add delay to my vocals and harmonise my bass separately from each other. After much thought and many phone calls we came up with the BASTARD (Bass Amplification System Through Added Regenerated Devices).

The System

The BASTARD (as you can see from the block diagram) is a chain of mixers, effects, instruments, pedals, crossovers, amplifiers and speakers. These have all been sub-divided into rack-mounted packages. The flow of signal can be followed to see how we get from the instruments to the sound coming out of the speakers, and what goes on in between these two points. The system was conceived in stereo and can handle up to 48 total inputs. Also, this system was designed to help the performer place emphasis on the quality of the sounds being reproduced.

A good way to hear the BASTARD in two different environments is to listen to my album

Spellbound (recorded and conceived in the studio) on Epic Records EPC or *Alivemotherforya* (recorded and conceived on tour) on CBS Records. These two recordings captured the system in what can be called real time. All of the good and bad points were captured as they happened.

Let's divide the system into sections and I'll explain a little more specifically about how they work. These sections are: The Pedal Boards and Instruments; The Effects Rack; The Power Amp Rack; and The Speaker Systems.

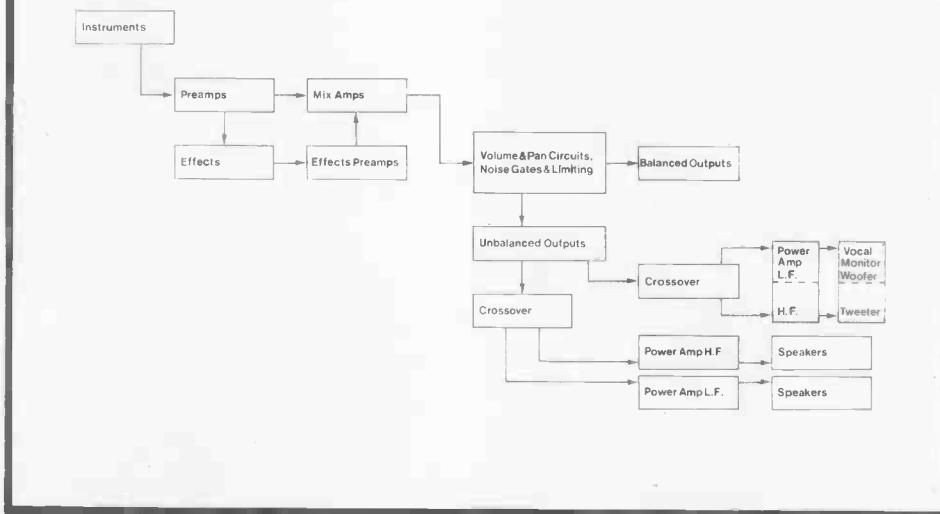
The Pedal Boards and Instruments

There are two sections to the pedal board, the

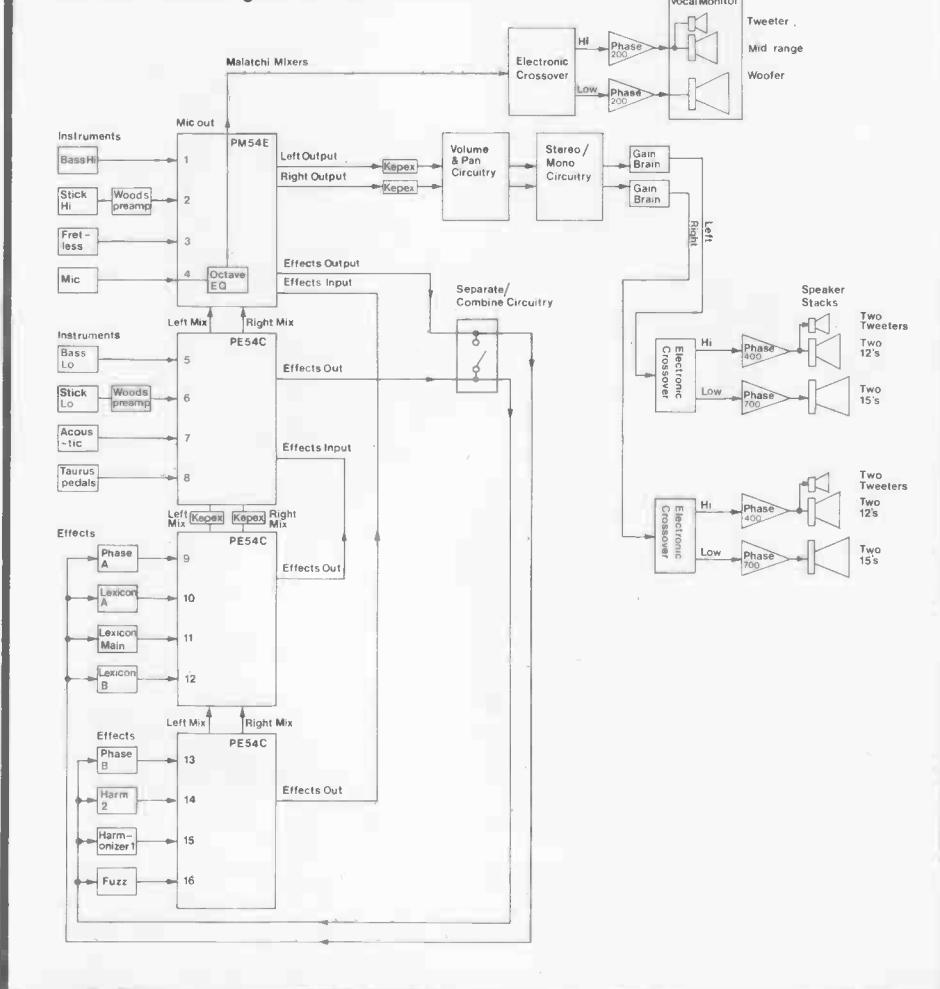
main pedal control board and the Moog Taurus bass pedals. The main pedal control board is used as a command centre, enabling me to command the functions by foot. There are six footswitches: a) Harmonizer on/off switch; b) pan pedal in or out switch; c) overall stereo-mono switch; d) MXR Distortion Plus; e) Lexicon remote control (repeat hold & delay bypass); f) stereo phase shifter.

All these effects had to be modified so as not to pass any sound when shut off. This way only the sound of each unit is heard when wanted. There are LEDs on the pedal board to tell me the status of each unit. This arrangement has been tremendously helpful in cases where I

Basic Block Diagram of the B.a.s.t.a.r.d.



Detailed Block Diagram of the B.a.s.t.a.r.d.



might have forgotten to turn off an effect when I'm done with it.

I should mention that I am in the process of replacing the MXR Distortion because it's so noisy. When I first started deciding on which units to use I kept the MXR unit because it served a useful purpose. Now, as my ears have adjusted to the sophistication of the other units, it no longer cuts it. The unit cost approximately \$60 and is being kept quiet by the Allison Kepex unit which cost \$270. So as you can see, the trial and error method can be costly. Unfortunately, these mistakes happen when there is neither time or money to allow proper planning. Always be sure to allow room for Murphy's Law: If something can go wrong... it will!

The Moog Taurus pedals are set up with an extension box which facilitates manipulating the variable oscillators (it's so awkward to bend over to alter those little knobs in the dark while having an instrument strapped to your body). I've had Moog modify the extension box so I can switch between the one on the pedals or the one up top. It definitely gives me a lot more flexibility when I want to try out an idea on the spur of the moment. For anyone who owns a Taurus pedal and would like this modification done please contact Robbie Konikoff at Moog Custom Engineering, 2500 Walden Avenue, Buffalo, NY 14225, US. Tel: (716) 681 7041.

There are three footpedals with an up/down and a side-to-side motion. They were originally made by Bigsby as volume/tone pedals and were modified by Backstage to perform different functions. The centre pedal is used as the master volume pan control for the entire system, the left pedal operates the Lexicon repeats (rate of repeats and volume of repeats) and the right pedal has been reserved for a vocoder function which, at the time of writing, has not been decided on. There is also a microphone on this pedal board and it (along with all the other units on the floor) is connected to the effects rack by a 32-pin multicore cable.

As you can see by the earlier photos, I used Morley pedals at first but found them to be too noisy: in the same class as the MXR unit. These units may be great for live gigs but they are usually intolerable in the studio (and sometimes in rehearsals).

My present instrument set-up consists of a Rex Bogue stereo bass, a Chapman Electric Stick, a Lobue fretless bass and an Ibanez Roadster Bass. All of these have been modified to my specific needs: weight, size, electronics etc. I've found that I can get almost any sound I desire out of at least one of these instruments. Although I would love to collect a lot of instruments, I feel personally that it's silly to have an instrument if it's not going to be played at some consistent level. Usually, the collectors' item becomes just that, collecting dust or admiration from antique dealers.

One nice thing about my instruments is that I can pan their pickups and split the sound stage left and right. If I'm playing a melody with the guitarist I can harmonise just the treble pickup and pan it to his side of the stage to create the illusion of his melody gaining another dimension. The bottom is still maintained on the other side of the stage.

The Effects Rack

A) The top section of the effects rack contains most of the equalisation for the system. There are four Malatchi mixers (one PM54E and three PE54Cs) which control eight instrument channels and eight channels of effects. The

upper two Malatchi mixers (channels 1 to 8) serve as instrument controls. Each channel has a volume control, a ±20dB high and low frequency control, a pan knob and an effects send. The upper mixer also contains the master volume and master effects volume controls.

B) The control module (custom designed and built by Backstage) contains the brains of the pedal board. It is here where most of the commands are received, sorted out and sent to their proper place. It also houses an effects grouping switch and LED readouts for the pan pedal status and microphone routing, and the circuitry for the pan, volume and mono pedals. C) The lower two Malatchi mixers (channels 9 to 16) serve as controls for the effects. Each effects channel has the same controls as the top two instrument mixers; each effects mixer has an effects master control. These control the overall volume of the four individual effects sends. They also allow for some great possibilities for playing an effect, coupled with an effect, as an instrument (eg harmonising the echo repeats). In this way, the output of any effect or group of effects in the top effects mixer can be run into any effect or group of effects in the bottom effects mixer (and vice versa) just by turning the proper knobs. This allows for many interesting combinations of effects in series, parallel or series/parallel.

D) The red panel is actually two pre-amp circuit boards from Walter Woods' mini-amplifiers. The left card has peaking equalisation flexibility for channel two of the top instrument mixer, while the right hand one has eq for channel six of the lower instrument mixer. These channels are inputs for the Chapman Electric Stick, which is a 10-string stereo instrument. Since five of the strings are bass and the other five are lead, I like having the eq range that the minamps provide for the Stick: it's very flexible.

E) The black panel is a White 4100 stereo active equaliser which gives me EQ for channel 4, a microphone input, and for channel 7, which is an acoustic input. These channels require a specific control over certain frequencies (mainly for feedback control). I should also mention that the different EQs work in conjunction with the channel EQ. This way I can eliminate a feedback problem with the White 4100 and still add a little overall bottom with the Malatchi low frequency shelving EQ control.

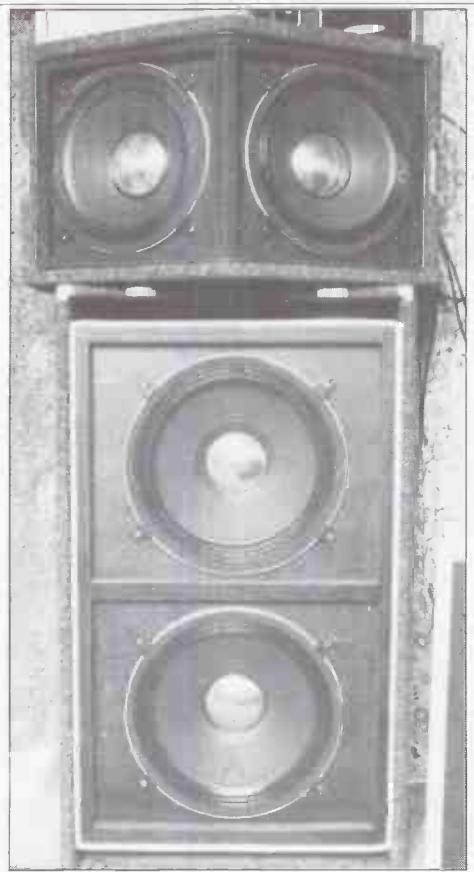
F) Next is the Eventide Harmonizer, which is connected to channels 4 and 5 of the lower effects mixer. Channel 14 is the second output of delay from the Harmonizer and channel 15 is the first output of delay plus the pitch change. Some really nice delay sounds are created by panning these channels left and right.

G) The phaser shifter is a stereo unit that is connected to channels 9 and 13 of the bottom two effects mixers.

H) The Lekocon Prime Time Delay unit is connected to the following channels: 10 Delay A; 11 Both; 12 Delay B. Since this unit is extremely flexible, I suggest you pick up some literature and read about it.

I) The Allison units are used on the main outputs before the signal goes to the power amplifier rack. The Gain Brains are used mostly for limiting, and two of the Kepexes are noise reduction units just for the effects. The other two are for the overall system.

The patch bay has inputs for: channels 1 to 7 (channel 8 is the Moog Taurus bass pedals' channel and is already connected through the



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multi-cable): six unbalanced outputs (for sending signal to a tape recorder, power amplifier, etc); and three balanced outputs (two are left and right, one is mono) which usually go to the house mixer and stage mixer. There is also a microphone output, usually sent to the house mixer and a microphone output which goes to the amplifier rack (mic input) to feed the vocal monitor.

Power Amplifier Rack

Each instrument has its own set of problems. One of these problems when playing loud is power. Usually, to get the bass (low frequencies) loud and clean you need to generate some fairly large wave forms: if the human eye could actually see sound, we would see these waves (10 to 30ft in length) moving through the air. To get those big speakers (18in or 15in) with those heavy magnetics to move the amount of air to create these waveforms we need a lot of power. Not having the power is almost like deciding to get a small engine to move a big, heavy automobile.

Power amps usually work very hard and need all the help that they can get, via fans for cooling them off, proper mounting inside padded cases for shipment, and sometimes crossovers so that they work mostly in the area that they're needed. In my present power amp rack I'm using:

A) Backstage electronic crossover for my vocal monitor. It separates (before the power amplifier) the low frequencies for the woofer and the high frequencies for the mid-range speaker and the tweeter.

B) Crown UFX2A crossover for my instrument speaker cabinets. It's usually set up to have my bass bins to work on reproducing frequencies

up to 250Hz and for my mid-range bins to reproduce down to 250Hz. This is done by setting the left and right low- and high-pass filters.

C) Phase Linear 700B power amp, which supplies 350watts per channel (into 8Ω of power) for the very low frequencies and is connected to the Crown UFX2A.

D) Phase Linear 200B power amp, which supplies power for the mid-range cabinets and tweeters and is also connected to the Crown.

There is a patch-bay in the rear of the rack for all of the connections. All of the units in the rack are shock-mounted from the rear and cooled by three fans. Also, all of the amps are fuse-protected in case of an overload.

The Speaker System

My urge and drive constantly to experiment is usually calmed down by the occasional call from the bank about my balance or the common sense that when something feels good I stay with it. Since I'm using lots of power, it's necessary to make sure that the speakers can handle all the punishment. I presently use all Gauss speakers in my bass and mid-range cabinets (15in and 12in). There are four cabinets (two for stage left and two for stage right) and in each stack is a bass bin and a mid-range bin. Each cabinet has two 8Ω speakers. I use Electro-Voice T35 tweeters which are internally crossed over and fuse-protected to handle frequencies between 20kHz and 45kHz.

The Gauss speakers (2840 12in and 5840 15in) use very heavy 18lb magnets and can handle 200watts each. Believe me, after years of having to replace speakers, I've never had to replace a Gauss speaker because it blew out.

The 15in speakers can give me the lows and the 12in speakers give me the smoothness: together they give me a punch that I like to have.

My vocal monitor is a three-way system. The lower frequencies are handled by an Electro-Voice EVM12L (12in) woofer. The mid-range is handled by an Electro-Voice vented driver, while the highs are handled by a T35A tweeter.

I've found that the stereo set-up gives me the flexibility to get what I want to hear on both sides of the stage (I like to travel when I play) and to make adjustments for what the other players want to hear as well. Being able to control independently your volumes and frequencies can be a pleasure when you're sometimes 30ft away from your controls. Also, four speaker cabinets move a lot of air, which means that you don't really have to be that loud, but at the same time will keep a nice bottom on stage and a good overall full-range sound.

Summary

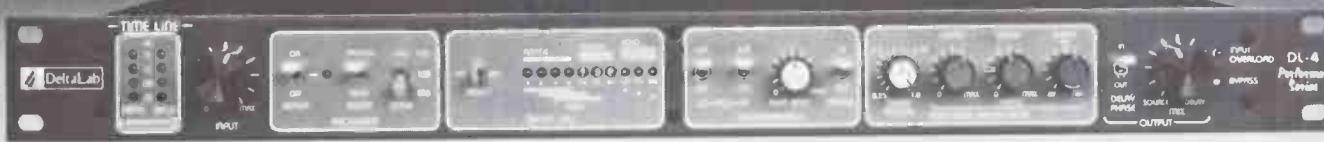
I must say that although it took a long time, it is such a relief having everything packaged and easily set up. Now I can show up at a gig (live or studio) and be ready to go within 15 minutes. Before, I had to wait half an hour to an hour for road crew personnel to do it. I'm a firm believer in the DIY (thank you Peter) theory.

Hopefully, I'll be travelling with the BASTARD in the near future and will be able to answer any questions in person that are not covered in this article. Meanwhile, I hope that these few pages answer most of your questions, and maybe enlighten some of you as to how one person has dealt with sound... and some of its many challenges. ■

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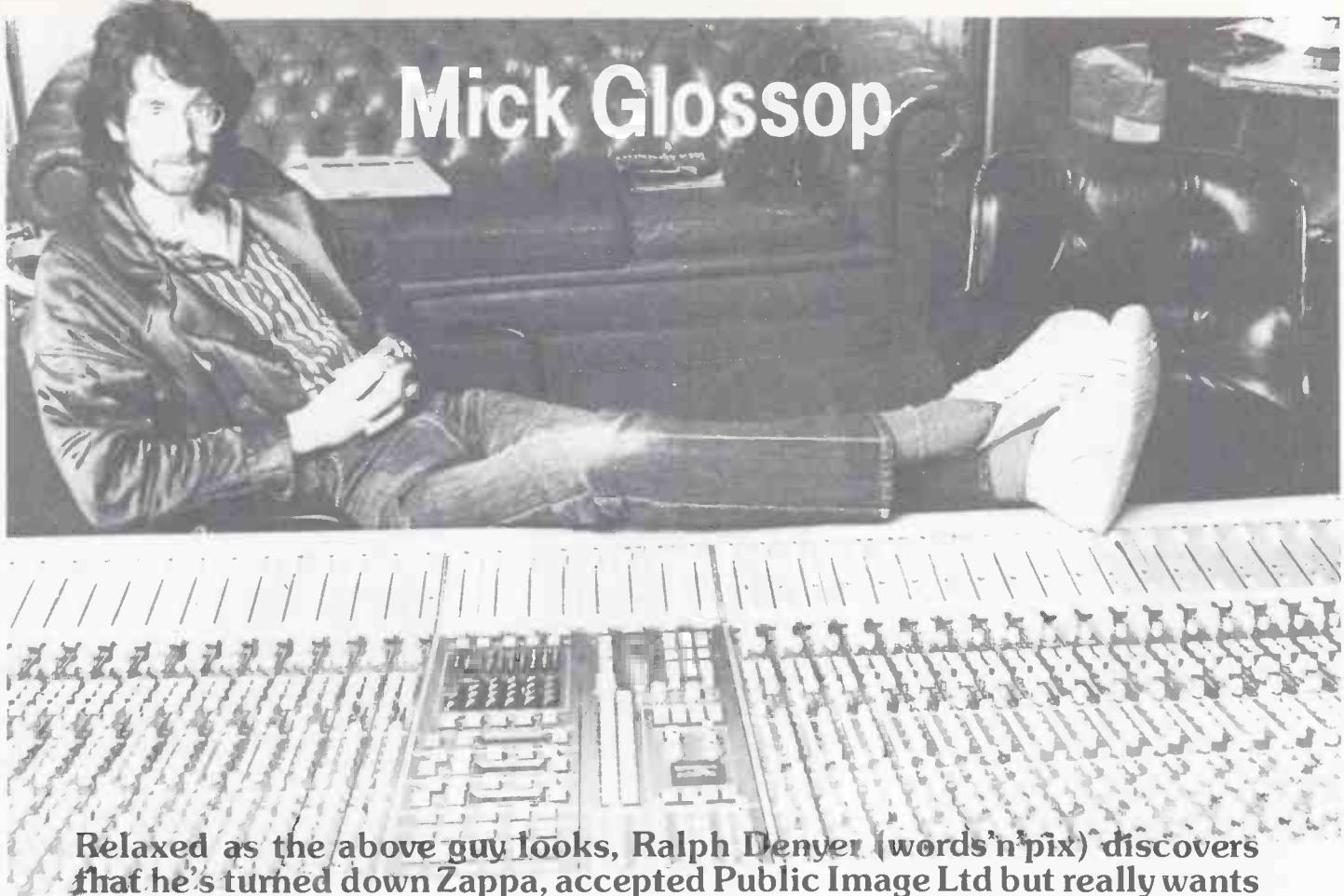
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Mick Glossop



Relaxed as the above guy looks, Ralph Denyer (words'n'pix) discovers that he's turned down Zappa, accepted Public Image Ltd but really wants to work with the avant-garde.

One of the most highly regarded and popular people in recording today is Mick Glossop: countless musicians who have worked with him over the past 10 or so years will testify to this fact. He first began to attract attention as a superb recording engineer and more recently – over the past couple of years – as a successful record producer, and nowadays he only engineers his own productions for bands such as PiL, the Chords, the Flys, Skids and the Ruts.

Mick started in his present direction by working in the electronics industry for a year as the initial stage of a university degree course. This gave him the opportunity to see exactly the kind of job that he would eventually be doing. He was far from ecstatic about the prospect but continued on to university: 'Basically just to meet people who had intellectual ideas about things as well as to learn about electronics which was eventually going to become my career.'

A year later he abandoned the course. A further 12 months slipped away before he decided that, 'Recording would be a good thing to do because I'd always been interested in music. I'd sung and played bass guitar in groups at school but never taken it seriously. It was just an activity I was interested in. I thought I'd combine that with the electronics side and try recording.'

Having done 'a bit of electronics' he was able to get a job as a maintenance engineer at Wessex Studios in north London. He was happy with the job as he realised that opportunities are few and far between in the music business.

Mick continued working on maintenance at Wessex and filling in as tape-op whenever possible, at the same time trying to learn as much as possible. He realised that there was

little opportunity for him at Wessex, a family concern with all bases covered. When the chance of a full-time tape-op job with Nova Studios came up he leapt at the chance. They wanted him to start more or less straight away, but Wessex had to be given a month's notice. Mick found himself working 9-to-5 on maintenance at Wessex and 7-till-3 in the morning at Nova and getting three hours sleep a night. He found the work attitude at Nova to his liking. The engineers were helpful and encouraging. He enjoyed working with a great variety of musicians, producers and engineers and generally had a ball just working away and soaking up information and experience.

'After about 1½ years at Nova I started engineering, thrown in at the deep end as usual, that's the way it happens. It was an album with a band called Jade Warrior and half of it was recorded when the engineer became ill so I was thrown in just to sort of fill in. I ended up finishing the album off.' An engineering job in Canada followed and he worked in a Montreal studio for some 18 months. Again he was employing his standard *modus operandi*: doing the best possible job he could while at the same time learning everything he could from new situations and experiences. From Montreal he went to France with a band called Offenbach, a French-Canadian hard rock band. They were making a film for which Mick recorded 18 live shows. When that gig was over Mick decided to head back to England and look around for a job. He knew Phil Newell – a technical director in the Virgin studios set-up – and soon began his association with Virgin which continues to the present day.

'Tom Newman – who you probably know, he designed the original Manor – was at the point of wanting to go freelance and work on his own projects. He was losing interest in the Manor. They needed someone to take his

place so it just happened at the right time. I got in there as house engineer. I joined Virgin on the condition – from my point of view – that something was going to be done about the studio because it was in a shocking state, pretty funky equipment badly strung together and all a bit falling apart.'

Though the Manor had been a trail-blazer of a studio in that it was one of the first live-in out-of-town studios, the equipment had not been updated to keep pace with prevailing standards in the industry. Mick was given a large share in the decisions to re-design and re-equip the studio and soon the Manor was doing good business once again. Mick's reputation was enhanced by the exercise and his work as engineer at the Manor increased his reputation. When the Virgin conglomerate came to set up the high-tech Townhouse studios in west London a couple of years ago they were more than happy to have Mick around. When the studio opened its doors for business Mick was designated Chief Engineer though in fact he was to be found all over the place troubleshooting and engineering for the Manor, the Townhouse studio in London and the Manor mobile.

'In a technical sense, that covers my development as an engineer. During the process I worked on numerous sessions on which I was called upon to perform production-type activities: working with for instance a guitarist and making decisions as to whether a guitar solo should be double tracked, say. That's a production-type decision in a sense because it affects the sound. A band who have only made a couple of albums is going to rely on someone in the studio who has recorded numerous bands and albums. I suppose that during my latter time at the Manor and then at the Townhouse I spent a lot of time being involved with bands on that basis.'

'And so I started to think that maybe I should



Two of Glossop's current bands. The Ruts DC and (below) Public Image Ltd.

start calling myself a producer in the sense that I should start approaching people from the point of view of production. The link with Virgin is very important in this respect, obviously with working at the studios I knew the A&R department – Simon Draper and the rest – very well and they're always looking for new talent in the form of producers to bring new ideas to any band they happen to have signed up.

'Magazine are a case in point, I worked on their first single *Shot By Both Sides* in that context. I hadn't done official production before, I'd merely been an engineer but got slightly more involved and picked up what I could. But Magazine needed the sort of reassurance of an experienced person, whatever he was called. That is how I basically started getting involved in production, it was Simon asking me to become more involved than just being an engineer. He was aware that I had been getting more involved than just getting a sound level.'

Mick worked with a number of bands on that basis including Wigwam from Finland and Wilko Johnson. 'They were just loose opportunities that came up. From my point of view it was a chance to try my hand at being slightly more involved on an official sort of basis. From Simon's point of view it was a chance to have someone slightly more involved who wasn't officially in charge of the sessions. So that carried on for between six months and a year. I worked with Mike Howitt on the Penetration album which was an official co-production, the two of us worked together on that. He'd done a couple of their singles before and after the album we did a single together. At that point I started getting offers from outside companies – I was still employed as a staff engineer at the Townhouse – though I didn't have the intention of going freelance at the time. I'd known the people at Beggar's Banquet for about 10 years, ever since we'd been students together. They just happened to end up running a company in the same way that I just happened to end up being an engineer. So I produced a few things for them, a single for a band called Doll which reached 29, the Lurkers single got to around 27 I think.'

'Normally the way that you get publicity as a producer – or as an engineer for that matter – is when you have chart success. People start ringing you up, A&R men have little books full of producers' names who have had chart success. If they're looking for a producer, they check out the charts.'

Looking for a 'hit' record producer? 'Well, exactly. Yeah, it's a sort of partial myth, that

one person is responsible for making a hit record. That may be the case in certain circumstances but most of the time it's not really true. I think the song does more for a record's chances than anything else. I can't think of more than half-a-dozen records that have been made hits by the production alone.'

Round about the time Mick was beginning to get into production, Frank Zappa made him an offer that many people thought he couldn't refuse. Zappa wanted him to take charge of his new 46-track studio in the States. Mick explained why he turned the offer down. 'That was a very difficult decision. I had just started to get involved with production, that was 1½ years ago. I'd worked on the Shankar album (a Zappa production) and I'd done some live recording (of Zappa gigs with the Manor Mobile). I was in America working with Van Morrison on the *Into The Music* album during which time Frank called up and said: While you're over here I want you to come and mix these three live albums, a studio album and an album of guitar solos.'

The job involved recording Zappa in the studio and then going out on the road with him as a live sound engineer re-creating the sound of the album. 'I didn't want to go out on the road and I didn't want to work with just one person. As I was saying before, the main thing that I like about working in the business is the variety of working with different people and different bands. If I was going to work with one artist then Zappa would probably be the one person. I've always been a fan. Technically and musically he's streets ahead of everybody else. You try to show him some new device that's just come out and he's already got three of them. Also his ideas about music are constantly changing so he's not restricted by any one style.'

I asked Mick about the fact that he is now regarded as a top studio technocrat yet his direction in production – decidedly new wave to date – is perhaps not the obvious one for a person with his background. 'There are a number of aspects to what you've just said, actually. Firstly I don't see the contradiction

between the new wave sound and an established, long-experienced amount of time spent in the studio. There are a number of things to be learned from being involved in the recording of music for 10 years which is what I've been doing. There's all types of music. One aspect as an engineer is how to get a series and variety of what can subjectively be called good sounds.'

So the years of engineering every kind of session and music has placed Mick in good stead for the type of production he is now involved in. 'Well exactly. If you can get raw guitar and raw drum sounds as well as clean guitar and drum sounds then you can do two things. That's an example. The other main aspects to be learned – as a producer – from spending time in the studio include the general musical and technical experience of working with musicians and producers from different types of backgrounds. And I don't think that necessarily contradicts the new wave ethic. I don't think that new wave bands have to work with new wave producers in the general sense. Most of these bands have been new bands in the sense that they've only been together for a year or two – that was the case about two years ago anyway, which is when I started getting more involved with production. Obviously they are more experienced now. In the late Seventies – when the new wave was at its peak – most of the bands were made up of young musicians who hadn't been playing long and so there are areas where an experienced producer or co-producer can offer guidance.'

'I still use – for the basis of a decision – whether I feel that the band or artist in question has a product, a style or imagination in the general sense that is musically valid rather than whether it fits into a particular type of music. I still work with a varied selection of bands and I would like that to continue because I like variety. I wouldn't like to work with *Top Of The Pops* top-20 commercial-type acts. I'd like to work with *avant-garde* musicians as well as the new wave, pop, jazz and the whole realm of music within that sphere.'

'If you are working with one particular group of musicians – say a new wave band – then it can only be good for that band, as well, for me to enable them to perhaps look beyond the particular sphere they are involved in at the time. Since the new wave came about I think a lot of bands do have a rather blinkered view of music, in a sense. There are certain – fashionable is not the right word – there are certain musical directions that are acceptable to people who associate themselves with the new wave or say punk. By new wave I include what some people would call post-new wave *avant-garde* music. Bands like Killing Joke, U2, Psychedelic Furs and that band that Ian Curtis had (Joy Division), and Public Image to a certain extent, you'd call them a post-new wave *avant-garde* band I suppose. There are



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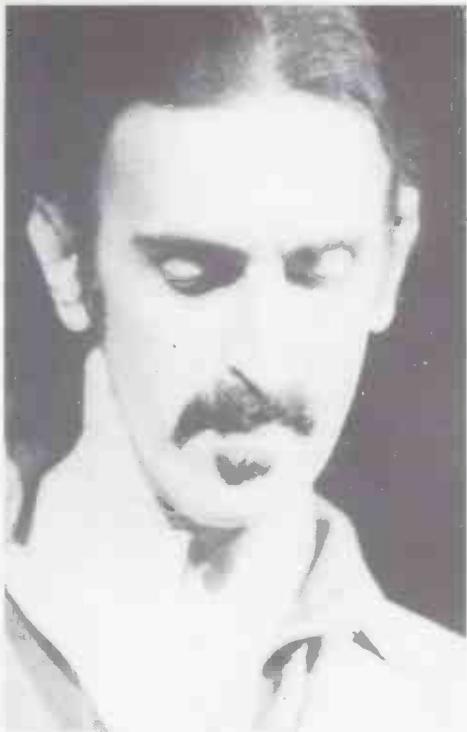
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And the Lord said: Bring me the head of Mick Glossop...

numerous bands like that. That attitude does purvey those bands as well in the sense that they feel very conscious of sticking to a style.

'And I suppose it is related to a search for a positive identity in a sense. I mean, one catch phrase that came out very strong in the new wave was "street credibility" (laughs) which was related a lot to a sort of loyalty to the street-level fans that a lot of these bands had. But it was also related to the type of music they played and a lot of bands were restricted by an over-conscious adoption of the practice of only working with certain types of music that fitted into something that enhanced their street credibility. In other words the lyrics had to be about society, the government, police. They were not going to write love songs for instance because that was not a topical subject. I think Skids are one band who have never been restricted by that. They've always been incredibly varied in the type of music they've written. The three albums they've recorded illustrate that. I think that's very good because they have shown that they have tremendous imagination and are not afraid of developing in whatever direction they feel like taking. They've been through a number of different musical identities and are still doing that. In fact each of their albums displays a tremendous range of styles and I think that is very good. A lot of bands have suffered by restricting themselves in that particular respect.'

Of late there has been much media pontification on the subject of new technology. Mick seemed to me to be the ideal person to talk to about the appliance of science and current developments in the recording equipment field. Obviously any discussion in this area has to involve digital recording. 'Digital recording has to be the most controversial development in the past five years and is the thing most likely to change the process of recording to any large extent. Apart from that, developments have been confined mainly to add-on effects devices like the harmoniser and the phaser. I think that they are probably the two most important devices in the area of add-on effects to come out in the past 10 years and that digital recording is the most advanced advance, as it were.'

'Any business or activity that involves technical equipment has to have people who are prepared constantly to invent things that will perform current functions in a better way or will do new things inherently. That's the nature of progress. These things always affect the activity which they serve. So it's very good that manufacturers have people who are involved in research into finding new and better ways of doing things. At the moment digital recording is still at an infancy stage. I don't think that any of the systems that I have heard sound as good as they should.'

'That is a bit of a blanket statement because I haven't heard all of the various manufacturers' systems yet. But the ones I have heard, yes you can hear that there is no tape noise and no distortion, but they change the sound which in my opinion is a disadvantage, it is something that should not happen. You can actually hear the difference, what I call the cone filter effect. You can hear that the signal has been chopped up into little pieces and then stuck back together again. So it sounds bitty, it sounds grainy in that respect. It's different on different types of programme but you can hear it.'

'It is a selective copying process and you conduct it by operating a rack of buttons rather than taking a pair of scissors and chopping the tape. That's the fantastic thing about analogue editing, the music bears a very direct linear relationship – in terms of time – with the actual physical tape. At 30in/s. one bar of music lasts a certain amount of time and if you want to chop a bar out, you take out that amount of tape and stick it back together again. You can almost see the beats on the tape. So there's a very strong relationship between the operator of the machine and the music he's dealing with. So when you're using an editing block, a razor blade and a bunch of sticky tape you think in very direct terms about your editing. Take that bit of tape and another bit of tape, stick them together and that's it. It's as easy as that and you don't hear it if you do the edit in the right place. Not only is it a very useful facility but it's also very easy to do: it's very fast and you can hear the results quickly. If you don't like the edit you can put the tape back together again and nobody will know the difference even though it's got 20,000 cuts in it. Zappa's proven that millions of times. To me that is a major inherent disadvantage with digital recording along with the sound thing. Even if they got digital recording so that you couldn't hear the difference I'd still think twice about using it because of the editing problem.'

'I just heard that Ampex are currently working on a system. They originally scrapped their first attempts at digital technology because they didn't feel that the quality was good enough, they were bothered by the fact that you could hear it. That was at the time that other manufacturers were announcing and bringing out new systems. I hear that they are now working on a new system which is supposed to sound better and allows for the tape to be cut physically. So when that system comes along it will be fine.'

'At the moment the other problem with digital recording is the cost of it all. It's like working 46-track analogue, it adds 20% to your recording bill. Not only is the business not in very good shape at the moment and not in a position to afford such luxuries and so-called advances in technology, but eventually it is the guy in the street who is going to have to pay for it and he can't afford it either.'

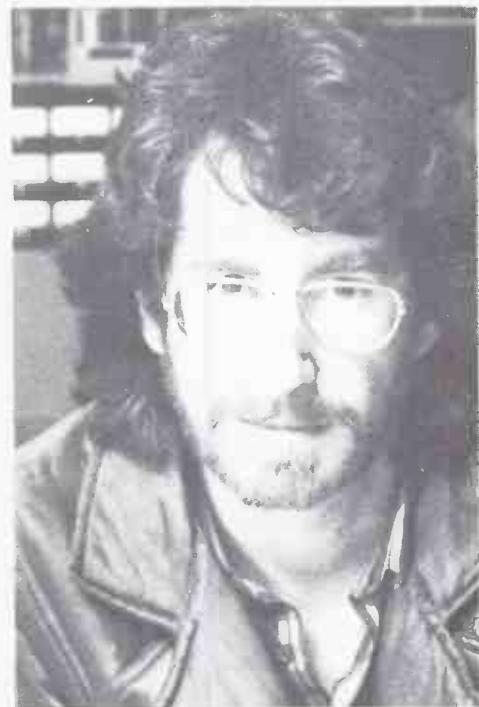
'Then you come to another dubious area in as much as you can produce very clean-

sounding master tapes. With the current state of standards of record pressing and reproduction of discs, you're pretty much wasting your time because you always get more disc noise than you would have got tape noise using analogue systems, with or without Dolby. You can hear the difference with certain projects, the transient response is certainly better and there is a certain cleanliness that you get with digital.'

'But to me it still doesn't seem worthwhile when the whole thing is going to be ruined by the pressing. I was as impressed by the direct-to-disc as I was by digital, probably more so. And I know they had to go through tremendous hassles to get decent pressings. All the American direct-to-disc pressing is sent over to Germany to be done so the records end up being extremely expensive.'

So what did Mick have to say about Ry Cooder's *Bop Till You Drop* album, which many people would regard as the most successful digital recording to date in rock music? 'The thing about *Bop* is that it does sparkle as a record, but personally I don't like the sound on it at all. It sounds like he's EQ'd everything to enhance the digital system. The hi-hat is the most treble, fizzy hi-hat sound you could imagine. It's all recorded in a superclean sort of way that doesn't suit his music. I much prefer the sound on his previous albums. I think that is one of the things that impresses people, that it's got all this high frequency which impresses people, which is not relevant to the music. I mean, maybe the digital system made it sound like that. I don't know (laughs), but there's a real clinical cleanliness to that album which I really don't like. It's weird the way that psychology works in the studio.'

'Maybe the fact that he was working with a superclean-sounding tape machine made him EQ everything so that it sounded superclean. But I think that Ry Cooder's music sounds better with a smoother and certainly a richer sound. Maybe a little more raw. I don't know. Maybe Taj Mahal or Mike Oldfield would be good with that kind of sound. I don't really like *Bop* but I don't know if it is that something in the digital process has put on the sound or the fact that he deliberately went for a really toppy sound.' ■

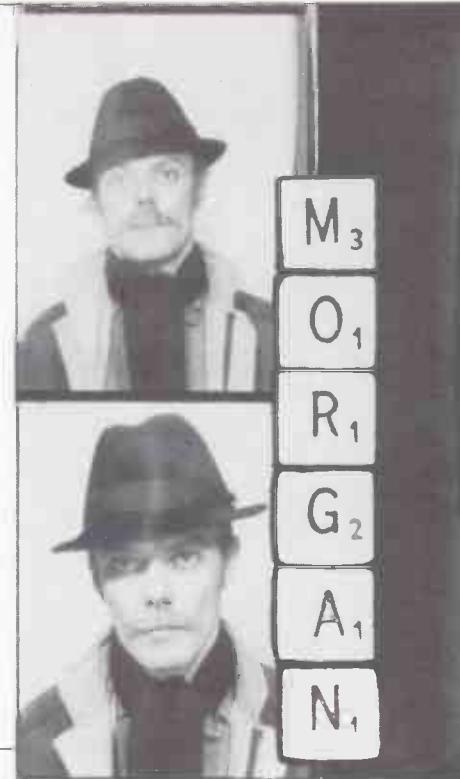


...but lo, Glossop said: Nay, Master, for I am using it myself.

Pipe Records... Morgan-Fisher here.' It's the third phone call during the past 10 minutes. So far we've had no time to chat. But it looks as if the plumber has nearly finished putting the central heating straight. Thank God for that, he's been testing the system at full blast ever since I arrived and Morgan-Fisher has forgotten to turn his electric fire off. The sauna on the fourth floor - what a great title. Now all I have to do is write the book.

'Yes, we could do that in the small hall,' Fisher explaining via Alex Graham Bell's diabolical invention. Meanwhile I scan the tiny room cum recording studio that is Pipe Records' headquarters, seeking scene-setting items with which to open this piece. Obvious eye-grabbers are the dusty framed gold and silver discs for the *Mott* and *The Hoople* albums plus another for the *Roll Away The Stone* single. Elsewhere there are pics of Lennon

that it contained his version of Beethoven's 9th Symphony, played as a banjo solo and performed in just over a minute. So I thought, how about a whole album's worth of that? After which I just sat down and wrote to a lot of people that I liked. In fact, everything proved very easy to organise though a lot of work was involved. But there was no hustling to be done, with the exception of just two or three people, everyone co-operated. Some came round to my flat and made tapes while others sent recordings to me - which is how I got The Residents' track. It took a long time hearing from them and when they did write back, it turned out that they were in the process of doing a *Miniatures*-type album themselves - this ended up being The Residents' *Commercial Album* which had 40 tracks on it. I don't know whether or not they got the idea from me but they were certainly into



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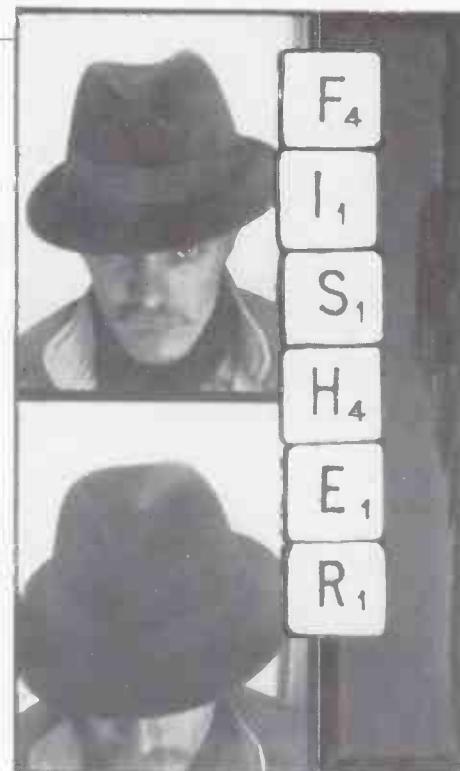
and Cherry Vanilla, an Allan Hodgkinson poem printed on a piece of Ralph Steadman designed Japanese rag paper. And on the piano there's the music to Satie's *Trois Gymnopédies*, while the 'studio' wall features a couple of Revox and Teac tape decks, a JVC amp and cassette deck, plus a brace of small Wharfdale Dentons. The Walter Mitty in me suddenly visualises The Queen opening the studio. 'I name this place Shabby Road', she proclaims, tilting a tiara that looks suspiciously like one of Morgan-Fisher's old berets.

Eventually all is reality once more. The plumber departs, Morgan-Fisher switches his phone to recordacall and we both swirl tea in best ceremonial fashion. The opening gambit is a question about *Miniatures*, the 51-track album that Morgan-Fisher pieced together using mini-recordings made by various friends, musicians, poets and people thought by the keyboardist to be 'interesting' (his favourite adjective). Released by Pipe in October, last year, the album contained such delights as David Bedford's version of Wagner's *Ring* performed in one minute flat, Andy Partridge's celebrated 20 second-long history of rock'n'roll, Roger McGough's high-speed reading of *The Wreck Of The Hesperus* and myriad other oddities of various values proffered by Robert Wyatt, Stinky Winkles, Kevin Coyne, Quentin Crisp, The Residents, Thunderclap Newman, the Science Fiction Theatre Of Liverpool, etc, etc, etc.

Morgan-Fisher explains that the whole idea stemmed from a dog-eared copy of Pete Seeger's *Goofing Off Suite*, which he found in a local junk shop. 'I discovered

the idea of doing *Miniatures* and eventually sent me a track. Ralph Steadman was another person who interested me. I'd never met him but I knew he was vaguely musically inclined so I invited him to contribute a track to the album. He was knocked out by the idea and did a really nice track, a song that he'd written himself. And because I got on so well with him, I began to wonder if I dare ask him to do the album cover - because he is my favourite cartoonist without a doubt. However, when I did ask, he just said "sure" and did it without charge. In fact, he suddenly remembered a collage he'd done some years ago which would suit the idea of *Miniatures* and said "I've got the very thing." That collage became the right hand side of the sleeve design, Ralph adding the left hand side later. I get on very well with him now. I've made some very good friends through that album.'

One of the 'interesting' musicians roped in for the sessions was saxman and revered eccentric Lol Coxhill, bop veteran, sometime street musician, and gigsman with everyone from Rufus Thomas through to The Damned. Coxhill became a part of the MFP (Morgan-Fisher Productions) set-up when the keyboardist spotted a phone number on the back of a Coxhill recording. 'I just rang him up and asked if he wanted to do an album. And though we didn't know each other, he just said OK and came round. The album, *Slow Music*, took about a week to put together, though all the actual recording was done in a day. The rest of the time was taken up in processing after that, cutting up the tapes and so on. As you can see, I



Riveted by Fred Dellar's probing, and unable to read the headline, miniaturistic Morgan-Fisher slides off into oblivion in a sort of home-made studio-cum-office scenario.

use very basic equipment, nothing fancy. And that album with Lol was all done on the four-track Teac plus a tiny little Allen & Heath mixer – that's all I used. I also have an eight-track now but there's still no frills – which is just the way I like things. After all, there's a hell of a lot of things you can do just by cutting up tapes, forming tape loops and so forth. I'm really interested in things like that. So much so that I haven't really got any inclination to work in a major recording studio anymore. I enjoy working this way so much more, creating in an environment where I can control the whole thing. In a big studio you're relying on other people all the time. To me, working in such a studio is like a guy who's making a film for TV yet while he's making the film he's watching the rushes on a huge cinema screen. That's just what it's like in a big studio where you hear everything through those large speakers and it all sounds fantastic. You're almost always disappointed when you get the results home. My way, if it sounds good here, then it will sound good in most people's homes. Okay, my speakers are 10 year-old Wharfedales but they're all right – they make a noise!"

The Morgan-Fisher do-it-yourself recording enterprise first got underway in 1979, shortly after the demise of British Lions, a band formed around the nucleus of ex-Mott the Hoople members. Prior to that, the one-time mod had worked initially with Love Affair (1968-1971), joining them straight from school, and then with his own band Morgan (1971-1972) with whom he played one of the first British synths. Eventually he moved on to join Third Ear Band, in 1973 becoming a member of Mott, replacing Verden Allen in time for the group's first headline tour of the States. But these days he has few regrets about no longer being part of the major band scene.

"When I left British Lions I decided not to carry on with that way of working. I came to the attention of Cherry Red Records when they decided to put out my *Sleeper Wakes* album (originally made in Italy by Morgan and issued as *Brown Out* in '73) and formed an immediate liking for Iain McNay who runs the company. I ended up doing an album for him called *Hybrid Kids*, which was my first attempt at home recording, done on a four-track at a total cost of £30. The album purported to be a sampler of 13 bands, all bearing strange and very unlikely names, playing cover versions of well-known songs. There was a Pinky and Perky version of a Sex Pistols song, a Devo version of a Perry Como song and so on – but in reality it was all me. The idea was merely to get away from type-casting because when I told people I was going to make my own album they said: "Oh, so you're doing a solo keyboard album are you?" But it was nothing like that. I played all the instruments and eventually decided to make the results into an imaginary sampler, but

done in a fairly transparent way so that people could suss what was going on. However, some of them didn't, so I had a lot of fun going on the radio and telling complete lies about all these fictional bands.

'Later on as I got more and more bizarre ideas, it was agreed that I would form my own label, Pipe Records, which Iain McNay would administer. And the idea seemed very exciting, for I'd not only have artistic control – which I would have had with Cherry Red anyway – but people would talk directly to me about everything. I thought it a very morale-boosting thing.'

Since that time, Morgan-Fisher has masterminded *The Pocket Library of Unusual Film Music*, a 40-track single that sought to supply amateur film-makers with soundtrack fare that was somewhat more enterprising than the normal flow of muzak; *Slow Music*, the Coxhill-Morgan-Fisher liaison; *Miniatures*, which to date has sold several thousand copies; and, last December, *Claws*, a brilliantly inventive Hybrid Kids Christmas album for Cherry Red.

Finchley's rock answer to the Harry Simeone Chorale grins when he remembers the album. 'I wanted to make a lot of that Christmas album danceable – so sometimes I'd lay down a rhythm track with just a couple of changes in it and then try to decide which carol could best be fitted over the top of that. Sometimes I'd try one and found that it didn't fit musically, but that was still okay because this caused interesting contradictions in the music.'

Rhythm tracks have always caused a problem, or rather a challenge, to Morgan-Fisher. With no room for a drum kit in his tiny office, he's had to look elsewhere for his percussion tracks. When a workman began pulling down some nearby scaffolding, the do-it-yourselfer taped some of the sounds involved, creating a rhythm from the resulting tape loops. He also borrowed an existing drum track from a friendly Gallic musician who had made an album, adapting his own ideas to fit the supplied rhythm.

'It meant that I had a basic structure – the drum track was complete – and all I had to do was to work within that structure. Again that was interesting because it meant that I couldn't plan every detail right from the very beginning.'

Though the man with the hyphenated name has become something of a record producer in his own right, it seems that it's not in his plans to become the Alan Parsons or Gus Dudgeon of the '80s.

'Though I did help produce the Mott and British Lions album and also produced the Morgan releases, I don't really like producers. I've never worked with a good one and most of them don't really understand what you're doing. After all, it's hard to explain to a producer what you're trying to do when you don't really know yourself – quite a lot of the time you

might just be experimenting. Frankly, I like the way I'm working now, that's great. I've only got to sell a couple of thousand albums to break even and I'm quite happy to just keep things ticking over. I'm not after massive sales, though it'll be nice if something really does take off.'

But if something did 'take off', would Morgan-Fisher go back on the road again? I expect him to shake his head and growl 'Never!' But he doesn't. 'I'll never say 'never'. I may well go back on the road sometime. There's a French guy organising a festival in Rheims – he did one last year featuring very experimental music. And in '81 he's talking about Magazine, Ultravox, Lemon Kittens, Throbbing Gristle etc. and he's also asked me if I could do something for him. I've decided that instead of just going on and doing a set, I could provide some alternative side to the festival. The main festival is being held in a big theatre, which makes it all too serious. But there's a smaller room which we can use as some sort of a club and I'm going to appear there as some sort of a bizarre DJ, playing records which are very strange but, hopefully, very danceable. Also I'm going to put together the nucleus of a band and then invite the other musicians at the festival to join us. That way I will be organising a complete environment, which I prefer to do rather than just being onstage and becoming the centre of attraction. I'd much rather be just the dance band in the corner. I did a gig at the Paris Museum of Modern Art a little while ago. A friend of mine was playing the gig and asked if I wanted to join in – which I did.'

One of the interesting things we did was to play a piano duet on two pianos but using a tape of instructions instead of a score. We both wore headphones and the idea was that we should both play freely without listening to each other or looking at each other. On one tape the instructions were to simply play one very loud major chord and then a quiet minor one, then keep alternating. There'd be a count up to each chord and a long gap between chords. So the audience were presented with this spectacle of two pianists, who could neither see nor hear each other, playing huge chords at exactly the same time, then waiting a minute before playing a quiet one. I don't know what it sounded like because I couldn't hear while I was playing but the whole thing was recorded for French radio and I'm waiting to hear a copy of the tape. Meanwhile, I'm enjoying making these records for my own label. One thing I plan to do is to put out a miniaturised version of *Miniatures* on micro-cassette. That'd be a first and *Miniatures* would be the perfect project to do it with. The reason that I want to do this is that the micro-cassette is such a lovely little object. I don't really care even if I only sell five copies – at least I can say that my recording has gone straight to the top of the micro-cassette charts! ■

THE TROUBADOUR TODAY 2



All conversations are monitored for your safety

Ossification, that's the name of the game. Our man from Wessex, Robert Fripp, suggests records have frozen music into a reproducer's art. So why tour? This article should be read while dancing.

Most groups only make money after breaking up. Because running costs are so high very few 'successful' bands earn more than subsistence wages until the costs stop. When the group disbands record and songwriting royalties continue, for two reasons: 1 Royalties are paid six to 12 months after the event; 2 The life of a classic record can be 10 years or more.

Put another way, a group must stay together long enough to break up. Currently, the League Of Gentlemen can't afford to work because it can't finance itself, and can't afford not to because it's £15,000 in debt. Note that when a band loses money on the road it is still liable for agency (10-15%) and management fees (c25%).

Before the recent League tour of Europe and America I made three stipulations:

1 The tour should make money, or at least cover itself: \$3,000 a week for the privilege of playing music is a high price to pay and in the context of the League tour, depressing.

2 The tour should not be a series of one-nighters. The main drawback to touring is the travelling, because it exhausts the Happy Gigsters and is expensive. Finding an alternative to daily moving would save energy for music, and reduce overheads.

3 The venues should be rock clubs with room for dancing, and preferably a bar. My advice to the audiences was to 'actively listen while maintaining a sense of one's bodily presence in motion'; ie to listen while dancing. For the League, a dance band with the emphasis on spirit rather than competence, to play in a seated concert hall would invite erroneous expectations and comparison with King Crimson.

In Europe the tour lost money in a daily series of mostly inappropriate venues; in America it lost money in a daily series of mostly appropriate venues. Because the tour was booked as promotional, with the

accent on visiting record markets rather than paying venues, it failed as a working tour. But as the record being promoted was Fripp's *God Save The Queen/Under Heavy Manners*, Polydor had difficulty identifying the League with their artist and the promotion was ineffective.

The advantages of the tour were an improvement in personal and group competence, group feel, some exquisite music and audiences, and an educative overview of the Eastern seaboard of the US and Canada in mid-1980. How else could one really experience the unemployment in Youngstown, Ohio (where a Young Turkey shouted 'Play like Genesis!') or read a sign in an elevator: 'All conversations are monitored for your safety' (Cincinnati car park adjoining a store). On a commercial level, the reviews were mainly favourable and interest in the League well tickled for the future. The three months were excellent research in the field for a thesis (presumably PhD Rock, Hons). But the working conditions were intolerable.

So, why should one tour? 1 To earn a living; 2 As an education; 3 To enjoy the intrinsic qualities of one's work; 4 To participate in an event with others, both players and audience.

How can this be done? Everything follows one principle: live performance is the basis of the music industry. Live music is the foundation for printed music, records and radio (in the US at least). The income of recording artists has halved in the past two years and, with the shaky future of Megabucks Records, an emphasis on live performance as a way of making money becomes increasingly likely. In England during the 1950s, stage shows were the Big Earners, their position taken during the 1970s by records. But the decline of the performer's importance is long-term, and the reasons for that decline and the consequences of it have considerable implications for the industry throughout the 1980s.

Records are to rock what scores are to straight music: they freeze a performance forever. Written music, and records even more so, preserve the state of the art but fail to develop it. In the Middle Ages, musical notation was only a guide for performers, an *aide memoire* and basis for improvisation. The transmission of musical knowledge lay through personal contact, either from a teacher or popular traditions (much of what we accept as folksong today has dubious authenticity). Early scores which have survived are very rudimentary, mainly lines of semi-breves. Apart from the relative formality of dances at functions of high personages, the music 'seems to have been informal and mostly improvised... From this evidence (surviving written music) we can deduce that the music must have been governed by strict, widely known conventions' (Edward Lee). These conventions were reinforced by secular musicians organising themselves into guilds, and for whom 'music was a skill which came from long and secret training during an apprenticeship in the strict sense of the word'.

Music was 'a performer's art'. Very few outside the Church could read words, apart from notation. As facility with scoring developed through the Baroque and Classical eras (1575-1830) and into the Romantic period, music remained based in performance. Performers who composed were Handel, Bach, Corelli, Vivaldi, Scarlatti, Mozart, Beethoven, Liszt, Chopin, Mendelssohn, Paganini and Brahms. Composers but unexceptional players – Berlioz, Wagner, Strauss and Mahler – were involved in performance as conductors. Up to 1830 at least, a player who took a score as given would have been considered a Big Dullard. After Beethoven's death the increasing emphasis on notation changed music from a visceral to a literary experience, and switched the emphasis from the performer to the composer. With the Romantic elevation of composer to deific status, a performance would necessarily demean his sublime insight, expressed in perfect detail on a score. Wagner, writing a centenary essay on Beethoven in 1870, says of the C Sharp Minor Quartet: 'One look has shown to him the essence of the world: he wakes anew and strikes the strings to sound a dance the like of which the world had never heard before (*allegro finale*). Ring a ding ding Baby Blue. Robin Miller, playing oboe on King Crimson's *Red* and at that time working with Boulez, told me that 20th century French music 'had all the feel written' into the dots. The sanctity of print, combined with the decline of improvisation as a necessary and respected part of a musician's training, was established well before the end of the 19th century. Why this occurred is open to question (and a later article!) but for now I believe it was strongly connected to middle class involvement in music throughout Europe during the last century.

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ROBERT FRIPP

\$3,000 ono

The growth of music publishing and performing rights in the 20th century has cemented this split between composer and performer. The phenomenal increase in record sales, from \$44m in 1939, \$1586m in 1969, to \$3501m in 1977 (US figures), and radio, from 200 stations in 1922 to 5000/6000 today (also US), has turned music from a performer's art to a re-performer's, or re-producer's, art. This became quite apparent with the rise of the discothèque in France during the early 1960s, with the parallel in straight music of the 'star' conductor taking wild liberties with the text in all details but the notes. (Listen to twelve different conductors on *L'Après Midi d'un Faune* consecutively and see what you think.)

A creative side of this re-performance is 'rapping', probably first pioneered in a major way by Jocko in New York during the 1950s, and by Pete DJ Jones (Hollywood), Eddie Cheeba, Grandmaster Flash and Kurtis Blow in the 1970s, with close parallels between rapping and the reggae toasters. The use of 'dub' and 'the version' are now well-known and widespread. Negative aspects of re-performance are a decrease of audiences experiencing music first hand, and the pressure on artists to duplicate records on stage. The problem of translating a burning live band on to record belongs to the producer, but the problems going from the studio to the stage belong to the artist. As with film, any magic in the moment can be frozen. But the 'definitive performance' implies that for all future performance the playing can only be, at best, a repeat of that moment: the experience of live music changes from instantaneous to historical. For the player there can be no definitive performance: all that matters is the moment in which the music is performed. This isn't to criticise the development of recording as a new creative medium, where the aim is not to reproduce live performance but to generate new music; ie the record is itself the 'performance', a synthesis of new 'instruments' and compositional tools derived from studio techniques and technology. When working in a New York studio with Eno last year I saw him operate a Lexicon (variable pitch and delay line) with a musicality and facility that turned a sophisticated echo box into an instrument.

Just as live performance in the concert hall has been ossified by too much attention to the score, and all that that implies, so in live rock the influence of recording and the recording industry has restricted the possibilities for the performer to meet music and audience in a way that stirs the blood: eg it kept the Beatles from playing

live. With the continued growth of literary music and literate musicians in the 20th century (notably around serial composition) the values of the library have been applied to the concert hall. In the field of straight music this has reduced the role of performer from musician to executant, a role more efficiently discharged by a sequencer.

In rock, the phenomenal growth of the record industry has done the same. Ironically, with the performer functioning more and more mechanically, new musical growth has developed from technology as performer (tape loops, sequencers, pre-programmed modules, electronic and studio-generated music). The tremendous enthusiasm for live performance by young players since 1977, mainly in punk or new wave groups, has stressed (deliberately or otherwise) non-competence or non-musicianship, and was initially met with scorn by the music industry. This democratic incompetence broke with the (historically recent) tradition of performer as uninvolved executant, simply because the new performer was unable to execute. The mechanical restrictions abandoned and the writer/player divide ignored, the performer can once again get stuck into the music as a contributor.

A whole range of new music has been built around new players' capacities and idiosyncrasies. Now that players are regaining their freedom, the next step is to develop competence to explore that freedom. Nobody criticises Parker or Coltrane because they had more chops than Lester Young.

So, what solutions for the touring musician today?

1 View the tour as a tour; ie viewing live performance as the basis of everything else, it needs to make money. Set the break-even point, which for the League is around \$3,000 a night in the US, and don't work below it. An opportunity to play in Pittsburgh for \$500 as a record promotion requires a \$5,000 gig somewhere else. Promotion can be arranged around the bookings rather than booking around the promotion. Touring has three aspects: playing, travelling and promoting. Any two of these in a day is enough for me, but on the Frippertronics tour of 1979 I did three a day nearly every day for four months.

2 Play in venues for 500/1000 capacity for two shows a night, for two nights. This reduces travelling (and tiredness and expense), requires less equipment than in large halls, gives time to explore the town, enables more personal contact with the audience and a better chance of dealing with their expectations. In practice, 250 is the top I can handle as a soloist and 500 with a group. Beyond this, expectation and excitement can get out of control. With falling gig attendances, smaller venues are at least more efficient but worked this way still have a potential gate

of 2000/4000. The objection that not everyone interested in the band might see it can be met by occasional larger, but appropriate, venues: Hammersmith Palais instead of Hammersmith Odeon, or an open air concert. Note: working this way, one is unlikely to 'break out' and become a big star.

3 Create residuals by intermediate recording. This smaller way of working builds genuine support from below rather than having 'popularity' imposed from above by high-powered advertising. Gigs are a way of preparing for recording and getting music into the body, so that first takes, oozing passion, needn't break down from lack of familiarity with the notes. The League record at Arny's Shack in Parkstone, Dorset, a 24-track at £13 an hour.

4 Develop a local music industry. With the possibility of transport difficulties in the middle 1980s, how can one work as a travelling musician? For me, I look to the area I live in: the West Country, or what was called Wessex. A network of people interested in music should accept responsibility for promoting in Bodmin and Truro, Wimborne and Weymouth. This could be the local manager of a record shop, musician or music fan. A local group can headline a dance and be supported by a band from a town further away, this being reciprocated by the support group in their home town. Steve Smith, guitarist and singer with Wimborne's Martian Schoolgirls, was the organiser for the League's English tour of November 1980. This helps a local musician work, decentralises the industry from London, and is the beginning of a local network independent of Mogul Pressure. Recently the number of rock venues of various sizes has increased in the Wimborne area, despite the recession. Recording studios are well established outside London, such as Rockfield in Monmouth, and others in Bath, Reading and elsewhere. This enables national groups to base themselves in the provinces. And once Wessex has its network of reciprocating units it can build up exchanges with the networks of Cumbria and Mercia.

See you at the Brewers Arms in 1984? ■



1NE, 2WO, 3HREE, 4OUR...

... being an illustrated guide to those first, faltering steps over the threshold for your first 8-track honeymoon, by Jim Betteridge.

My first demo fell somewhere short of amusing. It cost me a lot of money and more than that in loss of face. Yes folks, though it was still somewhere there on the front of my head, my face had been temporarily misplaced and the old credibility rating was approaching micro proportions.

At this stage further elaboration is unnecessary. However, as I go further into the various areas concerned with demo-doing I hope to point out the advantages and disadvantages of different methods of approach and within this context relevant exhumations, though sometimes painful, may prove instructive.

The Music

One area that to my knowledge Einstein didn't cover is the way in which the passing of time accelerates as soon as you get inside a studio, and for the purposes of demoing a few tunes it is not a good time to count on inspiration to allow you to bring forth the correct notes at the correct time. I suggest that it is a good idea for each part of each number to be regimented and put into boxes so that everyone knows the phrasing and scansion of every line. Having done this a new clarity will be apparent in the playing of the number as a whole and that look of anxiety associated with the 'I can't remember how many bars the lead break is' syndrome becomes blissfully absent. To this end, try running through the piece two instruments at a time, eg drums/bass, drums/guitar, bass/guitar etc. This will show up any shaky bits or clashes between parts. Also go through the harmony parts on their own and make sure that everyone is pronouncing and phrasing the lines in the same way.

It is my experience that, far from cramping players' ability to express, it allows them greater freedom by releasing them from the need to concentrate on the basic structure of the song. One of the advantages of multitrack recording is that you can do things in stages, and it is very likely that you will be recording the vocals at a separate time. This allows you to concentrate individually on playing and singing and should enable you to improve on each, although some people find it difficult to sing without playing and so you should make sure that you are OK on that score.

Your Equipment

Just as the studio is generally more critical of your playing, it is also more critical of your equipment as far as buzzes, pops and other spurious noises are concerned. Let each member of the band be responsible for his or her own equipment in terms of leads with sound connections, pedals with spare batteries, fuses for whatever uses them, together with a noise-free amp and instrument. Noises that you may get away with on stage will become suddenly offensive in the quiet still-

ness of the studio control room and if the same instrument is doing several parts on the same number, the noise will add on each take and so it is important to make everything as quiet as possible. If you have your own keyboards and are also intending to use the studio's make sure that they are in tune with each other.

Choosing the studio

A demo can be anything from a mono-guitar-and-vocals to a 24-track production number, and you have to decide at the beginning how far you want to go with it. If you are a writer looking to get your songs placed with other artists or a singer-songwriter looking for a record/production deal a 4- or 8-track studio will probably be enough, but if you are a 12-piece with a complicated arrangement and production in mind, you're likely to have to go for a 16-track facility. Most A&R people will tell you that it's the song that they are interested in and that they can tell whether it's any good without a flashy production job. However, at best they are only human and at worst they are as sensitive and musically aware as an industrial steam hammer. So it is important that the ideas behind the song are strongly stated. Remember also that, whilst not wishing to encourage a negative attitude, it is quite possible that before a success will come several failures which can be even more painful if they have cost you hundreds of hard-earned pounds.

Basically, then, choose the studio to suit the music: if you have some songs with strong melodies and you just want to put the idea of them across, then a rhythm box, a guitar and some vocals plus harmonies recorded on a 4-track will probably be enough. If you're an average 4- or 5-piece band and you want a fairly good quality recording an 8-track would be better and if you've got a big line-up or you're into big productions you'll be better off in a 16- or 24-track.

If you book by the hour you can expect to pay around £5/hr for a 4-track, £5-£10/hr for an 8-track, £10 to £20/hr for a 16-track and anything up to £80/hr for a 24-track. It is usually considerably cheaper to book time by the day and you should be able to get a 10hr day in a good 8-track for around £55 and a 16-track for about £110. If you are well-rehearsed you should be able to get three numbers recorded and mixed within the time although, of course, it depends on the complexity of the recording. While money is an important factor,

equipment. If you don't have any friends, try asking around any semi-pro bands that you like the sound of, and if you ask around a few, one or two names will probably recur and will give you somewhere to start from.

Having narrowed it down to two or three places, ring them up, have a chat and arrange to go round and have a look at the place. More important, have a listen to something that's been recorded there. Don't be too worried about cosmetics (the studio's or the engineer's) as the sort of budget that an average demo studio is set up on doesn't allow for too much flash. It's far more important that they have reliable equipment, a controlled acoustic and enough space.

If you're not too fussy about whose amps or instruments you use, a studio that supplies them free of charge can save you a lot of time and energy humping gear and setting it up. In the case of the drum kit, unless your drummer has an excellent and well-tuned kit, it may well be advisable to use the studio kit, assuming that they have one and that it's in reasonable nick. The reason for this is that getting the kit in position, miking it up and getting a good sound in the control room is one of the most time-consuming parts of the whole session. The engineer will almost certainly know the studio kit and will be able to get a respectable sound from it quickly and, of course, it will probably be set up ready for you when you arrive. In some cases it is possible that the studio will charge a nominal fee for the use of their equipment, but in many cases it will still be worth it for the amount of time and hassle saved, and often the better sound obtained.

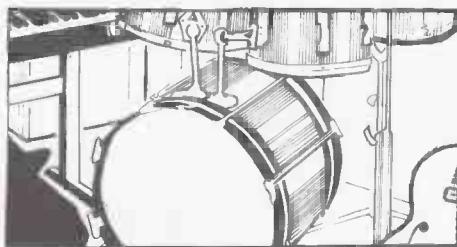
Rather than spend out between £30 and £70 on a reel of multitrack tape most small studios will hire you a reel at around £10. For this modest sum they will keep the tape for a given period, usually three or four weeks, before they re-use it for another band. This allows you to take the mix home on a 1in tape or a cassette, have a listen to it and decide whether or not you need to remix it. If you



intend to do a lot of demos and you find a studio that you like, it is then worth investing in a reel of your own as in the long run it will save you money and be more convenient.

Although it is possible to buy an old 1in 8-track tape from a studio for around £10 it isn't generally advisable as they probably wouldn't be selling it if it wasn't worn out. Unless it's the same type of tape as the studio you are going into uses, the studio's tape machine won't be electronically aligned for it and it therefore won't sound quite right. Quarter-inch tape and cassettes will have to be bought from the studio at the going rate and again it's worth buying it from the studio as their machines will be aligned for it and will therefore give the best results.

Another criterion on which the choice of



especially when you haven't got any. It is pointless to go for a studio simply because it's cheap. The industry is crawling with cowboys and working in a duff studio can be very disheartening.

The best way to choose a studio is on the recommendation of a friend who has had good results, in which case try to get the same engineer, who is at least as important as good

studio must be based is the quantity and quality of the gear within it.

With this in mind I'll be going into the various items of equipment that you're likely to be confronted with, what they do and how they can be used.

Booking Players

If you are but a simple songwriter and don't play or possess drums, bass, guitar, keyboards, a range of saxes and/or woodwind instruments plus the ability to sing, it is likely that you will have to enlist the help of some sturdy fellows to help you get the sounds down. Unless they are professionals, most musicians will do a session for the experience and the buzz of being in a studio, so if you like someone's playing and you're serious about going into the studio, don't be afraid to ask if the particular player fancies playing. You might offer a good player £5 or £10 expenses, simply out of respect for ability.

Your musician, once found, will need training. This entails going through each part separately with each individual so that each player is at least sure of each part in isolation. Make a rough cassette demo of the song with perhaps just guitar and voice, together with a set of lyrics and accompanying chords for everyone involved. Make notes thereon for the guidance of the individual player. Once this is done, hire a rehearsal room and make sure the pieces go together OK.

Now this may seem like a lot of work, but believe me, unless you are dealing with a bunch of pro session players and you've scored all the parts out, the success of your session relies heavily on rehearsal. At this point I refer you to the opening paragraph of this article in which I made reference to my very own first demo session: a pitiful example of not having read the right articles and leaving too much to rest on the other players' abilities to learn



quickly and general good fortune (neither of which were strikingly apparent at this particular gathering).

I had everybody turn up at more or less the same time, including drums, bass, two guitars, saxes, a male and two female vocalists. I was down to play keyboards. Although they had been given cassettes, the drummer and the bassist had no idea of the two songs and I spent the next hour and a half attempting to teach them while everyone else sat around drinking copious amounts of coffee and getting very bored.

After a couple of disastrous takes and a further half hour of instruction I woke the engineer up to inform him that the session had reached its conclusion and that we were all going home. He took my money together with my face and shoved it in his pocket – figuratively speaking that is – and that's where it stayed, my face and the money, until I managed to save up enough cash and confidence to try again. This time I had a little more success, at which point my face was restored to its proper place.

So let this be a lesson to you, rehearse them hard and allow a reasonable amount of time to

get the backing track down before you bring the singers or brass in. If your first session is a success the players will want to be involved with you again and you'll have the confidence to go on to bigger and better things.

On Arrival

The first thing to do when you get there is to get the kit out of its cases and set up so that the engineer can start positioning mics and getting a sound together. If you're using the studio kit this doesn't apply of course.

While not being overtly offensive, it's not a good idea to be too chatty with the engineer, as much time can be wasted in discussing the state of the music business, and other vitally important but time-consuming topics.

Be fairly business-like and stick to topics of conversation concerning the immediate project. Although it is important to have a friendly atmosphere to work in, you're there for 10 hours, say, to knock out a few demos, you're not about to spend three or four months doing an album.

Tune all your instruments to the studio piano or keyboard if you are intending to use either of them, and ask the engineer's advice on where to position your amps.

While everybody else is setting up it's a good idea for one member of the band to discuss with the engineer the way in which the session is to run. One of the main points here is how you are going to utilise the 4, 8 or 16 tracks on the multitrack, what instruments are to go where and in what order you are going to



record them.

If you are working in an 8-track studio, it is likely that you are going to have to 'bounce down'. This means that, having recorded say six of the eight tracks, you effectively do a stereo mix of them but instead of recording the mix on to a separate stereo machine, it is recorded on to the remaining two tracks of the multitrack, thus freeing the first six tracks for recording other instruments. The only drawback with this, apart from the slight loss of quality due to the re-recording, is that you have to commit yourself to a mix before you can hear the effect of the other instruments that you will subsequently be recording.

It is therefore a good idea, though a little more costly on tape, to record on all eight tracks and then bounce them down to a separate stereo machine and then record them back on to a different piece of the 8-track tape. This means that should you subsequently decide that the bounce was wrongly mixed you can go back to the original 8-track recording and do the bounce again. (Which, incidentally, is what Tiggers do the best.) While this does affect the quality of the recording a little, assuming the machines are aligned properly, it is worth it in that it insures you against wrong decisions.

The Studio's Equipment

As far as the mixing console and the tape machines are concerned, they really speak for themselves in the quality of the final product which you should have listened to before booking the studio. One thing to look for with

the machine if you are thinking of taking the multitrack tape somewhere else to work on is that it works on a NAB equalisation curve as opposed to a CCIR or AES curve. NAB is the standard curve for the audio industry in this country and some machines, notably Cadey, operate on a CCIR curve, which will not sound right if played back on a NAB machine. However, if you are intending to start and finish the recording in the same studio, it doesn't really matter and the Cadey will do the job fine.

Ask the engineer to put a set of line-up tones at the beginning of the *jin master* to allow it to be played back correctly in other studios.

I've included below a list of outboard equipment (in other words, separate from the desk and tape recorders) that you might come across in the average studio. While these aren't as important to a studio as a good tape machine and desk, it may help you make the final decision concerning which studio to use.

Compressor: Maintains a consistently high level of signal on tape while safeguarding it from overload. It is an important piece of basic equipment.



Gate/expander: Helps to diminish unwanted background noise or spill from other tracks.

Plate reverb: A high quality device for artificially adding reverberation to a sound.

Spring reverb: A lower quality device of a similar nature.

Digital Delay Line (DDL): A device that delays the signal by an adjustable number of milliseconds before adding it back to the original sound. Used for doubling effects.

Harmonizer/Pitch Changer: A device that can change the pitch of a signal, though at the expense of quality. It usually incorporates a DDL.

Vocoder: A device that allows you to superimpose your voice on to the sound of an instrument. As used on ELO's *Mr Blue Sky*.

ADT: Simple form of DDL used for doubling effect (automatic double tracking).

Flanging/phasing: The difference between these two effects is too subtle to put into words – they both affect the signal with a sweeping, swishing sound and can enrich the sound of an electric piano or a rhythm guitar under the right circumstances.

Kettle: Device used in the making of cups of splosh. Of fundamental importance to the smooth running of the session.

If your demos turn out to be wildly successful and you make a large amount of money as a result of reading this article, then I suggest that you give half to me. Thank you, and farewell. ■



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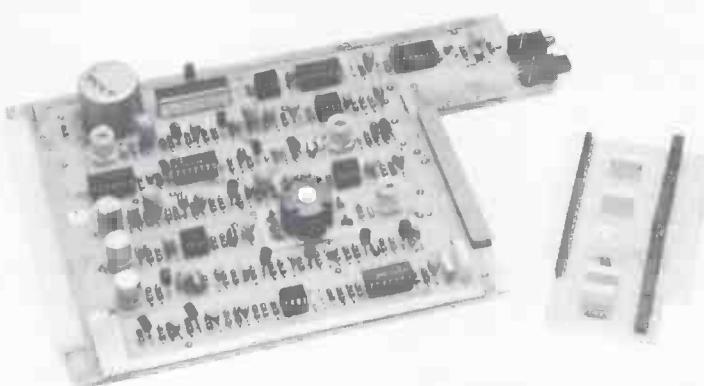
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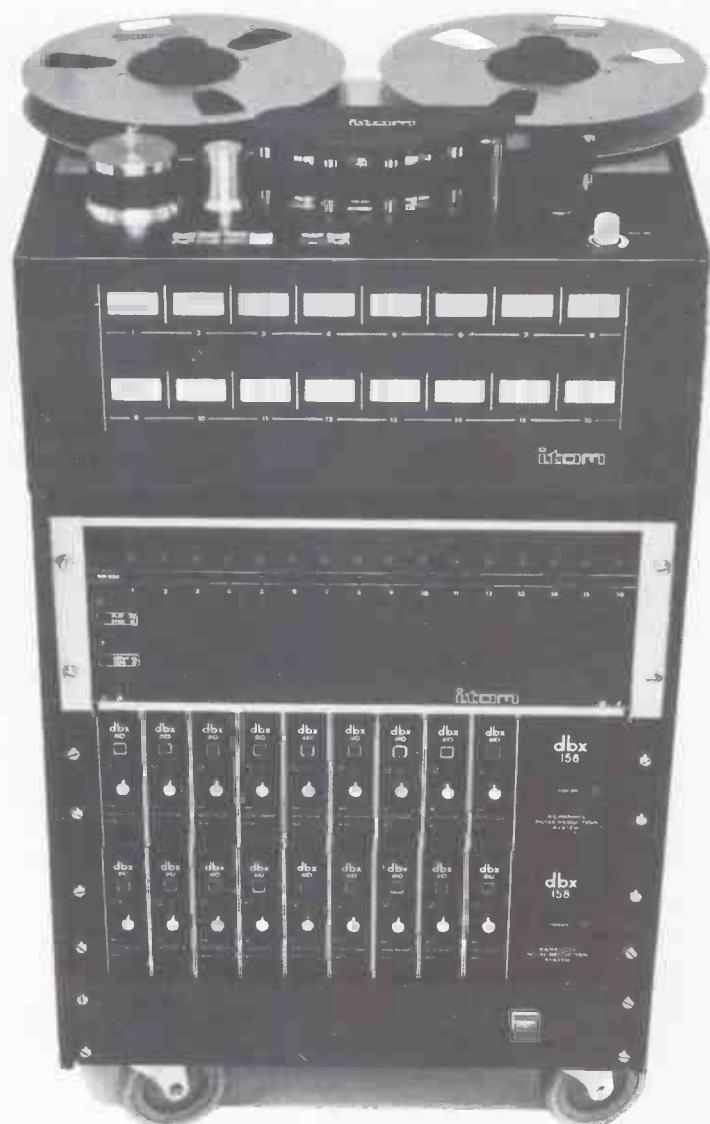
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THE DAILY SLOG



David Betteridge has worked in the music business for 22 years. He was Managing Director of Island Records then Bronze Records and is currently occupying that position with CBS Records. He spoke to *Didy Lake* about his job from his less than palatial office in the crammed-to-capacity CBS building in London's Soho Square.

The first thing I do when I arrive at the office is have a cup of tea! I normally start work about 9 o'clock and I have a driver which allows me to do a reasonable amount of my paperwork in the car. I do try to keep the paperwork completely up to date and having a driver is also useful for picking people up, such as managers. Also, I'm out quite a lot at night, late at night, so I can get looked after in that way.

The first thing I do in the morning depends on what day of the week it is. We have a series of set meetings every week which I always attend and they are necessary but they can be long-winded. I sometimes think that an executive can get drawn away from the mainstream of what he is trying to achieve and I think better on my feet than sitting round a table. The most emotive half-hour of the week is between 10.30 and 11 o'clock on Tuesday mornings, which is chart day of course. Careers are made or busted then and decisions have to be made about which drugs to give out to the retailers! On a Thursday we have our schedule meeting where we set the specific records for release. This meeting is between a dozen or so people: our production people, label managers, senior directors. Then on a Friday afternoon I have my A&R (Artists and Repertoire) meeting which is concerned with the music side of things. On the following Monday we have the business A&R meeting and that is about the deals. I have about two days a week when I'm locked up into these regular meetings, but that still gives me quite a lot of time.

There are all sorts of different managing directors, but a managing director of any company has got to have a decent management structure below them so there is sufficient time to stand back from the day-to-day activities to look at the overall thing. I think it is very important to have a good management team who are clearly instructed on what is expected of them. You can be a Managing

Director who finishes up with lots of pieces of paper on your desk, looking at every figure, every piece of paper, shuffling them all around, or you can zero in on the important aspects – and the important aspects are signing the right acts and promoting the acts, in the broader sense of promotion. You have to work with the acts and the management of the acts and the key operational people in the marketing and A&R areas to break those acts, and not only break them but continue to commercially sell records. This is what I try to achieve and I am allowed to do that in this company because we have a pretty firm management structure. We have a chairman, Maurice Oberstein, who looks after a great deal of the administration; Tony Woolcott, who is a very good marketing man and senior director; and on the A&R side we have Peter Robinson and Muff Winwood. We also have a first class business affairs department who pick up a lot of the day to day activity so I am not deluged. I also spend a considerable amount of time on the sales side with my sales director, John Mair.

A lot of my time is spent with managers and my senior managers. Occasionally I like to wander around, talk to second-line managers, but I try to avoid confusing issues in terms of giving direct instructions.

My favourite restaurant is the greasy spoon around the corner but I usually have a working lunch – a business lunch where I can justify my huge expenses! Generally, lunches are with managers, sometimes with acts or promoters. Or agents – though I don't feed agents very often if I can help it! I had lunch with Adam and the Ants last week which gave me a chance to talk to them for a couple of hours about various things: their careers, what they wanted to do. They got to know me a little bit and I got to know them a little bit. And I do this on a fairly regular basis. I have a considerable amount of contact with the artists. I like to keep in contact with them for their views, their

understanding of the direction in which they see their careers.

I go to concerts at least four times a week: I was at the Music Machine last week, the Marquee on Friday and Saturday and the Lyceum on Sunday. By sheer coincidence all the bands were 'A' – it was Aswad, Angel City and Adam and the Ants! At the Music Machine last Thursday I saw Fad Gadget, Frank Stevenson who is usually quite good, but he was lousy that night!

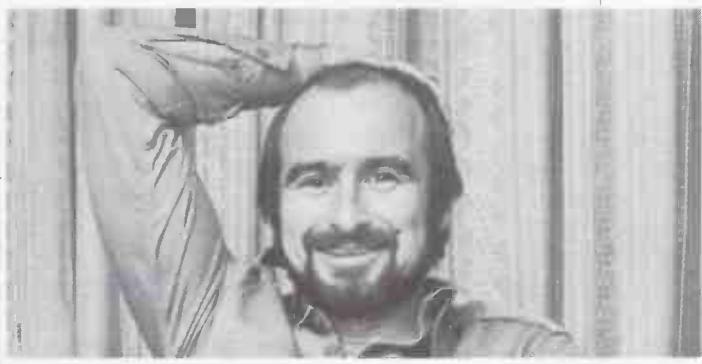
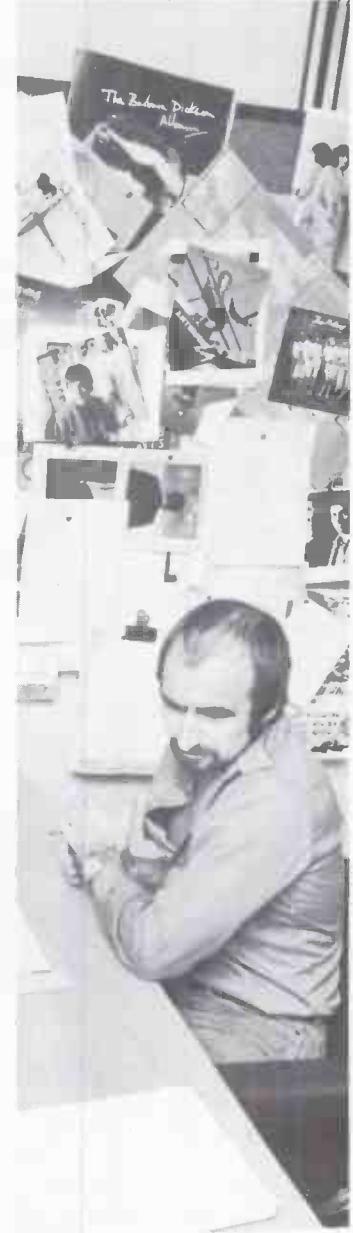
Though I used to travel a great deal when I was at Island and at Bronze, I'm glad to say I don't travel nearly so much now. I feel that if you travel too much you are not achieving what you should be achieving, that you are spending too much time travelling and not making as much impact in the various areas you should do.

But I always go to MIDEM (Marché Internationale du Disque et l'Edition Musicale, or International Record and Music Publishing Market), I am one of the people who don't complain about MIDEM. I find it a good opportunity to talk to people I haven't seen for sometime and to get some free meals! I actually like the business I'm in and I have a respectable belief in it. The thing I do dislike is what is said about it in the press! Hype, for instance, is a word that provokes strong emotive thoughts in people's minds. A great many of the things that are put down to hype these days are basically aggressive marketing policies that are adopted to sell your records through the market-place. There is a moral difference between hyping and aggressive promotion. Four-fifths of what goes on in terms of hyping is no more than making sure your records are in the right place at the right time, ie for the punter to buy them. A lot of the nonsense that is written and spoken about is really just balderdash. Of course there's hyping and of course there are people who used to go around in their cars buying the records up and getting hold of the board and ticking, but that's just the tip of a really responsible iceberg below it. I find the whole thing has become somewhat of a joke. I get reports from my sales team and see what my competitors are doing, but they are doing no more than making sure their records are available. I know the way this company behaves itself and I don't have to not look anyone in the eye for what I've done in terms of selling my records into the market-place.

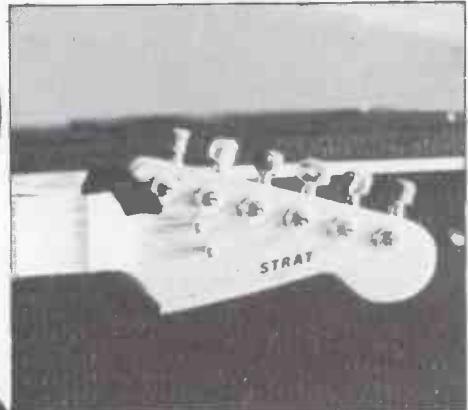
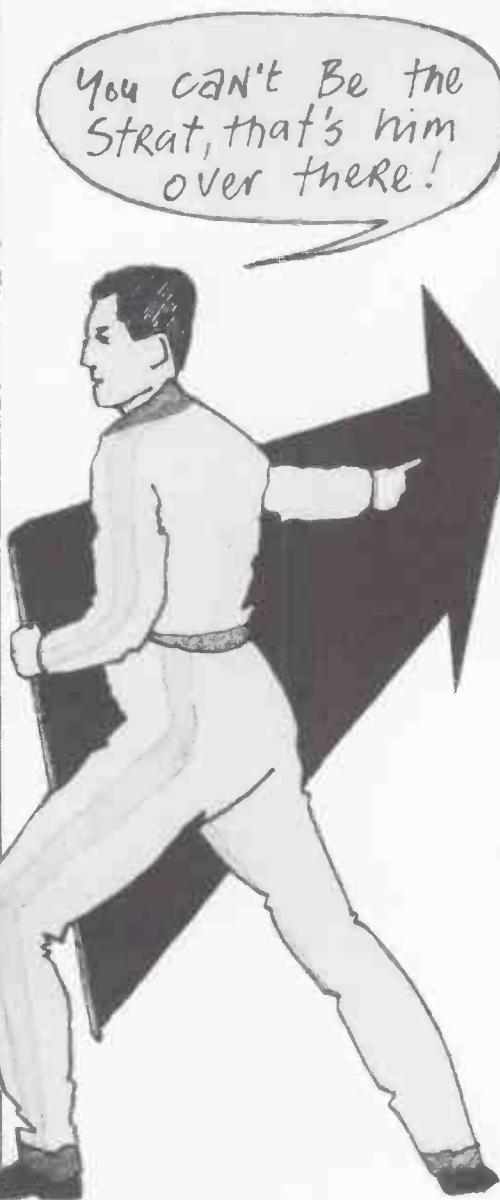
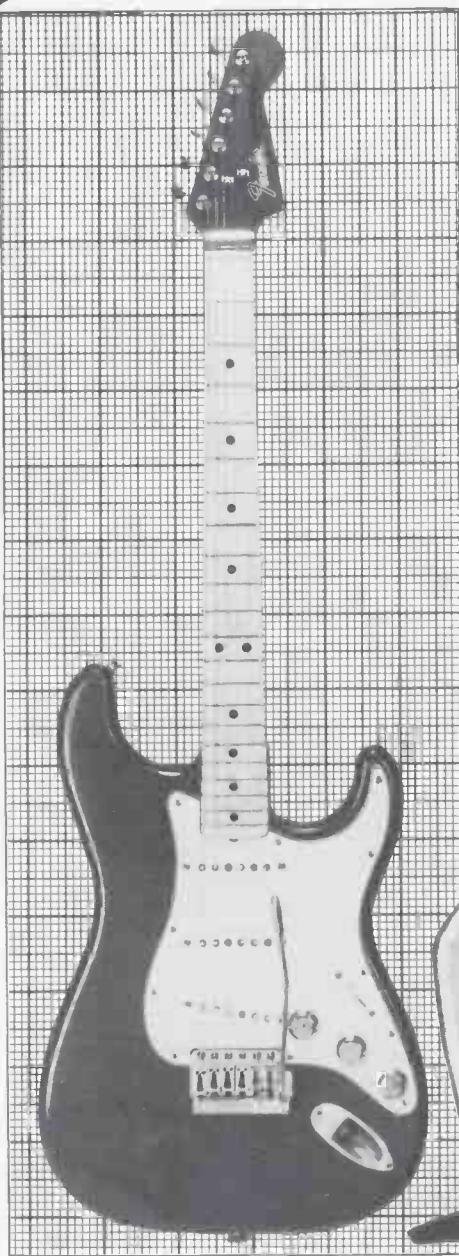
Although I am 42 years old, I happen to be one of those people in the music business who actually likes music! I listen to records all the time. I get all the records that go into the chart every week and I have the radio on all day. My wife also likes music – she used to be in the music business herself. She was my secretary at Island Records. I didn't have time to go out with girls so I married my secretary! We listen to music and argue about it sometimes as she doesn't like some of the left-field records I've got, like Psychedelic Furs. I've got fairly catholic tastes – I also like The Nolans! I enjoy British contemporary rock but I also go to a number of concerts of our American acts because I represent the company there: Al DiMeola, Charlie Daniels, for example. I go to those because obviously my presence should be there

and it is important for me to know how they operate and how they work. But my main thrust is into the domestic market in terms of A&R because we've already signed the acts there. I am the final arbiter in signing rock acts. The head of A&R reports directly to me and this is the key to the success of the company. You can make an awful lot of other mistakes but if you get your A&R policy right then you are going to win.

I don't usually finish work until



about 7 to 7.30. Very rarely do I then go straight out with a business associate. I prefer to go home for an hour or so as I only live 15 minutes away and then I go out again. Sometimes at weekends I take work home, the rep sales reports are usually pretty good, or the monthly accounts or the longer reports but I don't find any of that a chore. I'm very lucky, I enjoy the music business!



Fender Strat

Roger Adams

The Strat is the result of a collaboration between the Fender company and well-known guitar designer Dan Armstrong, the purpose being to incorporate into one totally conceived instrument the best features of the standard Fender Stratocaster, many of the recent advances in guitar hardware, and last but by no means least, a more flexible system of electrics, carefully designed to offer further tonal options without alienating Stratocaster fans.

To further distinguish the new variation – and it certainly needs a little help to distinguish it, bearing in mind the fact that every Stratocaster I have ever met was referred to as a 'Strat' by its owner – it has a smaller head than the current Stratocaster model, and is offered in a choice of two distinctive custom finishes (candy apple red or Lake Placid blue),

which are, I suppose, updated versions of two of the classic colours associated with the Stratocaster. Although most guitars don't benefit from bright 'Custom' finishes, I have always regarded the Stratocaster, with its All-American styling, as the main exception, and the new Strat model is almost a celebration of the Transatlantic brashness that stamps most Fender products.

On first sighting, then, you'll quite probably decide, 'Oh, it's just another custom Strat wiv a little 'ead,' and pass on. The thing to bear in mind at this point is that in a world in which the replacement Stratocaster-parts industry has reached the stage where complete build-it-yourself instruments are offered by a number of independent companies, this is the permutation given the official Fender stamp of approval. Of course, they could,

and possibly should, have explored a little further in the area of exotic timbers, but for a mass-produced instrument, this would have proved costly, so Fender have contented themselves with the usual rosewood and maple fingerboard options, and the previously mentioned two alternative spray-painted body finishes.

Visually, the big change for a standard Fender, at any rate, is the predominance of brass hardware – not just for the purpose of sound quality, but also for decoration. It is unfortunate that all the metalwork on the guitar does not match; the machines, for example, are the usual 'chrome' finish, which I feel clashes with the brasswork, but many would adhere to the belief that the advantage of having brass parts on the instrument outweighs things like aesthetic consistency – some go for rubber or leather in a big way, others like a bit of brass, I suppose. Personally, I would have settled for a good solid brass bridge/tailpiece unit, which the Strat has, and a brass nut, which it does not.

So here we have Fender's new offering. Nothing too eyebrow-raising because they've tried to change the formula before with very little success. The instrument under scrutiny can best be summarised as a forward-looking version of a well-proven instrument, which, in specification at least, comes as near as mass-production methods will allow to the state-of-the-art (strat-of-the-art? ... state of the strat?). Anyhow, Fender have conceded that people have been doing nice things to their original design of late, and here's their answer.

Electrics

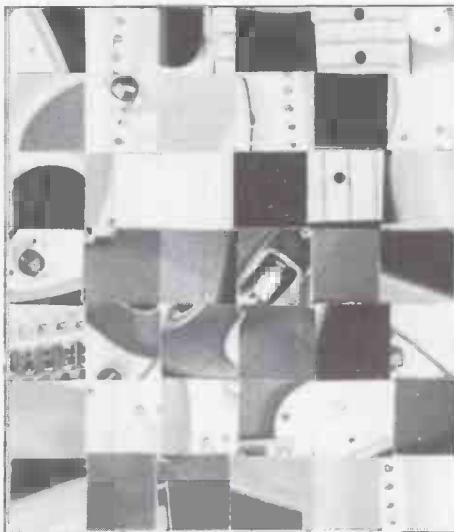
All of you know what a Stratocaster does, so I don't propose to offer any words to the wise. Most of you also know what adding a five-position switch does to the sound – nothing. It does, however, make controlling the instrument a lot easier, as you don't have to lodge the selector switch between notches to get your Knopfler effect. Five-position switches have been widespread in Stratdom for some time,

but they don't go any further towards exploring extra tonal possibilities, which are many, of course, on a three-pickup instrument. The new Strat offers, instead of the middle pickup tone control, a two-position switch, known as the 'selector mode switch'. In its clockwise position it gives the usual function to the five-way selector, but when turned anti-clockwise it makes available at the selector switch several new series-wired tonal options. I don't think any of them are going to inhabit the sound of rock to such an extent as the classic 'halfway' position beloved of so many Stratocaster users. But again, none of them are impractical, and all retain the accustomed Fender sparkle which is, of course, totally removed from anything achieved with humbuckers. Also, of course, as single-coil pickups are featured, some wiring options give a louder background hum than others, but no switch position is unusable, as a result, in any normal conditions.

Incidentally, the selector mode switch has no effect when the five-way selector is in the bridge pickup or 'lead' position, so whatever sound you are using you can revert with one movement to the basic lead sound. In this case, and at long last, Fender have fitted a pickup with really high output in the bridge position. This new X-1 pickup looks the same as the other pickups, and retains their clarity, but fulfills the long-standing need for a lead pickup with a bit of extra balls.

The remaining two rotary controls are Master Volume and Master Tone, a combination of indubitable logic where this instrument is concerned. As single-coil pickups are used, there is little of the muddiness which creeps in on many humbucker-equipped instruments when passive tone and volume controls are backed off. I remember Rory Gallagher, when with Taste, gave a demonstration of the usability of the Stratocaster volume control one memorable night at Jimmy's Blues Club in Brighton, when in the middle of some 12-bar or other, he faded the guitar solo progressively down to a completely un-amplified level without losing tone at all, prior to sending us all leaping out of our skins as he crashed back in with a power-chord. This facility gives the guitar an inherent ability to be instantly balanced by the player with the subtlest of arrangements, which probably explains its popularity in mixed acoustic and electric settings, such as folk-rock or country.

The jack-socket is the usual recessed design, which has a character of its own and is well loved by many Strat fans. In this instance, of course, it is a brass unit, so try not to stick chrome-covered jackplugs on it if you can possibly help it, purely for appearance's sake!



Construction

Apart from the bits of brass all over the place, the main difference between this guitar and the standard Stratocaster is the fact that the neck is fixed to the body with a four instead of a three-bolt plate. That the plate is brass goes, of course, without saying. The small Allen-key adjuster for neck-to-body angle featured on some Stratocasters – and Music Man guitars incidentally – is not a feature of the Strat (God: 'This is getting me down – why didn't they call it the Elastoplast, or the Plastercaster, or the Brassocaster or something!'). Whether the four-bolt plate is a major factor, only scientific research could establish, but the sustain and brilliance of response of this instrument impressed me greatly – more so than most of the standard Stratocasters I have encountered.

The Strat neck is, for me, too bulky, and it looks even more so when you take into account the small head. I prefer larger heads and slimmer necks; the latter could certainly be achieved by a good craftsman, if you can bear to see a brand new instrument being treated in such a way – I have certainly played more comfortable necks of this design, but these were on older instruments whose owners have taken liberties in this area.

The most horrifically wrong thing about the review instrument is the fretting. There are inaccuracies in several places on the fretboard, resulting in the lower strings rattling far too much on the higher frets, and the top E-string choking itself to death when you bend it across the board anywhere past the third fret. On a cambered fretboard, especially on a Strat or Stratocaster, careful finishing is imperative to render the instrument playable, and if the manufacturer is incapable of performing the task, then it's bloody well up to the guy who sells it to you to make sure the instrument functions as it should – don't under any circumstances be conned into thinking you

ought to pay extra for basic playability if your dealer offers you the facilities of his costly 'customising' department. The factory is supposed to have a quality control operation, and this kind of fault is a cock-up, pure and simple. Just refuse to buy the instrument, and keep checking them out till you find one that works properly. All the time you mugs keep buying malfunctioning instruments, nobody's going to bother to get them right for you, are they? The review sample in this case was loaned by a new shop in the West End, known as Guitar Grapevine, and if they care at all about what sort of reviews the instruments they sell are going to get, they're not showing it – it may be up to the manufacturer to do his job properly in the first place, but it's a responsibility inherent to the retail trade to satisfy the customer by weeding out substandard stock before it goes up for sale. (Editor's note – Stuart Sawney, manager of Guitar Grapevine, had this to say: 'The review sample was sent to SI as Guitar Grapevine received it from CBS/Arbiter UK. We set up all our guitars as per the customer's specifications when the instrument is purchased.' GG's first batch of new Fenders came direct from Fender USA, but GG are now getting guitars from CBS/Arbiter, and still manage to sell the Strat for £425, inc strap, case etc. John Hill of CBS/Arbiter added: 'It sounds like the guitar should have been picked up at Quality Control. Whilst I won't say that every Fender is perfect, I would say that some of our more critical dealers – Carlsbro in Mansfield, for example – have given us nothing but praise for this new Strat. If we don't get any feedbacks, we can't give any feedback to Fender USA.') All of which is most unfortunate, as this was well on the way to being the nicest Fender I've met. It will now have to go down as potentially the nicest, etc, etc.

Before leaving the frets, just a quick word on the kind of fretwire used. A helluva lot of players are having their thin, weedy, uncomfortable Fender frets changed for fatter, Gibson-style replacements. Why can't we have a choice of neck from Fender? One standard Stratocaster shape with ordinary frets, and an alternative slim-line neck with wider frets, and perhaps an ebony fingerboard. Once in production, it could win a lot of new converts who would be attracted by the sound of this instrument but don't like the feel of it. The custom parts companies can help here, of course, but wouldn't it be worth Fender's while to get things under their own roof?

Hardware

Before examining the main item of



hardware in the instrument, namely the bridge/tailpiece/tremolo unit, I'd just like to have a quick moan about the indiscriminate and apparently random way that brass has been introduced to this instrument, which in automobile terms would be classified as a real 'boy racer' job. I wouldn't mind if brass had been confined to important items which affect the guitar's performance, but if it is to be used in addition for decorative purposes, such as control knobs, jack-socket surround etc, could there not have been a bit of consistency by using brass screws in the scratch plate and brass buttons (at least) on the machine heads? Or failing that, perhaps the use of a suitable lacquer to give a uniform colour to those items which are not practical to produce in brass? I don't feel that this is nitpicking – an instrument deserving of the status that Fender seek to bestow on the Strat in their advertising (US) should have no trace of the makeshift about it, and no evidence of taking the easy way out. Some details have been remembered, such as the excellent strap buttons, but it's a pity that the job wasn't carried right through to the last item – this is not after all a private custom job, but an expensive production instrument.

Notwithstanding all this, that bridge/tailpiece/tremolo unit is very good indeed, and finally realised under the Fender name the potential that customisers have been exploiting for some years now. The individual string saddles, each adjustable for scale length and action height, are chunky, and the base-plate of the unit is suitably massive, so sustain, harmonics and response are, quite literally, brilliant and encourage the Beck in you. I am not an authority on tremolo, but I would have expected the arm (which, incidentally, is made of steel with a brass knob) to be much easier to screw into the unit; the female thread appears to be suspect on this particular example. I hope this is not an inherent fault caused by the use of brass – this would be a most regrettable shortcoming in view of the other undoubted advantages of this metal. Only three springs are fitted to the tremolo as standard because of the light gauge strings fitted at the factory. The remaining two tension springs are supplied in an envelope to be found with the other accessories, and should be fitted if heavier gauge strings are used. In use, the tremolo unit returns fairly well to pitch, but there is a certain amount of 'pinging' emanating from the bridge end of the strings implying that there is some abrasion taking place during operation.

I have never had much success with other tremolo units, but it would appear that many players find the Fender unit quite usable, and are capable of really amazing effects with the tremolo arm without too many tuning problems. It seems largely a question of developing a feel for the device, combined with achieving correct spring tension over a prolonged period. I certainly have every admiration for those who can really create with this effect, as opposed to using it as a poor, mechanical-sounding substitute for finger vibrato technique, as they did in the old days.

Sum-up

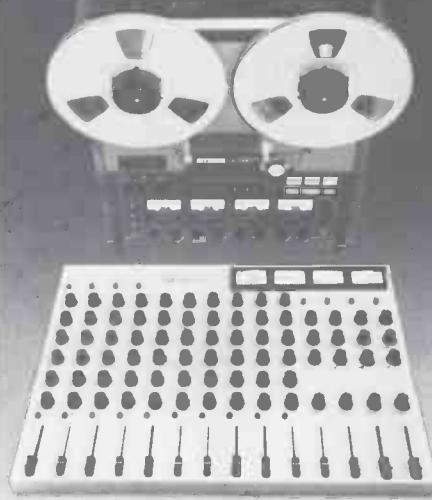
There's no point really going much further, because we've covered the points of departure from the time-proven Stratocaster by now. The Strat's main interest lies in its wiring variations – whether or not you'll need these extra permutations is debatable, and depends on whether you have a preset or open-ended approach to getting the sounds you make music with. I must confess to a tendency towards the former, as it causes less confusion with sound engineers, or audience, if you can forewarn them, 'This is my X-sound and this is my Y-sound, and there won't be much variation from these basics.' For this reason, a standard-wired Stratocaster with a five-way selector is probably as far as I'd want to go. However, I do strongly approve of the hot new X-1 lead pickup, the lively bridge/tailpiece, and the no-nonsense four-bolt neck joint.

Disregarding economic pros and cons, I would probably therefore opt for the Strat rather than the Stratocaster, but I'm afraid the neck would have to be a custom replacement, and I don't think I'd make a great deal of use of the selector switch unless I were specifically asked for different sounds in a recording studio. However, you could probably get very nearly the same result by customising your standard Stratocaster, and you could certainly improve on either with a well thought-out DIY job from scratch if your budget permitted.

One last quibble: the serial number is part of the name transfer on the head of the guitar. As the Strat has a painted head, as opposed to the natural maple wood common to most Fenders, anyone with a devious mind and the appropriate equipment and paint could obliterate the serial number and re-finish the head without leaving a trace for the eye to detect (although Fender claim it's immovable). Just a thought.

Review equipment: Park Vintage combo. Fender Pro Reverb combo. □

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Delta Lab DL 4

Dave Hastilow



I took my girlfriend to a gig the other night and as per usual, being speedy and heavy on the clutch, arrived hours before the curtain up so I thought I'd have a nose around the stage and check out any new ear-shattering devices. Well, the lead guitarist's armoury of pedals and other foot-operated devices looked like the controls of my car (according to female observation): a blue one for fuzz and green one for phase, all mounted neatly in a box on the floor.

Thinks, haven't they heard about the *DL4* yet? What do you mean, no? Well here goes: Delta Lab, ever-innovative and striving to meet the needs of musicians and recording artists alike have bridged the gap. What gap? The gap between the recording studio and the live performance. There is nothing more frustrating for a musician than to do sessions in a recording studio, achieve amazing sounds using the effects devices therein such as digital delays, flangers, harmonisers etc, and then realise that it's not possible to revamp them in live performance and affect what might be a truly wondrous and breathtaking event for the audience.

Now there is no gap, because Delta Lab have introduced the *DL4* which is basically a recording studio effects tool which has been tailored especially to meet the needs of the musician in live performance. I was very fortunate to have the use of a *DL4* during a 10-performance video recording stint in Bradford during August. (10 bands in five days.) I had the *DL4* hooked up to the echo send/return lines of a Soundcraft Series 400 board and used it for every band – every band – on material ranging from pure street-level heavy metal, reggae, jazz, and out-and-out outrageousness, say no more: It was Bradford (things do 'happen' north of Watford too y'know) but things go better with Delta Lab as well as Coke.

Looking at the *DL4* the first thing that becomes apparent is that its front panel is clear, very easy to understand (to anyone who knows a thing or two about DDLs etc) and the layout is such that if you have to 'jump' on it to correct something, the

chances are you won't hit the wrong knob or switch. The front panel is laid out so that as the eye reads from left to right it has followed the path of the signal flow (as with other Delta Lab devices). To the left are the input LEDs, peak and slew headroom which read between -40db and 0 level via a knob marked 0 and max. Incidentally, it has an 'out front' type board that I used on the road with the *DL4*, I was mixing the PA the stage monitors, an 8-track recording, and a video soundtrack all at the same time. Men, it can be done – really – so don't think I'm speaking from a recording point of view just because I've mentioned line-up tone, will you.

Further input alignments or adjustments made before the device, such as on the echo send master knob, are easily monitored because, apart from the input LEDs lighting up when all about them is dark, the *DL4* also has an input overload LED on the right hand side of the panel by the source/delay mix knob. The only problem is that if you are walking to the left of the *DL4* the overload LED is hidden by the aforementioned knob: so either Delta Lab will have to move the LED up 2½in or the engineer will have to move the whole device to the left a bit, to the other side of the mixing desk preferably. That's if the *DL4* doesn't make the overload distribution sound so amazing that the engineer no longer cares anyway.

Now, the *DL4* may be driven in different ways, and to the right of the input gain knob are three switches marked Repeat On/Off, Delay Manual/Auto and Scale 512/128/256. To help the reader understand this panel more clearly I must mention that to the right of it sits the heart of the device, ie the delay. The delay tone is set, using a flick switch, at 1, 2, 4, 8, 16, 32, 64, 128, 256 and 512ms. Each marked with an LED, the first four are green (flange), the next three amber (double) and the last three red (echo) – the first digital traffic light system! What this means is that if you've got a singer's voice repeating itself infinitely around the PA and everyone in the house is wonder-

ing what the hell is going on and the band have stopped playing, quickly flick it back to green and everything will start again. No, seriously though: the three banks of coloured lights are marked Flange, Double and Echo respectively. Above and below are marked the ranges which are swept when the delay times are settled automatically; ie when the Delay manual/auto switch is in the auto mode a range of delay settings are swept at a rate determined by the setting of the speed knob which alters the frequency of the internal VCO, the waveform of which can be varied between sawtooth, sine, and square wave.

An effect which I discovered during my fiddling around stage was to feed in tone at about 100Hz, set the Delay to auto and sweep it with the square wave at various speeds. The output is not unlike a rhythm box and several players, drummers and guitarists, played along to it. I couldn't wait to get it back to the ranch to hook it up to the synths. The square wave changed the pitch of the tone and the DDL produced the metronome-like rhythm. Another startling effect was simply to feed in tone at various pitches (on the Soundcraft S400 board the tone oscillator is preset in octaves and not sweepable). With the DDL set at 512ms on almost maximum feedback a tinker bell effect was produced, the DDL being so clean with its 15KHz bandwidth (knocked 'em down in the aisles, it did). On lead guitar the repeat echo was very clear, better than a Copicat or Space Echo, and certainly clear enough to belt out. Sorry, am I sidetracking? Where was I? Oh yes, the front panel.

Next to the delay section is the regeneration panel. This incorporates a central knob, which determines the amount of regeneration of the delayed signal and to the left of it are low and high cut equalisation switches which enable the regenerated signal to be filtered. To the right of the knob is a switch marked Phase in/out. Not to be confused with the effect known as 'phasing', it simply allows one to



make the regenerated signal come back out of phase to the input signal (if the performer believes that there is anyone in the audience who can hear the difference). Apart from pure delay and regeneration effects, the *DL4* is capable of flanging, doubling and chorusing and, as anyone who may have read my earlier reviews knows, the delay time in these instances is determined by the level of an internal VCO sine wave. When the sine wave is at maximum, the delay time is short and when at minimum the delay is long.

The rise and fall of the sine wave, especially at very low frequency settings, produces the never-to-be-forgotten flange effect, like a *Cortina* bombing down the Mersey tunnel and at higher frequency settings like two kangaroos getting it on in an *Aborigine's* didgeridoo. There are four knobs on the time base panel, the first one (yellow) allows the preset delay settings to be slightly altered – useful when getting the delay time just right for a certain tempo, it varies the preset time steplessly between .25 and 1 of its original value. Next are the three knobs which alter the characteristics of the VCO: the Width Control, next to it Speed, and last but not least Shape. As I mentioned before, apart

from sine wave, the knob varies the shape steplessly between sawtooth, sine and square wave. The sawtooth, because it rises and falls very sharply, produces a phase with harder attack and delay and the square wave produces interesting pitching effects.

I'm not absolutely certain about what the exact pitch ratio is but I think it is possible to play with yourself in fifths (dopplered?). To the extreme right of the panel is the source/delay knob which enables the dry input signal and treated signal to be mixed. Turning the knob to the extreme left throws the whole unit into bypass, as indicated by another LED just below the input overload LED and also hidden by the source/delay knob if you work with the unit on your right.

The back panel contains the input and output connections, all unbalanced jacks. The output level control is a small knob to the right of the output jack socket and the inputs are switchable between high or low impedance. Other connections allow the *DL4* to be mated with another *DL4*, producing unimaginable goings on to say the least. Connection of an external VCO (0-10V) or a tap from the internal one, and three sockets marked Repeat, Flange and Bypass which enable the *DL4* to be

foot pedal operated, make stage operation possible for the performer. Also, a multiway connector for additional memory board extends the delay times up to two seconds. The basic device comes for around the £700 mark and since I brought the one that Scenic Sounds kindly loaned me back off the road I haven't laid eyes on it because everyone has borrowed it and telephoned me two weeks later to tell me how wondrous it is.

Bob Pridden, the Who's sound man, told me that he found the *DL4*'s automatic delay sweep problematical, in that it glitched (audibly) every time it changed delay time, which made it, he found, unusable for that effect. But he found the unit 'amazing' for pitch-change and phasing on bass guitar. Dear Bobby, if you read this, please return it, yours truly Dave. I'm on the verge of buying three of them, so that at the very least I might get to explore its full potential off as well as on the road. I think Delta Lab have tried to bridge the gap between the studio and live performance with the *DL4*, which means that at long last the listening masses may well hear what the recording fraternity have been keeping to themselves between the acoustic screens and the vinyl. □

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Eko Acoustic Bass

John Knox

How many of you bass guitarists have been told by some know-all musician, 'You really should take up double bass to improve your chops on the electric'? I've been told this countless times, and my arguments against it are a) the high price of a good double bass and b) I am an electric player with no real aptitude for the string bass.

Maybe it is for players like myself that Eko have produced this very pleasing instrument, though they claim to have built it with 'no specific market in mind'. This in itself is quite a brave move. Visually, the Eko acoustic bass guitar is very attractive (a larger selling point than you might care to admit), having a spruce top with mahogany back and sides. The neck is of three-piece laminated mahogany with a rosewood fingerboard. The guitar is available fretted or fretless, and the fretted review sample is compared later to an older fretless version that I've also had access to.

The oval soundhole is apparently shaped thus to give better bass projection and also to give strength to the front of the body to combat the pull of the strings. The strings supplied are the dreaded black nylon monsters, but they actually seem to be the best strings for this guitar. Roundwounds lack the punch needed for this type of bass, and flatwounds would be unbearably hard to play with the action supplied. The black nylons (strings) also give a sound closer to a string bass, especially on the fretless.

The action supplied is, as I've already mentioned, fairly high, but it needs to be as there is no amplifier to cover the fret rattle. The strings could, however, be lowered by shaving a sliver or two off the base of the wooden bridge. The neck is fairly broad, tapering from 2.45in at the body to 1.8in at the nut. The weird thing about the fingerboard is that all the position dots are in the right place except the one on the tenth fret. On all other basses I have ever seen, this dot is on the ninth fret. Quite why Eko have chosen the tenth fret is beyond me, as it makes playing round that area very confusing, especially on the fretless. Even after playing the instrument for a few weeks it still throws me.

The machine heads are covered and very cheap-looking. This cheapness is confirmed by the fact that they keep slipping. On the older fretless version that I played, the machine heads are Fender-style with uncovered cogs and are much more secure. It's a pity that they have cut this particular corner, as constant retuning is a real pain.

One additional tuning problem is caused by the wooden bridge. It just rests on top of the guitar and is held in place by the strings, but the slightest knock will displace it. There is no individual string adjustment, so when repositioning you have to set all the strings at once and make do with some very suspect intonation in the higher registers.

Strap buttons are attached in the usual places, but when I put a strap on and 'wore' the guitar, the head pointed straight to the floor. The guitar is so light, however, that it is no problem to keep it in position with the right arm gripping it to your body. When playing it standing up it is very hard to see what your left



hand is doing, owing to the width of the body keeping the neck so far away. On the fretless I found it hard to get good intonation, despite the position markers, because I couldn't see where my fingers were. Perhaps electric fretless players would find it easier.

The sound, as you might expect, is like a very low-pitched acoustic guitar, with very little sustain. It doesn't really sound like a double bass, but what do you expect with an instrument this size? The E-string gets a bit muddy and indistinct below the A, and the best area is between the A on the E-string and the E on the G-string. To obtain the best bassy tone the strings should be plucked around the end of the fingerboard. The tone of the older fretless was warmer and more earthy than the fretted version, but the fretted is easier to play once you've got used to the high action.

The distributor's blurb claims that this bass records excellently, but I haven't had a chance to test this. Nor have I had a chance to try it through an amplifier as an acoustic pickup was not available at the time of writing. In conclusion, despite my gripes about various bits of it, I think it's a great instrument. Once picked up it's extremely hard to put down (like Si - Ed). It's great fun to play and your chops improve without you noticing – when you start playing electric again it seems so much easier. I cannot see any really practical use for this bass, apart from practising. Amplifying it for live work could be a nightmare. The bass came supplied with two plectra, so maybe Eko designed it for a folkie changing to bass.

Other companies have made guitars similar to this, but with the Eko at a competitive £149 retail, I know which I would go for. Who needs a double bass anyway? A friend of mine came up with what could be the marketing slogan, 'At last, a bass you can sit in a field and play.' □

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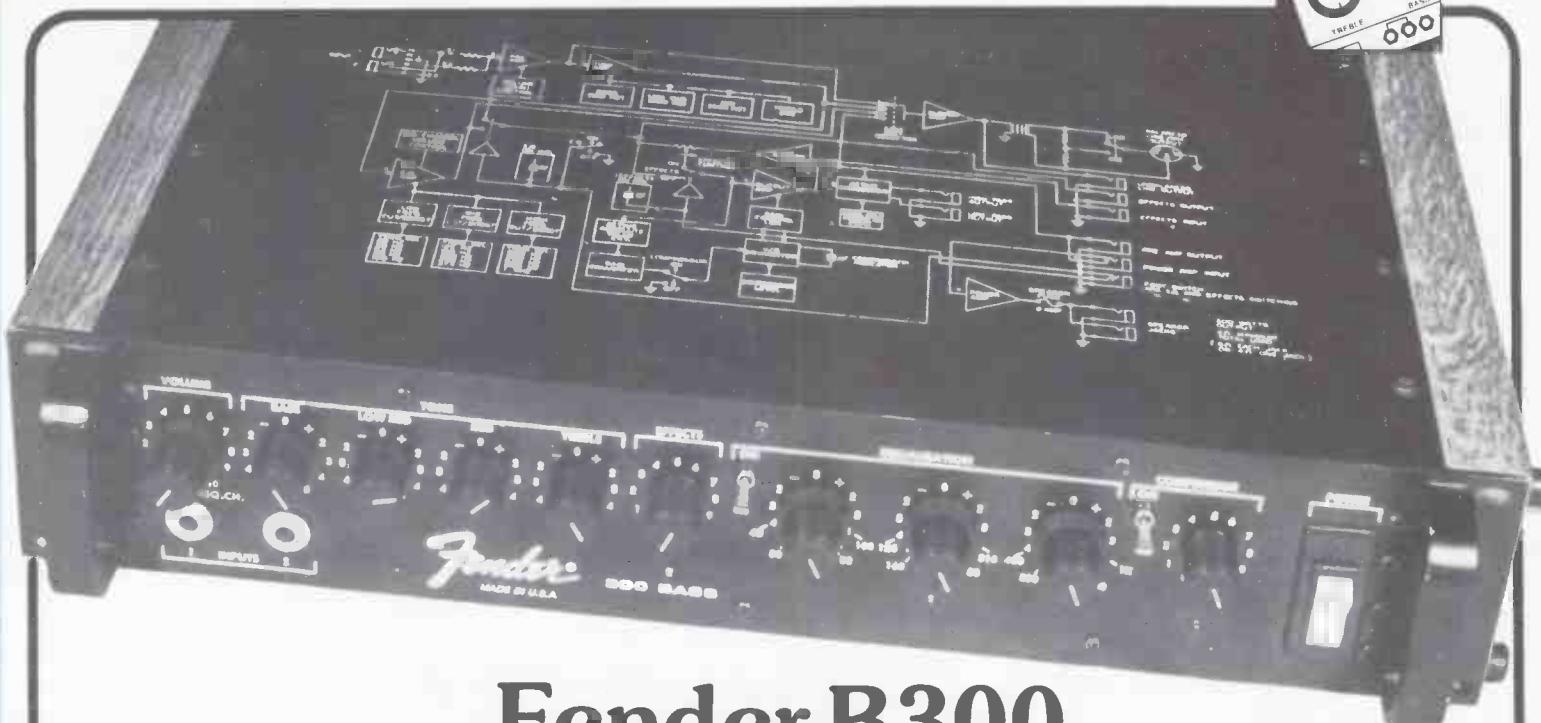
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Fender B300

Gary Cooper

Generally speaking, bass amplifiers are not an inspiring breed. For many manufacturers the bass itself is something of an unknown quantity – a sort of guitar but with four strings, calling for nothing more than a sealed back on a combo and, maybe, a speaker cone with stiffer suspension. Of course that's a cynical point of view – but not one which I have arrived at lightly. Far too often I am sent amps for review where the only concessions to the special and difficult requirements of the bass guitar are mere cosmetic tinkering with the basic guitar amp from which its bass brother has been developed.

You think I'm joking? Not a bit of it! Look at whatever amp you happen to be using just now – the volume controls, bass, middle, treble, maybe a presence. These are fine for guitar and admittedly for many bass players, but with the instrument now pushing up into the status of a lead instrument (or playing in a context where the bass line is more than a dull background thump), this sort of amplification is not going to be enough.

Several manufacturers have seen this trend and have responded appropriately with more professional attempts at giving the bass guitarist something which is purpose-designed: one thinks of the latest Carlsbro range, the Zoot Horn bass valve head – amps like these point the way.

One might have expected Fender, the fathers of the bass guitar of course, to have responded slowly to this movement, not having been noted for trendsetting in recent years. The introduction recently, however, of the B300 head took many people (myself included) by complete

surprise (first reported in *SI's* Chicago NAMM coverage, August '80 issue). On the face of it this 300W RMS head seems to be an extremely professional concept, with full equalisation facilities of a quasi-parametric kind, the widest output options I've yet seen – all that you could ask for. I borrowed one from CBS Arbiter, the UK importers, to see if it lived up to its promise.

The B300 is a 19in, flat, long, metal-clad amp, suitable for use in standard rack mounting applications or, if you prefer, on its own with its wooden end sections. The top is printed with a circuit diagram (of sorts) and the sides are vented at the front to allow for a forced air-cooling system via an internal fan, which comes on when you switch on and stays running almost silently.

Fitted with its wooden sides, the B300 has a carrying strap on its end. It also has two heavy-duty metal handles on the front panel – and it needs them, because despite being a transistor amp this is a very heavy item which looks as if it might weigh rather less than it does.

The Fender comes with a fixed (rather short) mains lead, with two hooks to catch the lead round when carrying. Actually, you'll probably want a longer lead than this and as the existing one barely fits on the hooks when attached to a plug, a detachable mains lead might have been better. Still, not a great problem.

The back panel is a complex pattern of options. Running through the range I'll list what you get, going from left to right. First off there are twin jack sockets, clearly marked, 'Total Load 4 ohms, 300 watts.'

Beneath these you have a 250 volt, 8 amp speaker fuse. I blew one of these (my own fault, I vibrated the speaker jack out of a bass cab!) and had a bit of a job getting a replacement on a Saturday afternoon – do take a few spares on the road with you. Next off there are six jack sockets, these offer pre-amp output and power amp input, effects send and return, footswitch (for channel switching) and unbalanced line. Next comes a Cannon socket with one slider switch above it and one below. The one above offers a choice of post-compressor, post-equaliser, pre-tone and post-tone. The slider below offers you balanced selection of either mic or line. Finally (as if this wasn't enough!) there is a variable crossover running from 200Hz up to 2kHz with two jack sockets labelled high-pass out and low-pass out. Both of these are adjustable for level via two recessed screws.

I think that even the most twisted and warped sound engineer would agree that this is an improvement on the facilities offered by a standard 100 watt valve head and that more requirements of most bass players could be catered for here. I couldn't see any obvious omissions!

The front panel is equally comprehensive so, once more, let's take a deep breath and run through the array of facilities. There are two inputs (jacks) with no provision for sensitivity adjustment: I think that this is, actually, the only serious flaw in the facilities department and I'll explain later. For the time being I'll detail what you have got. As the amp is a two-channel (switchable) job you have a two-way pot for volume control whereby you

set one channel on one half and the other on the outer ring of the pot. The idea is that you set the non-quasi-parametric channel on one and the fully EQ'd on the other. Next come the tone controls for channel one: you have standard black pots with a centre detent marked with plus or minus five levels of boost and cut on bass, low mid, mid, treble. Next you have an effects level (which runs the effects loop we came across on the back panel). Below this is a small green LED which is the on/off status indicator.

By now we're on to channel two. This is controlled by a metal flickswitch which, in turn, can be run from a footswitch so that you can set up one sound for normal playing and another for soloing. The Equalisation stage also features these rather nice two-way pots: the lower, fatter portion of the pot controls the frequency select areas. There are three of them which click over to various stages: the first covers 40, 50, 63, 80 and 100Hz, the next covers 125, 160, 200, 250 and 315Hz, and the last offers 400, 500, 630, 800Hz and 1kHz. The cut and boost levels are marked on a scale of plus or minus five, but I was unable to obtain a figure in dBs for what this represents. Frankly it really doesn't matter – what counts is whether it sounds good rather than whether it looks good on a bit of paper. There is another green LED status indicator beneath this.

As if all this choice wasn't enough, you also have a variable compressor with a flickswitch for on/off and the usual red LED to show when it comes in to reduce peaks. Your final control (thank the gods, do I hear from back there?) is a simple plastic on/off switch.

Provided with all these options there's no getting away from the fact that this isn't an amp that you'll walk out of the shop with after a five minute trial. It is quite a job getting to grips with all that you're offered and you'd be best advised to spend several hours with one of these if you think that it might interest you.

When I'd spent a few hours with it I had begun to realise that there were several familiar ideas contained within this Fender – well, perhaps I should more properly say that the basic concept of it reminded me of the big Lab Series bass head. A week or so later, talking to CBS Arbiter, they told me that one of the old Lab Series design team, Roger Cox, had designed this baby. It's funny how you get these feelings.

Anyway, the first choice was what on earth to try and run this amp through. CBS helped by loaning me a standard Fender Bassman 2x15 cab. That was a good starting point but I'm not at all sure that it would be anything like the ideal match. Part of the problem is that you must have a cabinet which can handle



300 watts comfortably to use this amp with, and I do mean comfortably because (especially with the bass up full) there's plenty of speaker-wrecking potential with this head and it's as much down to its exceptional frequency potential as it is the sheer volume output of it. Probably you'd have to experiment with cabs until you found something which you personally liked. As a rough guide, I might suggest a decent 2x15 (Fender Bassman cab fitted with Electrovoices?) and a decent pair of 12s, or maybe a set of 12s and 10s.

It seems likely to me that Fender will sooner or later introduce their own cabinet to match this amp – I would hope so, but in the meantime I would suggest that anyone who was thinking of buying one of these amps started looking at something around the level I've suggested above.

In use, the Fender is much what you'd expect. It's a professional's amp, the sort of amp that must have been designed with American jazz-rock or funk bass players in mind – and it does that particular job perfectly, as well as the older Fender amps suit country or rock'n'roll playing – and that's saying something.

The first channel is clean – in fact the whole amp is clean, but I'll come to that later – and the tonal control possible is quite adequate for most possibilities. Bring in the second channel and you have to do a surprising degree of knob-twiddling to make a vastly different sound. My sample suffered from clicks on the frequency selection pots and one hopes that Fender will sort this out in production (I had a prototype). To click from, say, 3 degrees of boost at 40Hz to 3 degrees of boost at 50Hz really doesn't make a great degree of difference to your overall sound, unless you're far fussier than is good for you! To get the maximum use from this amp you have to play around with this channel. But it's all there: just about all the tones for jazz-rock and funk.

The compressor is a nice one. I didn't use the amp on full all that much and so I wasn't able to make complete use of its potential to squeeze the sound in tight – a really nice effect on slapping, funky styles. It would be good if somehow you could set up a compressor like this to give you the same effect at lower volume. But still, used at reasonable playing levels this one worked very smoothly.

I do think, however, that this amp has been designed for a specific market and

that it would be totally unsuitable for certain categories of players who did not need either the remarkable range of facilities offered or the sort of ultra-smooth clean sound it offers – with bags of treble and equally extreme bass boost. It could be used in a standard rock context where, for example, a bass player wanted total cleanliness to lay under riffs. Someone like John Paul Jones or, maybe, Ian Hill out of Judas Priest might find it suitable in that context, but I find it hard to imagine a John Wetton or Jack Bruce finding it what they wanted. There's no criticism implied in this, of course. It's a question of buying an amp to suit the job you need it for, and while this would be a fine amp for a clean player who wanted purity and depth and clarity in the sound, it has a complete absence of roughness or rawness in its tonal range which would leave many a player floundering.

Perhaps the only thing that Fender have left off this (and one which would have opened it up to this wider market) is some form of variable input sensitivity control. Armed thus you could wind the bass up and overdrive the pre-amp, thus gaining that edge to the sound which is otherwise impossible. Handling an active Fender Precision Special, a Wal, and a high-output passive bass I still couldn't get this baby to growl and I'm not totally sure that Fender's assumption that jazz-rock players don't want this feature is a correct one – some do and it would be a shame to have to resort to a fuzz box to get it, with all the problems that can cause.

Still, Fender have taken a leap right into the 1980s with an amp which must find considerable favour in their home market where jazz/funk styles are so popular. Over here it will have its devotees too – but the price is high. The rp of the B300 is £579, and one might expect the discounters to get this down to around the £460 mark. This isn't that much money – especially when you look at the facilities offered – but it does put it right into the professional market.

The more I used the B300 – exploring the facilities with a playing style that does not come naturally to me – the more I respected its tremendous suitability to the market at which it is aimed. I think that things are starting to move again over there in California and if the Fender B300 is anything to go by, this could be the start of many successful new amps. Even at the price it's a very good amp indeed. □

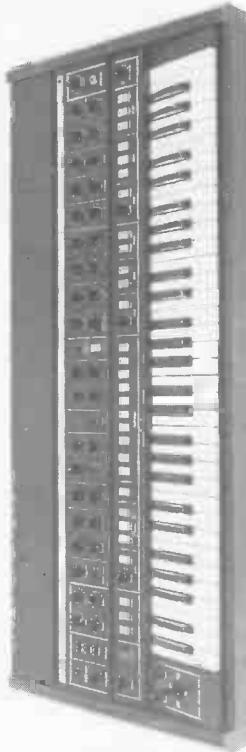
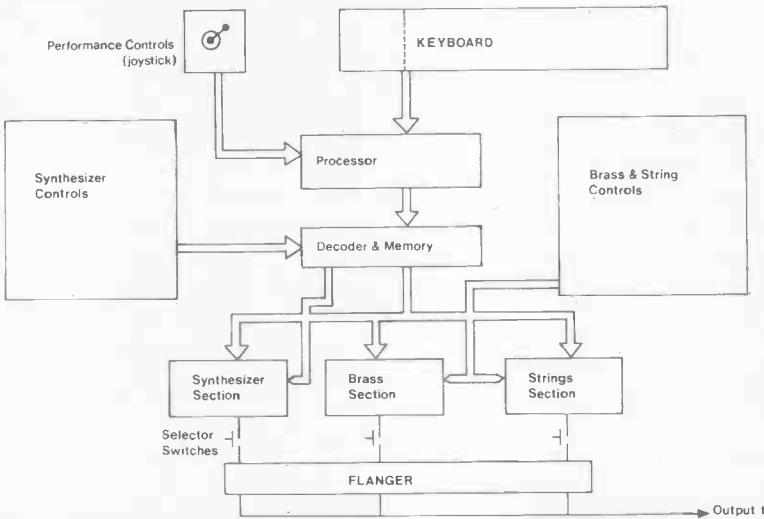


Fig 1: Simplified Block Diagram of Korg Trident.



Korg Trident

Dave Crombie

Here at Review HQ we find the new Korg Trident being put through the rigours of an extensive Sound International test...

The Trident is the latest machine to come from the Keio Electronic Laboratory Corporation in Suginami-ku, Tokio, Japan, and with the aid of Rose-Morris, it will be available from your local Korg Key Centre from March onwards, at a price of below £1850 (the recommended retail price).

I was a bit perturbed when I first encountered the Trident at the Chicago NAMM show last year – it looked awful, and didn't sound much better. It was then designated the Korg X-927, but I'm glad to report that Korg have managed to rectify all three faults, and what is left is a very nice-looking, great-sounding polyphonic synthesiser/keyboard instrument.

Korg define the Trident as an '8-voice polyphonic synthesiser with programmable multi-memory, plus complete brass and string ensemble sections'. I couldn't have put it better myself. The concept of layering several different voice generators is not a new one – the Yamaha SK range and the larger ARP Quadra are just two examples, but I think with the Trident, Korg have come straight at number one for this type of instrument. I have never been too keen on these multi-level units, feeling that you were getting an instrument that was a jack of all trades but master of none (I'm doing well on the old clichés this month, you'll notice). However, the Trident does seem to provide these features in a particularly intelligent manner, and it is a delight to play.

Who is going to consider buying a Trident? Well, the Trident will appeal primarily to the gigging rock musician. It is a very live-oriented instrument as you will soon find out. It is also one of the most powerful instruments that I have reviewed of late, and when fed through a good amp and speaker, it can bring a lump to your throat (when your neighbours throttle you). I wouldn't be at all surprised to find a band such as Genesis using a Trident, in fact my spies tell me that Keith Emerson used the Trident on his latest album, *Inferno*. Don't let

these names put you off if you are an advocate that pomp/techno rock bands should be the first up against the wall come the revolution, because the Trident is a fairly versatile machine and is suited to more than one particular style of music.

After Korg's PS series of poly synths, it would appear that they've hired the services of a new designer, because the Trident actually looks quite attractive, a quality almost unheard of in 90% of previous Korg instruments. The hardware is built into an angular wooden case – nice quality wood at that – with both sloping front and rear panels. Although the slope of the rear panel is pretty steep, it does make things a lot easier for getting at the input/output sockets, of which there are many. The Trident measures 40½ x 2½ x 21ins and weighs 47lbs. Korg seem to be the only manufacturers able to do something sensible with the mains lead of their products. The lead is permanently attached to the instrument, but there are two hooks conveniently positioned on the rear of the unit around which the cable can be wrapped during transportation. It is a simple idea, but one which other manufacturers should follow. I myself have tripped over the mains cable of an instrument I was carrying (my own, in case you are wondering) inflicting damage on said machine, so I'm a firm advocate of all forms of mains cable retention fixtures.

The keyboard that Korg use for the Trident isn't touch-sensitive or anything like that, but it has a good action (fairly light) and feels very solid and reliable, well able to take a pounding. It is a five-octave job, C to C; this type seems to have become (quite rightly) the standard for these polyphonic instruments. The keyboard is divided into two sections at a point two octaves up in between B and C and Korg have utilised a tidy assignment system, with each of these three sections being independently routed to either the upper or lower parts, or right across the entire keyboard. Again a simple system, but extremely useful and convenient.

The Trident uses, in the main, momentary pushbutton switches with integral light emitting diode (LED) indicators. This type of switch is becoming very popular for use on electronic musical instruments. Sequential Circuits were the first to use them on their Prophet synths; subsequently Oberheim, Roland, ARP (though theirs are slightly different) and now Korg, have all followed suit. The beauty of this type of switch is that it is very fast to activate, and the LED makes it easy to see the status of the switch; this is especially important if using computer-controlled equipment as the computer will, in some cases, be controlling the switch, not the player. Korg have positioned a row of these switches just above the keyboard for really fast access, and to enable ultra-fast changes to be made to the Trident's sound – it is partly this feature that makes the Trident such a useful tool for the live musician. Each of the three sections has a master switch that will automatically cancel that voicing if required. These are coloured lime green, and are positioned right next to the volume knob for that section.

The Polyphonic Synthesiser

This is a programmable system with two banks of eight memory locations. The idea (for those who have not encountered programmable instruments before) is that the sounds are set up with the aid of a series of conventional discrete synthesiser controls, and then this information is stored digitally in the instrument's computer memory, for recall as necessary. It is like a preset instrument but you write, or set up, all your own presets. In addition to the 16 user-determinable sounds, the Trident has factory-set voices that cannot be wiped out or re-recorded. These are Piano 1, Piano 2, the Clav voicings, and although these sounds can be created from the discrete controls of the synthesiser section, it is handy to have them always available without using up space in the memory section. I must say that although the Piano sounds were great, espec-



ially Piano 2 which gave a great Fender Rhodes-ish timbre and feel, the Clav was probably the worst sound of the entire instrument and it could be improved by adjusting the cut-off frequency and by introducing the Flanger (see later).

All the programmable controls of the synthesiser section are coloured orange so, by flicking the manual button, these controls can be brought into play. The controls are limited, but quite a wide range of sounds can be achieved with them. There are two voltage controlled oscillators for each voice (eight voices), but it isn't possible either to balance the oscillators (by volume) or to have them set at perfect intervals apart (other than octaves). They can be detuned against one another for beating effects. VCO 1 offers sawtooth and width-adjustable rectangular waves, with pulse width modulation, and can be pitched at 16', 8', or 4'. VCO 2 is constantly a sawtooth wave, and can also be pitched at 16', 8', or 4'. It can also be switched off if required.

The filter has a brassy quality to it, and gives the section a characteristic 'fat' sound. The filter can be either positively or negatively modulated, and can be made to track the keyboard control voltage. It is important to realise that the synthesiser section has a separate voltage controlled filter for each note - there's no filter sharing. The envelope generators, also one for each note, are of the ADSR type, the industry standard. Those then are the orange programmable controls; overriding them are: a filter cut off frequency adjust; an 'on/off' VCO 2 detune memory slide switch (which enables the beating effect to be altered); and a Solo Release slide switch, the purpose of which is to sustain only the last note or chord played, preventing a goddamnawful jumble of sound if you are using a voicing with a long release time.

That, then, is the synthesiser section which I reckon to be pretty good - some useful and pleasing sounds can be created, and although there isn't the variety available that you would find with 'purpose built' polyphonic synthesisers, this section does do its job well. On the back, in addition to the separate synth section output jack, there are input control sockets for a filter control voltage, and a damper pedal which if used will 'kill' the envelopes' release time until the pedal is pressed, when the release time will be as set - in essence it's a sustain pedal inlet.

The Brass Section

This is really a duplication of part of the synthesiser section. There is a single VCO producing a sawtooth-sounding waveform, but this is available at 16' and 8' simultaneously, so it can be a really powerful voicing. The filter is much the same as for the synth: 24dB/octave low pass, with adjustable cut-off frequency and resonance. The envelope is also of the ADSR type, but the filter can only be positively modulated by this waveform. There is only one filter for the entire brass section, but it can be multiple- or single-triggered, making it compatible with most playing styles. There are no programmable features here, however Korg have employed a rather neat feature that they used on their PS range of synthesisers. Known as the Trigger Select, it works such that a

certain number of notes can be set, and that number of notes has to be played before the Brass section will trigger. Here there are two, four, six and eight positions available, so if the trigger select is set at 4, the brass section will only sound when four or more notes are played on the keyboard. This can be used to create a quite amazing effect - a triad can be played, then, when the fourth note is added, in comes the brass - blazing!

The Brass section is really designed to supplement the synth section, and when the two are both producing similar voicings, the effect is, to say the least, dramatic. On the back are: a separate Brass output; a trigger input for hooking the unit up to a drum machine or sequencer; a voltage input for modulating the filter cut-off frequency; and a voltage input for controlling the brass output amplitude.

The String Section

Korg have made a real effort here, and as a result the String section is a quality job. Again it's a 'maximum eight note' design, which can be a bit restricting if you make a habit of those long sustained runs. However, with so much else going for the String section, this is only a minor limitation. As the Trident is equipped with a Flanger as well as a string voice modulator (the electronic gubbins that bring the strings to life) it is not only possible to get a lush, realistic string section sound, but it is also easy for the Trident to produce convincing solo violin/viola/cello voicings, and a mighty fine electronic string sound that seems to be a rather popular voicing today, especially on funk and soul/disco records.

The Trident's string sound cannot be pinned down - it is so versatile. There are separate string voicings at 16', 8', and 4', with master treble and bass controls, variable attack and decay envelope controls, and a new feature to me, Bowing, with two associated controls: Level and Tone. The effect is a bit like the percussion effect of an organ - an increase in volume and tone is introduced at the beginning of each new note or chord. I'm not totally convinced as to the practical use of such an effect, it didn't seem particularly useful or a realistic simulation of a bowing effect. The vibrato is fully variable with delay, intensity and speed controls - it's not very exciting.

My only major criticism with the strings is that there seems to be some intermodulation set up between notes at high frequencies; I noticed this not only on headphones, but also when the instrument was played through both valve and transistor amplifiers; it wasn't too bad, but it was present, though the review instrument was a pre-production prototype and this distortion may be dealt with by the time the Trident reaches the shops. A volume pedal can be hooked up independently to the string section enabling crescendo strings to be introduced against the other voicings if required.

Other Effects

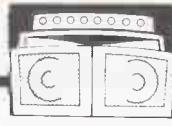
Right then, those are the voices: what else is there with which to modify the sound? One, there's the Flanger section which can be used to modify any one of the three sections. I don't know why this section was designed to handle only one section at a time, but that's the way it

is. The Flanger has separate intensity and speed controls, as well as a manual setting, about which the sound can be modulated, and a feedback control that heightens the effect. I found the Flanger particularly effective on the electric piano preset (Piano 2) whence a stereo vibrato characteristic could be introduced to the already Rhodes-sounding voicing. It was also possible to get a simulated Leslie effect for an organ voicing set up in the Synthesiser section. One problem though: the Flanger was very noisy, with a lot of background hiss and crackles.

Two, a master delay Vibrato, consisting of a switch to activate the effect, and an amount (Intensity) control. I don't really think this is a necessary modifier, but some might. Finally, there are the performance controls, which centre around a joystick. This will modify all three sections simultaneously, providing pitchbend in the left/right plane (X-plane), sine wave modulation (vibrato) by moving the stick upwards and square wave modulation (trill) by a downward movement (Y-plane). I've never really liked joysticks as a performance control medium - they don't seem to enable the players to feel their way into the modulation/pitchbend. The Trident, because of its fullness of sound, doesn't rely so heavily on the performance controls and during my time with the instrument I seldom found that I needed to use them. Performance controls are more important on a monophonic than a polyphonic instrument.

The 'Time to Shut Up before the Gaffer Shuts Me Up' Paragraph

So: 1 The Trident is a good all rounder, at a very competitive price. 2 I would recommend it particularly for live performances. 3 It looks as good as it sounds, and seems to be very well built and would even stand up to a tour with Motorhead. 4 I would like to have seen different coloured knobs for the release times of the envelopes of the three sections, as these are probably the most used variable controls outside the performance controls. 5 It is possible to get stuck on one sound with the Trident, but to get the most out of the instrument it is important to experiment. 6 The split keyboard is one of the most attractive features, giving the machine more possibilities, almost, than a dual-manual instrument. 7 Note the Trident will provide most voicings required, but will not fulfil the role of a monophonic synthesiser. 8 If I were to buy one of these instruments, I would wait until the second batch of products arrive, probably in May. I'm probably going to upset someone here but in a lot of cases one or two minor faults slip by the manufacturers when they introduce new instruments of this complexity. Consequently it is as well to wait until Korg have had reports back from their customers to make sure that everything is perfect with the instrument. Korg are one of the best companies when it comes to introducing new products, but the Trident costs a lot of money and it's often best to wait and make sure. A personal opinion, that, and in no way is it a reflection on the quality of the Trident. 10 Why not write to the Editor and tell him how much you've enjoyed this article, and for him to give me more space next mon... □



PA: Speakers 2

Ben Duncan

The readily-tailored dispersion properties of horns are not only a means of accurately beaming music at your audience; these properties are also crucial in achieving low coloration and a tangible aggrandisement of power when speakers are stacked. Several adjacent horns have to radiate sound in the same frequency band without fighting against each other. Because of this belligerent instinct, and contrary to popular belief, good megawatt stacks are much more than a mere doubling up *ad infinitum* of small stacks; the much ventilated 'lego-style' modular approach to stack building is full of pitfalls for the unwary, except perhaps in the bass regions where the large v small stack dichotomy is less evident.

In small venues, one horn in each frequency band will be capable of providing an adequate sound level. Since we need at least three horns to cover the audible range of frequencies, the three-way stack is the simplest and most practical rock speaker system. Sometimes there will be good reasons for driving the midrange horns over narrower bands, so four or five bins will be used altogether. Nonetheless, there will be only one sound source in each frequency band, and therefore phase-interaction cannot occur (except at the crossover points where, say, both the mid and bass bins are radiating equal amounts of power – we'll look at this point later).

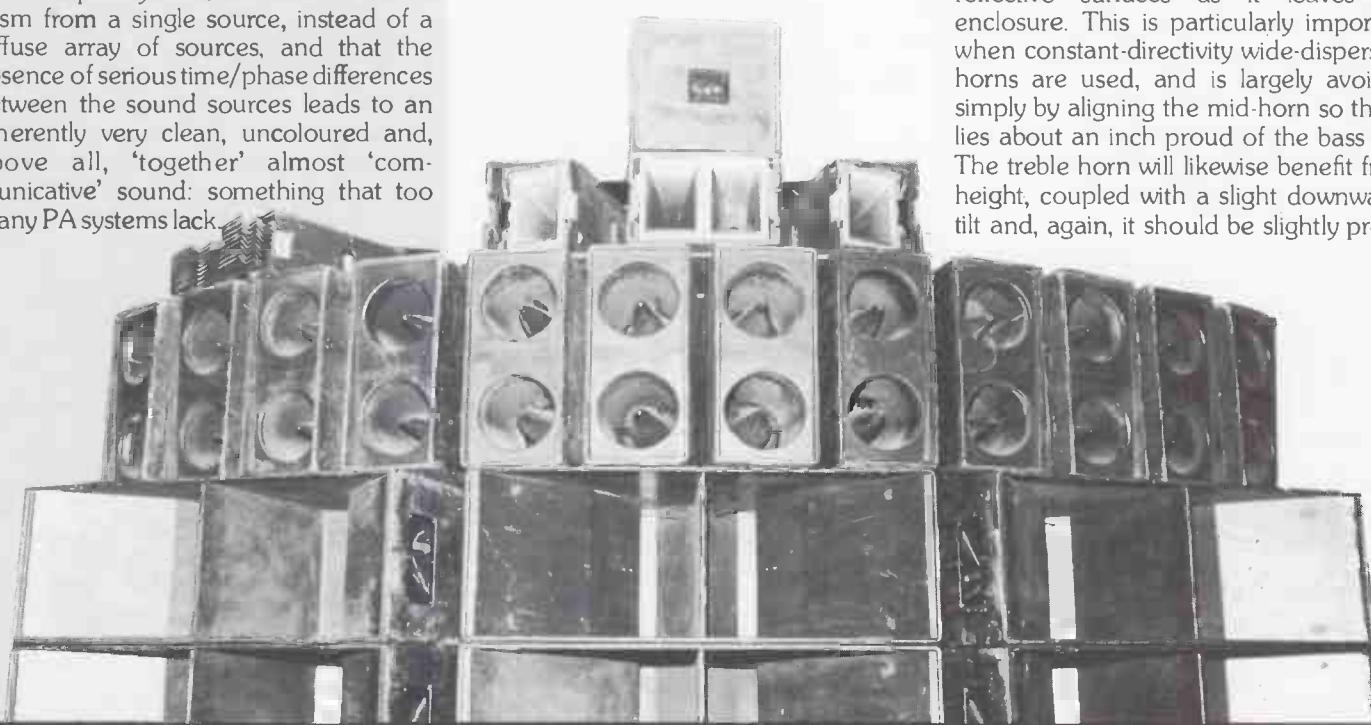
The essential result is that sound in each frequency band emanates with realism from a single source, instead of a diffuse array of sources, and that the absence of serious time/phase differences between the sound sources leads to an inherently very clean, uncoloured and, above all, 'together' almost 'communicative' sound: something that too many PA systems lack.

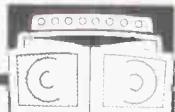
The speakers in the single-source stack should always be stacked upwards, in ascending order according to frequency. Very conveniently the bass bin, notwithstanding its size or gravity, is a natural candidate for the bottom of the stack, lying in line with the audience. Apart from the unique ability of low frequencies to pass through amassed human flesh with little attenuation, the stage (or floor) below and the mid and treble horns above help to *wall load* the bin and thereby extend the low end response.

Regrettably, many manufacturers specify the cut-off frequency of their bins with euphemistic assumption of perfect and infinite wall-loading; bass bins in single-source stacks are rarely so fortunate and will often sound hapless and 'lumpy' at the bottom end because their cut-off frequency has been raised by the paucity of the wall loading. This coloration will sometimes be quite acceptable (dub!), and provided the driver doesn't audibly protest then all is well. Alternatively, smooth low-bass can be reinstated by placing the stack in or near a corner – or tightly against a side wall – or by adding baffles, or clip-on extension flares, or by raising the bottom-end cut-off frequency of the crossover, or by turning down all the bass at the desk, or by sacking the drummer and bass player, or by performing music that has no bass, or by... well, any combination of these tactics!

The midrange horns come next (or low-mid in the case of a four- or five-way stack) and Sod's Law assures us that the convenience of sensibly small enclosures in this band is compensated for by a reluctance for the ears to accept anything less than perfection, especially at high levels. The midrange is the most critical band, and apart from seeking excellence in hardware here more than anywhere else in the whole PA system, thoughtful stacking is also a must. Frequently, the bass bin will be around 4ft high, and if the bin stands on a stage less than 3ft high, or on the floor of the local pub, it's obvious that the midrange will meet an array of mobile sound absorbing materials, both textile and fleshy. For this exigency, use a dummy bin (thin ply box filled with corrugated cardboard for lightness and acoustic deadness) or even a beer crate to raise the midrange horn above head height. Then contrive to aim it down slightly, so that its throat is aiming at the middle of the hall, by screwing chocks to the base of the cabinet. The angling is not critical – the idea is merely to counteract the tendency of high altitude horns to a) miss the contiguous punters or b) to aim all the sound at the rear wall – which is both pointless (do walls like rock?) and can aggravate feedback tendencies if the wall is a stroppy one and decides to reflect the sound back to the mics.

Another subtle aspect of stacking is to prevent the midrange bouncing off nearby reflective surfaces as it leaves the enclosure. This is particularly important when constant-directivity wide-dispersion horns are used, and is largely avoided simply by aligning the mid-horn so that it lies about an inch proud of the bass bin. The treble horn will likewise benefit from height, coupled with a slight downwards tilt and, again, it should be slightly proud





of adjacent surfaces.

Although single-source stacks are symbolised by tallness, the ears are particularly insensitive to sound displacement in the vertical plane and the result is very acceptable. So barring a few practical limitations, the single-source stack is an almost Taoistic epitome of elegance, and it makes sense to stick doggedly to this simplicity rather than to succumb to the emasculation syndrome which implores you to build bigger, more macho stacks willy-nilly.

Problems arise when the style of music or the venue size demand an escalation of sound level. First thoughts are to increase the power handling capabilities and efficiency of each horn. Er, we could use 4 x 18in drivers in der bass bin – but could yer lift it? And waddabout dem narrow doorways? We could fit high-sensitivity compression drivers to a highly-efficient midrange horn – but hyper-efficiency often goes hand-in-hand with gruesome sound quality, particularly in the midrange. And we could use a certain American ‘bullet’ horn to provide very loud treble with similarly unpalatable results! A pragmatic solution is to ditch the single-source ideal as soon as it becomes impractical and use lots of horns (chosen primarily on the basis of cleanliness) in tandem to achieve high levels – and good sound.

The largest bass bin that will pass through a standard British doorframe is likely to use 2 x 18in drivers and might handle 400 to 1000 watts. As bass frequencies account for some 50% of the power in a composite rock music signal, it's clear that single-source stacks are limited to handling 800W-2kW per side on physical grounds alone. Ear-rip avoidance-ethics demand a more restrained power capacity for the sale of acceptable midrange – say 400 watts per side in a three-way system or 700 watts in a four-way rig, where the mid is split and the midrange power handling capacity is doubled. (These figures are based on the driver power ratings.) Therafterwards, we have to employ y'actual humpers an' resort to der actual multisource stacks see?

Der actual multisource stack (Screened in PANAVISION)

When we begin to use lots of bins, good wall-loading is assured but, however good, wall-loading will only smooth out the bottom octave; there is simply no substitute for big bass bins! And wall-loading means tight stacking; small air gaps can make a remarkable difference to the low bass sound and DIY hermetic sealing (strategically-placed gaffer tape) can make an equally remarkable improve-

ment! If you can replace the awkward protruding handles beloved by certain bass bin manufacturers by something recessed, so much the better. The arrangement of the bass stack will be determined by what sits above, but the general approach is a roughly square arrangement, which has greater height than width. Once again, the mid and treble horns will benefit from a slight downwards tilt; often these bins will be 12ft or more above the audience and it's sometimes sensible to put a pair of horns lower in the stack to accommodate/deafen/decimate the first few rows.

The next problem is to persuade all the bins in each frequency band to work in step – or phase – or at least to avoid excessive interaction and overlap between adjacent beams of sound in the same frequency band. Apart from generating ‘hotspots’ (localised, intense coloration) this phase interaction upsets the directivity of the bins, often making the dispersion awkwardly ragged or narrow. Ironically, placing speakers side by side narrows the horizontal dispersion and, similarly, stacking narrows the vertical dispersion. The almost paradoxical solution is to use bins with narrow dispersion – in one plane at least.

Because there are many good reasons for stacking upwards, horns intended for multisource stacks have a nominally narrow vertical dispersion – say 30 to 40 degrees. Horns operating in the same band can then be stacked in a vertical array without inciting histrionics. Radial (sectoral) horns are well adapted for this approach. However, many otherwise desirable treble horns exhibit badly controlled or inconvenient vertical dispersion and ‘radial skyscrapers’ may be impractical when the ceiling is low. In these cases, it's just permissible to place some of the mid or treble horns on the same level, being very careful to keep them as far apart as possible and angling them away from each other to avoid unnecessary interaction. Treble horns can often be conveniently mounted each side of a radial.

Apart from thoughtless application, multisource stacks have suffered in the past from poor dispersion control. When we say a radial has a 100° x 40° (Hoz x Vert) dispersion, this is just an average value showing where the sound drops by an arbitrary level at a certain frequency. At another frequency, the dispersion might be 69° x 58° or 113° x 22° which makes a nonsense of the theory. Nonetheless, Jam concerts are proof that well-designed radial stacks can work beautifully in practice.

Today, a new generation of ‘constant directivity’ horns (Altec Mantaray and Electrovoice HR series) and the (pic-

tured left) Turbo (as patented by Tony Andrews and Tim Isaac) provide very tightly-defined dispersion almost regardless of frequency, and the results – exceptionally uncoloured and even sound coverage – have been amply demonstrated at Pink Floyd and Steve Hillage concerts. In systems of this quality it's worthwhile providing electronic phase correction to bring all the bins into millisecond synchronisation – and so we arrive back at the ‘together’ realism of the single-source stack and have gained some back injuries/decibels on the way!

And so, back at the SS stack, the choice of mid and treble horn dispersion angles is basically a case of covering your audience. Usually this means wide horizontal dispersion – say 100° to 120° and a vertical dispersion of 40° to 60°. It may seem that such a narrow vertical characteristic will cause the sound to ‘shoot over’ the heads of nearby punters but, of course, the sound doesn't stop at 40° – it merely falls in level, so the 40° dispersion simply protects people standing under the stacks from truly excessive sound levels. True Multicellular horns (eg Vitavox 220 series, Altec 800/1000 series), diffraction horns (Electrovoice 8HD, Vitavox KiloHertz) and some of the constant directivity horns (Electrovoice ST350A etc) are the ideal choices for the upper mid and treble on single-source stacks rather than the much misused radial horn! When checking out sensitivities, remember that wide dispersion horns will appear to exhibit a lower ‘decibels-per-watt’ because their sound field is more diffuse.

Although dispersion is much harder to control at low frequencies, it is fortunately much less critical. Indeed, it's often conveniently assumed that all the bass bins in a large stack just equal one big bin. This rather Philistine approach appears OK in practice, simply because the ears are much less fussy about low frequency aberrations. Perhaps the most disturbing aspect of using decent-sized bass bins in any stack is the tendency a) for the high bass to ‘recede into the horn’ – this is simply the result of an excessively high crossover frequency, and b) a predisposition for the leading edge of the low bass waveform to belt the solar plexus at no closer than 20ft into the auditorium. This is great at Wembley, but useless in a pub or small club where the aficionados will be too close to feel the benefit. Next month, we'll look at short-throw bass for this sort of application.

Finally, try to stack your bins so they don't rattle and vibrate – such stacks may find ecstatic favour with bejewelled and lascivious females, but the vibration will also travel along the stage, up the microphone stands and into the mics. The result, short of feedback, is muddy sound. □

Sound REVIEWS

The Datapanik Dance

Pere Ubu
The Art Of Walking
 Rough Trade Rough 14
*'The birdies are singing: The birdies
 are saying what I want to say.'*

Each of Pere Ubu's records has marked a quantitative advance in the artistic identity and expressive clarity of the group. With this record I believe that the advance has become a qualitative one.

1 It is clear from the very first listening that David Thomas has made a terrible sacrifice, that he has swallowed that 'tiny book' (*Revelations X, vv 1-7*), which is honey in the mouth, but bitter as wormwood in the belly. It has lain in his stomach but a moment, this book, for it is so bitter that none can contain it long. Still, long enough, and Thomas has vomited up its truth, spewed forth as *Revelation*. We do not any longer expect this kind of sacrifice from our artists - we have forgotten the old ways, we live in a cotton-wool world and watch shadows at a harmless distance on the walls of our cave. I suspect that many will not see that they are being offered a book themselves - and will not realise that they really do have to digest it - for just to consume this record, like any other commodity, is to push it away, to add another protective layer to the bubble of the self: to pull on those warm coats of loneliness which we wear so proudly, like medals.

Yet here is a hand offered, a voice who will speak for us, a soul who will gaze into the abyss, who will die a thousand deaths and who will burn up his Self to grasp the ungraspable, name the unnameable and invoke the inexpressible. I believe this with all my heart, I am convinced of it. I don't believe that such a *cry de cœur* would come out of a machine (or a person turned into a machine, which seems to be the fate of almost all of us almost all of the time these days). I was asleep and it cut into my dreams like a scythe. I woke up trembling.

2 Thomas has (like Beefheart) an enormous range of vocal expression, a consummate artistry and a Saulline percipience. He seems almost fearless now - and of course such intensity, such sacrifice, is daunting; one doesn't just reach into the fire and pluck out a burning coal . . . still, if one wishes to master the fire . . .

Our artists are our mediators, they contain and transform the dangerous, they do swallow that 'tiny book' and they temper for us the awe-full, risking everything on our behalf: inverting Dylan, it is we who should turn to these sword-swallowers with that famous:

'Here's your throat back, thanks for the loan . . .'

3 I believe that *The Art Of Walking* should be listened to with the foregoing in mind - it really does have something vital to say, directly, to us, personally - if we can only forget about the vinyl, the shop and the 'product/conventions of the "package" in which it comes (I don't mean the cover, I mean the whole apparatus of the record industry).

4 Musically, too, this is an enormous step for Pere Ubu - still the same group (except for the departure of Tom Herman, their guitarist, and the arrival of Mayo Thompson, who plays keyboards as well as guitar). Now Ubu are moving even further from the conventions of rock music - and from their own past - but still moving forward, without a doubt, and losing none of their integrity as a group. Much of the music operates like a loose-bound net, where apparently hardly connected parts can co-exist, somehow still adding up at the end to an irreducible whole. There are still the more conventional songs here, and they fit easily into the overall unity of the record. (In fact one song, written by Mayo Thompson, the most 'conventional' structurally, is probably more effective as a result of the company it keeps.) There is great presence here and immediacy - even *Loop*, which is mechanical inasmuch as the field of it consists of a number of discontinuous loops, not related in metre and bound together with overdubbed guitar and voices, has a curious 'live-ness' about it, in tense conflict with its aleatory inevitability.

The whole record has a kind of 'brink caln', Thomas veering from petulant child to W C Fields, to quiet but implacable violence - skirting hysteria and radiant with grace. He takes extraordinary risks.

5 Of the music as a whole, and its 'Arrangements' and 'Production' (which are inseparable here, for this is the work of a recording rather than a performing group), what is immediately striking is the limpid and 'untreated' quality of the sound - and the 'real' acoustic space it occupies. The effect is often dramatic, for instance, on *Lost In Art* where David Thomas sings and hits a drum alternately. The sound is so natural and placed in binaural space, that you can see him standing there singing and hitting.

This is not a 'full' sound and there is little pedal bass or any other pedal part filling it out. If anything, in fact, the sound is pared away. Any continuo parts tend to be on the organ - whose sound is thin and reedy - and sometimes on the synthesiser - but never in the form of 'drones'. The rhythm section, where it plays as such, is as spare and effective as ever Ubu's was, its sounds subtle - especially some of the cymbal and metal sounds of the kit. The guitar is excellent, again very careful as to sonority, and continually imaginative in the playing. Double ditto the synthesiser (an instrument I normally cannot get along with - although I have always liked Allen Ravenstein's approach in Ubu, for he is in control of the instrument and not, as is so usual, vice-versa). Here I think Allen R develops his own art yet further, only playing what is necessary,

and that with great subtlety and emotion - and with grace. All with grace. Grace is the eye of the storm of this record . . . its still centre.

6 For me, this is a record of unique beauty - a beauty marked by truth and thus also tragic and sometimes painful. Such a communication is so rare, and so seldom does the realisation rise to such a unity with the expression that I feel I must urge anyone who still has any human feeling left to listen carefully to it. All power to Rough Trade! Hyperbole I may be given to, but there's no smoke without fire. Please give this record some of your time.

Chris Cutler

avant-garde jazz-funk feel, emotive in part, evocative and erotic when necessary. This was only their fourth gig, but they are certainly destined for brighter things, for better Wimpy bars. If you can suffer the food you will enjoy the music of *Last Few Days*, with ketchup or without.

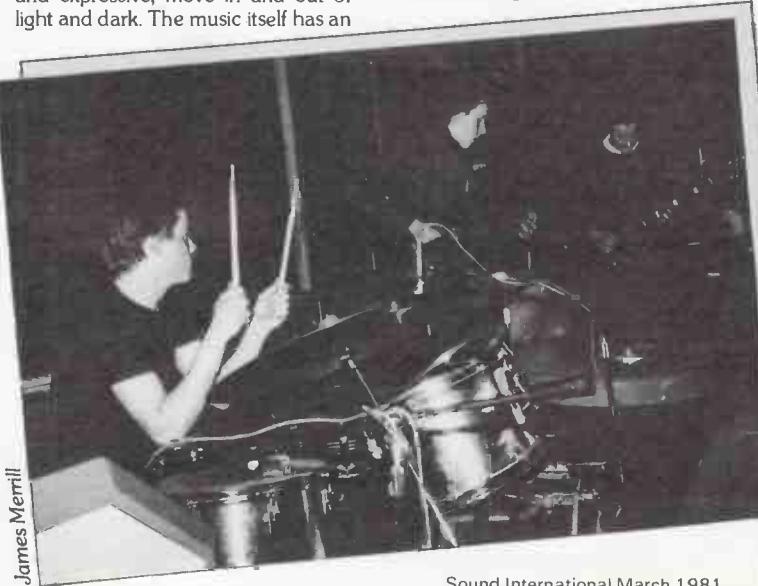
Dave Henderson

Beat '71

What can you remember from 10 years ago? Were you alive 10 years ago? Er . . . decimal currency had just been introduced, and . . . the March 1971 issue of *Beat Instrumental* was sort of interesting. Top Tolkienist tout Tony (sorry, Anthony) Tyler was editor back then, and noted in his editorial that 'now the trend seems to be to mike-up each amplifier through a larger and more sophisticated PA system' just to demonstrate the magazine's close affinity to musicians and their strange ways. Further into the Leon Russell-fronted issue, we find additional evidence as to *Beat's* position in the post-1970 year of 1971 - 'Instrumental News' reports that the mag was in court due to an advertiser who refused to part with cash (some things never change . . .). Counsel was forced to describe *Beat* to the senile judge (some things never change . . .), choosing these words: 'An International Magazine of Great and Lustrous Repute.' And they didn't even have digital watches then.

To give you an even greater feel for the early 70s, here's a few selected quotes from the month's rock stars. 'I'm pissed off with so-called progressive music,' interrupted John (Lees of Barclay James Harvest), 'it was mostly pretentious crap; that whole era was one big hype campaign'. Later inside, a gent called Robert Fripp reckons, 'I started on a six-guinea guitar which was appalling. It needed pliers to hold the strings down above the fifth fret. Then I got a Rosetti'. Thus Fripp comments on decimal currency and music all in 27 words (some things never change . . .). Then Eric Burdon tells one Sam Hamilton: 'All I want is the bread. When I've got that together I'll leave War and make films. I'm sure they could get along without me. What I really want is to make complete

Three-fifths of *Last Few Days* groove 'neath hamburger ad.



James Merrill



audio-visual trips... Man, I'm the only cat to come out of the LSD trip and still be able to relate my experience, got to show the world how it is'. Yes, thank you Eric. Mind you, it is easy to poke fun.

You want more? OK – just before we look at the ads of ten years ago, it's worth pointing out that 'Studio Playback' was keen to report that 'Dickie Rock and the Miami Showband have been in Eamonn Andrews Ltd'. Quite. And now a commercial break: Sound City's ad claimed they were 'the price fighters'; how about an LB 120 amp for £85.25? Further into the pagination (technical term, meaning 'pagination'), Dallas Arbiter (forerunners of current Fender distributors CBS/Arbiter) offered Fender guitars – a new blonde Tele for £188.84. DA tell us that 'Fender guitars are played by stars the world over – from big-beat blues to folk music, C&W to acid rock'. Boosey & Hawkes, on the outside

Records Received

Sir Douglas Quintet *Border Wave* Chrysalis CHR 1330 Like Sly (Family) Stone, Doug Sahm has had great trouble deciding whether to refer to himself as a person or a group. But hot on the heels of his solo outing of '80, *Hell Of A Spell*, comes this record which is the closest ever to his 60s Quintet sound. Intermittent Quintetters Augie Meyers (of the vitally trashy organ sound) and drummer Johnny Perez remain in attendance, Sahm's talent for stoopid ol' hippie lyrics remains (*It Was Fun While It Lasted* rhymes with 'Gee, we really got blasted') and the whole is, as ever, light, airy and enjoyable. Sir Doug can still show Joe Carrasco and co a thing or two, and there should be a visit in the offing if Meyers can be coaxed on to a plane. *Small Faces For Your Delight, The Darlings Of Wapping Wharf Launderette Virgil/Immediate V2178*. Somewhat rearranged and

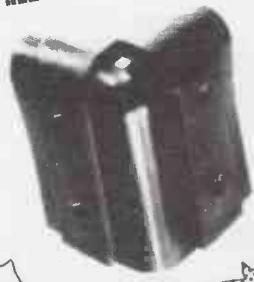
altered version of the Small Faces' first Immediate album, produced by Marriott and Lane. Features the smartass mods halfway to hippiedom with such delights and oddities as *My Way Of Giving* (better known by Chris Farlowe and Stewart's Faces), a cover of Del Shannon's *Runaway*, the harpsichorded *Show Me The Way* and some Itchycoo spirit on *Green Circles* which sounds like the Beatles meeting the Who on Clapham Common Forever. A terrific ten from Charly from a bunch of originals whose ideas and sound was being busily ripped off by British bands in the mid-sixties. The tracks come from the heyday of American R&B-based labels Vee Jay and Sansu (not Sansui as *Time Out* sub-editors think), and material includes New Orleans' finest Lee Dorsey (*Gonh Be Funky* GRB1001) and The Meters (*Second Line Strut* CRB1009), three particularly individual and influential bluesmen, John Lee Hooker (*This Is Hip/As I Am* CRB1004), Elmore James (*One Way Out* CRB1008) and Jimmy Reed (*Upside Your Head* CRB 1003) and five eclectic and interesting pop soul singers, Betty Everett (*Hot To Hold* CRB1006), Betty Harris (*In The Saddle* CRB1002), Jerry Butler (*Up On Love* CRB1005), Gene Chandler (*Just Be True* CRB1007) and Dee Clark (*Keep It Up* CRB1010). The collection is put together by a fan (Cliff White) and looks like it: many of the compilations include old familiar but White claims these are intended for first-timers and more obscure and unavailable tracks will be forthcoming, to which one can only concur with Betty Harris in her version of *Ride Your Pony* in suggesting 'Stay in the saddle, baby'. While all of these deserve longer reviews than space allows here, let us particularly recommend The Meters and Hooker collections which are among the best albums released by these august personages (and if you play in a rhythm section and are unaware of the combination of the Meters' Porter and Modeliste here's a chance to rectify the position) and add a wish that more companies would see fit to issue such classy vault

Sound REVIEWS

materials with the style and wit apparent here. Linton Kwesi Johnson *LKJ In Dub Island* ILPS 9650 An oddity really – Jamaica's greatest expatriate wordsmith putting together an album virtually devoid of words. Tracks from Johnson's albums *Forces of Victory* and *Bass Culture* dubbed up by Johnson and Dennis Bovell in what must be considered a pot-boiler in Johnson's career. It's a nice enough album of its kind, though and, er, makes more sense than EMI's album of Beach Boys backing tracks a few years back. *Blondie Autoamerican* Chrysalis CDL 1290 Blondie like Abba and the Police have now reached the level of sales which guarantees automatic knee-jerk bad reviews in the weeklies, which seems a sad comment on writers' need to be hipper than their audience. Have these people fallen so far down the plug-ole in the last year or two? *Autoamerican* is no triumph but it is a far more interesting and risk-taking venture than *Eat To The Beat*, in spite of the fact that the band ended up back with Mike Chapman in the end. Even the singles seem to have been chosen deliberately to offset the expected – the lushly produced and pretty *T-Birds* would have seemed a more obvious megahit choice. True, side one is very lightweight and there is too much Harry rapping on the second side for total comfort. But there's nothing here that's as obvious a clunker as *Atomic* and there are some pleasant surprises like Tom Scott's sax and Lyric, though more space should have been left on occasions for Mr Burke's Premiers. 'But what,' our small print reader asks fearlessly, 'is Vivian Goldman doing under "Accessories"?

NEW PRODUCTS..

No. 4016 HEAVY DUTY PLASTIC CORNERS



No. M600 HORN



No. 8804 FOOTSWITCH

From



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Please send 30p P&O
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PRO STUDIO AND P.A. EQUIPMENT

MIXERS	PLUGS/CONNECTORS/CABLES	EQUALISERS	REVERB/ECHO
ALICE 8-28	£603.75	MXR 2x 15 graphic	£253.00
ALICE 12-28	£777.40	MXR 1x 31 graphic	£269.00
ALICE 12-48	£1,791.70	MM 7 band stereo	£98.90
ALLEN & HEATH 16-4-2	£465.75	TEAC GE 20 2x 10	£142.00
ALLEN & HEATH 12-2	£879.75	ASHLEY SC63	
H.H. 16-2	£438.00	PARAMETRIC 3 band mono	£240.35
H.H. 16-2 XLR	£642.85	ASHLEY SC66	
TEAC Model 1	£696.90	PARAMETRIC 4 band stereo	£386.98
TEAC Model 2A	£87.97	FURMAN PQ3 mono	£249.26
TEAC Model 3	£166.50	FURMAN PQ3 stereo	£421.85
TEAC Model 5	£569.25	ROLAND SPH 323 phaser	£198.72
RSD 8-28	£983.25	ROLAND SBF 325	£222.64
RSD 12-28	£517.50	ROLAND SDD 320 dimension D	£226.32
RSD 16-4	705.81	ROLAND SVC 350 vocoder	£466.44
RSD 16-8	1,121.25		
RSD 20-8	1,900.37		
RSD 12-2	1,599.93		
MM 8-2	510.31		
MM 12-2	333.50		
MM 16-2	420.90		
MM 8-4	484.15		
MM 12-4	548.55		
MM 16-4	612.95		
SONY MX 650 mic mixer	170.77		
MULTITRACK RECORDERS			
TEAC 32-28	£449.00		
TEAC 3440	£891.25		
TEAC 144 portastudio	£538.20		
TEAC 35-2	£1,138.50		
TEAC 108 SYNC	£2,271.00		
TEAC 80-8	£166.50		
REVOX B77 3½ - 7½	£575.00		
REVOX B77 7½ - 15	£603.75		
BRENNEL MINI 8	£4,315.00		
PSE MASTER EIGHT	£3,450.00		
Free Ampex tape with every machine purchased			
MIKE STANDS			
Keith Monks 5 colours			
MSM stand	£21.56		
BAM Boom	£12.08		
P & N Boom Stand	18.50		
Beyer			
ST 210A/2 Stand	£19.69		
SCH211 Boom	£9.52		
SCH211/1 Telescopic Boom	£10.35		
HEADPHONES			
Beyer DT100	£38.77		
Beyer DT220	£29.76		
Sennheiser HD400	£14.31		
Sennheiser HD414X	£24.01		
Sennheiser HD420	£28.15		
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DR-55 DR Rhythm	79.93		
CR-68 CompuRhythm	£230.00		
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KORG KR33	£178.15		
KORG KR55	£255.30		
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TEAC PB64 PATCH BAY	£67.85		
TEAC TO-8 OSCILLATOR	£25.00		
TEAC E3 DEMAGNETISER	£22.50		
19" STAK RACK	66.41		
POWER AMPS		BOSE PA SYSTEMS	CROSSES OVERS
AMCRON - DC300A	£684.25	1800 AMPLIFIER	ASHLEY SC22 stereo 2 way
AMCRON - D150A	£448.50	pair of 802 speakers with equaliser	192.97
BOSE 1800	£830.87	pair of 802 add on speakers	ASHLEY SC70 mono 3 way
H.H. S500 D	£440.15	pair of ATLAS STANDS	288.36
H.H. V150L	£232.65		ASHLEY SC80 mono 4 way
H.H. V200	£292.42		FURMAN TX23/2 way
H.H. V500	£430.12		191.75
H.H. V800	£516.66		H.H. X300
M.M. AP360	£244.95		M.M. 2 way stereo
M.M. AM240	£289.80		75.90
M.M. AM400	£367.43		M.M. 3 way stereo
M.M. AM640	£119.00		98.90
QUAD 303	£200.37		
QUAD 405	£448.50		
YAMAHA 2200	£393.30		
YAMAHA 2201	£200.10		
YAMAHA 2050	£296.70		
POWER AMPS		MR PEDALS	GRAND MASTER
AMCRON - DC300A	£684.25	phase 100	456 ¼" 600' 5" reel
AMCRON - D150A	£448.50	phase 90	406 ¼" 1200' 7" reel
BOSE 1800	£830.87	phase 45	406 ¼" 2500' HUB
H.H. S500 D	£440.15	dyna comp	406 ¼" 2500' NAB
H.H. V150L	£232.65	noise gate	406 ¼" 2500' NAB
H.H. V200	£292.42	distortion & valve simulator	406 ¼" 2500' NAB
H.H. V500	£430.12	10 band graphic	406 ¼" 2500' NAB
H.H. V800	£516.66	6 band graphic	406 ¼" 2500' NAB
M.M. AP360	£244.95	pedal flangers	406 ¼" 2500' NAB
M.M. AM240	£289.80	analogue delay	406 ¼" 2500' NAB
M.M. AM400	£367.43	envelope filter	406 ¼" 2500' NAB
M.M. AM640	£119.00	micro amp	406 ¼" 2500' NAB
QUAD 303	£200.37	stereo chorus mains	406 ¼" 2500' NAB
QUAD 405	£448.50		
YAMAHA 2200	£393.30		
YAMAHA 2201	£200.10		
YAMAHA 2050	£296.70		
POWER AMPS		H-H P.A. and CABS	TAPE REEL TO REEL TAPE
AMCRON - DC300A	£684.25	MA 100 amp	406 ¼" 600' 5" reel
AMCRON - D150A	£448.50	SM 200 mixer amp	406 ¼" 1200' 7" reel
BOSE 1800	£830.87	212 Cab	406 ¼" 2500' HUB
H.H. S500 D	£440.15	PRO 100	406 ¼" 2500' NAB
H.H. V150L	£232.65	PRO 150	406 ¼" 3500' NAB
H.H. V200	£292.42	PRO 200	406 ¼" 2500' NAB
H.H. V500	£430.12	CONCERT P.A. system	406 ¼" 2500' NAB
H.H. V800	£516.66		
M.M. AP360	£244.95		
M.M. AM240	£289.80		
M.M. AM400	£367.43		
M.M. AM640	£119.00		
QUAD 303	£200.37		
QUAD 405	£448.50		
YAMAHA 2200	£393.30		
YAMAHA 2201	£200.10		
YAMAHA 2050	£296.70		
POWER AMPS		BELL ELECTROLABS PEDALS	GRAND MASTER
AMCRON - DC300A	£684.25	FUZZ	456 ¼" 1200' 7" reel
AMCRON - D150A	£448.50	Phaser	456 ¼" 2500' HUB
BOSE 1800	£830.87	Sustain	456 ¼" 2500' NAB
H.H. S500 D	£440.15	Flanger	456 ¼" 3500' NAB
H.H. V150L	£232.65	Analogue echo	456 ¼" 2500' NAB
H.H. V200	£292.42	A.D.T.	456 ¼" 2500' NAB
H.H. V500	£430.12	Mother power supply	456 ¼" 2500' NAB
H.H. V800	£516.66		
M.M. AP360	£244.95		
M.M. AM240	£289.80		
M.M. AM400	£367.43		
M.M. AM640	£119.00		
QUAD 303	£200.37		
QUAD 405	£448.50		
YAMAHA 2200	£393.30		
YAMAHA 2201	£200.10		
YAMAHA 2050	£296.70		
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AMCRON - D150A	£448.50		
BOSE 1800	£830.87		
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H.H. V150L	£232.65		
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H.H. V500	£430.12		
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From only £100 per day + V.A.T.

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Tape Duplicating – Small & Large Runs

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$\frac{1}{4}$ " to $\frac{1}{2}$ "
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*STUDER EQUIPMENT,
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"Soundcraft" 1624 Desk,

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Ampex – Revox – Teac – Quad – Tannoy – Auratone Master Room – Ursa Major – Audio Design Scamp Rack.

Master Room – Ursa Major – Audio Design Scamp Rack.

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PROPHETMAN

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YOUR GUITAR SHRUNK TO JUST 3 INCHES LONG! – Strat, Les Paul, Tele, Precision ... whatever. We shrink the guitar of your choice. (Specify your own pre-wash details e.g. colour & wood finishes of body, neck, & scratchplate). Pre-shrunk models are already available from selected music shops including Guitar Grapevine, Sounds, F.D.&H etc. Or, these authentic, ultra-fine detail enamelled metal replica badges are available mail order from FEEDBACK MUSIC 33 Addison Gdns, London W14 0DP (01-603 9850) for £4.99 incl. p&p. (Please allow 14-21 days delivery). (B)

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COMPLETE 8 TRACK STUDIO FOR SALE; Teac 80 + DBX, studiomaster mixer, Revox A77, JBL 4311's, Quad 405, Akai 4000DX, Teac cassette deck, Reverb unit, AKG mics, headphones, leads, D.I. boxes, mic stands, etc. £3,500. For more details write to Box No 13. (C)

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Spaceward
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EXPRESSION



Atlantex Music, Ltd., 34 Bancroft Hitchin, Herts., SG5 1LA, Phone 0462 31511, Tlx 826967



setting standards

For the full story contact F.W.O. Bauch Limited,
49 Theobald Street, Boreham Wood, Herts. WD6 4RZ

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