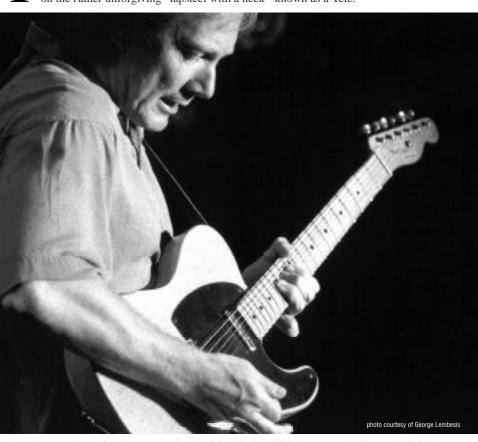
INSIDE
Meet Jim Weider
Big time Tele Tone
and a master tone
freak's super-rig

Mountainview Publishing, LLC



The King of Tone

his issue is dedicated to Fender Telecasters and all the guitarists past, present, and future, bold enough to play them. And have no doubt... "Timid and tentative" ain't gonna cut it on the rather unforgiving "lapsteel with a neck" known as a Tele.



The Telecaster has often been associated with chickin pickin'country diddies and drinkin'-anthinkin'ballads scrawled on bar napkins at evil little dumps like the White Cross Lounge, Harlan County, Kentucky (truckers welcome, and the hard-boiled aigs is free). Yep, the Tele is a workin' man's axe, and many real men (and real women like Chrissie Hynde and Sheryl Crow) play them. At the top of our list is Roy Buchanan, who could hang fire with the best of 'em, and speaking of hangin' fire, hats off to Keith Richards, and Steve Cropper, James Burton, Jerry Reed, Danny Gatton, Marty Stuart, Albert Lee, Muddy, Michael Bloomfoeld, Albert Collins, Jeff Beck, Jimmy Page, Johnny Hiland, GregV, Brad Paisley, Pete Anderson, Jerry Donahue, Clarence White, James Pennebaker, Peter Stroud, Buzz Feiten, TS Bruton, Steve Wariner, and the headliner in this month's ToneFest — Jim Weider of Woodstock, New York.

8 Analogman'sSunFace
Germanium Fuzz

revealed!

9 Relic Tele Reviews!

Fender's relic Nocaster and '63 Tele

11 Chris Kinman's

Superb Noiseless Tele Pickups from Down Under...

12 Savage Audio with Jeff Krumm



Now, you got yer Tele players and you got yer Tonefreaks. Jim Weider is *both*, and if the following interview fails to inspire you to strap on a Tele, his music and finely-honed tone definitely will. Jim has even been known to change his tubes and rebias for different tracks on

his recording sessions, so relax as we unwind with Jim's rendition of *Gonzo Guitar Tone 101 and the Cosmic Harmony of Twin and Twang*. If you don't own a Telecaster, it's time you got one. Hang it over your shoulder, plug in, and revel in the Tele's signature microphonic click as you kick the 3-way over to the bridge pickup. Roll off a little high end, and your fuse is lit. Thanks to Jim Weider, we are about to be reminded that there are no rules, except one... the Fender Telecaster is indeed *The King of Tone*. Enjoy...

TQR: How did you first become fascinated by the guitar?

My father played acoustic guitar when I was a kid and there was always one in the house. At that time practically everybody played the guitar. My uncle was good with electronics and he wired an input jack into an old radio. I got a pickup and put it on my father's acoustic, and the sound through that radio was really cool. My first real electric guitar was a 335-style Japanese Kent that I got at a pawnshop. I really wanted the 3-pickup solidbody, but I didn't get that or a Silvertone. To this day, I remember a black Gibson single pickup 295 kind of guitar hanging on the wall in that pawnshop. I drooled over that! Anyway, the Kent is what I got, and I started playing in bands in 7th and 8th grade.

TQR: You must have had an amp to go with it...

I had a 1x12, 3-input Silvertone. One input was for the mike (and lead singer), the second we used for another guitar player, I used the third input, and that's what we took to the gig (laughs). Life was simple.

TQR: And you played the usual garage band stuff?

Yeah — Chuck Berry, *The Ventures...* In the early '60s everybody played a lot of instrumentals, and I actually bought the Ventures record and learned all of their songs. As I was learning, I taught myself off the records and I bought a Mel Bay chord book. Back then you could slow records down to 33 or even 16 rpm's to get the songs — things like

"Walk Don't Run," "Secret Agent Man..." But the first things that really influenced and impressed me were Scotty Moore's leads on Elvis' records. That's what did it to me, and I think it did it for a lot of guitar players. Here in Woodstock you wouldn't hear that much Chuck Berry on the radio, but you would hear James Burton playing his Tele with Ricky Nelson on the *Ozzie & Harriet Show* and you'd hear Scotty Moore on "Hound Dog." That was the first lead I think I ever heard.

TQR: So you began playing in 7th and 8th grade and kept it up all through high school...

We were playing stuff by *The Yardbirds*, all the *Stones* songs. *Beatles* songs were cool, but nobody could sing them. Toward the end of high school Otis Redding appeared. You know, what I really got into after the psychedelic period... well, you had to skip a lot. I mean, *nobody* could play any Hendrix back then, right? It's not like these days... no one could play Clapton or Jimmy Page, for that matter.

TQR: Well, most of us could manage "Sunshine of Your Love" until the lead came around.

Yeah (laughing). There were *The Kinks...* We could learn all of those trademark guitar parts, like on "You Really Got Me," and the next thing you knew, you were playing at the high school dance. You got girls... *or not* (laughs).

TQR: How did your gear progress through high school?

The first good guitar I got was a Telecaster, around 1967.

TQR: An unusual choice in 1967, Jim. Why a Tele?

Because of seeing Steve Cropper on *Hulabaloo*, I think. I just loved the look of it. Then Clarence White came out with the *Byrds* in the late '60's, and I got into the country rock thing with *Buffalo Springfield*... That was before *The Band* or Buchanan, which we'll get into. Actually, in the '60s the Tele was bigger than the Strat. There were these things we called Soundouts up here (pre-Woodstock), and I saw *The Big Apple Blues Band* — Bunky and Jake. *The Blues Magoos* all lived up here and they all played Teles. Buzzy Feiten was also one of my biggest influences, and he played a Tele through a tweed Bassman. This was before Clapton began playing a Strat. Jimmy Page was playing a Tele on the early Zeppelin records, and Jeff Beck really got my attention playing'"Train Kept a Rollin" on The Yardbirds' *Rave Up* album. The Tele was big.

TQR: It sounds as if you latched on to the Telecaster because it was the guitar you were meant to play.

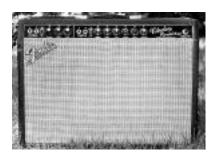
It really was. I bought mine for \$130 new at Manny's without

a case.

TOR: New was cooler than old back then.

Until I heard Roy Buchanan.

TQR: Were you still playing through the Silvertone?



Up until the late '60s when I got a Fender amp, and from that point on I never switched to anything else. It might have been a Super Reverb... By 1970 I had a

Vibrolux Reverb, and I played that for years when I was in Nashville.

TQR: When did you get your '52 Tele?

I went across the country in 1971 or '72 and I was looking for an old Telecaster during that trip because I'd heard Roy Buchanan. When I heard Roy, that did it for me, and I had to have one. I bought a guitar in Tulsa, and there was another one there that had "Conway Twitty" inlaid right up the neck that I should have bought (laughs). Anyway, I took my Tele to New Mexico and found out that it was a '56 and not a '52, and then I didn't want it, so I took it to a Jimmy Messina show and he bought it. I'd probably paid about \$200 for it. Then I got out to L.A. and I saw a newspaper ad for "Used Fender Telecaster & Bass." It was Norm Harris before he had



his shop, Norman's Rare Guitars. I went to his apartment to see it and it was exactly what I wanted, so I bought it for \$340 and I'm still playing it to this day. Hearing Buchanan, I had to have a '52. There is a tone difference.

TQR: You have a '52, '53, '54, and a '60 sunburst Tele...

And every one of them sounds different.

TQR: Subtly different?

Yeah, there are differences. I used to sand down the old brass bridge saddles with steel wool, and on my '52 the steel wool



got into the pickup and shorted it or something. Dominick Ramos has been working on my guitars for 30 years, and he said, "Stop doing

that!" He had to unwind the waxed string and clean the steel wool off the wire to get it working again, and he thinks there is some kind of crazy mojo going on because of the residue of the steel wool in the pickup. There is a certain compression that you get out of the really good old flat-pole pickups. Mine doesn't have that really bright top-end — it's almost like a P90, but it's not. It's really fat. The '53 doesn't have quite the power of the '52, but they both have that bite that isn't so bright that it knocks your fillings out. I call it a really *sticky, compressed* tone.

TQR: More round and musical rather than an ice picksharp, thin tone.

The '53 just has an amazing back pickup and the neck is a little fatter, and that adds to the tone of the guitar. I put in an early Joe Barden rhythm pickup and it just sings. The body resonates more than the '52, which is a little heavy and a little darker sounding. It's not as sparkly and twangy as the '53.

The '54 has steel bridge saddles, which adds a brighter tone, and the bridge pickup has a little less output than the other two. The '54 also has a Firebird pickup on it. I used that guitar almost entirely on the *Bigfoot* album.



TQR: Was the Firebird pickup in the '54 when you got it?

No. It was originally an Esquire, and it had been routed for a



humbucker. A guy they used to call "Firebird Doug" came to a show and said, "Put this in your guitar." Man, what a tone. I used it a lot on *Bigfoot*, but not at all on *Remedy*. I played the '52 on all but two songs on *Remedy*, and the '52 is definitely my favorite.

TQR: We've noticed that with really good old Teles the tone is just huge, and not thin at all. That's what we heard on *Remedy*. There are times when you know it's a Telecaster, but on other tunes it's not so obvious at all. Very P90-ish!

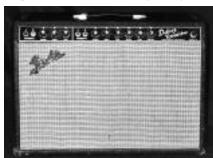


I took my time on both records setting up my amps, both in my home studio and during the recording sessions. I didn't use any distortion devices except on two songs — "Metal Jam," and I used a Tube Screamer on "Twister"

on just one amp. I usually use two amps or three when I record, and most of the time spent on overdubs is devoted to getting the right tone on my amps. The '52 Tele also has a specially-designed rhythm pickup that Dominick Ramos designed with custom magnets and a special wind that makes it sound great. We worked and worked on it. The original Tele rhythm pickup I just put away. I use the neck pickup live almost as much as the bridge.

TQR: But no overdrives? Amazing. How are you getting that tone?

Sometimes it happens really quickly. I use a tube EchoPlex a lot, and that contributes to the sound. On "Subterranean" I just used a Princeton Reverb with a single Mojo 12" and the Echoplex. On "Twister" I used a '69 Marshall Super Lead 100W that Mike Piera (Analogman) loaned to me. I ran that with a 4x12 cabinet loaded with Greenbacks. I used three amps at one time on that song, so I got the tone set up with



the Marshall first, and I'd go to the Deluxe Reverb with a Tube Screamer on one side, miked with the new Beta 56. Then I went back with the

wah wah and three amps, adding an old brown Deluxe loaded with an old silver Vox 12. The combination was fat. On "Freedom Walk" the set up was the same, and that's my favorite Tele tone on the record.

TQR: What type of Tube Screamers are you using?

I have an original 808 and a TS9 modded by Analogman.

TQR: And the wah?

It's an old Italian (JEN) Cry Baby.

TQR: Which amps do you use live?

The Deluxe Reverb, with an old second-generation Naylor 50W ceramic speaker. I thought the first-generation Naylors were too bright. My Deluxe was also souped-up by César Diaz. It's a blackface Deluxe Reverb and César installed a Bandmaster output transformer. It's very loud. My friend Mark Bartel from ToneKing also added his original ToneKing distortion mod, and although I don't use it, the mod seems to give the amp even more gain. I've been using that amp a lot live with the combination of either a tweed Super, a tweed Deluxe, the Princeton, or a brown Deluxe, depending on the size of the room. If I'm outdoors I use my Deluxe Reverb and my Vibrolux Reverb. I always double it up. In the studio I used an Alessandro bias meter and changed tubes for certain sounds on certain tracks.

TQR: That's pretty over the top...

Well, you can change the floor surface you record on too, and that makes a huge difference. Recording on a hardwood pine floor sounds different than a cement floor. You get more bottom on a wood floor. One thing I've learned... if you get a great tone during a session, don't stop and go out for a beer, 'cause you won't get it back the next day. Everything changes.

TQR: Is the Deluxe Reverb around 35W with the mods?

Yeah, it's loud, and I'm running it with 6L6's and have been ever since my 6V6's blew up. I also use a Mullard 7025 preamp tube, and that really warms up the tone. And the Naylor speaker just sounds really good. It has more mids. I've been through every speaker out there in that amp, including an old Jensen C12N, but the top end was bothering me. The Naylor has just enough mid-range to make the Tele really fat. I went through every speaker I could find trying to improve the tone of my Deluxe, and I think the Naylor, in particular, sounds really good because of the mismatched output transformer that César installed. That speaker balanced everything out, but it might not in another amp. (Editor's note — The Naylor speaker Jim refers to is still available. Contact Naylor Engineering, 214-946-2556, www.naylorengineering.com).

TQR: That makes sense. The Tele doesn't *need* a whole lot of top-end.

It's always been a tough trade-off trying to get a speaker in a Deluxe Reverb that sounds really good and cuts a gig. The way I have it now is perfect. The amp will cut a gig and the

it's really easy to carry around. I had a Vintage 30 in there for years and that cut it. Getting a solid low-end is the biggest problem with a low-powered amp — something powerful enough, but not brittle, and won't mush out on the lows.

TQR: Have you always experimented so much with tone?

Always. Years ago I would go over to my buddy's house and just set up a wall of amps. We'd go through every one of them and try to find the right tone out of the guitar, which speakers sounded the best, and just blast. That's what prompted me to make that *Classic Fender Sound* video for Homespun. I've also experimented a lot with guitar cords, and they really make a difference. Along with the George L's that I use, I've found that the George Alessandro blue cords are some of my favorites. Balanced high and lows and great mids.

TQR: We'll get back to gear and tone in a minute, but tell us how your career developed.

I was a huge fan of *The Band* and Robbie's playing since they lived here in Woodstock, and when I got out of high school I was backing up singer/songwriters in Woodstock. Folk music was big then, and music that was similar to what *The Band* was into. We did an album that Ben Keith produced, (he worked with Neil Young for years), and after that I went to Nashville with Ben in the early '70s. He introduced me to a lot of people in Nashville, and I started playing with different songwriters again. I went on the road with Johnny Paycheck and James Talley and played sessions and demos...

TQR: In the early '70s Nashville was still pretty well entrenched in the real country scene, wasn't it?



By the time I got down there in 1974 the country scene was still huge, but they kept saying it was going to change. I guess you always hear that (laughs). I had a band with Lee Clayton and Jimmy Day on pedal steel. We were like *Dire Straits* before *Dire Straits*, and we got signed to Capitol. I thought, "Oh, finally — a good break." We went into the session with a great band and the produc-

er fired everyone! He wanted to go total country with Lee Clayton and we were rockin'out, long story short. Well, that did it for me. I got in my car and drove straight to L.A. — 36 hours non-stop. I met great players in Nashville, played a lot of clubs and after-hours joints, and the best thing about Nashville was getting to know Lenny Breau. He showed me some great stuff — the latest Jerry Reed lick or playing like

McCoy Tyner on the guitar — cool open and closed harmonics that he learned from Chet. It was also where I first got to see Danny Gatton, who was simply amazing. But when I got to California I found out that I didn't like it. I starved pretty good, because there was no place to play, and then I went to Atlanta and wound up working in Axis Studios as part of a rhythm section with Harvey Brooks, Richard Bell, and a lot of great musicians. We also worked 3-4 sets a night in clubs. We played constantly, I got to learn some slide, and I became good friends with the guys in *Sea Level*. Atlanta was a great place to hone your craft. We all lived in a big house in Atlanta and... who's that really good guitar player in Palm Springs who came down to Atlanta from Woodstock?

TQR: Kal David...



Yeah! Kal was there, and Harvey brought some people down, all in this one house. It was insane, 'cause if you knew who owned Axis Studios, they were all based out of Florida... it was quite a time. We made a lot of great music and we

survived. I moved back to Woodstock in 1983 to tour with Robbie Dupree.

TQR: Who were your influences at that time?

Buzzy Feiten. He was from Woodstock, and he played with Paul Butterfield, and also in a band called Full Moon with David Sanborn and Neil Larsen. They all played like McCoy Tyner across the neck in fourths. In my mind, if it wasn't for Buzzy there wouldn't be players like Larry Carlton and Robin Ford. Full Moon was ahead of their time, and Buzzy was a big influence on me as far as his attack. He started out on a Tele and moved to a 335 through a tweed Bassman. Most of all, his attack was so tough — really getting'down on it. His tone was amazing. Maybe it was from playing with such a great harp player. John Hall was also an influence, because he played with a pick and fingers, and that opened up an entirely new door for me as far as tone is concerned. Pick and fingers really opens up the doors, and that was a very big thing for me. Then there was Robbie Robertson with The Band, Jesse Ed Davis, who played with Taj Mahal... I mean, aside from Hendrix and Clapton, and earlier, Scotty Moore, those were the big influences.

TQR: Do you play with the pick and fingers exclusively?

Oh, yeah... that's what I do. You can play fast with a pick

and then do rolls with your fingers and get so many tones by pulling, plucking, or snapping the string.

TQR: We're beginning to realize just how liber ating and inspiring "losing the pick" can be. Your influences are all over your recordings.

I never felt like I was ever good enough. Like you, I grew up listening to players like Hendrix, and no one could play that stuff back then. I had one guy in my band who was brilliant, and he could play Clapton note for note. I was playin' a Tele and he played a Les Paul, and John Runge could play it — a genius with all the moves. He could *really* play it, and I was just happy to watch and steal a few things.

TQR: When you left Atlanta and returned to Woodstock, what happened?

I started touring with Robbie Dupree. He had a hit record, and we were friends going back to the late 70's, so we played together, and then I started playing with Levon Helm and Rick Danko, then Richard Manuel came back and it was the three of us, and Garth Hudson returned and I started playing with *The Band* in 1985.

TQR: And how was that?

Great. They flew me down to Texas and the first gig was with *Crosby, Stills and Nash* in front of 15,000 people with no rehearsal. That was thrilling. I stayed with them for 15 years... We went through a lot of stuff — good times, rough times, and bad times. They were all about the music. They were definitely about playing music, and they let me do what I wanted to do... There were the standard guitar intros that Robbie was so great at writing — his classic hook intros — but aside from that, I could play whatever I wanted.

TQR: Did you stay busy with *The Band*?

Yeah, pretty much. There was a spot when we took a break of course, when we lost Richard, and there was another break when Levon and Rick went out with Ringo for awhile, but yeah, we kept busy most of that time.

TQR: What was your rig with *The Band*?

I had a white 2x12 Bassman with a white top and the EchoPlex. In Nashville it was the Vibrolux Reverb and the EchoPlex. With *The Band* I had the EchoPlex, the white Bassman, and I think I had just gotten the TS808 and I was using that along with the '52 Tele. I also met Paul Chandler and got one of his Chandler Echo units. I liked it and still use it. At one point I devised a channel-switching true bypass midi pedal that I used for all of my analog effects. I had all of



my pedals hooked up, the echo unit, three different amps, and a big Leslie, and man, if I didn't have more trou-

ble with that rig on stage... Something was always going wrong. I put the whole thing away and just went back to the Chandler echo and the Tube Screamer. I found that I was mostly just using echo with the amp cranked a little, unless the room was so small that I couldn't turn the amp up and I needed to use the Tube Screamer. For recording, I don't like using any distortion devices — just the amp. When I'm recording, sometimes I have an amp right by me, because you can get this feedback going even with the Deluxe on '3'if I'm positioned in the right place. The guitar will vibrate and feedback a little. You can also get feedback through the monitors by standing in the right place and turning them up above '11'(laughs).

TQR: Do you usually like to get your amps up off the ground live?

I like to angle them up a little, or I'll put them on a milk crate, but I don't like them too high because they'll whack you in the head.



TQR: Have you played any of the Nocasters and Relic Teles?

Yeah, and they're great. I just got a '50s white Tele — it's a beautiful sounding guitar, and I had bigger frets installed on it — Stew Mac 100/50. I like the 105/50 even better, and I have that on my '52. Before that, I was using 103/47. I think the Custom Shop is making great guitars. They made some great pickups for me that are both loud and fat. I also had the neck carved down a little, just like the one on my '52. The '52 neck is not as thick as a '53, and my '52 has had a lot of fret work done on it and it has a flatter radius. It's almost

a 10" because it's been refretted so much, but it still plays great. On my '53 I told my guitar guy not to touch the radius below the 7th fret, but above that, start bringing it to a 9" radius, and it's almost perfect with those frets. I didn't care about modifying the neck because I'm not going to sell the guitar.

TOR: Back to effects — have we covered them all?

Well, it's not really an effect, but I installed a 240 mfd cap for my volume control, so when I turn it down I retain some highs without losing the bottom end. That worked for me. I should mention Mike Piera again, because on "Metal Jam" I used his Analogman SunFace fuzz, which is his germanium fuzz. I really wanted this fat sound on "Metal Jam" that I had been hearing while listening to *Live Cream*. The sound was just tremendous, and I found out that Clapton did use a Fuzzface, so during one long afternoon Mike and I listened to the best FuzzFaces he had. I really liked the germanium fuzzes over the silicon ones, so then we started listening to all of the different germanium transistors we had to find the one that sounded best with my Tele.

TQR: So you had narrowed things down to a specific pedal, and then you began listening to the variations among different germanium transistors, all things rarely being equal...

Yeah, we did that and I took the pedal home and used it to cut the song.

TOR: Anything else?

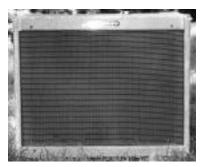
For the *Remedy* album I used the Chandler delay through the Deluxe and the Vibrolux Reverb on "Wandering Soul." The Chandler is nice, because you can run it with two amps. The only other thing I did was change guitars. I used a 1960 Guild Starfire on two songs, and all the rest were amps — *multiple* amps. I like to pan one right, one left, and one up the center. I would work on finding the right combinations, like the Marshall Superlead with the Deluxe Reverb, each panned far right and left. That produced a really huge sound. When I was trying to find the right tone I'd start out by finding the right combination of amps, because each speaker and amp would completely change the tone and I'd always check to see that they were in phase.

TQR: How do you do that?

You run the volume controls up equally on the board and if they're out of phase they'll sound really thin.

TQR: And you've got the freedom to decide how far forward you want to bring each different amp in the

mix, even when they are panned wide. Lots of options... Will you use the combination of the Marshall and the Deluxe again?



I'll tell you what... I think that's the way to go. I would love to have a really good-sounding Marshall head and maybe a 1x12 cab. I have a tweed Super that they say is really close to a Marshall (I

don't think it is), but I haven't been able to find 10's that I like with that amp. My friend Paul Mastradone (301-937-1895) does the best Jensen P12N recone that I've ever heard. It's amazing. He doesn't have too many of them, but he can really do them right.

TQR: How much do you care about the weight of your Telecasters?

Light is good... The light ones are brighter, twangier, and I have some light ones, but I really like them a little heavier, because you can get more midrange out of them. Not too heavy — I'm not talking 70's — but I like a little heavier Telecaster. I've played some Broadcasters that were not light at all. That new Tele just rings... more so than my '52, but the old '52 is warmer, it has more sustain than my new Tele will have for 50 years, and it's heavier, too. It also has a lot more bottom. The wood has to age, too, and being a little bit heavier, that's all right.

TQR: And you've got to ram some notes though it...

Yeah, get some filth on it. Get the filth all over it.

TQR: We've heard Teles described as "steel guitars with a neck."

And there's nothing that sounds as good as a steel guitar with a neck. I've torn so many of those old pickups apart trying to use them to get that great tone. How do you do get it? Use the heaviest strings you can and get the best old Tele with great sounding pickups. I used to use .011-.052's, but the older you get... I can't bend that damn E string. I don't want to. I got to work hard enough! Teles have always been tough guitars to play, but I find that when you pluck on a string, you can really become part of the note with a Tele. You get these tones out of it — a snap, a pop, or it's really singing. And the fret size too... I like the width of the fret a little wider, like the Gibson style. With wider frets you get a rounder tone.

effects

TQR: Do you prefer a certain kind of nut?

Yeah, I use a bone nut and I use the Vintique brass saddles. They intonate a little better.

TOR: What's ahead, Jim?

Well, we're out playing *Remedy* and I hope to tour right on through next year, and I'll be writing new songs and planning for the next record. But for now, I really want to break this record across the country and the world.

TQR: You know what's fun about your music? Whatever style you're in on a particular song, you'll be grooving along and all of a sudden... wham — here you go — try this — and another influence will pop up, like a Hendrix move. But it's still you. The thread is unbroken, even when you're breakin'off a classic riff.



Well, those guys influenced me — Buchanan, Hendrix, Clarence White. After 8 million gigs we should be having fun at our age. In our fifties there should be no holds barred (laughs). I have the most fun of anyone playing for people, and it means the most to me when people enjoy it. I wanted to depart from the roots thing like I played

on *Bigfoot* and get some different tones on this record. That's why it's a little heavier and powerful, keeping the roots thing with the amplifiers. There are no blues songs on the record, and that's OK.

TQR: But there are blues *moves* on the record...

Yeah, they're in there. Wanna get some great Tele tone? Turn a Fender amp up to '11.'

www.jimweider.com





Mendeleev predicted the existence of Germanium (Latin, Germania, German) in 1871 as ekasilicon, and the element was discovered by Winkler in 1886. In its pure state, the element is crystalline and brittle, retaining its luster in air at room temperature. It is a very important semiconductor mate



rial. When germanium is doped with arsenic, gallium, or other elements, it is used as a transistor element in

thousands of electronic applications. And it makes a damn fine transistor for gonzo guitarists and their fuzz boxes.



After listening to Jim Weider's "Metal Jam" on *Remedy*, we called Analogman and asked him to send down a fresh SunFace Fuzz for an audition. It arrived in an Analogman box, inside an Analogman cloth bag, with a spec sheet and three tasty *Screamers* Red Hot Cinnamon jawbreakers. Nice touch. Here's what Analogman says about germanium transistors:

Unlike a Tube Screamer, which will always sound good and need no fine tuning if you put in a JRC4558D chip and the correct parts, a fuzzface is a very finicky circuit. The transis tors used in a fuzzface make all the difference in tone, feel, and the amount of fuzz/cleanliness. Germanium transistors were the first type generally available in the early 1960s. They are not very stable or easy to manufacture consistently. Since silicon transistors took over from germanium, almost nobody makes them anymore, and the few that are made just don't do the trick in a fuzzface circuit. Each transistor used in a fuzzface needs to be tested for several parameters, includ ing gain, leakage, noise, and tone, to make a great sounding fuzz. And these transistors are just not available in any decent quantity. For these reasons, no big company can, or usually even tries to make a classic fuzzface that sounds good. It's too much of a hassle.



But Analogman relentlessly searched for and found a small and expensive supply of new old stock NKT 275 transistors — the same ones originally used in the Arbiter FuzzFace circa 1967 — and he found them, of all places, in New Market, England (the NKT stands for New Market). Germanium is the magic in fuzzes, and there is good germanium and bad germanium. César Diaz routinely tested and rejected many of the germanium transistors that he