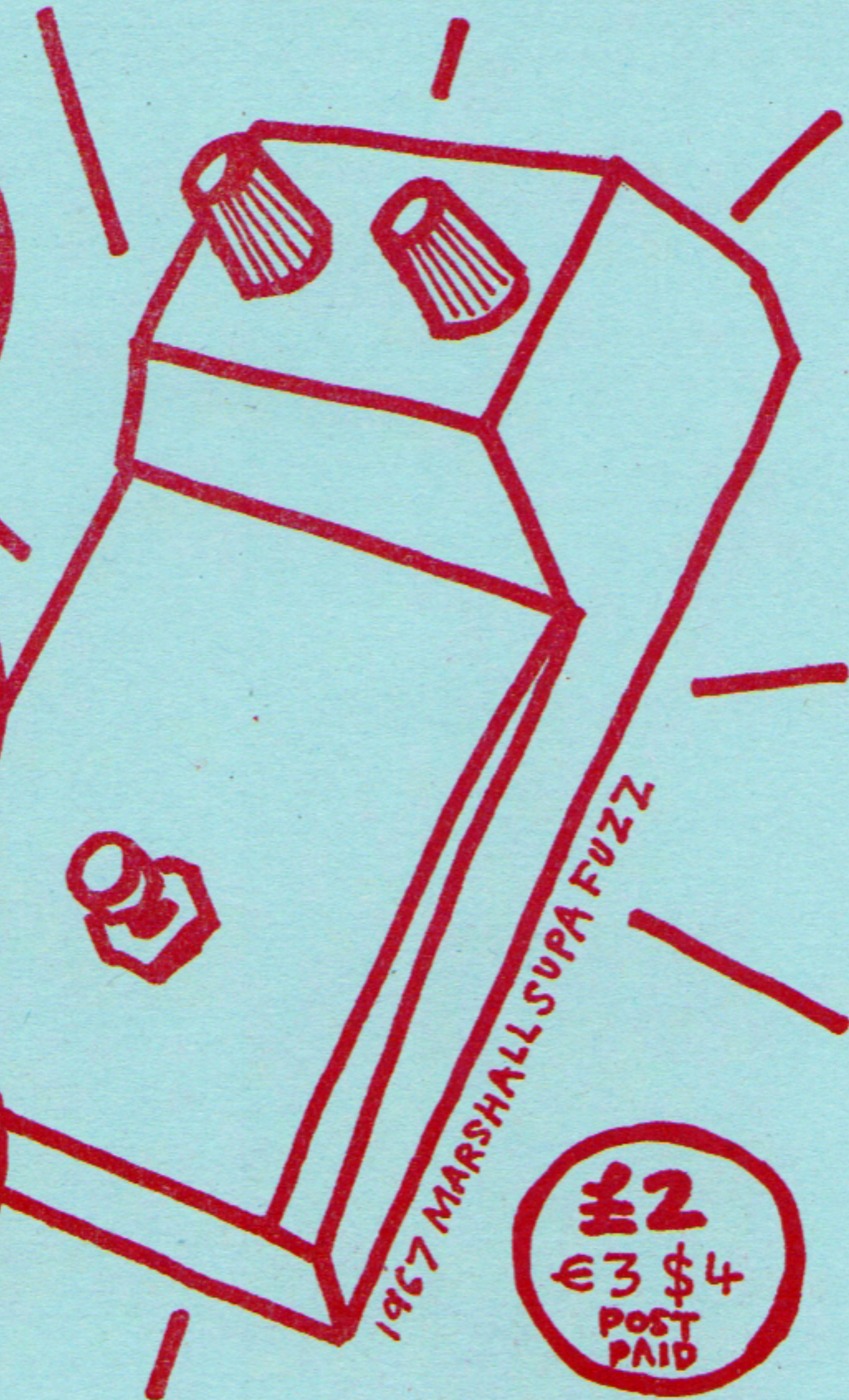


GOOD FUZZY SOUNDS

PEDALS
PLAYERS

STORIES
COMICS

HUSTLERS
GEEKS



£2
€3 \$4
POST
PAID

This is a zine about fuzz:

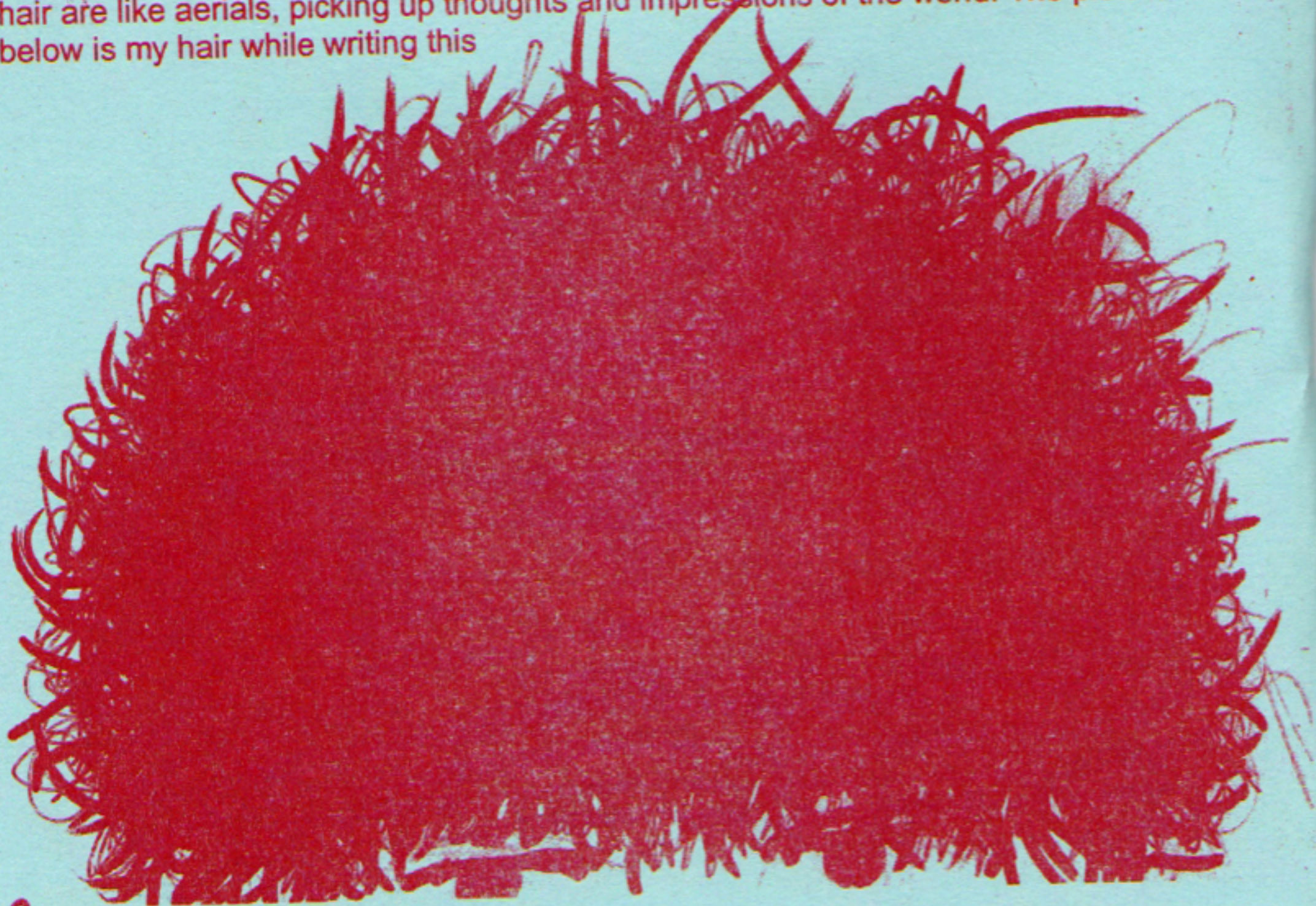
fuzz guitar, fuzz pedals - good fuzzy sounds.
It's kind of a history of the first years of fuzz, but with personal stories, drawings and comics.

The name comes from an early 1970s electronics hobby magazine project article by the Godfather of DIY, Craig Anderton – while introducing the pedal he assures his readers that it is sure to provide a range of 'good fuzzy sounds'. I thought that was funny, but also, I mean, what more do you need? It's the name I put on the pedals that I make for people from time to time, and my website too www.goodfuzzysounds.com

The zine is also a kind of acknowledgement of something I recently discovered about myself, and is the reason my interest in the subject might be more intense than yours: I have Asperger's Syndrome. I started a blog to talk about my guitars and pedals and stuff a few years ago, but then I started to get self-conscious about it, and worry that if I wrote endlessly detailed posts about these narrow subjects people on Facebook would think I'm a freak. Well, I guess I am, but now I/you know why, a little bit, so I'll be able to write about these things more easily without worrying what people think.

Simon Murphy, London, September 2011

My girlfriend Charlotte says I like fuzz because my hair is fuzzy, and the ends of my hair are like aerials, picking up thoughts and impressions of the world. The picture below is my hair while writing this



What is fuzz?

Recently I had a visitor to my Musical Den*, and she didn't know what fuzz was. I plugged a pedal in in and she said "oh yeah – "that sound!" As you're not in my basement, I can't do the same for you – the next best thing is for me to direct you to Youtube /lastfm /spotify and listen to the beginning of Psychotic Reaction by the Count Five. That's it!

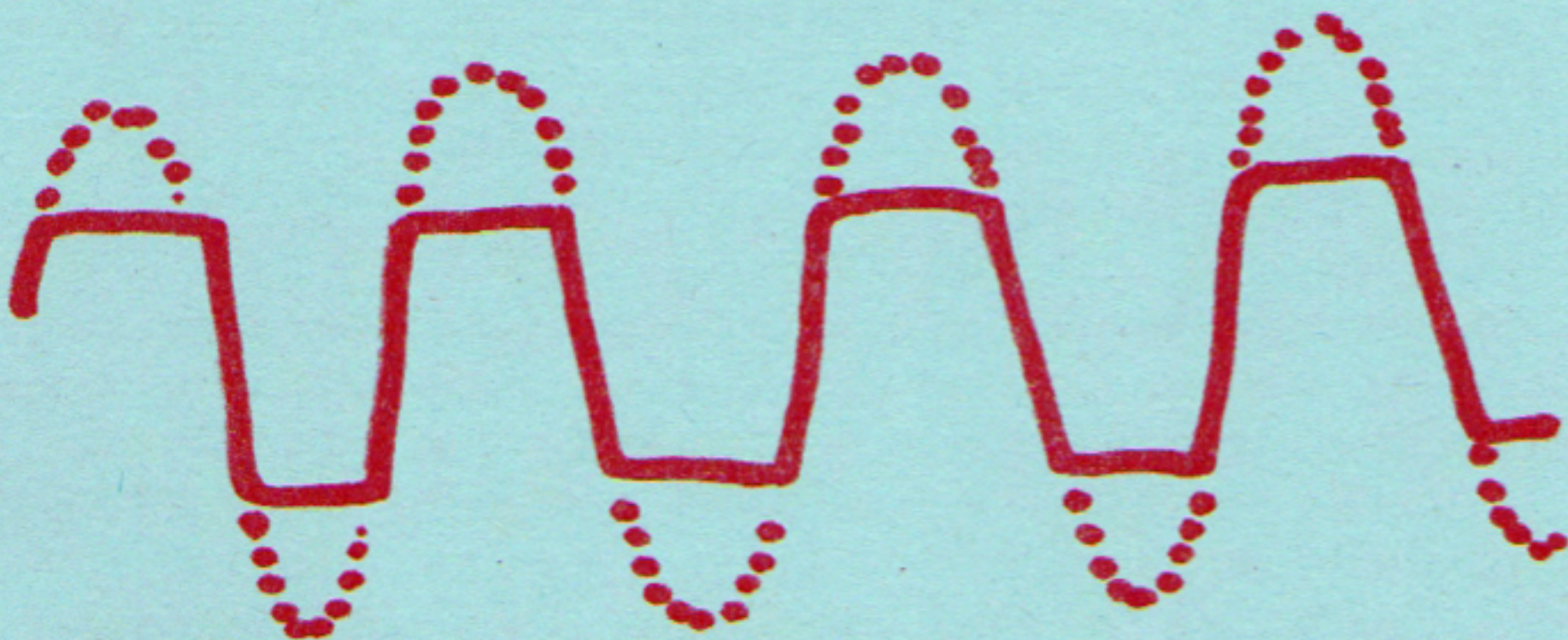
What you hear on that record is an early fuzz, probably a Maestro Fuzz-tone, but perceptions of what fuzz sounds like have changed with tastes and fashion. My first preference would be for the sputtering harsh sounds of the early fuzzes, but these elements were ironed out substantially in the next wave of fuzzes from around '66. They have a slightly smoother sound and longer sustain. It's these ones that really defined the popular fuzz sound of the period. Towards the end of the '60s there was a switch from germanium to silicon transistors - a harder tighter sound, that coincided with a slide in tastes away from the 'fizzy' end of fuzz to the heavier sounds of amplifier distortion and overdrive. Late '60s fuzzes were still capable of the early sounds, but increasingly they were designed to approximate the sound of a big amp on full, though they still tended to have 'fuzz' in the title. So what fuzz sounds like depends what year you are in, or want to sound like you're in.

What does it look like?

This might be a bit conceptual, but you can see what fuzz looks like too, and it might help to explain what's happening. A pure undistorted musical note looks a bit like this on an oscilloscope:



A fuzzy note looks like this – the rounded curves get bigger (louder), but the transistors that are doing the amplification can't reproduce the bigger curves so the tops get cut off = this is called clipping – it introduces a roughness to the sound that is the basis of fuzz!



* see <http://musical-den.blogspot.com>

Can you describe it?

The essential properties of a particular fuzz pedal's sound can be elusive. The apocryphal story about Inuit people having 100 words for snow comes to mind when trying to describe it. My current vocabulary is hardly adequate even though I'm writing a whole zine about it, and even so, there isn't any agreement on what these terms mean. Only the onomatopoeic ones make sense to me – the more abstract ones don't at all, and some seem more appropriate to food than sound. With this in mind I tried to compile a list of terms used to describe fuzzy sounds, on diy sites and forums and the reviews section of www.harmonycentral.com

Some of them are:

abrasive, buzzy, chewy, creamy, crunchy, dirty, farty, fat, fizzy, gated, grinding, mangled, muddy, mushy, raspy, saturated, sharp, sizzling, smooth, squishy, sweet, thick, thin, tubey, warm, woolly

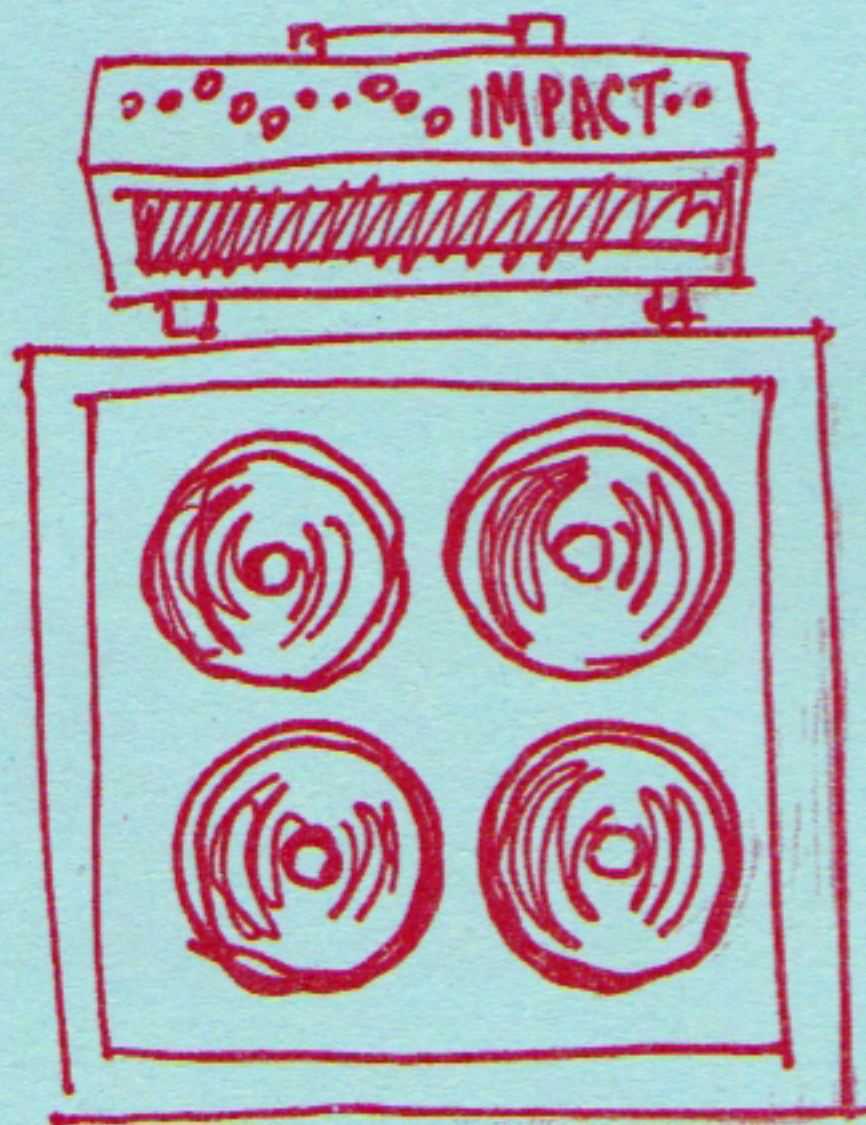
These terms are frequently qualified by references to 'buzz and hash', 'picking dynamics', 'cleanup', the 'sweet spot' and compression, sustain, halo, 'bloom' and Jimi Hendrix/Jimmy Page/Ron Asheton/Billy Corgan/whoever.

I don't think these are always hugely helpful in putting across the sound of a fuzz circuit, but they are part of the cloud of associations that are part of the mystique (real or imagined/manufactured) of old pedals, that in the commercial world falls under the heading 'marketing'. It's also part of the mythology of 'getting great tone', which I won't go into. I think these fuzzy words are basically subcultural slang, a certain macho/cool language spoken mostly only by guitarists, that is alienating to me, since I don't hang out with those kind of people much.

The fact that comparisons with other known circuits are more useful than most of the above terms also says a lot. The undeniable truth is that many fuzz pedals do sound similar (there! I've said it!) Comparisons from one person to another are difficult because pedal sound different with different guitars, different pickups and amps – and my guitars and amps are not the ones most people have. The demo videos on YouTube can be useful, but they rarely play anything like me, and mostly stick to soloing and showing-off playing, neither of which I like, using guitars and amps I don't have.

Fuzz and me (1)

I saw a fuzz box for the first time in the garage of my friend's house in East Finchley. Phil was one of a small and close-knit group of friends and, being music fans, we decided we should be a band. It was 1979, we were 14 and obviously had no idea how to go about it. There was Phil on guitar and me on bass, and a couple of other friends who would come and sing. One had bought a really nice '60s guitar but had it stolen off him almost immediately by a gang of skinheads on the Bakerloo line.

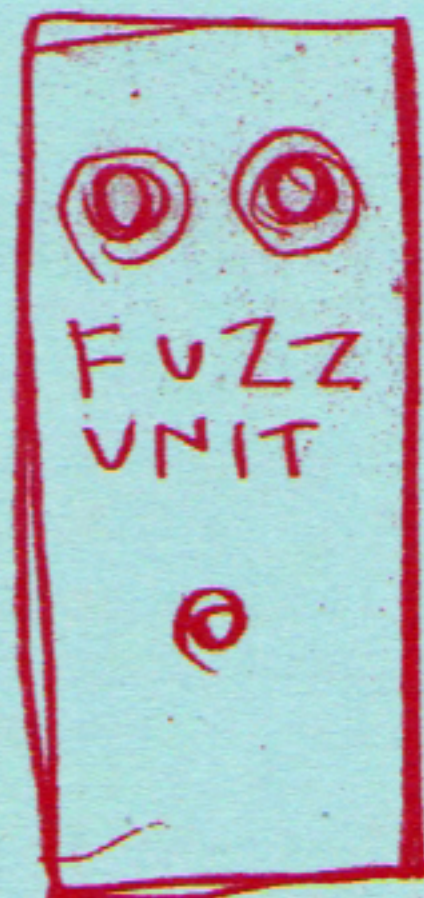


Phil was having guitar lessons at school so he was kind of the leader – he had a white Strat copy made by CMI; I bought a cheap Kay bass copy, as bass was easier to play. Phil also had a bit of money from his Saturday job, so he bought an old Impact valve amp and a big speaker cabinet with four 12" speakers. At the beginning we were much like Wild Stallions, the band in 'Bill and Ted's Excellent Adventure'. We were listening to Motorhead, AC/DC, Thin Lizzy, Iron Maiden and other 'New Wave of British Heavy Metal' bands, but also chart punk and New Wave like The Jam, The Buzzcocks, The Clash and The Ramones. My tastes were broadening, but it had no impact on what we played, because we couldn't play anyway. We played the introduction to Smoke On The Water as it was fun and easy, but we had no interest in the rest of the song, we'd just do the intro over and over. We also did most of a Jam song called Mr Clean from All Mod

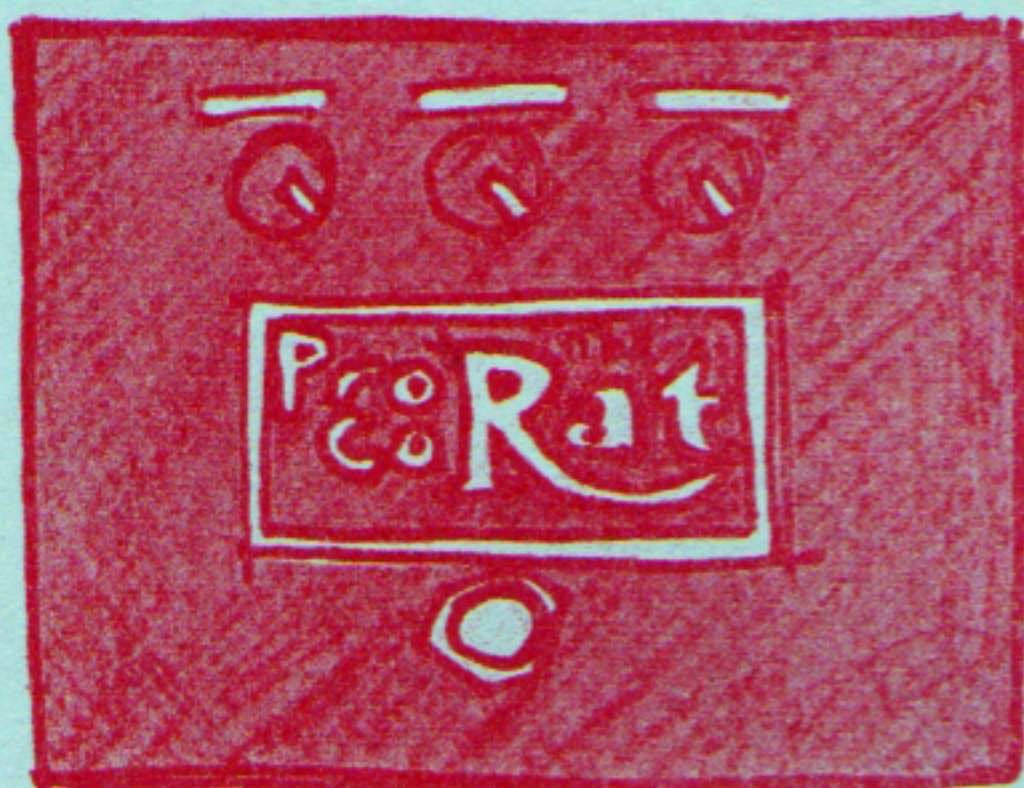
Cons (less fun, but also easy). Other bits of song included a slow AC/DC bluesy number and, later, showcasing my bass skills, Down In The Tube Station At Midnight. The Jam were our friend Aiden's favourite band; he was normally hanging around, so he sang their ones after drinking a beer to overcome his shyness.

Phil also had a **fuzz box** – I have to admit it didn't make a huge impression on me at first, but it allowed Phil to play bad rock guitar at reasonably low volume in the garage so he was happy. He had a boy-crush on Scott Gorham from Thin Lizzy and tried to copy his stoned smile while playing, to make me laugh. If I think back really hard I seem to recall that Phil's fuzz was a long narrow thing with two knobs, something like the 1970s Colorsound pedals. It might even have been one as he got his guitar at Macari's in Charing Cross Road, and they made the Colorsound pedals, but more likely it was a cheaper knock-off from Exchange and Mart.

In 1980 I joined my first band with a drummer and everything, playing bass. It wasn't a 'real' band, but just a group put together by the singer/writer/guitarist guy to record some demos to showcase his skills. He was one of my brother's friends' brothers, a year older than



me and seemed cool. He had long (for catholic school) curly ginger hair and a green army jacket. He idolised Ritchie Blackmore from Deep Purple and Rainbow, but looked more like Jimmy Page to me. I've tried really hard but I don't remember his name, or anyone else in the band. Other memories are also patchy. We rehearsed once in his house in Finchley and then at a posh rehearsal room with a bar and a pinball machine; never since have I seen such luxury in a practise room! Eventually we recorded three songs at a tiny studio in



High Barnet called WeeMeeNit. I don't remember any of the songs except the 'triple' rhythm of the bass part I played on the one song I liked, and the first two lines which went 'I hear the cry of the she-wolf /The howl of the banshee...' In fact the only clear memory I have from the whole episode, that must have lasted at least a couple of months, was his pedal – he had a brand new RAT fuzz. It seemed much cooler than Phil's flimsy flat thing, and the name was kind of exciting to my shy 15 year old headbanger self.

When I got my first guitar at the end of the year, Phil showed me a couple of chords. My weedy fingers could hardly hold the strings down on a bar chord, but it sounded better with fuzz. Like The Ramones, I thought. The post-punk/indie music I was starting to play in the early '80s after I abandoned metal wasn't very fuzzy, but I was getting into '60s sounds and the Nuggets and Pebbles compilation LPs at the time, and the seeds of a future obsession were sown.

Fuzz and me (2)

My first real awareness of fuzz as a specific mid '60s sound on a record was on High Time Baby by the Spencer Davis Group, the 'B' side of their number one hit Keep On Running, released in November 1965. It's not a really famous song, but I've always preferred it to the 'A' side, and the repetitive fuzzy riff got my attention straight away. I heard it at a friend's house in 1981, and it's still a favourite thirty years later. It's a fairly inane garage soul-pop tune, built purely around the guitar sound which was still a bit of a novelty, but the fuzz lifts it to new heights.

The guitarist on the record is a young Steve Winwood (they used to call him Little Stevie Winwood at the time – lol) and it's probably a Mk1 Tone Bender on there or possibly a Maestro Fuzz-Tone - either way it's a crude raspy first-wave fuzz. I didn't know that in 1981, I just liked it.



"There's this new guitar sound I think you're going to like..."

history part 1 - fuzzy sounds 1951-61

In the 1950s, electric guitar sounds in mainstream music were clean, sweet, mellow and quiet, exemplified by the whitest people in pop, Les Paul¹ and Mary Ford. Amplifier manufacturers assured their customers that their products were distortion-free (although they never were) and studio technicians devoted themselves to eliminating any trace of the 'd' word from their releases. Commercial rock'n'roll mythology tells us that the deliberate use of distortion (and the 'invention of fuzz') was an accident, like the discovery of penicillin, or rather, it was three accidents, one of which was turned into a product. It's customary to also mention Link Wray slicing up his speaker cone in 1958, to get a distorted sound for the hit instrumental Rumble, at this stage. It's not strictly speaking relevant, but it's exciting! The more mundane truth is that he punched holes in the speaker cone with a pencil, but that doesn't sound so exciting, eh?²

In 1951 - sixty years ago - Ike Turner's Kings of Rhythm recorded Rocket 88 at Sam Phillips' Memphis Recording Service, as Jackie Brenston and his Delta Cats.

Somewhere along the way from Mississippi the speaker in guitarist Willie Kizart's amp was damaged, creating a fuzzy sound. Ike Turner thought it might have got wet in the trunk of a car, Phillips recalls that the amp fell off a shelf in the studio, while Wikipedia says it was knocked off the top of a car en route. Each version of the story is more dramatic than the last. One thing is clear at least: it made a fuzzy sound that Sam Phillips liked and it stayed on the record, which became a huge r&b hit and inspiration to others. The amp is now on display at the Sun Studio in Memphis, with newspaper scrunched up to support the cone. Is it really the same amp? If it is, why do they say it's Ike's amp, when he played piano on the record?



Grady Martin, guitarist with Johnny Burnette's Rock and Roll Trio had some similar trouble during the recording of their Coral 45 Train Kept A-Rollin' in

Nashville in 1956. His amp had a valve loose or something, and produced a fuzzy sound that he liked, so it stayed. It's no surprise that the record wasn't a hit though, it's a horrible sound by any standards (horrible in a good way) but I can't imagine it made many playlists in the '50s



Then one day in July 1960, Glenn Snoddy, the chief engineer at the Bradley Studio in Nashville³ was having further technical problems - this time with his mixing desk. A malfunctioning pre-amp in the console produced a fizzy, excessively distorted yet controllable sound that he liked. Rather than fixing it he kept it as his exclusive special sound that appeared on a range of country singles in the early '60s.

The first one was a very polite tune called Don't Worry, a big hit for Marty Robbins on Columbia. A fuzzy bass solo comes in towards the end of the song, played by none other than that man Grady Martin, who moved to Nashville to begin a

successful career as a session guitarist after breaking with Burnette. It's not very dramatic, but it got some attention and the record was a hit. Martin recorded a solo single with Snoddy called The Fuzz in 1961, featuring the effect much more prominently. It's weird, but not very rockin'.

The story of the malfunctioning pre-amp has been repeated a thousand times and only questioned quite recently, on the freestompboxes forum (see p23), and I have to say I'm very skeptical about it myself. The point is that the sound of a distorted overdriven mixing desk channel would not have been new or exciting to any working

recording engineer. Any studio could record that kind of sound if they wanted to, but up to that point nobody did. So why make the story up? It could have been a story planted to get some extra publicity, or may not have surfaced until after the transistor circuit that became the first fuzz pedal was developed.

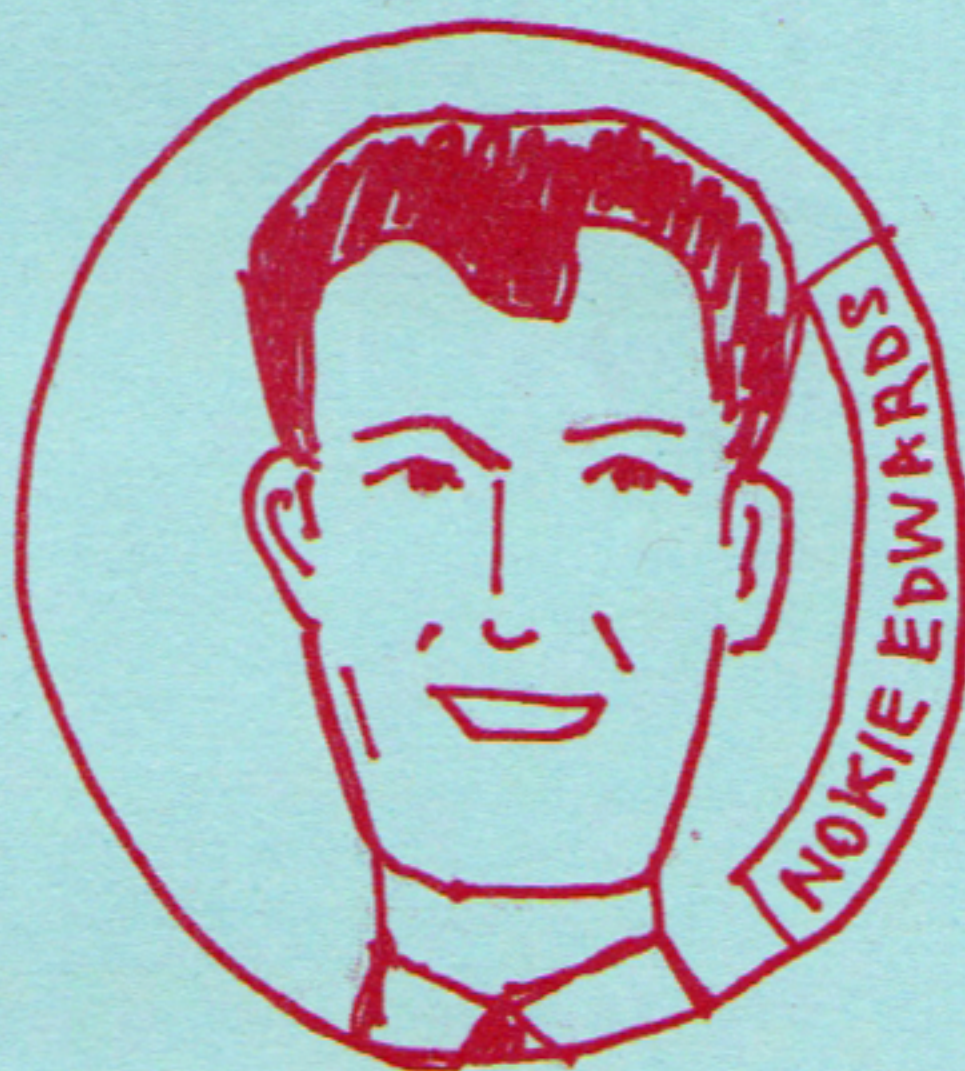


But it hardly matters at this point, because Snoddy, Martin and Robbins were beaten to the punch by Sanford Clark, his guitarist Al Casey and producer Lee Hazlewood in Los Angeles. Their record Go On Home, released in March 1960 on Jamie Records with a prominent and distinctive fuzz sound. Casey played the part, but the fuzz effect

belonged to the legendary eccentric DJ-producer-songwriter-artist Hazlewood himself. Casey recalled that he wanted a clean sound but "Lee wanted the distortion sound... [he] knew a guy who worked at a radio station and he built a little box for that". So a transistorised "little box" of fuzziness existed at least four months before the alleged malfunctioning desk incident in July, yet the Nashville accident happened to have the same sound? Hmmm! One intriguing possibility is that Lee's guy at the radio station was Revis Hobbs (who we'll get to in part two), but I can't find any evidence to support this.

There were a few people messing around with fuzz around 1960-61, and another one was on the way. This one was built by electronics boffin, expert pedal steel player and session musician Orville "Red" Rhodes. Rhodes showed his box to another session player, Billy Strange, who played it on an Ann-Margaret single in August 1961. Strange and Rhodes both played on Lee Hazlewood's hits with Nancy Sinatra a few years later. Did they meet earlier and to swap fuzzy ideas, or is it just another coincidence? The important thing is that Strange brought Rhodes' fuzz box to the Ventures late in 1961.

Now, I've been a fan of theirs since the early '80s and have often pondered the contrast between how square they looked and how cool they sounded. They had short hair and matching suits until about 1969, and I can imagine them smoking pipes, but some of their records are quite advanced, groovy – and, yes, fuzzy. They knocked out three LPs a year in the early 60s, mostly generic covers of current pop hits, but with a few originals sneaking in, which were usually more interesting. One of these was the 45 built around the sound of the Rhodes fuzz - The 2,000 Pound Bee – the first real rockin' fuzz tune, released as a single early in 1962.



Nokie Edwards plays lead on Part Two, while Billy Strange does his thing on Part One. This was before the commercial launch of the Maestro pedal, but it shouldn't be assumed that it has any relation to the Mosrite FuzzRite, endorsed by the Ventures as part of their sponsorship deal in 1966.

All right: So Glenn Snoddy's allegedly accidental fuzz sound was not the first fuzz ever, the first "fuzz box", or even the first fuzz on record. Lee Hazlewood's box was making noise months before the Bradley studio malfunction, and Red Rhodes cooked up another not long after. Snoddy, Hobbs and Gibson-Maestro were simply the first to see the commercial potential of the transistorised fuzz box as a consumer product.

¹ I'm not knocking Les Paul per se, but his early sides were v bland ² US NPR interview with Link Wray, 1997 ³ AKA the Quonset Hut, Bradley's Barn

I'm not an Italian – an interview with fuzz pioneer Pepe Rush



In 1965, when London was waking up to fuzz, Pepe Rush was 22 years old. He was right in there, coming up with three different pedals in the next 18 months. Pepe's first pedal was called the Fuzzy, a close relative of the American Maestro Fuzz-tone, followed by two iterations of the Pepbox - same name, two different circuits, in three different boxes.

My first contact with him was in 2008, when I started my blog with a piece about his earliest fuzz, which I built a copy of. He commented on the blog, we swapped emails and I friended him on Facebook. I

finally met him, and his beloved dog Casper, for an interview in Upminster, Essex in June 2011

How did you get involved in electronics

When I was about 12 or so I came home from school one day and my grandad was building an amplifier, a valve amplifier, and I sort of helped him with it - I didn't know anything about it but I helped him, and it interested me.

Later I got a job with a big company servicing radios and things, Imhof's, in Stoke Newington, and then I worked in a recording studio for a while. Then I started my own studio, with my Dad. He was conducting at the Talk Of The Town, and he was earning quite a bit of money from it so we started a small studio in Berwick Street, off Oxford Street, around 1959. I started building amps then too.

So by 1965, you were involved in a variety of things

Yeah, mostly amplifiers and mixers, under the name Rush Electronics.

The pedals were a side-line to the main business?

Well, yeah, but it was quite important, they made money! But it wasn't the main thing I did.

Do you remember hearing fuzz for the first time - the new sound?

Yeah, somebody brought a fuzzbox in to the factory in Portland Mews, around the corner from the studio. I don't remember who it was, but they were raving about the sound it made, so I just thought to myself 'oh, you overdrive a transistor, and it'll do it', so we just made some circuits up and modified it, tweaked it until it sounded right. We

got someone working part time on the enclosures and we made some and sold them to a few different groups; people would hear about it and come up to the factory, and we'd sell direct.

And then Charlie Watkins [of Watkins Electric Music – WEM] came along and he wanted to do a deal.



So there was the red wedge - around 1965-6 and two versions in the grey flatter wedge (germanium and silicon) and the long flat silicon one
Yes, then WEM slowly took my name off it.

The advert for the pedal lists some of the bands that used it, was that a kind of sponsorship thing?

Not really - they either bought them or Watkins gave them out. He gave the Beatles a couple of the early ones I made. A few other groups used them but I don't remember who they were now. Watkins wasn't tooled up to build them first of all, so we made them up and gave them to him and he sold them on, then after that he took over making them and was giving me a commission on each one they made.

Then they modified it and starting putting it in their amplifiers, and not giving me my commission, and it all went wrong.

And that was all in quite a short period of time, in 1966-7?

Yes

When the deal with WEM finished did you carry on making pedals?

No - I was into other things. By '68 I was building mixers for clubs and theatres, and I was doing Pete Townshend's studio stuff, so I'd got away from the distortion and the gimmicks into recording equipment, and sound reinforcement stuff. There weren't many companies around then making mixers and stuff like that, so it was great! I built a mixer for the London Palladium, and sold a mixer to Apple for their studio at Saville

Row. We gave them the circuitry and made the metalwork for the modules to 'Magic' Alex Mardas who The Beatles had put in charge, but he modified it, and completely ruined it. He was a bit of a con-man.

And you're in the pedal business again now, making a new Pepbox for Macari's - you're working on that at the moment?

Yeah - I'm waiting for the boards, to build the prototype - I thought it would be easier to use a pcb [printed circuit board] rather than doing it hard-wired, and I've got someone to make the boxes and engrave the control panels for me, just like the originals.

S: Which version is it?

The original two-transistor 9 volt Germanium circuit – I'm only making thirteen at first.

Did you still have the original schematic?

No – I lost all my papers and equipment in a fire in 1992, but I found that someone had made copy of an original one, and then it came back to me, the different things about it, so I did it from there. I remembered bits of the circuit when I saw it, but it's a long time ago.... I have circuits that turn up, that I find, it takes a while for me to suss out what they are exactly.

And you're sending one to Pete Townshend...

Yes - he gave me a guitar to test it with, after all. I first met him in 1965, and a bit later built his home studio, including some limiters that he still uses. I may start to make them again as he keeps telling me I should. David Toop's getting one too

So you know that the main source of info about you in print and on the internet is this interview with him in 2007 [EQ magazine].

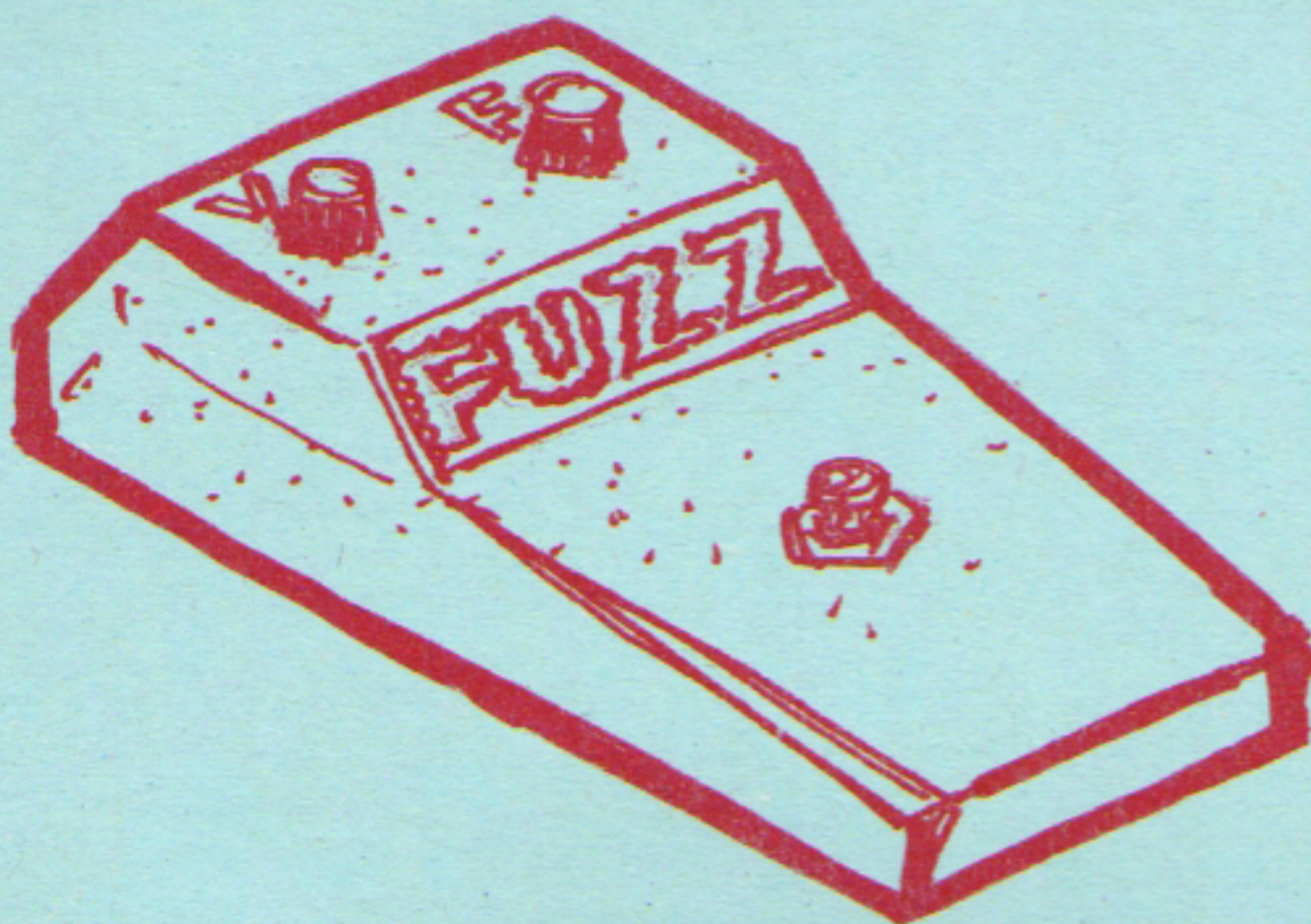
I think I've read that - he calls me a cockney Italian, which is a bit annoying!

The interview then goes off topic as we talk more about Pete T – the full interview will be published on the Musical Den blog in due course. It was great meeting Pepe – his name is pronounced Pepi, and has been printed wrongly as Pepy in the past. He's actually of Russian heritage, the surname apparently being assigned by an impatient Post Office employee many decades ago.

Fuzz fans take note - the Pepbox is a cracking pedal: it's a quite unique and extreme sound with real personality, and will look amazing. It is highly recommended and should be available soon!



My Favourite Fuzz



This is it - a Marshall Supa Fuzz made by Sola Sound around 1967. It isn't the fuzz I reach for most often, but it has a special place in my heart and my history.

During my dole years I often passed the time at Record and Tape Exchange in Notting Hill, going through the bargain bins. For a while they had a music shop there too – a dusty ramshackle place, with a load of scruffy overpriced amps, about 20 guitars, and a small cabinet of pickups and tuners and pedals. One day in 1986 this funny looking old thing caught my eye, so I bought it - for £6. It was the cheapest thing in the shop.

The mid '80s was probably the low point of interest in scuzzy 60s fuzz sounds. I had no idea it was anything special for about the first 10 years I had it, other than that it sounded great. Then Robert Mune from The King Cheetah (then based in London, now in LA) told me it looked like a Marshall Supa Fuzz. I wasn't really convinced, nor did I realise the significance of this info straight away. Eventually I got into contact with fuzz expert Stu Castledine and he confirmed Rob's hunch.

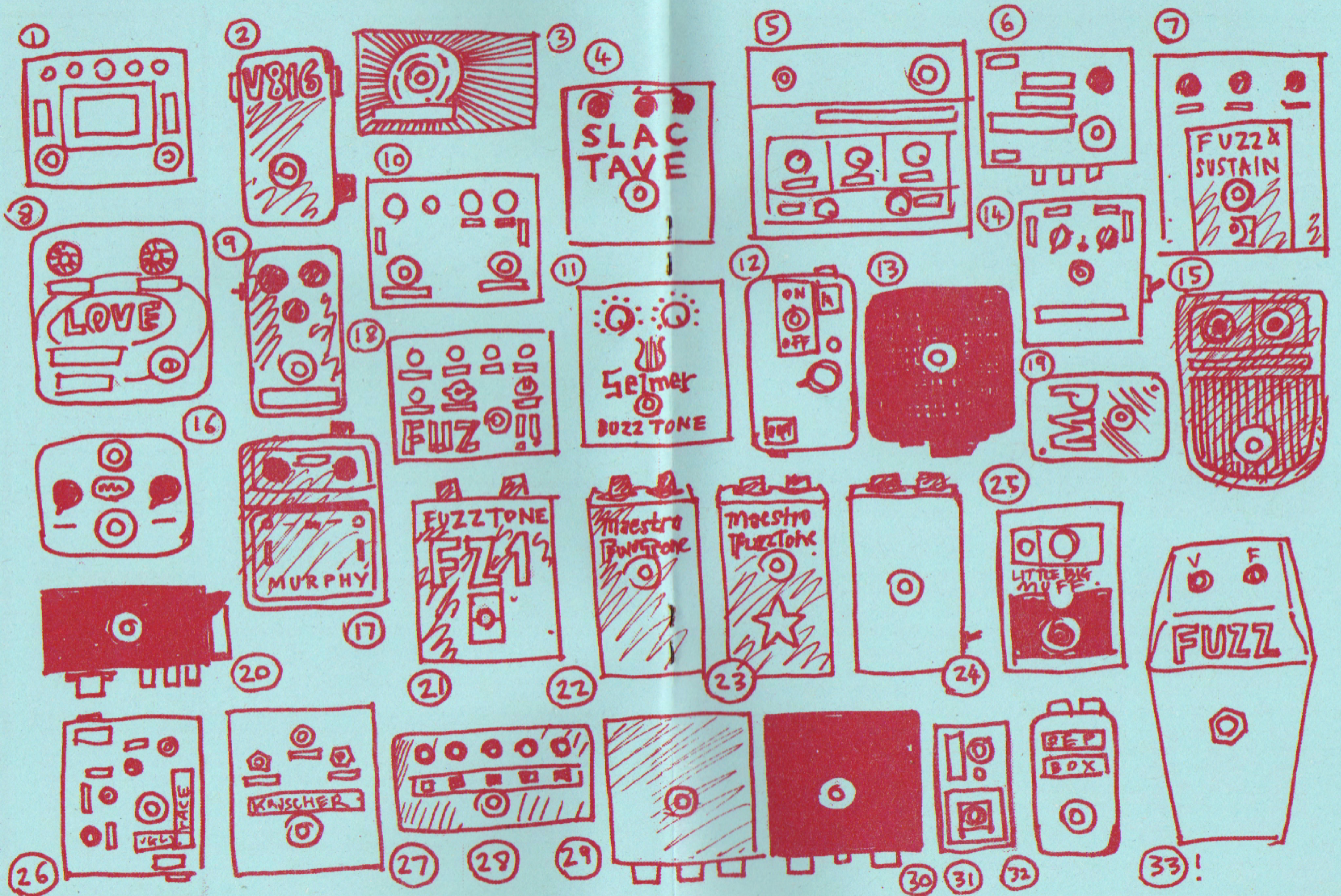
Why do I like it so much? I know its sounds so well it's hard to pin down, especially when the vocabulary to describe fuzz is so underdeveloped and subjective. It's got a bit of the raspy nastiness of the early fuzzes, due I think to the three Mullard OC75 transistors, but with a slightly smoother sound and the characteristic everlasting sustain.

But I like to look at it as much as listen to it. It is pleasingly shaped; it's an off the shelf enclosure used by Olivetti for their early counting machines, that Gary Hurst found in Italy.

Centrefold: 33 FUZZES!

These are the pedals I had in June 2011 when I started this zine. An asterisk means it's not DIY.

- 1 Custom-built fuzz and treble boost combo
- 2 Vox V816 Distortion booster
- 3 Vox V8162 Distortion booster v2
- 4 Slacktave octave-down fuzz
- 5 Harmonaphone – obscure grandiose hobby mag design
- 6 Mid-Fi Random Number Generator
- 7 Jen Fuzz & Sustain*
- 8 Heathkit TA-28 Fuzz
- 9 Burns Buzzaround
- 10 Doug Deeper Freakout fuzz + FET boost
- 11 Selmer Buzz Tone
- 12 Tim Escobedo Tytewad fuzz + thing modulator
- 13 Anglo fuzz*
- 14 Craig Anderton Tube Sound Fuzz
- 15 Germanium Fuzz Face (in shell of Roland Sustainer)
- 16 Craig Anderton Optimum fuzz
- 17 Modified Morley DS-1*
- 18 Parallel Universe
- 19 Tim Escobedo PWM
- 20 Mid-Fi Peace Gun
- 21 Maestro Fuzz-tone FZ-1
- 22 Maestro Fuzz-tone FZ-1A (1965)*
- 23 Maestro Fuzz-tone FZ-1A (1967, rebuilt 2008)*
- 24 Sekova fuzz (9V version)*
- 25 Electro-Harmonix Little Big Muff*
- 26 Tim Escobedo Uglyface
- 27 Good Fuzzy Sounds Khrushcher prototype
- 28 Z Vex Fuzz Factory
- 29 Khrushcher
- 30 Pep Rush Fuzzy
- 31 Bazz Fuss
- 32 Rush Pep Box
- 33 Marhsall Supa Fuzz*



"We've got a fuzzbox, but we don't really know what to do with it yet"

history part 2 – enter the Fuzz-tone™

In part one I covered fuzzy sounds on records up to 1962. This part is about the fuzz pedal as a commercial product, from 1962 onwards.

Let's assume for a moment that the story about the malfunctioning recording console at the Bradley studio in Nashville from part one is true, and that was the beginning of the true fuzz. Glenn Snoddy is quoted as saying he "set about trying to develop that sound using transistors" after the single he was working on (Marty Robbins' Don't Worry) was a hit. Why would he need to do that? He had an exclusive studio-bound effect, not available anywhere else, which was good for business. But shortly after the recording in July 1960, Billboard magazine reported that the studio had just invested \$50,000 on a new recording console. If the sound truly came from the desk, it was the probably the old one, in which case Snoddy would have needed to develop the transistor fuzz circuit to recreate its sound, because Robbins' hit didn't chart until six months later.



We could also take the opposite view, that there was no faulty recording channel at all, but Snoddy had developed the circuit with the intention of selling it and the malfunction story came later - a bit of old-fashioned hype and

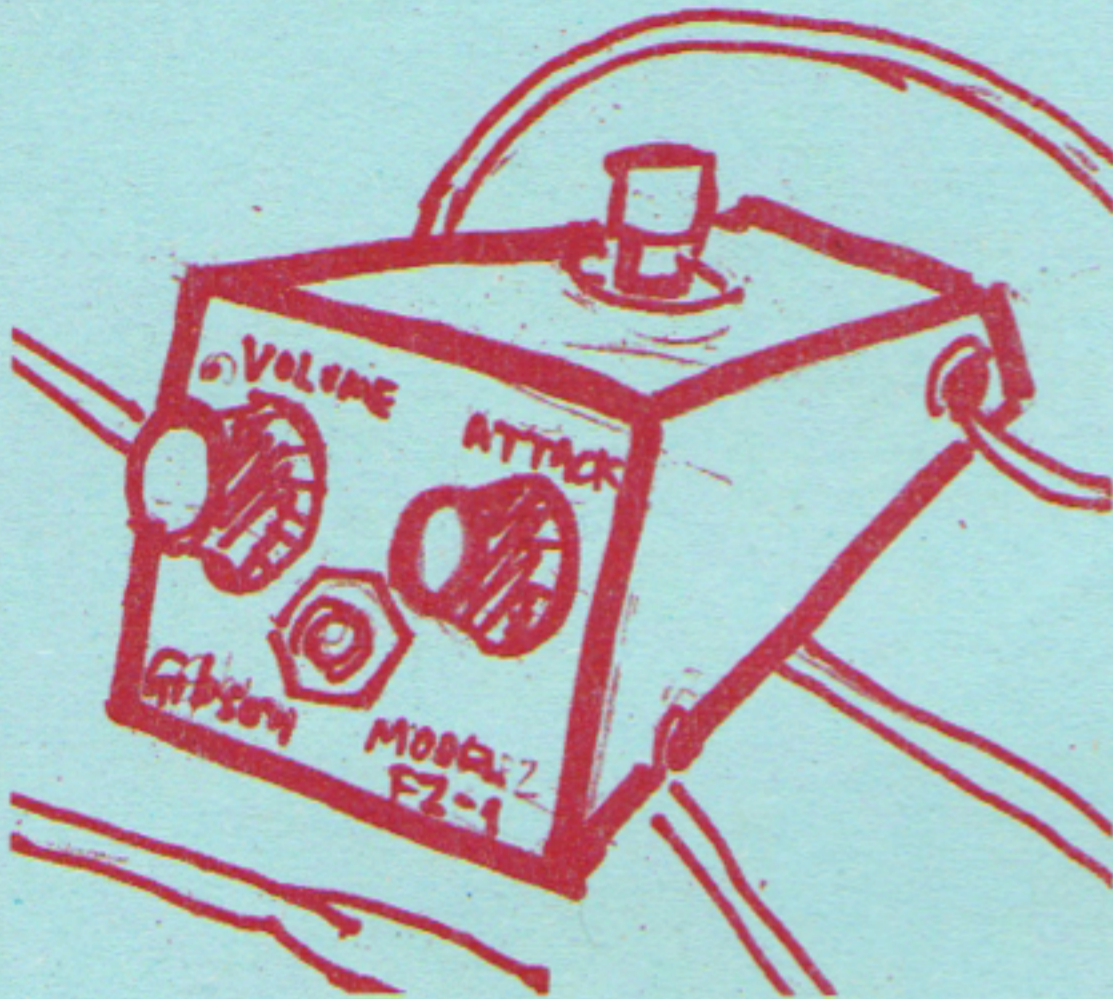
boosterism, part of the guitar pedal business since day one. One way or another way, Snoddy found fuzz in 1960, and with the help of Revis Hobbs, an old colleague from his days at the Nashville radio station WSM, he produced a finished design that he called an 'electronic instrument tone modification circuit'. Snoddy and Hobbs took it to Kalamazoo, Michigan, and licensed it to the Gibson guitar company in 1961. Gibson's first use of the circuit was to build it into a couple of bass guitars¹, early in 1962, but this experiment was short-lived, and they hit on the idea of the pedal instead; the first commercial fuzz pedal, and the first foot-operated guitar effect pedal of any kind.²

Gibson called it the Fuzz-tone, and in 1962 their subsidiary Maestro made around 6000 of the new pedals, priced them at \$40 each, and waited for orders. They succeeded in getting dealers to take 5462 of them by the end of the year, but somewhere along the way they got something wrong. Maybe guitarists in general were just not as adventurous as the Ventures or Grady Martin and Billy Strange.

Adverts for the new pedal promised 'Guttural, mellow, raucous, tender, raw ... a

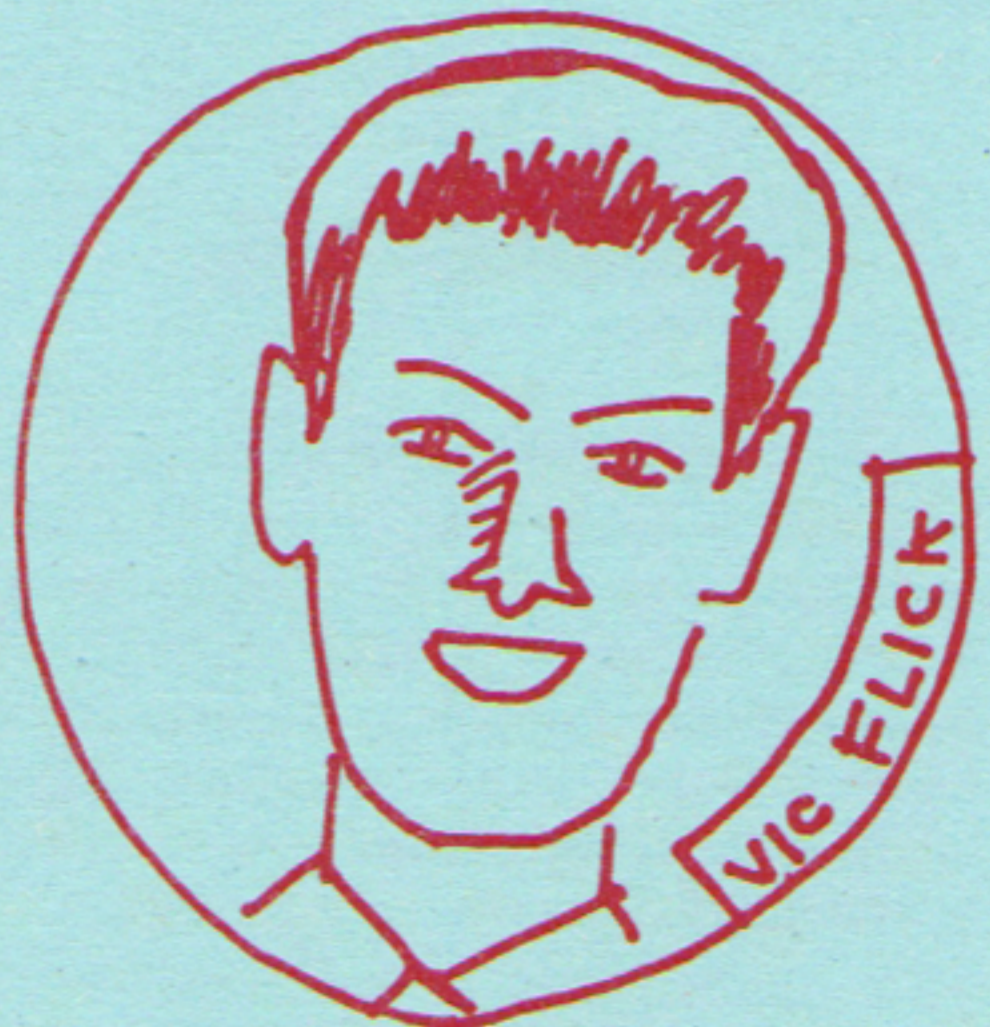
sensational new sound effect never before played on the guitar', but failed to actually describe the 'startling' new sound itself. Even a recommendation from Les Paul ("Every guitar player should try it") was not enough to stimulate their collective curiosity. A promotional single was produced to demonstrate the pedal's potential, but very few were made, and I've never even heard a description of

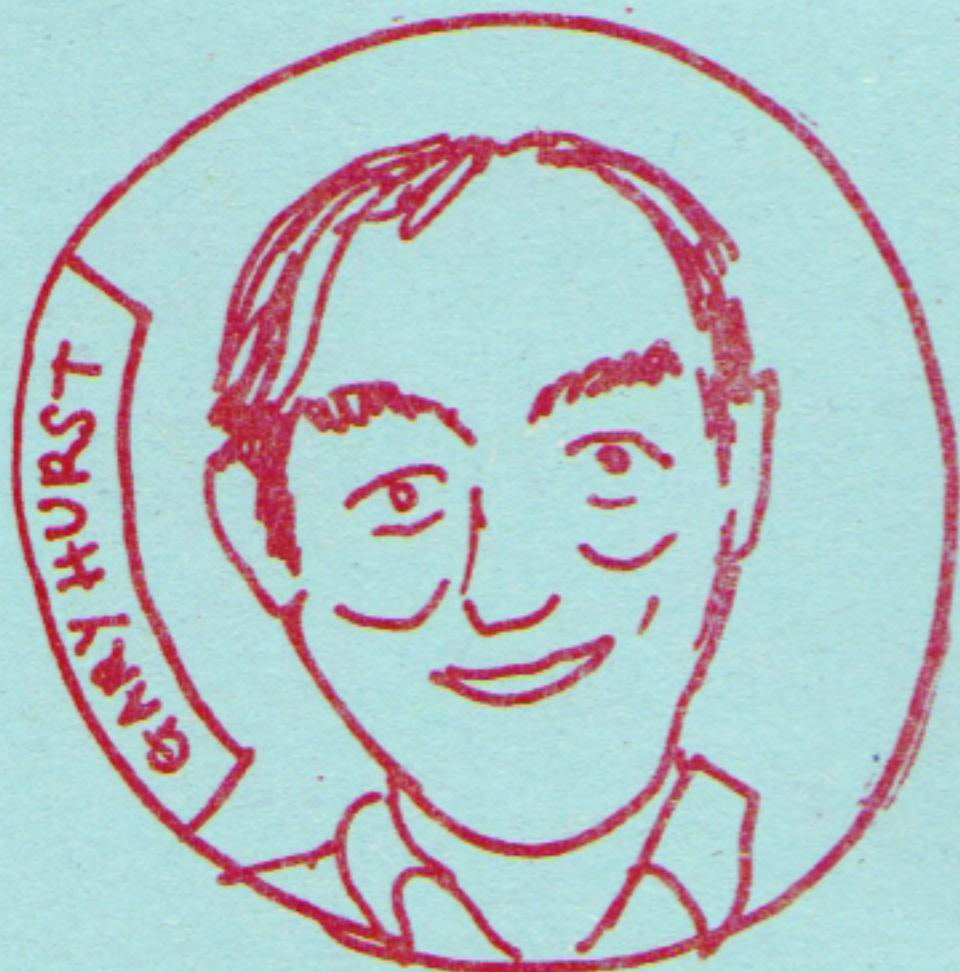
what might be on it. Since the sound was most often used on country records in the early years, promotion targeted country players, suggesting that the effect could be used to mimic the sounds of saxophones or violins. The evidence suggests that this was not what they wanted – and even if they did, would the Fuzz-tone have satisfied these expectations? Probably not. Only three pedals were sent to dealers in the whole of 1963, and none at all in 1964. Things were looking grim for fuzz in the home of the brave.



If the Maestro pedal was available at all in the UK, it would have been very expensive. Tariffs and taxes on American imports meant its UK price could have been up to three times its dollar price, and out of the reach of most British guitarists. London was pretty much a fuzz free zone. The Beatles apparently messed around with a Fuzz-tone in the studio in 1963, but no recorded evidence of their experiments has surfaced.

The conventional history of what happened next is this: the legendary session player Vic Flick, remembered forevermore as the guitarist on the original James Bond theme, had got hold of a Maestro pedal, perhaps in 1964. He kind of liked it but wanted longer sustain, so he took it to Gary Hurst, the electronics guy at the Music Exchange shop (Macari's) in Denmark Street. Hurst made some adjustments to the Maestro circuit, including a higher voltage battery, which eventually led to his Tone Bender design. Hurst's first brush with fuzz was crucially important, but it was not unique.





Dick Denney at Jennings/Vox also designed a fuzz pedal in 1962, presumably as a domestic competitor for the Fuzz-tone, but decided not to put it into production (a version of it eventually saw the light in the '90s, as the Colorsound One Knob Fuzz).

Roger Mayer, who still makes fuzz pedals based on designs he developed later for Jimi Hendrix, also claims to have made a fuzz based on the FZ-1 in 1964. He claims these were used by session musicians Big Jim Sullivan and Jimmy Page (later of the Yardbirds and Led Zeppelin). Mayer is a skilled self-publicist

and quite creative with his history. This is not to say that all his claims are fabricated, only that they are inconsistent and vague and closely linked to the marketing of his products.

The first British record to include fuzz guitar was Hold Me by P J Proby, May 1964. The fuzz, played by Sullivan, is noticeable, but still kind of in the background. Mayer says it's his fuzz on there, but according to Big Jim it was a real Maestro pedal loaned to him by another session player, Eric Ford. In his session days Page played some kind of fuzz on the b-side of The Who's first single, released in January 1965, but it sounds different - that one was probably the Mayer-built Maestro clone, but who knows?



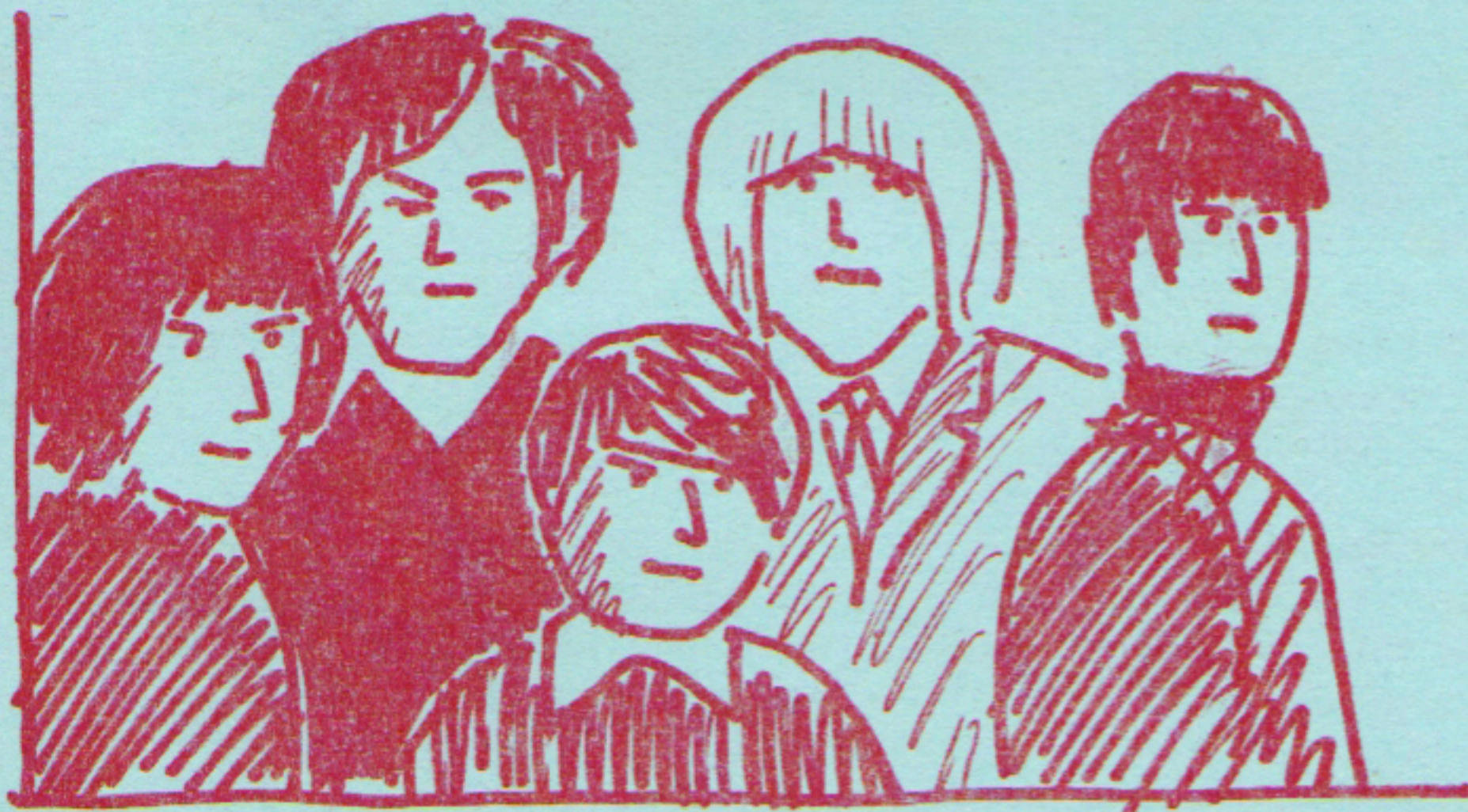
Pepe Rush, then a young electronics engineer in Soho, has a similar story. So there were at least a few others in the same game as Hurst, as tinkered with the FZ-1 circuit in 1964/5. He has recently claimed that he simply kept Flick's Maestro and gave him a Tone Bender in return, but any suggestion that Hurst came up with the TB without the Fuzz-tone for inspiration is absurd, given the proximity of the two circuits. To be fair he has never really claimed this explicitly, but he has perhaps allowed his words to be edited to enhance this interpretation.

In a short piece from Beat Instrumental in August 1965, Hurst is said to have

developed the Tone Bender a year or so before, but commitments in Italy, where he was building organs, stopped him from putting it into production. The piece acknowledges that other short-run fuzz boxes had been built here and there in the intervening period – no claim is made that Hurst's Tone Bender is the first at this early stage in the game, only that, like the Fuzz-tone in the US, it's the first to go into commercial scale production.

Hurst had produced at least a few prototypes however, and one of the early pedals was used by Jeff Beck of the Yardbirds on the single Heartful Of Soul, released on 6 June 1965. The fuzz is right up front in the mix this time, not lost in the backing like on the Proby sides, and suddenly the fuzz fad was in full swing, on the London scene and elsewhere in the U.K. The Yardbirds' single was so influential that over a year later Beat Instrumental were still referring to fuzz as the 'Heartful of Soul' sound.

Even so, the Rolling Stones' Satisfaction tends to overshadow Heartful Of Soul in the fuzz stakes. Satisfaction was recorded in May, but wasn't released in the UK until it reached number one in the US, in August. In Britain The Yardbirds³ (and Hurst's Tone Bender) got there first.



THE YARDBIRDS

In America, Satisfaction turned the Maestro Fuzz-tone into one of the most successful Gibson products of all time. All stocks of the Maestro pedal sold out within weeks, and were replaced by another 3454 shipped to retailers by the end of 1965, to be followed by at least 30,000 more in the next couple of years. The irony that is generally forgotten is that before making the second batch, Gibson modified the pedal, so the masses were not getting the 'Satisfaction' fuzz at all! The new version, numbered FZ-1A, had different transistors and only one 'Z' cell (AA) battery instead of two, and a quite different sound.

Gary Hurst could probably have flogged many more Tone Benders too, but neither he nor Macari's had the capacity to produce thousands of pedals like Maestro, and soon they had competition. Exact timings are unclear, but a rash of Tone Bender and Maestro inspired pedals sprang up in 1965-6 – Pepe Rush's Pepbox, The John Hornby Skewes Zonk Machine and Selmer's Buzz Tone spring to mind, but there were probably others.

Hurst came up with a transitional Tone Bender in early 1966, that has been unofficially called the Mk1.5, before hitting on his main contribution to the sum of human happiness, the Tone Bender Professional Mk2 a few months later. This was marketed by Macari's under their Sola Sound (later Colorsound) brand in their lovely new cast aluminium enclosure and is the first truly iconic Brit fuzz. In the 1966 Macari's advert for the Mk2, it says it was previously only custom built and supplied to 'top artists' – this sounds odd, given that the original Tone Benders were also advertised by Macari's in 1965, but the origin of the Mk2 as a 'custom-only' build is kind of confirmed by Jimmy Page in an American interview. When questioned about the "unusual device" that he was using by an excitable Hit Parader writer, he says:

"It's called a Tone Bender. I had somebody custom make it for me and I get 75% of my sound with it. It's very similar to a fuzzbox, but I can sustain notes for several minutes if I want to. It just has an on and off switch and it also has a fuzzy sound. It's not manufactured at all. A friend of mine made it by hand for me."

Gary Hurst's address c/o Macari's at 100 Charing Cross Road is then given. The only problem with this is that this was published in September 1968, about two years after the Mk2 came out! It does suggest that he continued using a prototype for two years, but I'm not bothered about Led Zeppelin at all, so I'm not going to speculate any further.

That's as far as I'm going with the '60s history. I've missed out a few twists for the sake of brevity, but I should mention that the Dallas Arbiter Fuzz Face, favourite of Jimi Hendrix, was also introduced in 1966 – I've deliberately left it out, as to me it's a second wave fuzz, and its origins and modifications are much disputed.

¹ The Fuzztone circuit was used in three basses in 1961-2: the Gibson EB-0F, Gibson EB-SF 1250 and the Epiphone Newport EB-SF.

² The DeArmond Trem-Trol was the first commercially available stand-alone effects unit, in 1948, but effects like this were not 'pedals' since they sat on top on your amp instead of on the floor, and were operated by a normal switch, not a footswitch.

³ As well as being the main innovators, the Yardbirds were probably the fuzziest band on the planet – practically all their best tracks from this, their peak period, are awash with good fuzzy sounds and other experimental delights like controlled feedback, especially after Jimmy Page joined the band in mid '66. There's Heartful Of Soul, Shapes Of Things, Mister You're A Better Man Than I, Over Under Sideways Down, Happenings Ten Years' Time Ago, and many more - b-sides and much of the Roger The Engineer LP.

SIMON MURPHY, JUNE 2011

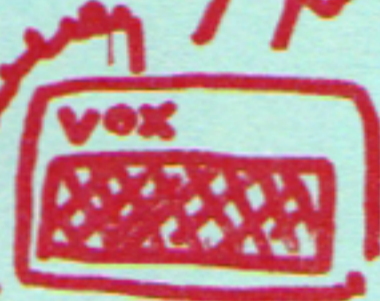
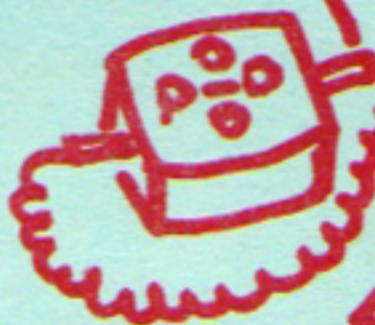
FUZZY NOTION!

IT WAS BOXING DAY, AROUND 2007, AND WE WERE PROPERLY BORED...

THEN:



I WOULD SHARE MY LOVE OF FUZZ, AND ACCOUNT FOR THE LONG HOURS I HAD BEEN SPENDING IN THE MUSICAL DEN, SOLDERING AND TINKERING, BY GIVING A DEMONSTRATION / LECTURE ON THE EVOLUTION OF FUZZ, USING TWO VINTAGE PEDALS AND ONE DIY ONE. GREAT IDEA.



#1 MAESTRO FUZZTONE FZ-1A!

#2 MARSHALL SUPA FUZZ!

#3 OPTIMUM FUZZ!

STOMP!

A PAINT-PEELING BLAST OF CRUDE NASTY GARAGE PUNK FUZZ-TONE!

STOMP!

THE CLASSIC SATURATED SOUND OF PSYCH AND PROG... CAN YOU TASTE IT?

STOMP!

A BRUTAL WALL OF '70s SQUARE WAVE DISTORTION!



I EXPLAINED THE MUSICAL CONTEXT AS I PLAYED - THEY SEEMED TO DIG IT!

REACTION TO THE SECOND WAS SLIGHTLY MUTED...

BY THE THIRD THEY LOOKED AWKWARD!



...THEY COULDN'T TELL THE DIFFERENCE AT ALL....! WAIT - I THINK THERE'S A COME DINE W/ME XMAS SPECIAL ON!

Internet fuzz geeks

The market for original '60s pedals was starting to go crazy in the early 2000s, because of Ebay; old pedals were getting hard to find just as I was getting interested in them, so I started thinking about trying to make my own. I got Craig Anderton's book *Electronic Projects For Musicians*. The book was first published in the late 70s, but in 2002 a company called PAIA was still producing a few of the projects as kits - I ordered two and built them - the Tube Sound Fuzz and the Ring Modulator.

Anderton got his start designing pedals for hobby electronics magazines. There were many of these published in the 1960s and 70s, filled with goofy home projects like cumbersome ultra sonic remote controls, home intruder alarms, electronic calendars, plus hi-fi and guitar amplifiers, primitive electronic instruments and many different guitar pedals, for a time



when these items were expensive, or at least beyond the budget of young hobbyists. When the internet was starting to grow in the early 90s, Anderton and the hobbyists he inspired were in there early, setting up email lists, messageboards and websites. By the time I came to it around 2002 there was already a big, well established scene of diy pedal making online, mostly American.

Suddenly circuit diagrams were called *schematics*, earth was *ground* and pedals became *stompboxes* in my vocabulary. I joined Aaron's DIY Stompbox forum (that became diystompboxes.com) and tried to understand the many articles on R G Keen's *geofex* site. My

pedals hardly ever worked first time, but when this happened I could look on the forums for clues on where I'd gone wrong. Fuzz pedals were my salvation - they are mostly easy to make, and had been built successfully by many other people online - I could ask them if I had trouble or just learn by reading their 'build reports'. I liked the subtle or not so subtle differences in the different circuits, so I built more and more of them. There were numerous 'classic' circuits and their more obscure variants, as well as new designs, glitchy synthetic noise/fuzz pedals like Colin Farrel's Parallel Universe, Tim Escobedo's Uglyface or the Slacker octave-down fuzz called the Slacktave. Every so often a rare old pedal would turn up and someone would trace the circuit and share on one of the forums, but for a long time the early fuzzes were mysteries that could only be guessed at, as their prices continued to rise. This stimulated the demand for unauthorised reissues and not necessarily accurate copies ('clones'), by what became known as 'boutique' builders.

Often builders of allegedly new designs or clones would try to keep their details secret by painting over components, or covering them in black paint or silicon 'goop', but intrepid DIY'ers did their best to uncover the circuits underneath and liberate the information – often discovering that 'new' pedals were simply copies of older designs!* On diystompboxes this practice was frowned upon and a rule was established that certain circuits or respected builders' works were 'off limits' and could not be discussed. A case in point was Zachary Vex's Fuzz Factory pedal – a quite basic circuit, but with lots of knobs (variable resistors or 'pots') in place of fixed resistors to make it look complicated, dressed up with a fancy paint job. Every time this was mentioned on diystompboxes, the thread was deleted; but everywhere else on the internet and the circuit was widely known and discussed. Most people interested in fuzz on the forum built it, but it could not be mentioned. This situation continued until things came to a head in 2007, and the 'rebels' from diystompboxes started their own sacred-cow-and-censorship-free forum called Freestompboxes.

The new forum was a great success, but for some time on the old forum there was a rule that it could not even be mentioned. Members got round this by just saying "another forum" or "the other place" (like MPs in the House of Commons referring to the House of Lords!). Most people registered on both anyway, like me. As it happened I came to prefer Freestompboxes, because it has a dedicated sub-forum for the older (pre-1975) circuits that were my main interest.

DIY was getting bigger and bigger on the internet – the massive music forum Harmony Central (HC) set up its own DIY subforum around the same time as Freestomps, and the first of many companies selling full kits including pre-drilled boxes for beginners started up.

Differential Audio Manifestationz (D*A*M), David Main's pedal business that came to prominence with his excellent clones of the Mk2 Tone Bender, also set up a forum – initially to answer questions about his growing product line. It grew to be a place where all fuzz pedals and related crap were free to be discussed, often in great detail, by a group of real fuzz geeks experts, builders, users and collectors. This is where I go for my regular fuzz data fix (along with the other sites listed on the back page). Main has also been generous in sharing schematics and arcane info on transistors etc on the forum. He set up a section called 'Tinkerers Corner' in 2008, and even allows other builders to sell their pedals on his webspace, often selling similar pedals to his own product. Eventually I will buy one of his pedals, as a way of thanking him for his generosity, but a copy of this zine will have to do in the short term.

*for example an early boutique fuzz success, the Way Huge Red Llama was exposed to be direct copy of Craig Anderton's EPFM project the Tube Sound Fuzz – my first fuzz build!



FREESTOMPBOXES LOGO

Transistors, hype and "mojo"

The very first transistors were developed in the late 1940s, and they started to replace their big heavy and fragile mains powered predecessors, valves (or tubes) in consumer products like radios in the 1950s, and in musical equipment in later 1950s and early 60s. For a brief period a few amplifier makers boasted that some of their designs were "all transistor!" but it was soon evident that players mostly preferred the warmer sound of valves, and this hasn't changed much in the last 40 years.



Fuzzboxes and other effects with their roots in the 1960s have transistors in them, amongst other things. The basic designs have just two or three inside, with a handful of resistors and capacitors and a battery or two to power them. There are two main types of transistors – germanium (Ge) and silicon (Si). There are many thousands of different kinds of transistor for a range of jobs, with reference numbers like BC109 or 2N270 or AC125.

Germanium transistors are the oldest types. In technical terms they are inferior to Silicon transistors in almost all respects. They are wildly inconsistent, prone to electrical leakage between the three legs, and are unstable and adversely affected by changes in temperature. And of course they are in limited supply, and so more expensive – most manufacturers stopped making them in the 70s or 80s, and people say the modern ones "just aren't as good". In contrast Si transistors are cheap, plentiful, stable and consistent. But many people think Ge transistors sound better. Maybe there's some kind of psychology or misplaced nostalgia for the primitivism and "authenticity" of the past behind this judgment, but subjectively I think it's true.

Naturally the transistors and other bits used in the most prized vintage fuzzes are in the highest demand by pedal builders recreating the old designs. These old and obsolete parts are said to have "mojo". The term is used ironically most of the time, but in the case of transistors, we still (literally) buy into it, if we want to replicate an Olde Fuzze accurately. In most cases a close alternative to the "mojo" transistor is widely available much more cheaply, but even if an alternative is *electrically identical*, it will probably sound different if you have an ear for these subtleties.

New Old Stock (NOS) parts and particular brands are much prized, as are 'vintage style' brown resistors which look identical to their 60s counterparts, but cost more than ten times as much as a modern resistor, also have mojo. There are even fake parts that are manufactured to resemble 1960s components, and transistors which have their numbers sanded off and replaced with in-demand super-mojo numbers, meaning that an old transistor can be bought for pennies and sold for £5, or whatever price ebay decides. Mojo is big business.

Freaks and queers and highly creative individuals – an email interview with Devi Ever

Devi is from Alabama via Texas, now living in Portland, Oregon, where she plays in two bands, paints and makes films and video diaries when not making pedals.

She started Effector 13 in 2003, and has produced over 30 different fuzz pedals, as well the more exotic 'Mangler' series and a few weird noisemakers since then. This year an important online retailer Musician's Friend started selling her stuff, and she made a pedal for Billy Corgan from Smashing Pumpkins.



So, you like fuzz? Do you remember when you first saw and heard a fuzz box?

Yes. My first conscious memory of fuzz would have to be live Jimi Hendrix videos from Woodstock. That was pretty glorious.

The first time I actually saw a fuzz box with mine own eyes would have to have been one of the first pedals I ever owned, the MXR Blue Box. I had heard that Billy Corgan used an octave effect for the song Rocket (which I now realise was double tracked guitars), and I knew I could get the sound partially from a Boss Octaver, but I figured the Blue Box would give me an octave + fuzz which was worth the price. Mind you, this was back in the mid 90's before the boutique craze really hit, so the Blue Box was truly one of the few out of this world fuzz pedals around that was easily available at the time. :)

There don't seem to be many women involved in either designing pedals or collecting pedals /obsessing over "tone" etc. What's it like inhabiting this world but being separate from it?

It's a little depressing. As androgynous as I am, I'm not of male culture by any means, and the gear world is definitely a big sausage fest. That's why I'm glad to see more and more girls coming out of the woodwork and getting into the game, from builders, to pedal demoer's, like FuzzBoxGirl.

Some people (guys) are saying she's faking it – what's that about?

FuzzBoxGirl is definitely an interesting occurrence in the world of Fuzz and online pedal demoers. So far I haven't seen anything about her that makes me feel wary of her intentions. As a matter of fact, the more I learn about her, and the more I see her demos, the better I feel about everything.

If it -does- indeed turn out she's another one of these internet scams where a guy is behind it to use a women's attractiveness to generate a buzz, get free pedals, and eventually make some money... well... it's amazing either way. :)

Most small builders are v secretive about their work - I think it's really cool that but you have shared several of your designs and even sell pcbs which make it clear how some of the different variants relate to each other for people to do their own experimentation. Is there a philosophy behind this?

Yeah. It's pretty simple. If people want to riff off of your design, they'll find a way to do it. My business finally got to the point that people were beginning to open up the pedals and try to figure out how they work, so instead of fighting it, I decided it made more sense (and was more fun) to go ahead and help everyone out to the best of my ability. :)

Q: You mentioned Billy Corgan before - he commissioned you to make a fuzz for him - how did that come about?

It's a funny story really. I found out he had a personal facebook profile that he was responding to people's posts, so I added him as a friend.

One morning I was posting my usual random thoughts on facebook and I mentioned that I wanted a Telecaster real bad, and Billy surprisingly posted on my wall saying that a Telecaster would be mine if I made him the perfect fuzz.

So I suggested him a bunch of different pedals I made, but he seemed to have something else in mind.... a better Super Fuzz, so I recommended he try the Malekko Omicron Fuzz since it's a great Super Fuzz clone.

A week or so goes by and I make a random Portal (the video game) related post on my wall that went something like "Remember that time you broke my heart and we laughed and laughed and laughed", and surprisingly a few moments later Billy liked the post. So I responded with "Oh Billy" (an inside joke we have on my forums), and he said something along the lines of "I'm sorry I broke your heart Devi, but you promised me a Rose Garden fuzz" (rose garden referencing the old song of the same name).

So I decided I was willing to commit whatever time and resources it took to actually make him the perfect fuzz. He said he was looking for something like the Super Fuzz but with EQ control, and I decided since he has enjoyed using the IC Big Muff in the past it'd be great to combine the two together.

Fortunately I had recently hired Ken, the brilliant mind behind Infanem effects, recently to help me create a Blend pedal which would work great in this scenario. A few weeks later we had prototypes ready to go, and now we're just a few more weeks away from going into full production on the Silver Rose fuzz. :)

It's yet to be seen if we ultimately satisfied Billy's need for fuzz. I'm waiting to hear back from him after he's had a chance to try the final production design.

For some people online there's an indefinable reticence to accept that your pedals are good. Is this a way for them to express some kind of background suspicion /transphobia?

I faced a lot of ridiculous drama surrounding the fact I was trans on a few forums, but it was mainly because I was too easily antagonized by idiots and trolls. It never had anything to do with my pedals, and the only criticisms I've ever seen of my effects come from people who simply would never be interested in the kind of fuzz I make in the first place.

I'm also interested in how you project yourself online and mix your personal life with the business, particularly on YouTube and your own forum, which is like a little world of its own. Are people buying a piece of you when they buy a Devi Ever pedal?

They are absolutely buying a piece of me, because even though I put most of my money right back into the business, the rest goes to my life, my cats, my art, my music, my transition.

... but too, it's interesting, the more people buy into me, the more what I am doing is as much about them as it is about me. This is something I take very seriously, because I really feel like the biz has reached a level where my pedal friends' desires and ideals of what my life is, what the pedals can do for them... all that is wrapped up in this menagerie of.. I don't know how to put it. I'm not exactly here to sell my soul to the people buying products from me, but it is such a mutually beneficial relationship I can't help but really respect their desires... so in a lot of ways, I kinda allow them to help shape what I and the business are becoming. :)

I was really pleased to see the queer section on your forum - has there always been a kind of community context to your work?

I'm not sure what you mean by community context... but I definitely feel community is important in what I do. I wouldn't be in this biz if I didn't have some kind of relatively intimate and friendly relationship with the people who use my pedals. I think it's only natural that I have ultimately attracted a very like minded crowd, which means freaks and queers and highly creative individuals with very open minds. :)

Update: the Silver Rose is now available and looks amazing, but the whole Corgan thing didn't work out so well! He's obviously an idiot. Enough said. 27

<http://goodfuzzysounds.com>
<http://musical-den.blogspot.com/>
<http://www.flickr.com/photos/simonm1965/>

Further reading:

There aren't many books about effects pedals, and they tend to gloss over the early days, but they are still worth a look if you can find them:

Stompbox - A History of Guitar Fuzzes, Flangers, Phasers, Echoes and Wahs by Art Thompson

Analog Man's Guide to Vintage Effects by Tom Hughes

Here are some sites where you can learn more about fuzzy sounds and making pedals

<http://www.deviever.com>
<http://www.stompboxes.co.uk/forum/index.php>
<http://www.freestompboxes.org/index.php>
<http://www.diystompboxes.com/smfforum/>
<http://www.youtube.com/user/FuzzBoxGirl>
<http://www.geofex.com/>
<http://members.fortunecity.com/uzzfay/home.html>
<http://www.runoffgroove.com/>
<http://decadeoffuzz.com>

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