

# SHITTY IS STILL PRETTY: ANATOMY OF A HEAVY FUNK 45

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## PART 2: RECORDING

When recording a Funk 45' you must create a sound that is consistent with the sound of a genuinely old recording. You might have the meanest song ever written, but if you hire Jimmy Jam and Terry Lewis to produce it, it's not going to sound like a Funk 45'. That shit has got to be rough. A lot of people say that they are into rough sound, but they are really into this whole "vintage" thing. That's where they spend a hundred thousand dollars on Neumann microphones and tube (valve for you limeys) pre-amps and compressors and use a pair of Studor 24-track tape machines and do everything just like George Martin says he did in his book *Don't Forget that I recorded Sergeant Pepper*. That's fine if you want to make another terrible Beastie Boys record for all the girls of Italy to buy or a Lenny Kravitz retro-ripoff of a Jimmy Mayfield song, but it won't cut it for a Funk 45'. There's so much "retro" bullshit going on nowadays that it's hard for some folks to remember the most!

basic part of that old-recording sound: our old friend Mr. SHITTY. So please, forget everything you learned about how "professional" recordings are made and come raw with it. I guarantee that you can get a better drum sound from one \$20 Radio Shack mic in your garage than you ever will with a \$5000 U-47 in a \$300/hr "professional" studio. Why do you think all these millionaire rappers sample beats instead of recording them? Because when they try to go into the studio and record live music with their gargantuan budgets and their fancy-ass engineers they end up with the same sounds Phil Collins got on his last record, and they don't have the balls to take that good ol' Shack mic down to their eight car garage and take five minutes to do what the Honeydrippers did thirty years ago which is what ended up on that worn-out Ultimate Breaks record that will continue to be sampled again and again because it's got "that sound."

Some people have told me that I shouldn't write this article because I shouldn't "give away all my secrets to the competition." I say bullshit. First of all, there really isn't any competition seeing as there is usually only a handful of Funk 45's that are released each year and I plan to do half of them. Second of all, every rough-ass Funk 45' that is created makes the world that much of a better place to live in. Thirdly, though I can divulge a few little tricks that I have figured out to put the "ugh" back in "rough", the most important part of making rough recordings isn't a secret at all. It is a state of mind: SHITTY IS PRETTY.

Before I continue, I would like to give you some warning that this article gets a bit technical. I wanted to be thorough for those of you that could use the information. A good deal of this article is answers to frequently asked technical questions about how I got this or that record to sound so shitty. If it gets confusing or boring I'm sure you will feel free to skip about until that feeling goes away.

## EFFECTS

You don't necessarily have to have any effects, but I usually use reverb on vocals and horns and often on the whole mix. Sometimes some echo can add a touch of psychedelic shitty to an already rough recording, like The Invaders' *Spacing Out*. Here are all the effects that I fuck with, though usually I don't use that much of anything.

## REVERB

Never use any kind of electronic shit like a Quadverb or even a Lexicon. They all sound crappy. You need a real mechanical reverb. Back in the day there were three basic kinds: reverb chambers, plate reverbs, and spring reverbs. A reverb chamber is when you actually use a speaker and a microphone in a completely separate room or chamber to record the actual reverb of the signal in a real space. This is really cool but not very easy to do (unless you are recording in the basement of a gymnasium in the middle of the night and you have keys to the gym, access to an extra sound system, and about five hundred feet of low impedance cable.) Plate reverbs sound great, but they are not that much easier to hook up than reverb chambers. They are huge metal plates that also need to be hung in isolated rooms. The best sounding reverb for a Funk 45' is a spring reverb, which conveniently enough, is much easier to find and use. If you have some kind of old-school outboard spring reverb that sounds cool, use it. Otherwise, I have a home grown recipe to turn a \$20 reverb tank replacement for a Fender amp into the dopest ghetto spring reverb you've ever heard. [See Figure 1.]

## FIGURE 1: GABE'S GHETTO-VERB

Take the spring tank out of the back of a guitar amp or organ or anything else you find that has a spring reverb. (You can order a Fender reverb tank through any music store for about \$20.) Use the biggest one you can find. You can use two channels of your mixing console for a pre-amp and a post-amp (Channels 11 and 12 for this example). Patch your auxiliary output (effect send) into the input of Channel 11. Patch the output (direct out) of Channel 11 into the input of the spring tank. Patch the output of the spring tank into the input of Channel 12. Patch the output (direct out) of Channel 12 into either the input of another channel (e.g. Channel 24) or into an effects return to use as a reverb return. DO NOT BUSS EITHER CHANNEL 11 OR 12 TO THE MAIN MIX. You are using these channels only to pre-amp and post-amp the springs and do not want to hear them in the mix. Boost the highs and cut all the lows on the pre-amp channel (Channel 11), and do the opposite (cut the highs and boost the lows) on the post-amp channel (Channel 12). Though the EQ settings should cancel each other out when the signal passes through both channels, cutting the low end on Channel 11 will decrease the high-energy bass frequencies passing into the springs which would normally cause excessive distortion, and cutting the treble on Channel 12 will minimize the electronic hiss generated by all of these successive pre-amps.



Lee Fields & Gabe

I have divided this guide into three basic parts: **Music, Recording, and Presentation**. The first step, Music, was printed in the last issue of *Big Daddy* (#4), so we will now concentrate on the next two steps:

**Recording and Presentation of a Funk 45'.**

## EQUIPMENT

Two of my favorite James Brown lyrics are: "A dog don't want his bone, that's why he buries it." (*Sexy, Sexy, Sexy*: 73) and "Got to use what you got to get just what you want" (*Hot Pants*: 71). Perhaps the first is not as relevant here (or anywhere for that matter) as the second. If you are going to record a Funk 45', before you start looking for what you need you should first take stock in what you have. It is much more valuable to be resourceful and creative than to have all the "correct" equipment. Never be afraid to try some stupid shit like putting the mic in a bowl of cream cheese or whatever. You might unexpectedly discover a great sound. (You can tell all your friends later that the mic accidentally dropped into a bowl of grits.) Use whatever equipment you can find, steal, or borrow. I have included some tips in here to save you money on fancy effects and other shit.

## MICROPHONES

There are obviously different types of mics, but we are basically concerned with dynamic, unidirectional, moving coil microphones. "Professionals" often use condenser mics for overheads or hi-hats. Fuck that, they're morons. Condenser mics move too fast and respond to all kinds of really annoying high frequencies that I don't wanna know about. You also don't need to be messing with omni- or bi-directional mics. (Of course, if that's what you got...) You can often find really cool fucked-up old mics at pawnshops for next to nothing. Most of them will sound too clean, but you might get lucky and find some military broadcast mic that makes drums sound like banana cream pie. I guess the thing about microphones is just that you got to experiment. Use anything. I've even used headphones. The shittier the prettier.

## GUITAR

The best guitar tone for funk 45's comes of course from really shitty guitars. If you can, find a shitty hollow-body guitar like a Harmony Rocket or a Fender Coronado. Jan from the Poets of Rhythm showed me a cool way to get a real shitty tone. Play through a wah-wah pedal. Don't rock it back and forth. Just find a real shitty sound and leave it there for the whole song. This is what I usually end up doing with the EQ in the mix anyway.

## AMPS

Like everything else, a lot of people insist that you must use valve amplifiers for your guitars, basses, etc. I say bullshit. Just don't use a Roland Jazz Chorus or any amp that looks real fancy. Shitty amps usually record really well.

## DRUMS

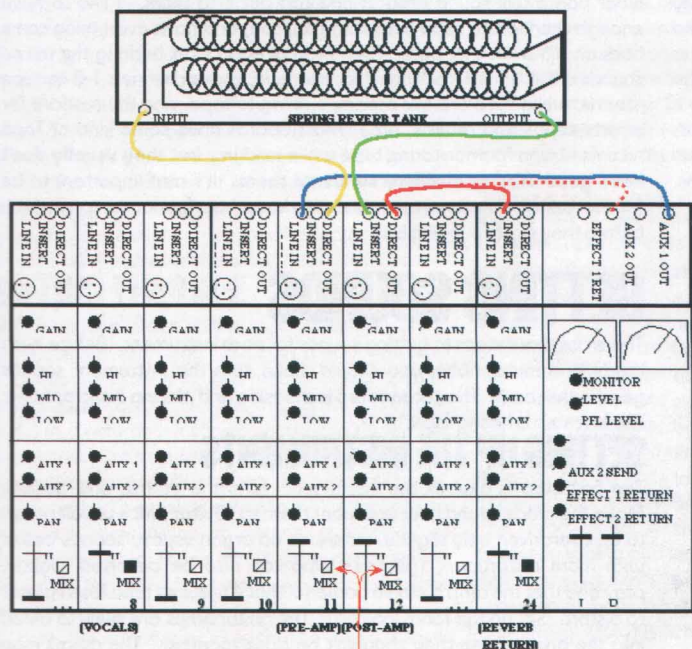
Any shitty drums will do. If you can, try to find some riveted cymbals (or throw some rivets in the ones you got.) This always sounds straight up '67. The key to really good drum sounds is tuning (which I know relatively little about), and mic placement (which we will discuss later).

## ORGAN

It's hard to find a cheap organ nowadays, but if you can find anything with drawbars you'll probably be in good shape. Just don't fuck around with Digital organ sounds. All that midi shit is just plain stupid sounding. If you can find a rotating speaker like a Leslie then you're in good. If you can't, try a guitar amp.



FIGURE 1: GABE'S GHETTO-VERB



NOTE: The channels used to pre-amp and post-amp the springs are NOT sent to the main mix.

In order to make sure all the levels are right, use PFL's or solo buttons to check for distortion as you follow the signal flow. First, make sure that you have some signal going into the channel to which you want to add reverb (E.g. Vocals on Channel 8) and make sure the auxiliary (or effect) output on that channel is at unity gain, which is usually about 3 o'clock on most boards. Adjust the master output for that auxiliary send (effect send) to unity gain also, and solo it to make sure you have a healthy level of signal. Now solo Channel 11. You should here the signal coming through. Push the fader up to about +10 dB (all the way up) and adjust the trim (or gain) so that the signal is not distorted. Now solo Channel 12. You should here just the reverb tank output now. Put the fader at +10 dB and adjust the trim so that you can hear the reverb as loud as possible with minimal distortion. **Leave Channel 12 in solo and raise or lower the trim on Channel 11 so that you have the maximum amount of reverb going to the springs without making them distort.** (If you make it this far you're home free.) Now maximize the trim on Channel 12 again as high as you can without distortion. Now, take the solos out and send your reverb return channel (effect return) to the mix. Adjust the master effect return level as you normally would. Once you get all this together you just need to fine tune the EQ's and trims to get the best reverb sound with the least distortion. If you want more reverb, try turning up the auxiliary send on your post-amp channel (Channel 12). This should give you all the reverb you'll ever need, though too much might feed back. Voila, Gabe's Ghetto-Verb!

Now this seems pretty complicated, but after a little fine-tuning, you won't ever

## ECHO

Echo can also be shitty if it's used tastefully. There are only two tasteful ways to use it in funk: slapback delay for cheesy 60's style vocals, and psychedelic echo for horns or organ. These effects should be used sparingly. Though any echo will sound okay, a tape echo like an Echoplex or a Space-Echo tends to sound better. Again if you don't have an echo machine but you have an extra reel to reel machine where you can listen off of playback (or REPRO) while you are recording, you can wire up another ghetto creation for free. [See Figure 2A and 2B.]

## FIGURE 2A: THE GHETTO-ECHO (TAPE DELAY)

I can't really take credit for this invention because it's pretty self-evident and I imagine this is how people used to do all echo back in the day. Take your auxiliary output (effect send) and patch it into the left side input on your tape machine. Patch the left side output of the tape machine into your auxiliary return (effect return) or any console channel you want to use as an echo return. Send this channel to the mix. Now make sure that your tape machine is in REPRO or playback mode, record ready is on, and speed is set to slow (if you have a speed selector switch). Hit record and adjust the record level of the tape machine so that whatever you are sending to echo will be as loud as possible without distorting.

When you send a signal out of the auxiliary, it will be recorded onto the tape by the SEL-SYNC head. However, the tape will have to travel the few inches to the REPRO head before it is played back, so there will be an inherent delay before the signal comes back through your effect return.

Now you have a Ghetto-Echo!

You can adjust the length of the echo by changing the speed of the tape (or if you're really ambitious, you can use a pen or something to change the tape

FIGURE 2A: THE GHETTO-ECHO (TAPE DELAY)

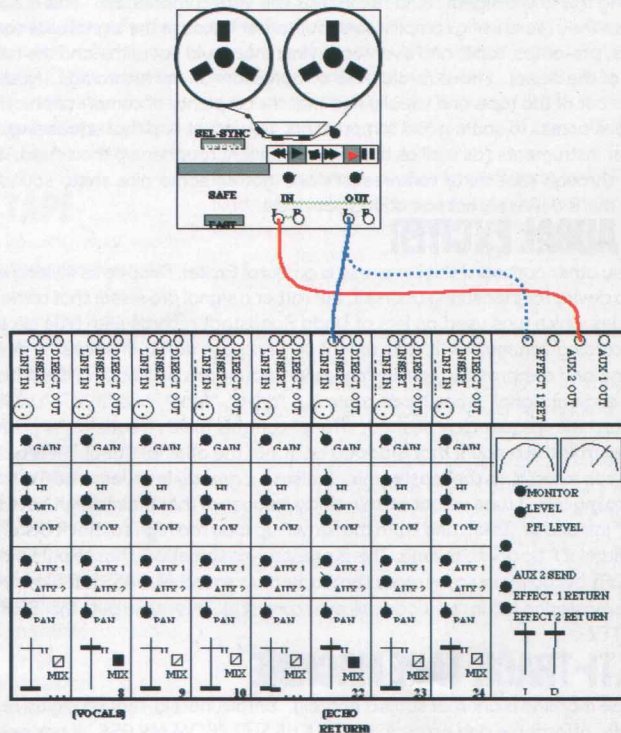
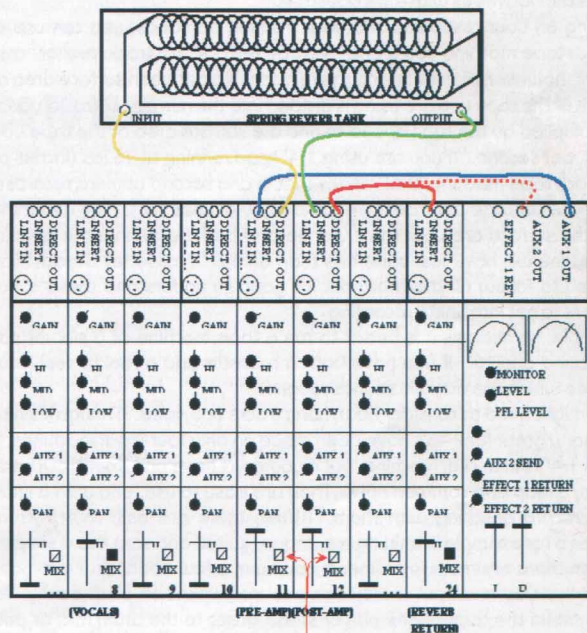


FIGURE 1: GABE'S GHETTO-VERB



NOTE: The channels used to pre-amp and post-amp the springs are NOT sent to the main mix.

path and add distance between the two tape heads.) You can adjust the feedback of the echo by turning the auxiliary send on your echo return channel. This will feedback the signal to the tape for multiple and even infinite delays. (Lee Perry step aside.)

## FIGURE 2B: GABE'S DOUBLE GHETTO-ECHO (STEREO TAPE DELAY)

If that ain't enough for you, try doing the same thing but adding a patch from the direct output of the echo return channel into the right side input of the tape machine. Then run the right side tape output into a second echo return channel in the board. Now pan one echo return channel to the left and the other to the right. Turn the auxiliary send on the first echo return channel down to zero and turn it up on the second channel to control feedback. You will get an echo that bounces back and forth from speaker to speaker. Psychedelic man!

## COMPRESSORS

When talking about "vintage" recording, people are always wagging their



their tongues about fancy tube compressors. A compressor is a dynamic signal processor that lowers peaks in the amplitude of a signal and then compensates by boosting the entire signal. Old recordings are very compressed. This is not actually because they were using compressors, but rather because the signal was compressed by mics, pre-amps, tape, and eventually vinyl that could not withstand the full dynamic range of the signal. I have rarely used compressors on my recordings. I just bang the B'Jesus out of the tape and usually find that that is plenty of compression. However if you have access to some good compressors, you might find that squeezing up drums, or other instruments (as well as the final mix) might toughen up the sound. I have run drums through real shitty compressors and gotten some nice shitty sounds before. Again, this is definitely not something you need.

## THE AURAL EXCITER

The only other outboard shit I ever use is an Aural Exciter. Despite its inviting name, this is not a device for pleasuring yourself, but rather a signal processor that came out in the seventies which was used on lots of Linda Ronstadt records with little acceptance in the recording community. It was meant to bring out clarity in vocals. It does this by boosting and compressing certain high-end frequencies and adding them back on top of the original signal. It has three controls: "drive", "tune", and "mix". "Drive" controls how hard the frequency is pushed. "Tune" controls which frequency is pushed. And "mix" controls the amount that is added back into the original signal. It is a stereo unit so you can insert it on the master mix. I misuse it grossly in order to add a nice icing of shitty to my mix. I tune in that certain shitty frequency that makes high hats sound like "SHHH" instead of "Tsss", and I turn the "drive" up way too high so that it distorts. Then I add a little of it back into the mix. This is great when somebody has to put something on CD or DAT because you can create that fucked-up sound of a 45' that was cut too loud and no mastering lab in the world will ever correct it! This really puts the "SHHH" back in SHHHITTY.

## MULTI-TRACK TAPE MACHINE

The tape machine is another subject entirely. Unfortunately, though digital recording is now very affordable and accessible, IT SUCKS SHIT FROM MY ASS. If you need further explanation of why it sucks shit from my ass, wait for my article in an upcoming issue, or call me on the phone and I'll give you an earful. Wire recorders are hard to come buy, so I guess that leaves us with tape doesn't it.

Depending on your resources and your tracking demands, you can use any kind of multi-track tape machine you want: 4-track, 8-track, 16-track; reel or cassette. It is important, however, to understand the relationship between surface area and quality. The width of the tape you are using is divided into the number of tracks you record onto it and multiplied by the tape speed to find the surface area of the tape you are using per track, per second. If you are using 1/4" tape running at 15 ips (inches per second) on a 4-track tape machine, that means that in one second you are recording on .9375 square inches of tape per track (1/4" divided by 4 times 15"). The wider the tape, the greater the surface area per track, per second and the cleaner the quality. A 1/2" 8 track machine will have less tape hiss than an 1/8" (cassette) 8 track machine. You don't need to follow all this math but it's good to understand these concepts if you really want to get into Shitty recording.

For example, sometimes it is better to run a tape machine at a slower speed to get shittier sound quality. If you have both a cassette and a reel to reel multi-track, try both to see which one actually sounds rougher.

You also might need to consider how many tracks you need. Though it's nice to have 8 tracks, many great funk 45's have been made on only four-track machines. I often use a 4-track 1/4" reel to reel machine, but if you don't have one, four track cassette decks are pretty cheap and common now. They are easy to use, and with a little creativity, you can record anything with them. When there are only four instruments (The Sugarman 3 for example is only drums, organ, guitar, and sax) this is simple enough to do. When there are more instruments you have a few options. If everything is being recorded live you must put more than one instrument on each track. You may for example make the tambourine player stand closer to the drum mic, or put the organ amp and guitar amp next to each other so that they can use only one mic. You could also use separate mics and buss them to the same track. Either way **you must make sure the balance and equalization is right between all the instruments that are sharing a track because once you record them you must treat them as one signal.**

If you are going to overdub, you can bounce down to open up more tracks. Bouncing down is when you record on three tracks (for example) and then mix those tracks (with equalization and everything) onto the last remaining track. Then you have the original three tracks open to record overdubs. You can do this several times before the tape quality suffers. Theoretically, you have an infinite number of tape tracks this way. (If you are planning on bouncing down more than once, it is a good idea to add a little extra high end to the first mix to make up for the signal degradation between generations.)

## THE MIX-DOWN DECK

The best medium to mix down to is 1/4" tape. Mixing down to DAT is not an option. If you don't have a 1/4" 2-track machine (which are cheap and easily found at any second hand store, pawn shop, or even garage sale), use a regular cassette deck. 1/2" tape is okay too, but the tape is a bit pricey if you have to buy a lot.

## THE MIXING BOARD (DESK, FOR YOU LIMEYS)

You don't need a fancy mixing board to record. In fact, you can do a great shitty recording without a mixing board at all (I once had to record a 10 piece afrobeat band without a mixing board). However, if you want to do a lot of recording or if you want some versatility, it makes things much easier to use a board. It's

good to have a mixing board with inserts and direct outputs for each channel. You also want to have EQ's that don't sound like Mackies. Any older board will sound great if you can get it to work. I like to have enough channels to send everything to tape, and have everything come back on different channels. Then I can already start hearing the mixed sounds while I'm still tracking. (For example, I have channels 1-8 as tape returns, while 9-16 are mic preamps going to tape, and the rest are for effects sends and returns, etc.) Most boards have some kind of Tape returns built in for monitoring tape while tracking, **but they usually don't have good EQ's or auxiliary sends on them.** It's also important to be familiar with the meters in your board to know how far you can push them before they start sounding bad.

## GETTING SOUNDS

There are three steps to getting sounds for each instrument. Before even touching a microphone, you should make sure the instrument sounds good in the room. The second step is choosing and placing a microphone. The last step is hitting tape.

## SETTING UP THE INSTRUMENTS

The first step is always the instrument. Tune the drums, and guitars. Make the amps sound how you want them to. Guitar amps usually need to be overdriven only slightly, where as an organ usually sounds better with more distortion. The bass amp can also be distorted slightly, provided that the amp is not so powerful that it requires ridiculous volume to distort. Set up the room logically. The guitar amps are likely to bleed into the drum mic so they shouldn't be close together. The drums may sound better in a certain part of the room. Corners tend to give you more bass. Make sure nothing in the room is rattling. If the snare is ringing, try throwing a wallet on it. Move couches if that helps. Duct tape a blanket to the ceiling above the horn section. Try anything to make everything sound as good in the room as possible. Never assume that if something doesn't sound good you can just fix it in the mix.

## CHOOSING AND PLACING THE MICROPHONES

With every instrument, you must experiment with different mics and different placements. There is no way around this. You simply must try as many different mics and placements as you can. Always use as few mics as possible. I always get drum sounds first, because that seems to be the hardest thing to get right. You should place an overhead over the drums or in front of them. Move the mic around and listen back to the tape until it sounds just right. Take your time with this. Sometimes it takes hours of moving a mic an inch this way and then moving it back, but that inch is usually the difference between an incredible drum sound and a mediocre drum sound. You must be very patient and experiment tirelessly with different mics in different positions to find that one sweet spot for the overhead. If there is too much bass try raising the mic. If there is not enough, try lowering it. If there is too much hi-hat **try putting the mic back behind the drummer on his right side.** There is no one sweet secret place. Every room, every drumset, every microphone is different. That's why there are so many great drum sounds that are so different. If you are planning on recording the drums alone, try putting the mic a few meters away. If you are recording with a bass amp in the room, you might have to add a second mic in front of the bass drum so that you can roll the bass off of the overhead mic. Don't use more than two mics on the drums. It's very "professional" looking, but it sounds unnatural.

Guitar amps and Leslie's are usually much less of a challenge to mic. Just throw a mic in front of them, about a foot away, and if the amp sounds good, the mic will probably sound good.

For the bass, you can mic the amp if it sounds real spectacular, but direct lines usually sound good and give you less problems with the amp volume in the room.

Horns can be hard to mic sometimes. Try to use a mic that doesn't have a lot of high end. Like the drums, it's usually not a good idea to use more than one mic. A horn section should be mic'd like one instrument. If the trombone is too loud, tell him to take a baby step back. Get the balance right between them and then mark the floor with tape so they don't slide around on you. Put the quietest horns in the middle and the louder horns to the side. I have mic'd up to eight horns with this one mic approach and I always like the sound. It makes them sound more like a section. It might take time to get the mix right between them, but it is much quicker than trying to mix them from separate tracks later in the mix.

Vocals can also be difficult. You have to have a shitty mic that's a little sweet in some way. Try every mic you have till one sounds good. It's good to use a pop-filter (pantyhose stretched over a wire coat-hanger ring) about an inch in front of the mic to prevent the air from P's and B's from making that popping sound on the diaphragm of the mic. It's also good to put the mic a few inches above the singer's mouth angled down towards their nose. This reduces the sound of their breath hitting the diaphragm of the mic. If a singer is really grunting and screaming (as



they ought to be), it will work better to have them a little further from the mic.

Another concept that might come in handy when recording vocals, horns, or amps is the proximity effect. When a uni- or bi-directional dynamic mic is brought very close to the source of a sound, the bass frequencies of that sound are disproportionately boosted. This is good if you want to attain (or avoid) that Barry White effect by controlling the distance of the mic from a vocalists mouth, or if you want to boost or attenuate the amount of bottom coming from a bass amp or a kick drum. This is also essential when micing congas.

## HITTING THE TAPE

The traditional view of the tape machine by the "professional" recording industry is that it should be a transparent medium. This means that whatever you put in should come out the same; when you listen to a recording it should sound exactly like the instruments are in the room with you and the entire recording process should be invisible, or transparent. This makes sense to me when you are recording symphonies or operas or even tribal drumming rituals. These things were not originally intended for recording. However, applying that concept to funk is like telling Van Gogh that his pictures are not realistic enough. The sound of tape is as essential a part of this music as the beats and the horns and the grunts and the screams. So much so, that it is difficult to perform this music live because the sound is always too clean!

## WHAT IS TAPE DISTORTION

Tape is made of mylar coated with millions of domains. (Skip this paragraph if you are not following this.) These domains hold magnetic charge. A sound wave is first transduced into a positive or negative electric charge by a microphone and then transduced into a magnetic charge by the record head of a tape machine. This magnetic charge is transferred to the domains as the tape passes the record head and the domains hold that charge. When that same piece of tape passes the playback head of the tape machine, the magnetic charge that has been stored by each domain is transduced to an electric charge which will in turn be transduced by a speaker and become sound again. However just as the microphones and speakers have thresholds at which they begin to distort a signal, the domains on tape have a point at which they cannot hold more magnetic energy. **As the amplitude of the signal approaches this threshold, tape begins to compress the higher frequencies because the speed of their oscillation does not allow the domains time to reach the full amplitude of their alternating magnetic charges.** This results in a significant boost of bass frequencies in proportion to the compressed high end. As the level gets even hotter, the tape begins to compress the high-energy bass frequencies as it cannot contain the full charge of their amplitude either. This compression and relative bass boosting increases as the level to tape increases until eventually the threshold is broken and the signal begins to distort. This compression and distortion, which is a unique result of hitting analog (or analogue for you limeys) tape too hard, is an inherent part of "that sound" which makes a rough-ass old Funk 45' so delectable. **When used correctly, tape is an instrument in its own right.**

Every tape machine has at least two tape heads: one for record, and one to the right of that for playback. (Usually there is also an erase head to the left of the record head.) The record head is often called SEL-SYNC because if your overdubbing you need to listen off of the record head so that you can sync the overdub with the music that's already on the tape. (In SEL-SYNC mode the record head is used as a playback head for all the tracks except the ones that are recording.) The playback head is called the REPRO head because this head

reproduces what has been recorded on the tape. The heads are usually an inch or two apart. This displacement is the origin of tape delay. On most machines you can record with the record head while monitoring what you just recorded off of the playback head a fraction of a section. This is better than monitoring in SEL-SYNC (or off the record head) **because you can hear what effect the tape actually had on the sound without waiting for playback.**

## ALWAYS LISTEN OFF TAPE

In order to stay in control of exactly how much compression and distortion the tape is adding to the sound, you must always monitor from the tape playback head (REPRO) when getting sounds. If you do not have an isolated control room, or your tape machine will not let you listen to the repro-head while recording, you must do it the long way. Tape for a minute, stop and listen back, try a different mic or a different placement or change the level or EQ to tape, and tape again. You must repeat this process until you get your sound. This is the blood, sweat, and tears of a real engineer -- tirelessly taping and playing back sounds for hours until his ears taste that sweet, sweet shitty for which they have hungered. This can take days sometimes, but this is the essential step to getting good sounds.

To control the distortion and compression, you have to boost the level to tape until you hear the signal breaking up, then back off until you hear the amount of compression and/or distortion that your looking for. Organs and guitars usually sound better when they break up a little. Everything else usually sounds best just before the brink of distortion. You'll notice the biggest difference with bass and drums.

## ROLLING OFF THE BASS TO TAPE

There is a dominating belief among "professional" recording engineers that you should always put the cleanest signal to tape and do all your equalization in the mix. I used to do this until I noticed that it was the low frequencies of the instruments that were causing the tape to break up too soon. I wanted more compression and distortion on the high end, but the bottom end kept swelling up and breaking up before the top end got rough enough. This was a big problem with drums because you want the top end to distort but you needed the kick drum round and warm. Finally, I started equalizing the signal before it hit the tape. I found that if I roll the bottom off the drums, I can smash the shit out of the tape and the bottom won't break. The top part gets all crunchy and nasty like it was recorded on a walkman, and then the bottom swells back up anyway but won't break because I roll it so far off.

**If I need more kick I can always boost the lows back up coming off of the tape** (though this is usually not necessary because the tape naturally boosts the bottom back up when you hit it that hard.) Eventually, I started rolling the bottom off of almost everything to tape. I think back in the day the mics and equipment they were using had such a shitty frequency response that these low frequencies never came that strong to tape. That's why they just kept pushing the tape back then: the bass wouldn't break. If you have shitty enough equipment you don't have to roll off the bass either, but now days even Radio Shack mics have pretty good frequency response (damn it!) After a while you get a good feel for which frequencies you want to push into the tape. You can cancel all of this equalization by turning the knobs the other way on the mix channel coming back off of the tape. The result will be a flat EQ but the tape will distort or compress exactly the frequencies that you want it too. **This was a major breakthrough for me in my search for true, rot-nasty sound.**

## MIXING

Mixing is always a pain in the ass. The most

important thing to remember is that once you have your basic sounds **YOU SHOULD ALWAYS BE LISTENING OFF TAPE.** Set your mix down deck on REPRO or playback and keep a scrap tape recording the whole time your mixing. Otherwise, you are really in the dark about how the instruments are blending, the overall EQ, how much the mix is being compressed, and how much the bottom is swelling.

It is also essential to listen to your mixes on different kinds of speakers. You need some monitors that you know really well. You should spend hours listening to your favorite music on those speakers. You should listen to your mixes at different volumes too. Everybody listens to their shit really loud but sometimes if you bring the volume almost all the way down you get a really good sense of what instrument is too loud and what's not loud enough.

The hardest thing about mixing is keeping good perspective. When you listen to a Funk 45' in a dub or in your house, you aren't listening to how loud the horns are, whether the drums are too distorted, or whether there's too much reverb on the vocals. You just accept it and either you feel it or you don't. When you're mixing, you have this natural tendency to fixate on all the details and miss the big picture. The best way to combat this is by doing four things:

1. Take a lot of breaks (even when you aren't tired)
2. Always stop to check out other records that sound good on the same speakers that you're mixing with
3. Keep the listening environment changing by switching speakers and sound levels often, as well as making cassettes for listening in other rooms or even cars
4. Inviting people (who aren't musicians or engineers) to check out your mixes and see if they dance.

When you are mixing, you often listen to the same thing for hours. During this time there is going to be a voice in the back of your head saying shit like "This sounds too fucked up," "This sounds like a rehearsal tape," "This should sound more professional," or the worst one: "They'll never play this on the radio." Don't listen. Don't even hesitate. When we recorded the Daktaris record, everyone kept telling me that the snare sounded like a trashcan. Even Phillip kept saying "It's too much, we have to remix it." Fuck that. Fuck what you heard. Make it even shittier just to spite them. I promise that once the record is pressed nobody will complain. This is the thing that must stick with you from soup to nuts. Shitty is still pretty. When it's time to record,

**DON'T BE A CHICKEN-SHIT, DO IT ROUGH AND DO IT SHITTY.**

If this article helps or encourages anyone out there to record a nice slice of heavy-shitty, then I have accomplished something good (please send me a copy.) If nothing more, I only hope that you have learned to appreciate the basic principal that I have come to know and love: **SHITTY IS PRETTY.** With this as your mantra, and only one million dollars, you are well on your way to being a successful, Funk 45'-producing millionaire like me.



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