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# **Electrical Audio: Recording Techniques & Bad Jokes**

A compilation of articles, interviews and forum posts  
Made by B bio Amaro for his own personal learning & enjoyment

Includes some info on recording sessions for albums by Nirvana, Don Caballero, Bear Claw, Joanna Newsom, Godspeed You! Black Emperor (GY!BE), Mono & others

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## **DISCLAIMER**

This whole thing began when the time finally came for my band to make a serious recording for commercial purposes. Sure, we'd self-recorded many times in the past, but it was a pretty amateurish affair. This time, we wanted to get the most out of the recording sessions.

Being a lurker on the Electrical Audio forums, I was seeing so much useful information scattered all over the place, and thinking that it would be nice if all that stuff was condensed into a book. Since no one else was going to do it for me...

Things started getting out of hand, and it grew into this monster. Even so, this is not yet the encyclopedia to end all encyclopedias regarding Electrical Audio or Steve Albini's recording methods. Things that might be added in the future include the descriptions of equipment used in the studio, and well, things like Greg's Technical Journal are so massive that they deserve their own independent book.

I'm not a book writer, and this was compiled to suit my own personal taste. Whenever I saw information that seemed relevant to me, I'd copy it to my PC. Since reading recording info for hours and hours can drive anyone crazy, I started inserting any funny jokes that I met along the way (hence the "Bad Jokes" mentioned in the title). Therefore, there might be a lot of stuff here that might not matter to you. Sorry about that, but I still hope it can be useful for you guys...

I have a life as well, and this project has taken me many sleepless nights. It's at the stage where I feel I can share it with others, and take a good brake before adding more stuff.

I've added numerous bookmarks to this PDF, which, in the absence of a proper index, or painstaking organizational skills, should make the task of consulting it much easier. There are audio clips containing lectures and interviews by Steve Albini, as well as audio samples of snares recorded at EA studios.

A final note: Some people sell their grandmothers on E-Bay! I didn't make any money from this, and neither should you. Share, for free! This was compiled from the contributions of many people, and I hope they can forgive me for using their hard work in this way...

With nothing more to add, I hope you enjoy this release!

Best Regards,  
Bébio Amaro

(Please click on the following links to listen to audio files)

[Steve Albini – Interviews & Lectures \(mp3\)](#)

[MTSU lecture](#)

[Triple J Interview](#)

[The Sound of Young America](#)

## **Steve Albini**

Sound Engineer Extraordinaire  
Published in SOS September 2005

Steve Albini has become a legend in the world of alternative music by championing traditional engineering skills, respecting the opinions of the artists he records, and doing business ethically.

The big cliché about Steve Albini is that he has a reputation that precedes him. Regularly described in the press as 'controversial' and 'difficult', he has against-the-grain opinions on studio technology and on the role of the producer, and he's stigmatised as the Godfather of Grunge, the champion of heavily distorted, in-your-face, alternative rock. In person, however, he's easy-going and forthcoming, and it turns out that many of the other myths about him are just that: myths.

Take, for instance, the received wisdom that Albini mainly works with hard-hitting grunge bands, and imposes his own uncompromising sound on records. This perception is perhaps unsurprising, since Albini's most famous credits include Nirvana, PJ Harvey, the Pixies, Bush and Jimmy Page & Robert Plant. Moreover, the Chicagoan has been a guitarist in cult 1980s post-punk bands Big Black and Rapeman, while today he's part of the grunge band Shellac.

"I've recorded 1500-2000 records, and I know they are all quite different," protests Albini. "I've recorded acoustic albums hundreds of times, with acoustic guitars or strings, and so on. I can name hundreds of bands that I've recorded that have a completely different aesthetic than grunge. And I don't impose my taste on the bands I record. To me it's ridiculous to say that my records have a sound. I can understand why someone who has only heard three or four records I have worked on that are stylistically similar can make such a statement, but I think it is wrong."

Indeed, a refusal to impose his own sound on other people's recordings is a political issue for Steve Albini, as well as an aesthetic one. Here, the received wisdom is right on the mark: he has striking viewpoints on the machinations of the record industry in general and on the roles of the engineer and



Photos: Paul Natkin

producer in particular. Type the name 'Albini' and the words 'The Problem With Music' into any search engine, for instance, and you'll hit on an article written by Albini in which he mercilessly takes the relationship between band and record company apart. In typically graphic manner, Albini offers the image of "a trench, about four feet wide and five feet deep, maybe 60 yards long, filled with runny, decaying shit." He asks us to picture the band on one end and "a faceless industry lackey at the other end holding a fountain pen and a contract waiting to be signed. Nobody can see what's printed on the contract. It's too far away, and besides, the shit stench is making everybody's eyes water."

### The Engineer With No Name

The American clearly takes no prisoners on the subject of the music industry. But his opinions on what's happening in the recording studio are equally radical and can be summarised as putting the artist's interests before everything else. He's averse, for instance, to the idea of a record producer, and thinks that taking royalties is "an insult to the band". Albini insists on defining himself as an engineer and sees the essence of his work as purely technical, rather than artistic. For this reason he will work with anyone who calls, regardless of musical style or ability, and would rather not see his name appear on record sleeves.

"I think that my name appearing on people's records is a little bit of a distraction," he says. "I don't think it's important, and in some ways it causes public relations problems for the band, who then have to defend me or defend their choice of working with me. I understand that people want to give credit, and that's fine. I'm not offended by it. But once I'm paid, I don't really need anything more."

"The cases where I'm credited as a producer are the result of someone at the record company writing that on the back of a record. I don't personally try to exert any influence on my credit. Whatever the band and the record company do with the packaging is their business. But from a position of accuracy, I don't really do anything that a producer does. A producer is someone who is completely responsible for a session, but in my case those decisions are made by the band, so I don't qualify as a producer in that sense. Ultimately what I'm trying to do is satisfy the band. Most of the time what they want is for me to record their organic sound, so that's what I'm

trying to provide. If I'm asked to do something fantastic, then I will try to do something fantastic, but I don't start from a position that everything needs to be changed from what it was."

Albini's exhortations may sound almost naively utopian to some, but the man appears to walk his talk. The sessions for Nirvana's *In Utero* provide the most famous illustration, because Albini refused the offer of a royalty percentage, at the time (1993) estimated to be worth about \$500,000, and instead proposed a flat fee of \$100,000. These days Albini doesn't only turn down any royalty fees, he's also prepared to forego his \$450 daily fee (already peanuts in comparison with other 'name' producers and engineers) if a band say they can't afford it. So how does he survive?

"Well, most of the time I do get paid," laughed Albini, "but on occasion I do a record as a favour for a friend of mine, or a band runs out of money halfway through the sessions and it's either leave the record unfinished, or finish and not get paid. And I prefer to finish the record. Basically, anyone who calls on the phone I'm willing to work with. If someone rings because he wants to make a record, I say yes. I'm sure that some people call me because relative to other people who have the kind of experience that I have, I'm very inexpensive. I'm perfectly comfortable with that. I'm happy to be a bargain."

### Don't Be Manipulative

Before readers call their travel agencies to inquire about the prices for a round trip to Chicago, they might want to consider Albini's working methods. He explains that he was very influenced by John Loder, "the engineer and producer who ran Southern Studios and Southern Records in London, and recorded a lot of the early punk rock singles that were really important to me. They also appeared on the Small Wonder label and Crass Records, and Rough Trade and so on. Those English labels had very distinctive-sounding records, and they were done cheaply and quickly in a small studio, and that



Some of the more unusual rackmounting gear at Electrical Audio: from top, custom-built mid/sides matrix, Klark-Tech DN34 'Analogue Time Processor', Dbx 500 subharmonic generator and Skibbe 5-9C compressor.

really appeared to me. John Loder was the principal engineer on most of these records.

"When I was in Big Black we did a session with him, and I thought he was a terrific engineer. He showed me the potential for getting the most out of the equipment without making the equipment the focus of attention. He knew how to do things quickly and with great sensitivity to the band, and had a complete working knowledge of his equipment. In any situation he could snap his fingers and do the right thing, because he knew exactly how things worked and what to do.

"Working in the computer paradigm is much slower, because no-one knows their computer software well enough to be aware of every single thing it does. In the analogue domain you know what you're supposed to do, you plug something in, and it's done. Problems are solved instantly. In the digital domain you have to try lots of options and see if any of them work, and then you pray that your computer will follow your instructions and won't crash and that you don't need to restart or reinstall something."

Albini says that he spends on average "four to 10 days recording an album, including mixing. Two weeks would be an extraordinarily long time for me. Most of the bands that I work with don't have any spare money, so they have to work quickly to get the record finished."

The American also pays homage to engineer Iain Burgess, from whom he learned to avoid 1970s approaches like excessive overdubbing and processing, click-track recording, and trying to keep the sound as dead as possible, and instead to focus on recording a band live in the studio, as naturally as possible. All this led to Albini's current emphasis on the front end of recording — microphones, mic placement, mic preamps (see box) — and his love of analogue recording equipment.

"Anyone who has made records for more than a very short period," commented Albini, "will recognise that trying to manipulate a sound after it has been recorded is never as effective as when it's recorded correctly in the first place. Unfortunately almost all the recording software in digital recording is designed to manipulate sound, rather than record it, and so most digital sessions are primarily about manipulating sound, rather than recording sound."

## Steve Albini's Recording Tips

### Acoustic Guitars

- **Favourite microphones:** Schoeps 221b, Neumann 56/54 and FM2, Audio Technica 4051, Lomo 1918, plus ribbon mics like the Coles STC 4038, various Royers, RCA 44DX, 74JR and 77DX.

- **Favourite preamps:** Massenburg 8400, Sytek MPX4.

"The Lomo is a Russian microphone made in the '60s and '70s. I use that a lot on acoustic guitar. They weren't standard in the West but they were quite common in the East and they have now made their way across. I'll use a ribbon microphone if it's a real bright guitar and I want to try to thicken the sound a little bit. Where I place the microphone depends on whether someone is going to be singing and playing, or just playing. If they're singing and playing I have to minimise the vocal spillage, so I put the microphones quite close up. If there's no singing, then I can back the microphones off a little bit, I would say about two to three feet, and in that case it usually sounds better in a slightly live room. I don't necessarily point the microphone straight at the sound hole. Sometimes you want to get it up in the air a little bit, looking down at the guitar so you can get more of the strumming and less projection of the hole. If the guitar is a little thin-sounding, you want to have it more in front of the body. It varies. Sometimes you have to move your head around a little and see where it sounds best."

### Electric Guitars

- **Favourite microphones:** Coles 4038, Royer 44/77, Neumann U67, Lomo 1909, Josephson E22p, various other condenser microphones.

- **Favourite preamps:** Ampex 351, John Hardy M2, Neve 3115, B002, Massenburg 8400.

"Normally I'll have two microphones on each cabinet, a dark mic and a bright mic, say a ribbon microphone and a condenser, or two different

condensers with different characters. The idea is that you can adjust the balance until it sounds pretty much the way it does in the playing room. I point them straight to the middle of the speaker cone, the same distance away from the speakers, about 10 to 12 inches. If it's a loud amplifier you don't want the microphone too close. If it's a clean, round sound, or a very bright sound, then I might use a vocal microphone.

"For very distorted but very bright guitars I'll use a brighter mic preamp like the Ampex, but for heavier sounds or sounds with a very important bass content, I'll use the John Hardy, a Neve, or the Massenburg. I don't normally process the guitar while recording. If it doesn't sound right, I'll fix it by swapping or moving microphones, and then it goes straight to tape. I'll talk to the guitar player and ask him whether he's happy with the way his guitar sounds. If he's happy then I don't want to touch it. When I'm working on 16 tracks I'll submix the two guitar microphones before going to tape. With 24-track, I try to leave them separate."

## Vocals

■ **Favourite microphones:** Neumann U47, U48, AKG C12 or 451, Shure SM7, Electro-Voice RE20, Beyer M88, Sennheiser 421, Josephson 700A.

"Vocals are quite complicated to record. When the guitar player is playing the guitar, and someone's listening to him, they're hearing guitars, they're not hearing him. But with a singer, they're hearing the guy. That can be nerve-racking, and so it's important that singers are comfortable. I like the classic vocal microphones, but there are some situations where you have, for example, a crooner or someone with a very softly modulated voice, and they sound the best with a ribbon microphone. Conversely when you have someone who sings very quietly and you need a microphone with a lot of detail to make that sound realistic, I like the Josephson 700. It is a fantastic vocal microphone.

"Where I place the microphone depends on the singer. Normally I'll start with whatever their normal intuitive distance is from the microphone and then let them hear the results. If they think it sounds too boomy I'll have them move back and if they think it sounds too thin then I'll have them move forward. Vocals are the only instrument that you have to compress a little bit, otherwise the dynamic range is too wide. I normally compress the vocals about 4-6 dB or something like that — generally, at the quietest



passages the compressor is not doing anything, and at the loudest passages it's doing 4–6 dB."

## Bass

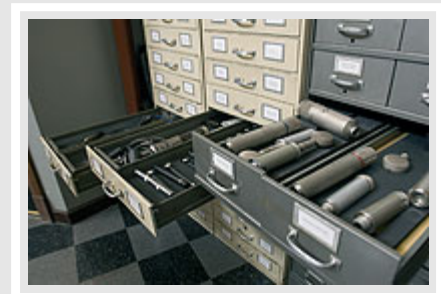
- **Favourite microphones:** Beyer 380, EV RE20, Josephson C42, E22s, Audio-Technica Pro 37R, AKG 451, Altec 165/175.
- **Favourite preamps:** John Hardy 2, Neotek desk.

"It's the same basic idea as with electric guitars. I'll try to have a dark [*Beyer, EV*], and a bright [*the rest*] microphone on the cabinet, the idea being that if you balance the low-frequency and high-frequency microphones, you can get a more accurate representation of what the cabinet sounds like. I normally run the low-frequency microphone through a soft compressor, at a ratio of 3:1 or 4:1, and it's not usually working more than 3–4 dB. I don't normally compress the brighter of the two microphones."

## Drums

### **Favourite microphones:**

- Bass drum front: AKG D112, EV RE20, Beyer M380.
- Bass drum back: small condenser or dynamic mic, often Shure SM98.
- Snare top: Altec 175, Sony C37p.
- Snare bottom (occasionally): Shure SM98, Altec 165/175.
- Toms: Josephson E22.
- Cymbals: Neumann SM2, AKG C24.
- Overheads: Coles STC4038, Beyer 160, Royer 122.
- Ambient: small-diaphragm condensers like Altec 150, Neumann 582.



"I have miked drums in quite a few different ways. Sometimes I'll just have an overhead microphone and a bass drum microphone.

Electrical Audio's well-stocked mic locker.

Normally there are close mics on all the drums, as well as ambient microphones, and a stereo microphone in front of the drum kit for cymbals. It's hard to describe where I place them and it varies a lot. If the drummer plays very lightly, then there's a lot of attack and not a lot of tone, and I want the microphone to look at the contact point of the snare drum. If the drummer is playing very hard and he's exciting the whole drum, I usually have to back the microphone off a little bit so that it's not overloading. For the ambient mics I'll walk around the room and see where it sounds good, and I usually have them on the floor to take advantage of the boundary effect, and to minimise early reflections.

"I'll occasionally compress the front bass-drum microphone while recording, in the same way as the bass guitar, at a low ratio of a couple of dBs. The snare drum tends to overwhelm the overhead microphones, so I'll have a very fast-acting peak limiter on the overhead to keep the snare drum from doing that. I don't normally compress the room but I'll sometimes delay the ambient microphones by a few milliseconds and that has the effect of getting rid of some of the slight phasing that you hear when you have microphones at a distance and up close. If you move them a little bit further away then they move out of what's called the Hass effect area, and when you move them far enough away they start sounding like acoustic reflections, which is what they are."

## Electrical Engineering

Albini's recording preferences find their reflection in his Chicago studio, Electrical Audio, a place where he also lives. ("It's a matter of making things more simple on a day-to-day basis. I don't have to drive anywhere.") Electrical Audio opened its doors in 1997, and its live recording areas are set up to cater for every acoustic eventuality. There are two dead recording rooms, two sizeable live rooms with high ceilings, and a huge third (1200 square foot) live room with oak floors and adobe walls.

"Adobe," explains Albini, "is unfired earth brick. It's very heavy but also very soft, so very good for acoustic isolation, with a lot of high-frequency diffusion. Most studios have made compromises in their acoustic

environments with recording spaces that are neither very live, nor very dead, and I feel that they're inappropriate in every situation. We've tried to create rooms that offer a range of big contrasts in their acoustics."

The studio also has two control rooms, each featuring desks from the relatively small Chicago company Neotek — a 96-input Elite and a 36-channel Series II. "I was very familiar with these desks," explains Albini, "because a lot of studios in Chicago have them. We wanted a number of custom changes made to our console, and some other console manufacturers weren't too keen to do this. But Neotek was happy to make all the changes to the Elite that we wanted."

Scrutinising Electrical Audio's equipment list further, aside from the Flying Faders automation on the Elite, perhaps the most striking aspect is the complete absence of computers and the very limited number of digital boxes, even in the outboard gear department. Electrical Audio must now be one of the few studios in the world today that's a computer-recording-free environment. Instead, pride of place goes to a number of analogue tape recorders, among them the Studer A820 16/24-track, an MCI JH16 eight-track, and Studer A820 and Ampex ATR102 two-tracks, which are "all refurbished, so effectively as new". Does Albini feel like he's holding the fort for a way of recording that's increasingly seen as outmoded?

"There are probably quite a few studios like us," objected Albini, "that don't have Pro Tools, but occasionally host digital sessions. When someone brings a project into our studio that was started on Pro Tools, they'll bring in a computer and carry on with it in here. And our studio is commercially available, so outside engineers sometimes bring Pro Tools sessions in. But for our normal day-to-day work it isn't necessary. I have always done things with the analogue method, and I still think it's the best method. So I have no reason to change. I've had a long time to accumulate equipment and microphones and techniques, and I've never been in a situation where I've had to say 'No, I can't do that, because we're working on tape.' If there were problems that I could not solve on tape, I might be compelled to use computers, but I've never encountered such a problem."

Albini also prefers analogue to digital for sonic reasons, although he reckons that high-resolution digital formats sound "OK". He adds "I like the high-resolution DSD/SACD consumer format, although SACD is now defunct as I

understand it. I also think that from a convenience point of view, for people who want to play music in a boombox or in the car, or at work or something, CDs are great. The iPod is the same. It doesn't sound great, but it's wonderful for providing background music for people while they do other things. But for critical listening, or for music that means a lot to me, these formats aren't good enough. A well-made vinyl record still sounds infinitely better than anything else."

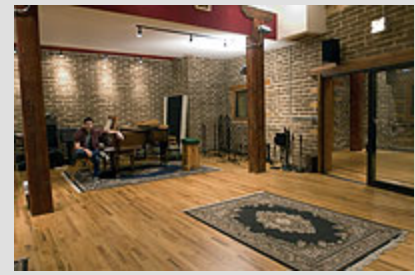
Having expertly demoted the once-prestigious CD to the status of the humble compact cassette, Albini carries on explaining that when working in his studio, he prefers recording to two-inch 16-track, which "sounds better than 24-track. There's less noise, less distortion, the bass response is flatter, and the high end is clearer. I record without Dolby, because I don't like the way noise reduction affects the sound. We do have Dolby HX Pro, which is a dynamic bias adjustment, built into our Studer A820 machines. When you modulate the bias dynamically, you can maintain headroom even with very bright, sharp transients. It doesn't affect the amount of hiss, it just creates more headroom. I've never found hiss a problem anyway."

### As Live As You Can Get

Clearly, Electric Audio is an unusual recording environment rooted in an unusual philosophy. So what, exactly, happens there after a band arrives? "When the band arrives at the studio I have a conversation to find out how they want to make their record, what sort of sounds they want, how fast they want to work, who is in charge in the band, and then we get started. I'll have everyone playing in the same room or spread them out over different rooms, as required. The important thing is that there is a clear line of sight for everyone. That's more important than whether they are physically in the same room.

"I prefer to record as much of the band in one live take as possible. If you do it any other way, the band is forced into an unnatural situation from the very beginning of the process. They play together in the rehearsal room and on stage, so it seems normal to me that they also play together when they come into the studio. With 90 percent of the records I do, the singing is recorded after the band, unless the singing is what leads the band. With folk-type records the singing often has to be done at the same time, otherwise it doesn't sound right."

Albini has gone on record as saying that recording a band is purely a technical issue, in the sense that he's doing little more than documenting what's happening as faithfully as possible. "I would very happy if my fingerprints weren't visible," he said seven years ago. In this sense his approach to engineering can be likened to realistic photography, although, as Albini concedes, even a photographer makes choices in how he depicts reality. "The idea that you can have an objective perspective in the studio is insane. I think great music is not made to suit objective criteria. Great music is made by people who are obsessed with something. I appreciate it when someone says 'That sounds good, but I hate it. I want it to sound more like this or like that.' I think it's an appropriate response for someone to say that they want something to sound strange in a specific way. And my job as an engineer is to make sure that the sound coming out of the speakers satisfies the band.



Electrical Audio is designed to offer a variety of acoustic spaces for recording.

"But even at his most extreme, Brian Eno didn't manipulate records as much as any sophomore in college does these days the moment he gets a Pro Tools rig. The manipulation capabilities of the digital editing programs are now so elaborate that sonic manipulation has become a cliché. I don't see the studio as a laboratory as more important than the band as a performing unit. Anyone can do whatever he wants in the studio — I would never say 'No, you're not allowed to do this.' But in the same way that not every movie should look like *Star Wars*, I don't think every record should be manipulated to the extent that they often are. I don't understand where the impulse comes from to make a record that doesn't have any relationship to the sound of the real band. That seems crazy to me."

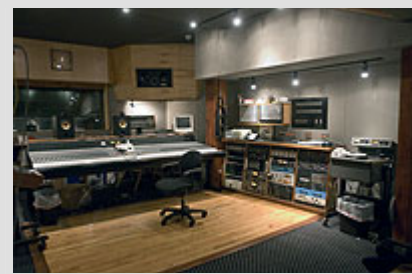
But what, for instance, if in his opinion an arrangement of a song doesn't work? Surely, many bands come to him because of his reputation and would therefore want him to comment or improve on what they're doing? "It's none of my business," replies Albini. "If the band has decided to do something, it's their record. I think it's rude for an engineer or producer to say 'You guys are wrong about your own music.' I think that's almost unforgivable. It's like saying 'Here, let me show you how to f\*\*k your wife. You're doing it all wrong.' It just seems crazy.

"If a band asks me for my opinion, I'm happy to present them with options, but I'm not going to make their records for them. I know that my tastes are not the same as everyone else's. My tastes are actually f\*\*ked up. I like music that is in a lot of cases unpleasant. If I were to try to satisfy my own tastes with every record that comes to me as an engineer, I'd make a lot of freakish records that wouldn't flatter the band in any way, and no-one would like them. So I could not possibly exert my own aesthetic on every record that comes in here."

## Desk Mods

The advantage of dealing with a small, local desk manufacturer such as Neotek is that Steve Albin has been able to ask for numerous custom modifications to the Elite desk that's in one of Electrical Audio's control rooms. "One of the most important changes was to the stereo master output. In the original design there was a wide-bandwidth power amplifier that was used as the output drive amplifier. The idea was that you would put your stereo outputs in parallel to this one output amplifier. We had separate output buffers installed for each stereo output, so if there's a problem with the CD recorder or DAT machine or digital converters, it won't f\*\*k up your master recording. Isolating all the stereo outputs made for a safer system as far as the stereo master is concerned. "The stereo master also has a pre-fader insert that wasn't on the original console. You can assign an auxiliary stereo buss from any of the channels, and this allows you to have parallel outboard processing on some channels. By using the return from that auxiliary stereo buss you can have, for example, a side mixer or an outboard Pro Tools rig or any number of things that you can add to the stereo buss, without having to go through channel electronics.

"In the original console there were a series of mute groups that you could assign using the solo and play buttons on the channels. Because we were using the Flying Faders and the solo and play function wasn't necessary, we had all of that removed just to avoid the possibility of muting parts of the desk.



The Neotek Elite desk in the larger control room at Electrical Audio has been extensively modified.

"The subgroup outputs of the desk can be stereo submasters that go through a stereo mix or they can be submasters that go out of the desk as output busses. We had those converted so that there was an insert on each of those busses, again to allow for parallel processing. The subgroups now all have direct outputs as well. We envisioned that it would be useful for surround mixing if we were ever asked to do that. But surround mixing has basically disappeared, so I don't think that will ever happen."

### Leave Well Alone

Although Albini is willing to do something "fantastic" when required, it doesn't come as a surprise that he's reluctant to apply many effects at any stage of the recording, whether recording or mixing. He takes issue with those engineers and producers who like to fix it in the mix, and even with respected studio forces like producer Daniel Lanois, who has described the mix as a performance. "I think that's a very egotistical statement," opines Albini. "I don't subscribe to the idea that you make a record during the mixing stage. That's putting too much emphasis on it."

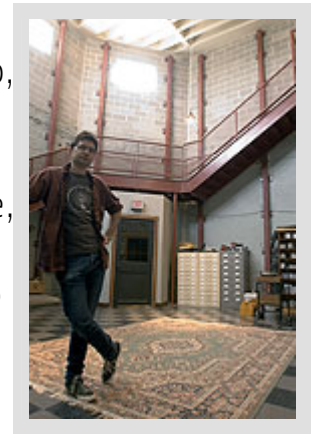
"Ninety-nine percent of mixing is the balance. If you can hear what everyone is doing, and it all sounds flattering, then you can't really make any mistakes. In most cases there's a natural stereo balance that you try to duplicate. Panning is part of that balance. I'm not a fan of dynamically panning things, with things moving about. I tend to present things from the perspective of the musician: if you're sitting at the drums, then the hi-hat is at the left and the floor tom on the right, if you're a right-handed drummer."

Given the omnipresence of compression on today's recordings, particularly in grunge rock, it's perhaps surprising to find he doesn't actually like compression very much. "I'm not a fan of the sound of compression and I try to avoid it. I've used stereo buss compression on one of the hundreds of records I've made, and that was an experiment and I learned what I needed from that. There will occasionally be compression on individual instruments in the mix, but not often. I don't normally try to get rid of wild dynamics. I try to incorporate them. If it sounds good, it sounds good, if it doesn't, it doesn't. When I can hear compression working I'm kind of irritated by it. It

bothers me because it seems like I'm hearing this machine rather than the band."

Albini's tune is much the same with regard to other effects and processors. "Occasionally I'll use some EQ during the mixing, because you can have overlapping sounds that cause interference problems, and so you use EQ to open up the sound a little bit. I may use a gentle passive shelf equaliser rather than a resonant band-pass equaliser on the stereo buss, or on a stereo submix, if I need to brighten up the drum overhead microphones, or if I have a vocal that needs a little bit of brightening. I also sometimes put the NTI EQ3 or GML 8200 across the stereo buss.

"With regards to reverbs, we have the best in the world. We have a really nice, beautiful-sounding old plate reverb, the Echoplate, and we have a spring reverb tower, the AKG BX20, which in its day was the bee's knees for long reverbs. It was a \$5000-10,000 device when it was made, in the late '60s and early '70s. It's about six feet tall and has two spiral reverb springs and it sounds lovely. We also have the Quantec XRS XL, which for my money is the best digital reverb ever, and with the Klark Teknik DN780 and the Lexicon PCM70, PCM80 and Prime Time, we have all the necessary options for reverb.



"I nevertheless don't find myself using reverb very often, because I don't think it's as necessary as most engineers and producers think it is. They use it almost a reaction, an automatic reflex: when a singer starts singing, they put reverb on it. It's a thing that's done *pro forma* a lot of the time. They put it on because they feel they're supposed to. I've never had that response. I'll wait until someone says 'That sounds weird,' and then I'll try reverb. And if you do need reverb, it's great to have really nice ones available and not to have to make do with lots of artificial crap."

Albini lays down the final mixes at Electrical Audio on half-inch analogue tape, mostly using the Ampex ATR102. He's happy to make CD listening copies for the band, but insists on analogue mixdown because he reckons that the problems with the durability of digital storage media are as unresolved as ever. But with all the recent upheavals in analogue tape production, doesn't he worry about the longevity of the analogue medium?



"I don't think that digital tape will be manufactured for much longer," reckons Albini, "but analogue tape is manufactured again as we speak."

Indeed, after being shut down because of bankruptcy at the end of 2004, Quantegy has recently been taken over by a company called Discount Tape and is back in production. Albini also points to the British company Zonal, which used to supply the BBC, and apparently plans to produce tape again, to a Dutch company that has bought a former Philips cassette tape plant and the rights to Agfa and Mtech tape, and to ATR Services in Pennsylvania. The latter intends to begin manufacturing analogue tape later this year under the name ATR Magnetics. But the latest word from Holland is that with Quantegy back in the market, the PDM company has for now suspended plans to enter the professional tape market.

Albini is unconcerned by all this uncertainty. "To be honest, I saw it coming, and we built up a huge stockpile of analogue tape here." In more ways than one, Albini remains ahead of the game.

Published in SOS September 2005

## David Gedge, Dare Mason & Steve Albini: Recording Cinerama's Disco Volante

Published in SOS February 2001

Wedding Present frontman David Gedge and engineer/producer Steve Albini are both associated with brutally loud guitar-based alternative music — so what would happen when they collaborated on an album influenced more by Serge Gainsbourg than The Stooges? **Tom Flint** investigates...

"When I explained my idea on the phone he said 'That sounds hideous!'" laughs David Gedge, describing Steve Albini's initial reaction to the Cinerama concept. It was perhaps not entirely surprising that the idea of arranging and producing Gedge's indie rock/pop compositions in a style more typical of John Barry and Ennio Morricone should provoke such a response from Albini, given the latter's history as a producer and engineer. Having first gained notoriety as leader of American hardcore-punk band Big Black, Albini went on to produce Nirvana's *In Utero*, The Pixies' *Surfer Rosa*, and PJ Harvey's *Mansize*. To most, therefore, he would not have seemed the most obvious choice for such a project like Cinerama, but David Gedge has often been unpredictable in his choices.

### New Deal

For *Disco Volante*, Gedge decided to set up his own label, named Scopitones (See the 'Keeping Your Independence' box on page 182). By doing so he took on the responsibility of financing the album himself, so as with *Va Va Voom*, the budget was a limiting factor.

As if to acknowledge the John Barry influence and to firmly set out his intentions for *Disco Volante*, Gedge named the album after the hydrofoil owned by Largo in the 1965 James Bond film *Thunderball*. Once again Sally Murrell was available for backing vocals, but also joining the band was Wedding Present guitarist Simon Cleave who supplied what were to become the *Disco Volante* 'surf guitar' parts. Aiming to introduce a little more of the Wedding Present feel into the project, Gedge decided to re-establish his collaboration with Steve Albini, who had produced The Wedding Present's 1991 album *Seamonsters*. "I chose Steve for quite a few reasons," explains

Gedge. "I think he's one of the best engineers in the world and I've really liked the sound of everything he's done. His technique isn't anything mystifying. He's got a massive collection of mics, so for his drum sound all he does is get a great drum kit, then mike it up in an acoustically perfect room with great mics. If you think about it, it's so obvious to do that and it works. I thought it might work with Cinerama as well, but a few people in the band were saying it couldn't possibly, which made me more determined.

"I gave him a list of 'influences' which would've included The Wedding Present, Ennio Morricone, John Barry, Burt Bacharach and surf music, amongst others, but it was probably when I mentioned Serge Gainsbourg that he went 'Aaaaargh!'. He always uses the adjective 'French' in a disparaging way, so after that I played it down a bit and was a bit more sparing with the information! From that point on, whenever he didn't like something we'd done in the studio he'd say 'That sounds sooo French!'

"I didn't give him an advance cassette, and in the past he didn't work from tapes. When we play the songs it's the first time he hears them. I was thinking that if it didn't work I'd have to do it again with a more sympathetic producer, but when he got into it he wanted to do the whole project, which was a relief!"

Albini explains his initial thoughts on the proposed album. "In the abstract, it sounded like an exploration of territory that quite a few people were covering at the time — light orchestrations, soundtrack influences. But I had innate faith that David would be smart and tasteful enough to avoid the formulaic triviality of many of the laid-back orchestrated pop projects, and Cinerama is better than you would expect if the music had been described to you."

### Electrical Effects

All of the initial band recording was done at Electrical Audio in Chicago, a facility designed by Albini and constructed to his own specification. One of the most significant design features of the studio is its deliberate 'all analogue' setup, based around a Studer 820 24-track, Neotek Series II console, Ampex ATR102 half-inch mixdown deck and B&W 805 Matrix monitors. The exclusively analogue setup at Electrical Audio determined

which elements of the Cinerama album could and couldn't be recorded there, as Dare Mason explains. "David wasn't sure how he wanted to do the second album but he did want Albini to do the really crucial things, like the guitar and the drums. Again it was down to budget constraints. If he'd done it all on analogue it would have taken weeks, we wouldn't have been able to fly in any vocals, or do all the cutting, pasting, dragging and dropping that you can in digital audio, so they would have had to play and sing everything on the album, which would have taken far too long and cost far too much. The plan was to bring the project back here and have lots of time to do things like vocals and strings. We knew the string, horn and trumpet players we wanted to use so it made a lot of sense for the overdubs."

Given the music's heavy John Barry influence and the vintage analogue surroundings, it would only have taken the addition of a few men wearing white coats and clutching clipboards to complete the image of the SPECTRE headquarters from a 1960s Bond film. And, as Gedge explains, that image was surprisingly close to the truth: "All the people who work there wear overalls. It's like the technical department of BBC Radiophonic Workshop or something. Albini said they just felt that they were at work and in a different frame of mind when they put their overalls on, so they kept wearing them."

Albini reveals more of the reasons behind the curious protocol. "It isn't a dress code, any more than when fly-fishermen all wear wading boots. One day I came to work and one of the guys had gotten a bunch of these overalls made. He handed me a set and said, 'Here's your jumpsuit.' I've worn them in the studio ever since, and so do most of the other guys here. They are an ideal work outfit — big pockets for carrying things around, heavy protection from bumping into things and for carrying things, and they keep my clothes from getting dirty and torn up. Most of making a record is like working in a warehouse (without the forklifts) — carrying things from one place to another, lifting things, crawling around under things, tidying up, and so on. The jumpsuits are great for that."

### The Recording Process

Although no strings or brass were to be recorded in Chicago, they were integral to the Cinerama sound, so Gedge took his Akai S3000 sampler loaded with the relevant samples and a laptop running *Cakewalk* to trigger them. "When we rehearsed, we played to a click track and I had the sampler

going through a PA into the rest of the room," explains Gedge. "It was a bit weird, because the band had to play knowing that would be added later, but it was well rehearsed. That's the other thing about Albini, you have to be well rehearsed because he loses patience quickly."

Once again Albini is emphatic about his preference for well-rehearsed bands and his approach to recording. "It stands to reason that if a band is ready to play its music before arriving in the studio, the end result will be more confident, and that decisions about it can be made more efficiently than otherwise. If you've never heard a song played all the way through before, how will you know if it's played to its full potential? It always helps to have a memory of the song being played as a reference.

"I try to audition things as they are set up, starting with the drums and moving from one instrument to the next, readjusting whenever something sounds bad. It isn't my style to use a standard setup and make adjustments after the recording is done. Certain songs require a different technique on one instrument or another depending on volume, tone and mood. It is part of the job to be sensitive to such things and make adjustments on the fly as necessary.

"I don't remember which mics and preamps I used precisely, but there would have been close mics on the drums, overhead mics and distant

### Steve Albini's Recording Maxims

*Disco Volante* is just one of countless projects that Steve Albini has engineered at Electrical Audio — but his philosophy has remained consistent across all of them, as he explains. "I don't know how many specific techniques are common to the work I've done with other bands, but the underlying conceptual rules would be the same:

- Be prepared for anything the band wants to do.
- Fix it now, not later.
- If it doesn't sound good to the band, it doesn't sound good.
- The band is the boss. I consider myself to be an engineer. The producer is responsible for artistic decisions on the record, and I am not. An engineer is responsible for the technical execution of the recording, as I am.
- Don't take shortcuts if they will be noticeable."

ambient mics. I was trying to be prepared for any eventuality in the final mix. There is occasionally some spillage, but I try to ensure that it is never a problem. I wasn't there when it was mixed, so I don't know if there were any later complaints. I seldom use any compression, limiting or EQ, except in specific trouble cases. I probably brightened the snare mic, and I think I limited one of the overhead mics as a special effect. That's probably about it. I don't recall which mics I used on the rest of the session. It could have been any of a dozen mics for each, depending on how it sounded on the day. I have over 200 microphones, and each of them has special characteristics that make them useful or not in different circumstances. Knowing them is part of the job. I don't recall using any effects, but I may be mistaken. The studio has a huge collection of equipment, so anything that was required was available, but I don't recall what was used in each instance."

### Over The Top

By the end of the Chicago session, the drums, bass, some of the electric guitars and some vocals had been recorded. Albini then sent the 24-track two-inch master to Dare Mason for the addition of the overdubs. But before any work could commence, the audio had to be transferred into *Cubase*.

"It was a bit of a nightmare!" admits Dare. "Dave is nothing if not methodical and organised, but it wasn't as simple as he thought it would be. The sequenced sounds and click had been dumped onto a couple of analogue tracks. The main problem was that the click was not generated by SMPTE so it wasn't tied to any kind of timecode. I received a 24-track tape with a shaker for a click which was just 'shhh shhh shhh', and it had crosstalk all over it from the guide tracks. On top of that, the tape had been edited by Albini between various takes.

"I found a way around it with the help of another engineer called Chris Madden. Firstly we transferred it from 24-track onto RADAR so we knew it was going to be stable with no wow and flutter problems. We managed to sync RADAR and *Cubase* via the word clock and MIDI sync at the same time via a very complicated process that I can't even remember now! It was like being a bomb disposal expert for two days."

There were 10 tracks of drums to choose from. He'd put mics on the front and back of the bass drum, and there were four or five ambient mics. Two

of those were overheads with loads of room sound on and I think he'd tried to compensate by moving the other overhead mics quite close to the cymbals. Albini had had to record 13 tracks in four days, and 'Wow' had to be completely finished apart from strings and horns because Dave wanted to release a single before the album came out, so they did work the poor guy's butt off. I had the luxury of working in a very relaxed fashion here.

"Absolutely no reverb was added to the drums. I know it's hard to believe, but it's all just the live room. Albini must have recorded it in a massive room with the mics quite distant. If anything that was a problem, because even the close mics sounded like they were recorded in a big room. It's all about your taste and subjectivity, and if it had been up to me the drums wouldn't have been so ambient because I like things to sound like they're recorded in the same space, but David has a different vision, which is great because it sounds more unique than it would if I'd mixed it to my taste. David would be saying 'Can't we make the drums sound a bit more ambient?', while I was saying 'For f--k's sake man, it sounds like Led Zeppelin already!'

"Once I've got organised on the first mix in terms of channels on the desk and where things are coming up, it pretty much flows through. I get the band sounding pretty good then put the vocal in and work on that. Then I start putting all the bits of icing around. Once I have everything in at a balance that I like, Dave will come in and ask for a little bit more ambience on the drums, and say 'Aren't the vocals a bit loud?' That's usually what it boils down to and that's usually a bit of a fight between me and him. I think I've persuaded him that the vocals do need to be a bit louder than he thinks. He's so used to them being buried under the guitars in *The Wedding Present*. The lyrics are at least 50 percent of what *Cinerama* is about, so I really like people to be able to hear the words, but Dave gets his own way with the drums and the ambience!"

### Pure Analogue

Steve Albini explains why digital equipment has no place in his studio: "Analogue sounds better than digital to my ears, more true to the sound of the instruments and voices. There are no real advantages to abandoning either the proven equipment or techniques, and analogue masters are permanent — lasting 100 years or so at last estimate —

while digital masters are not. There's an arcane technical discussion involved here, but the gist of it is that digital recording systems keep being discontinued, or are no longer functionally adequate, and the masters are either hard-disk files with no physical being, or physical tape/disc copies, which deteriorate of their own accord in a relatively short time period, and I consider the minimum requirement of my job to be making a permanent recording.

"Digital systems invite an entire slew of problems, akin to computer glitches in all other walks of life, into the studio, and I don't want to inflict them on the band or their audience. Analogue systems are more reliable, faster and easier to use. They're more robust with respect to abuse, easier to maintain and repair, better suited to creative/experimental recording techniques and less fatiguing on the operators and listeners. Lastly, analogue equipment holds its value far better, which is a consideration when investing in equipment for the long term."

### Into The World

Once the mixes were complete, the album was mastered at Hilton Grove by Guy Davis and released in the summer of 2000. A special heavy vinyl edition was sent by Gedge to Albini (knowing his preference for that format), and was the first opportunity for the engineer to hear the finished result. While describing the album as 'a fine record' Albini had reservations about the process. "I always prefer to be involved from start to finish because I have high standards, and I like to see them maintained. It breeds inconsistencies and compromised results when a project is taken from one engineer and environment and thrust into another. This is as true for Cinerama as anything else."

While happy with the results of this hybrid project, Gedge also sees a full project with Steve Albini as a possibility. "I'd like to do a whole project with Albini from beginning to end with all the orchestration because he's quite into that. He's known as this grunge producer, but his big idol is George Martin and he loves Abbey Road studios. I think he gave *Disco Volante* a certain edge it wouldn't have had otherwise — and the drums sound great! I do want to do some more Wedding Present stuff again in the future but I'm



not sure if I'll try to bring in more instruments or just enjoy the limitation again. Only time will tell."

Visit the Cinerama website at: [www.cinerama.co.uk](http://www.cinerama.co.uk)

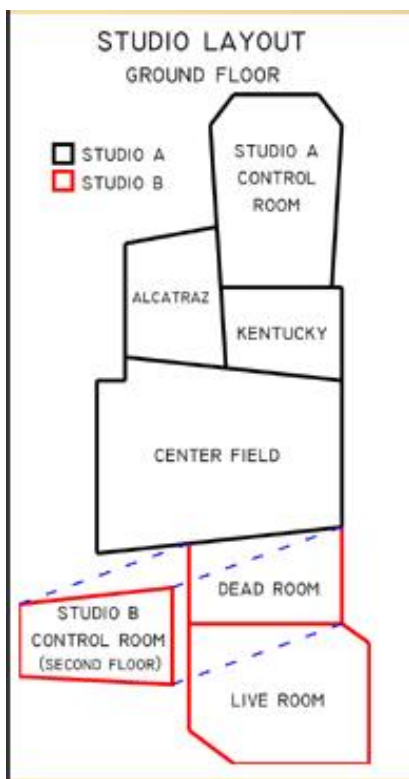
Published in SOS February 2001

## Electrical Audio

From Wikipedia, the free encyclopedia

**Electrical Audio** is a recording studio complex located in Chicago, Illinois, which was founded by Steve Albini in 1997. A large number of independent music projects have been recorded at this studio. This studio is particularly unique, since it was one of the few recording studios that was fully-analog, including mixing consoles, tape recorders and many outboard sound effects (the rooms are also designed to offer natural reverberation).

In a post on the studio's message board, the studio's technician Greg Norman revealed that the studio had acquired a Pro Tools rig, citing that it had become "as important to have as a piano". He also went on to say that Albini "won't be recording with it. So don't ask him about it."



**Studio A** is the larger of the two studios and has three separate performance rooms, has its own lounge, espresso bar, sink and toilets, and has an entrance door providing privacy and self-sufficiency. Control room and lounge have Ethernet connection to our high-speed internet line.

**Center Field:** 1200 square foot live room with oak floors, adobe walls and an asymmetrical ceiling

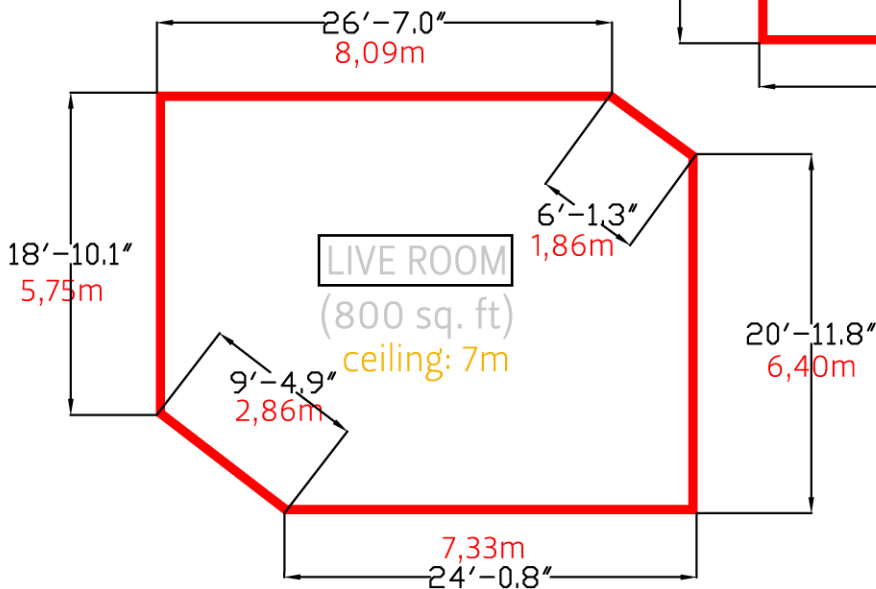
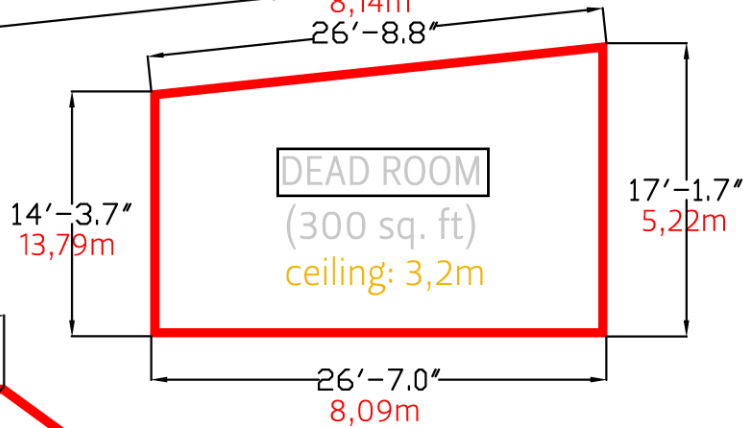
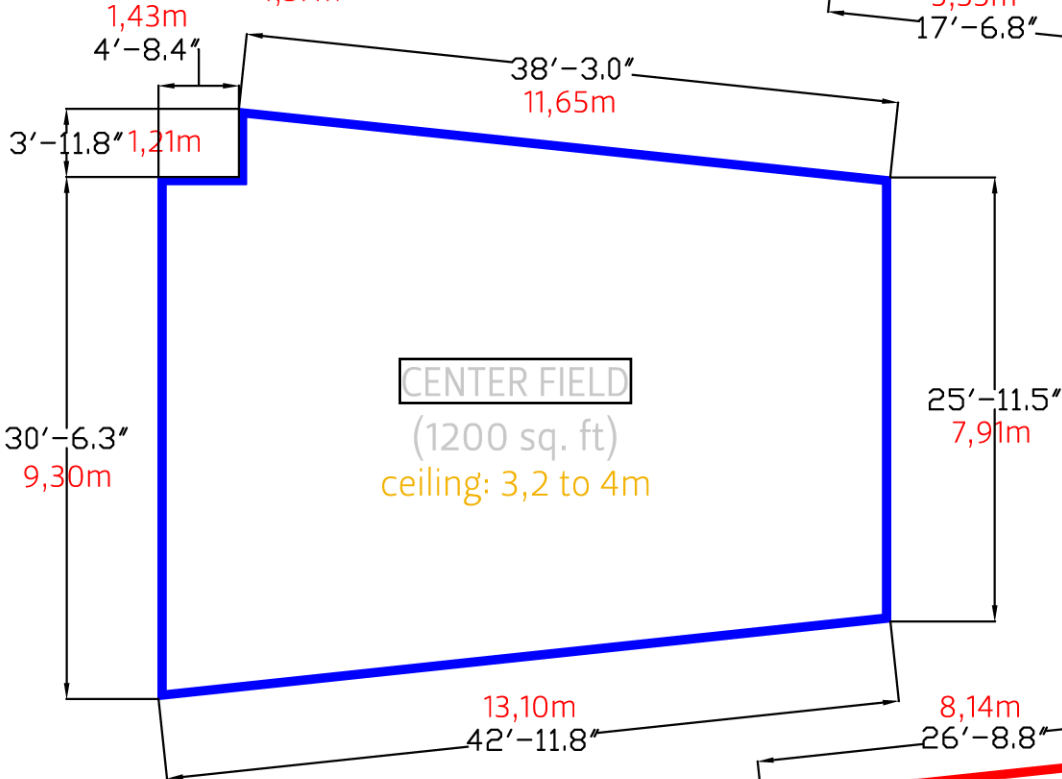
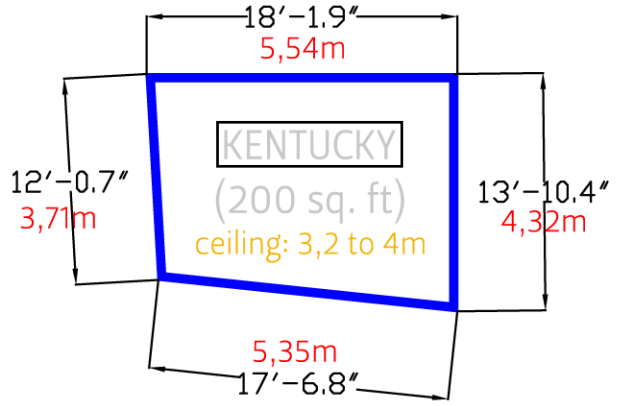
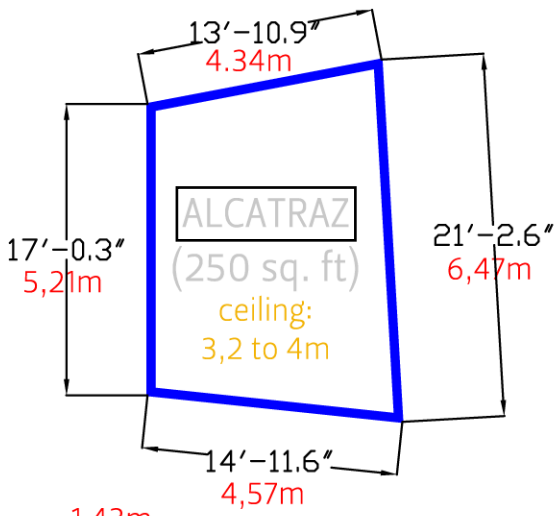
**Alcatraz:** exceptionally dry isolation room with extensive trapping, damping and isolation down to very low frequencies

**Kentucky:** smaller, bright live room with excellent low frequency linearity

**Studio B** is the smaller and less expensive of our studios. By most standards it is still quite large, with an 800 square foot **live room** (with 30 foot ceiling) and a 300 square foot **isolation room**. The **control room** is also 300 square feet. There is a small, uncomfortable booth as well. All of the musical instruments, amplifiers and cabinets are available to either studio, with the exception of the pianos, which should stay where they are. There's a 1901 Nelson and Wiggin Piano, which has been rebuilt and restrung.

**NOTE:** the dimensions mentioned in the next page are **ROUGH ESTIMATES**, made by comparing approximate room area [in square feet] vs. room proportion, based on analysis of the "Studio Layout" image shown above.

# ESTIMATED DIMENSIONS OF RECORDING ROOMS



 STUDIO A

 STUDIO B

\*\* Click on each of the rooms to listen to a snare sample.

## STUDIO A – ALCATRAZ [Details]

Some recording tasks require close recording with no room ambience; "dead" or "dry" recording, in the colorful language of the trade. Alcatraz is as dead a space as we could make.

Deadenning high-frequency sound is fairly easily done; as the wavelengths are short, absorbent materials can be applied to surfaces to a depth that determines the cut-off frequency. To deaden lower frequencies, this approach is impractical, as the absorbent material would need to be ever thicker to absorb the acoustic energy at long wavelengths. A low E on a bass guitar, for example, at 42Hz would not be affected by absorbent trapping unless it was a significant fraction of the 24-foot wavelength in depth.

To control low frequencies in Alcatraz, we have used a membrane absorber and a perimeter vent to couple the performance space with a dead air volume in the basement -- effectively increasing the air volume to almost double for low frequencies. Both of these measures have given Alcatraz excellent low-frequency performance, which is evident when recording drums, bass and heavy guitar.

A dry environment can also accentuate subtleties in the sound of wood-bodied acoustic instruments and increases the intelligibility of voice recording, for "...in a world..."-style movie-trailer narration.

A nice feature of a highly-absorbent dead room like Alcatraz is that little or no baffling is required to achieve a high degree of separation and isolation for amplifiers and instruments sharing the room.

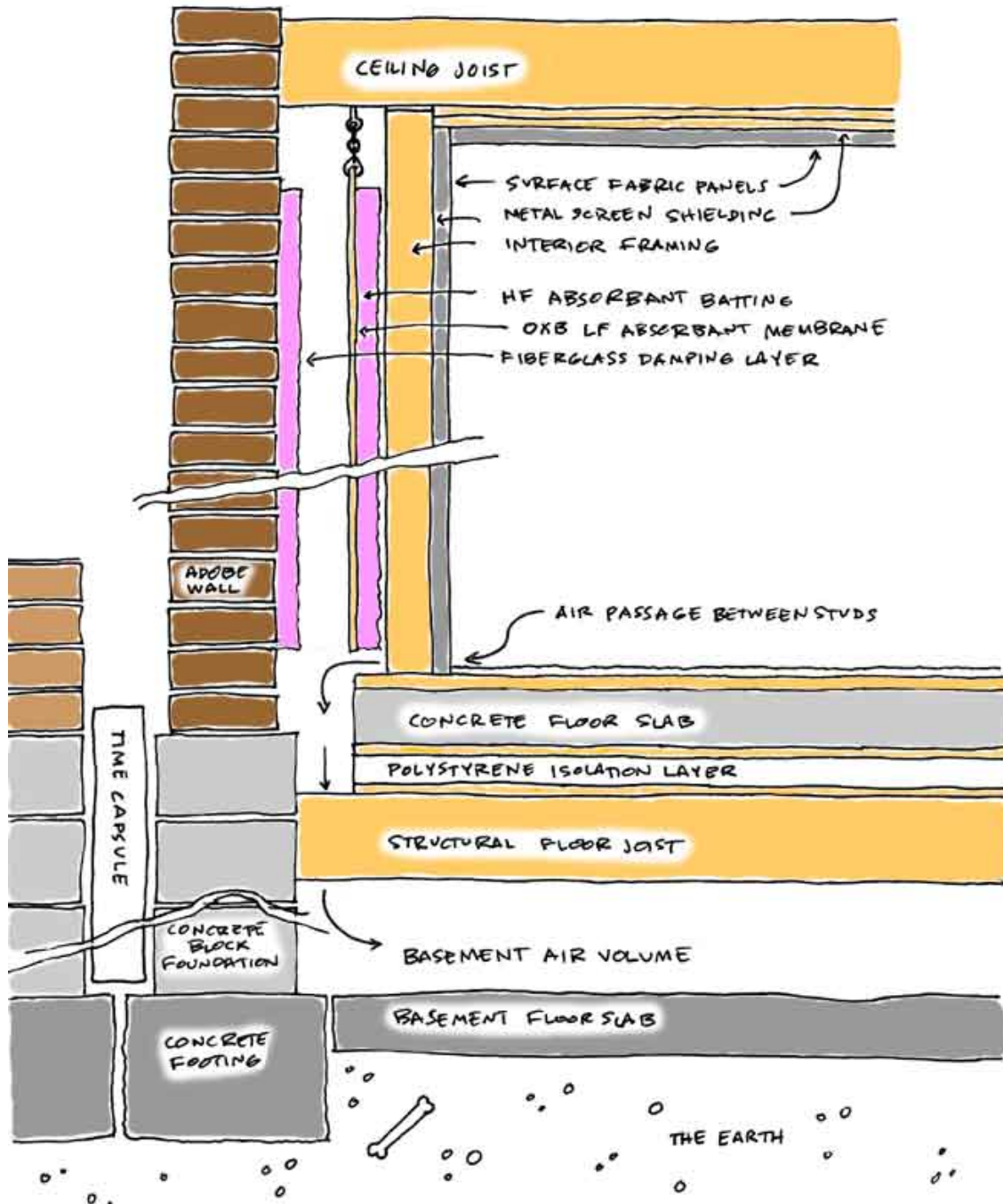
## Alcatraz Membrane Absorber [Construction Details]

The membrane absorbers in Control Room A and Alcatraz are large surface-area panels that completely encircle the room. They are different from traditional "bass traps" in that they work by reducing the power of the sound waves rather than the velocity of the pressure front.

*Sound energy strikes membrane, membrane flexes, dissipating energy as heat.*

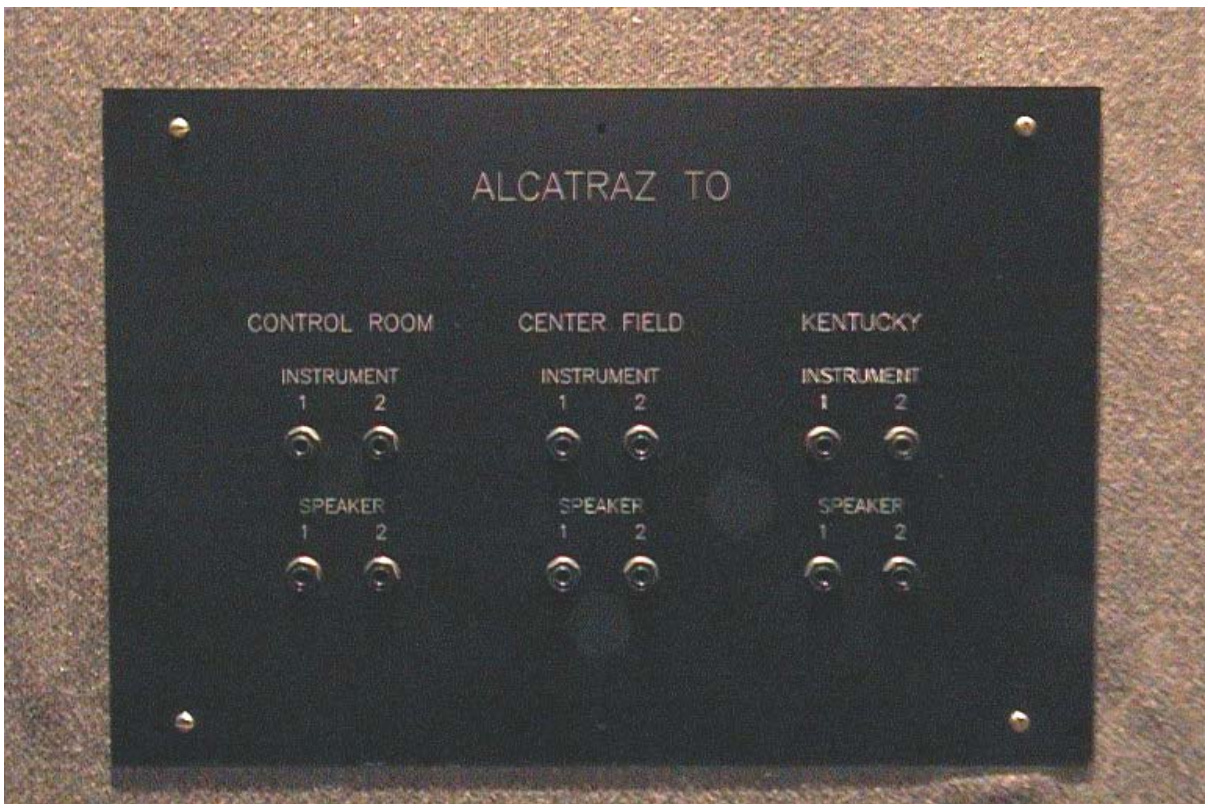
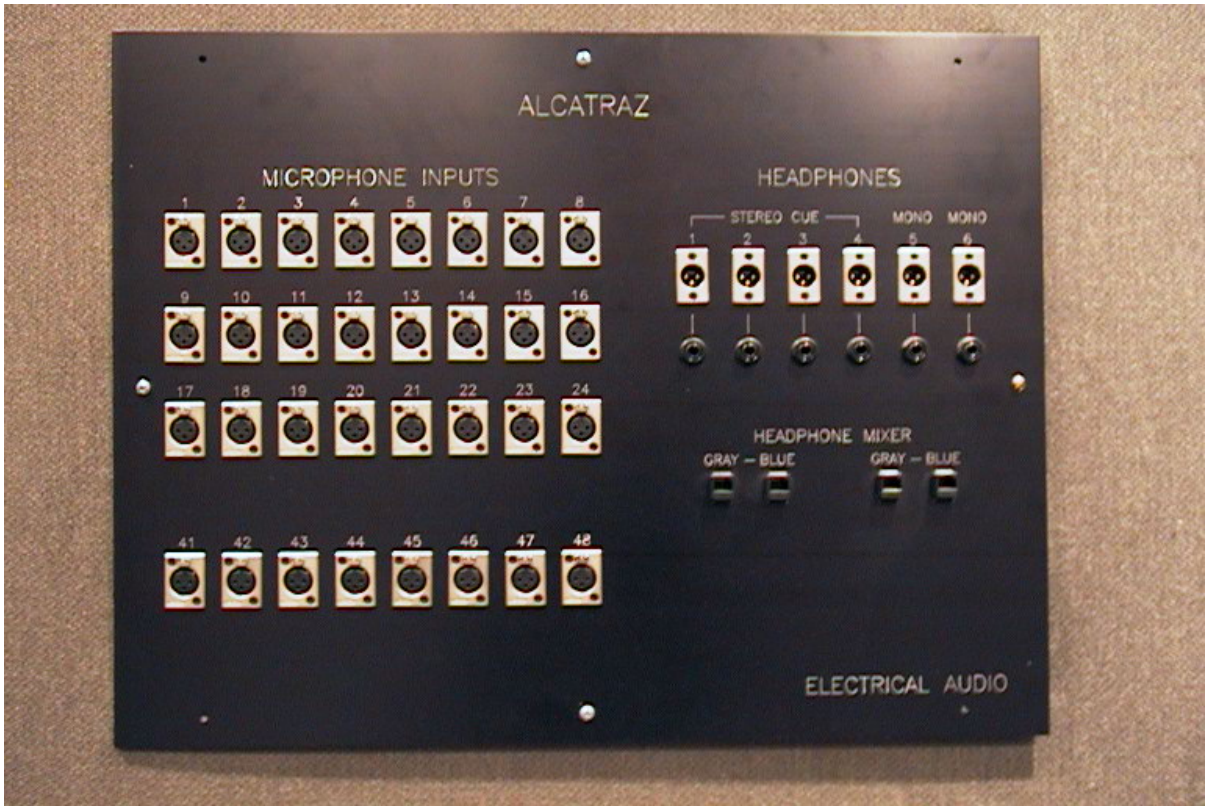
The membrane panels are lap-jointed on flat walls, and coupled with resilient straps at the corners, making the entire surface area of the absorbers effective, rather than the individual panels.

The membranes are made of oriented-strand board (OSB), and are suspended from the structural ceiling members. The membrane panels are hidden from view by the interior fabric panels.



Alcatraz Room Pictures





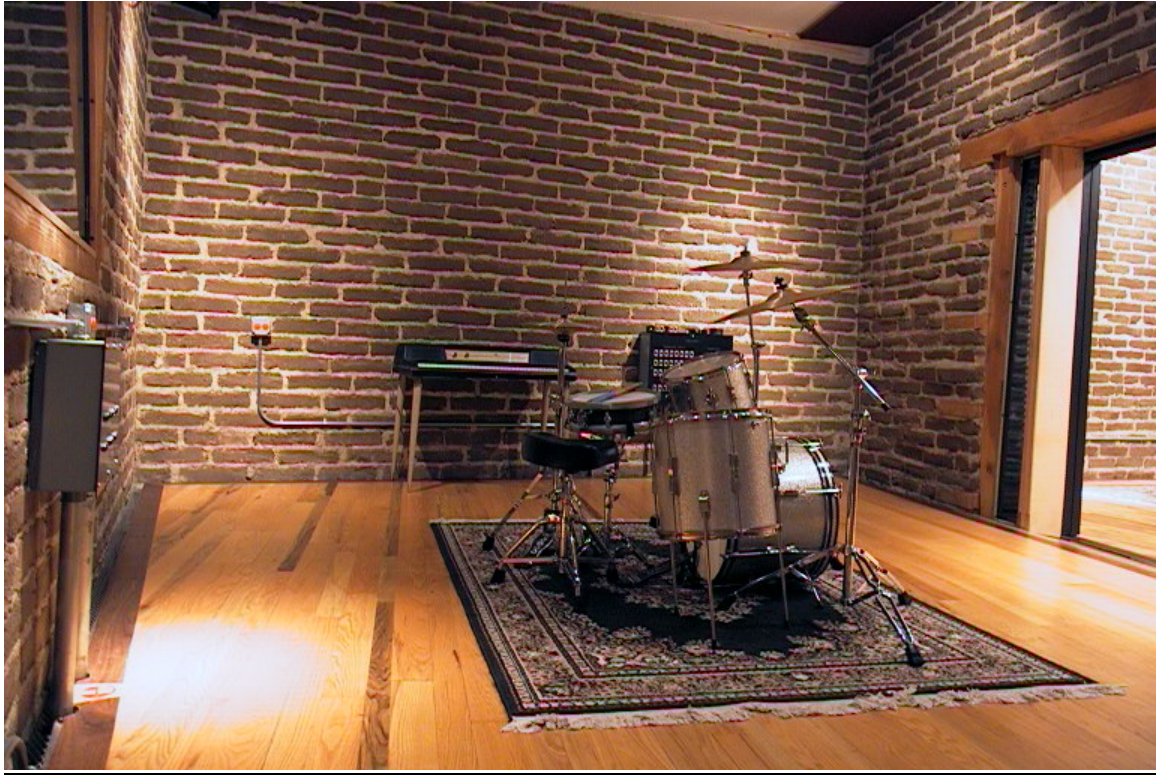


STUDIO A – KENTUCKY [Photos]

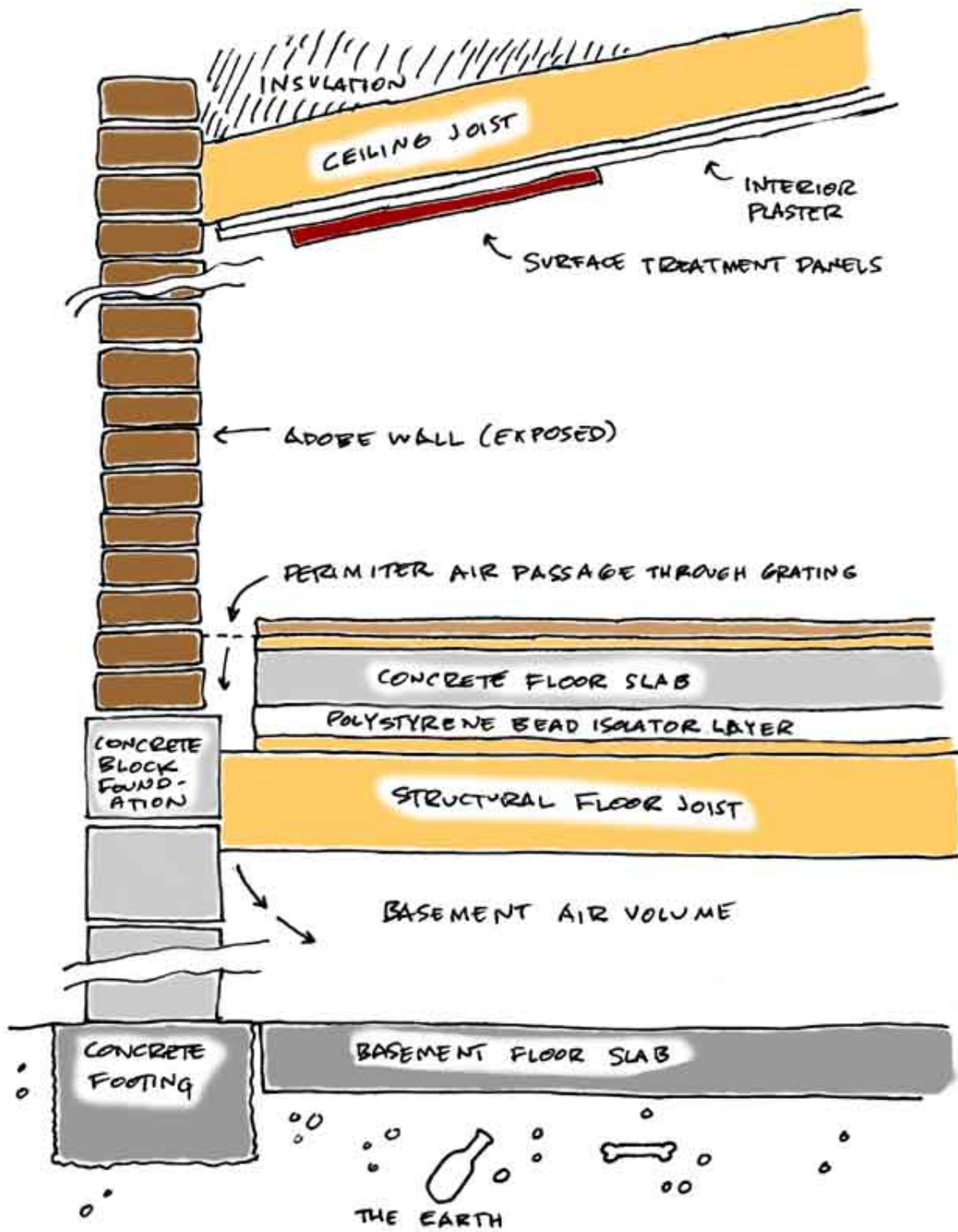








Kentucky [Construction Details]



STUDIO A – CENTERFIELD [Photos]





Centerfield [Diffuser Photo]



## STUDIO A – CONTROL ROOM [Details]

The control room has a flat response down to very low frequencies and is exceptionally even in sound quality, regardless of listener position.

The control room is designed to accommodate larger groups of people, with several specific features in this regard:

- Separate nearfield monitors for rear sofa
- Exceptional ventilation to clear smoke and funk
- Huge furniture sturdy enough for gymnastics or the obese
- Clear central area for walking around

All studio areas are connected with mic, instrument and loudspeaker tie lines allowing musicians, amplifiers and cabinets to be located independent of each other anywhere in the studio.

Studio A normally has 2 multitracks and 2 mixdown machines, but can accommodate an absurd number of tracks for recording and playback, if that's your bag.

In addition to the fixed equipment, Studio A can accommodate up to 48 lines of additional outboard through tie panels which connect to the patch bay.

If desired, a digital multitrack or DAW system can be integrated into the studio in place of one or more of the multitrack machines using ELCO connectors.

The console can accommodate 132 inputs if you want to drive yourself crazy.

Tie lines and a remote mic panel allow studio A to use Studio B's live room while maintaining full Studio A facilities.

Headphone mixers provide independent unique mixes for each musician without any attention from the engineer.

The control room is designed to have minimal reflected energy, to provide uncolored sound from the loudspeakers. This type of listening environment is commonly called "once past the ears", in acoustic geek circles, since the

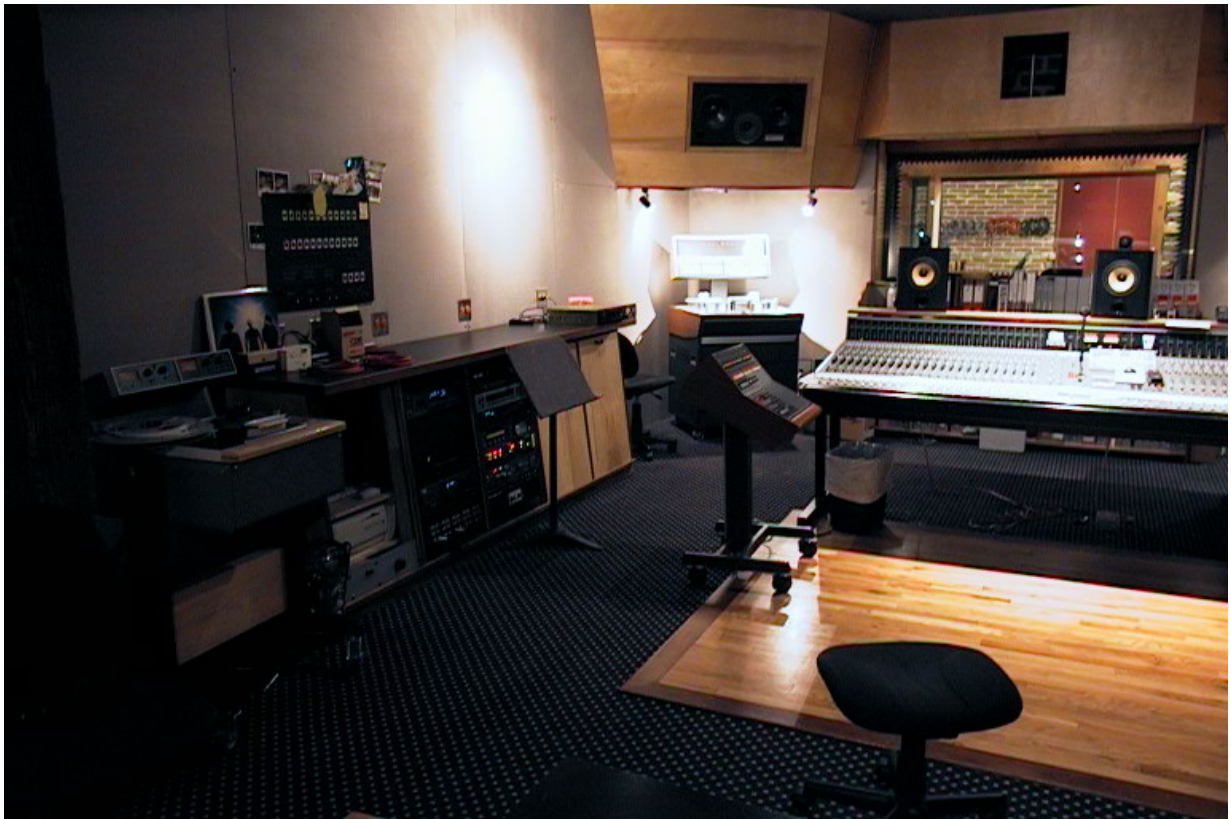
sound leaving the speakers goes once past the ears, then disappears. This provides accurate and even sound, which is great for studio monitoring, but not necessarily appropriate for dancing or making out. For these purposes we recommend the lounge or client offices.

The equipment racks are pressurized with cold air, and there is a dedicated AC unit for cooling and airflow across the equipment. This improves reliability of the equipment and forces dust, smoke and funk away from the equipment. Exhaust and AC returns are located in the center and rear of the control room, which increases the efficiency of smoke and fart removal.

The control room of Studio A houses a customized 48 channel Neotek Elite console with Neve Flying Faders automation.

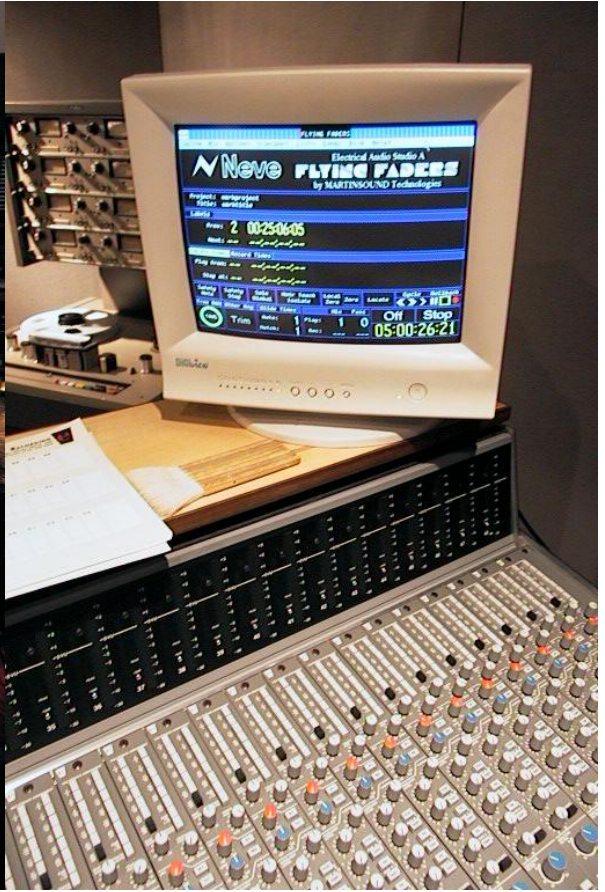
There are 2 in-house sets of monitors. In the soffits we have 3 way Westlakes, and for nearfields we have a pair of B&W Matrix 805's.

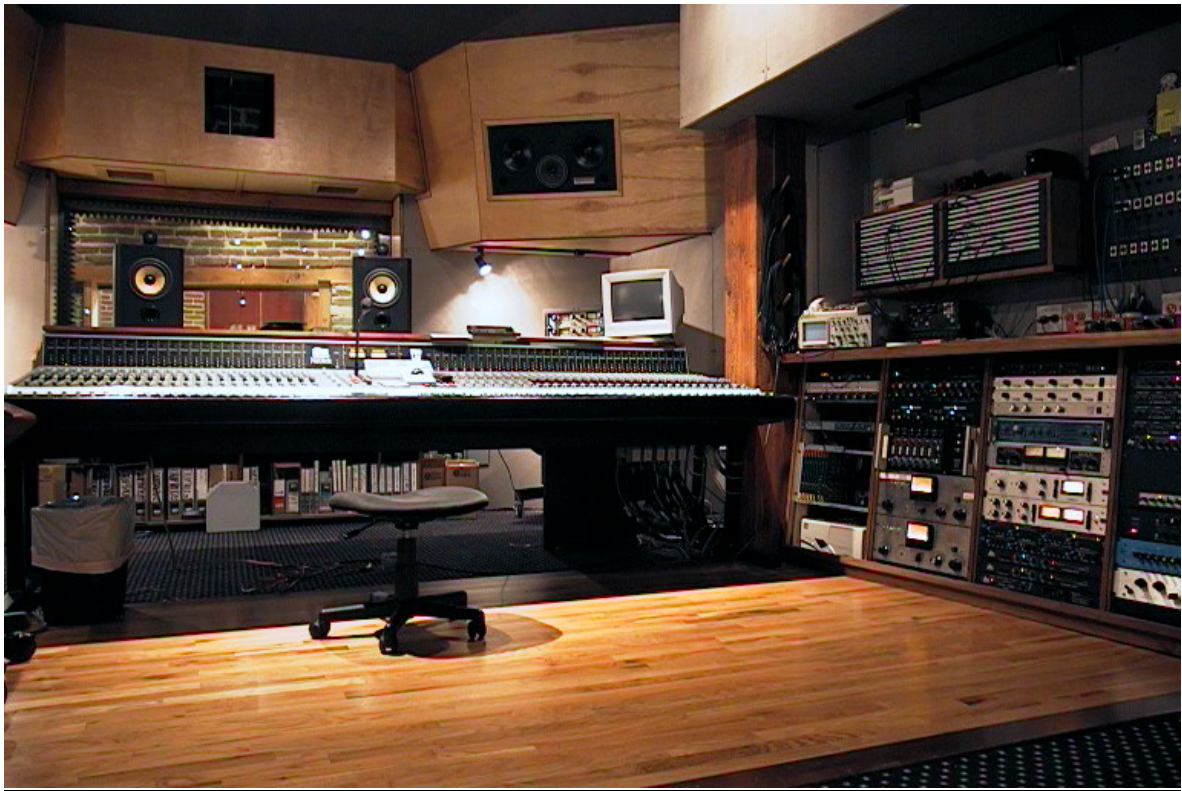
### Control Room A [Photos]



















STUDIO B – DEAD ROOM [Photos]



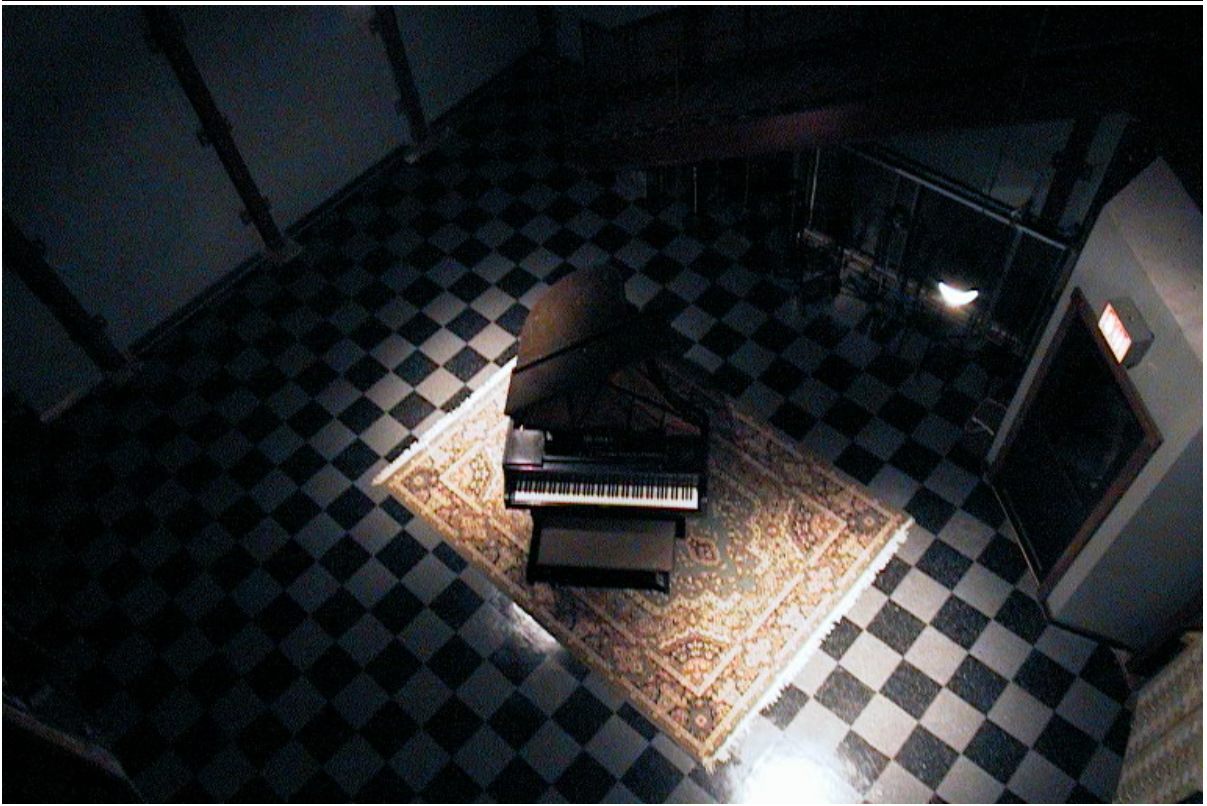






STUDIO B – LIVE ROOM [Photos]







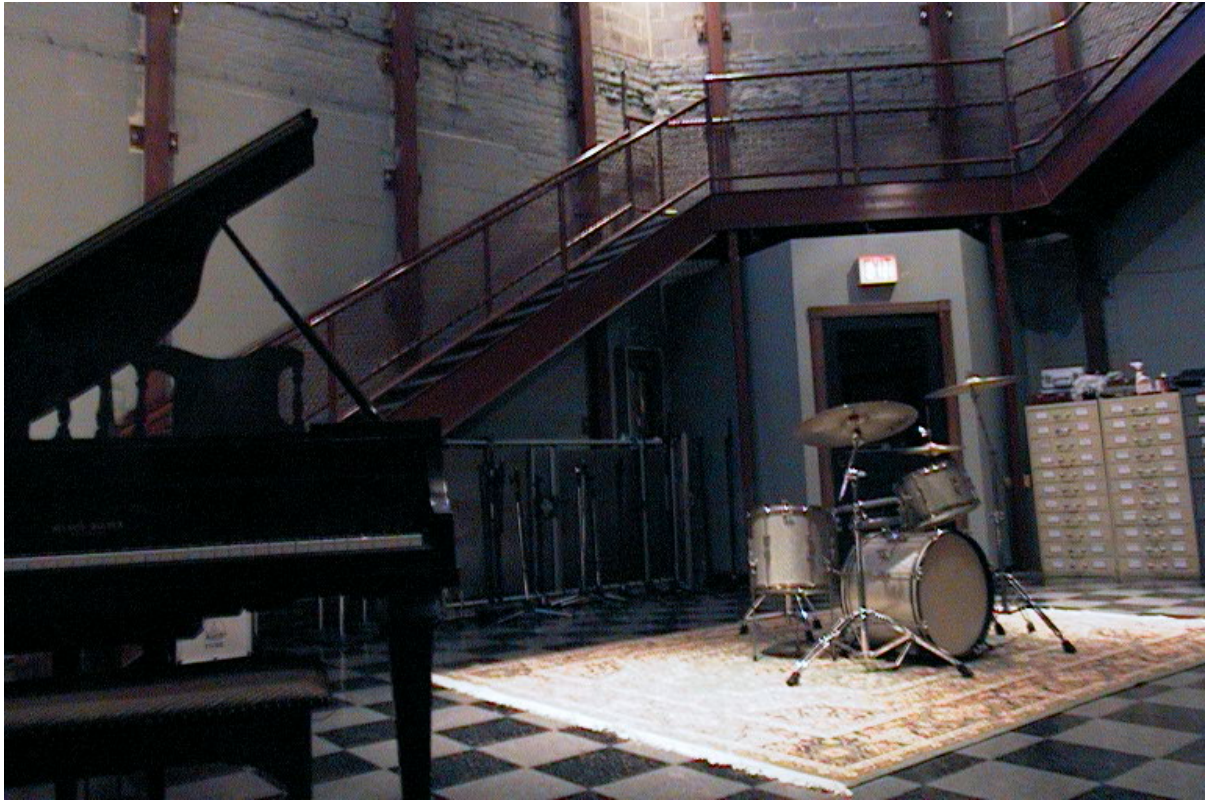




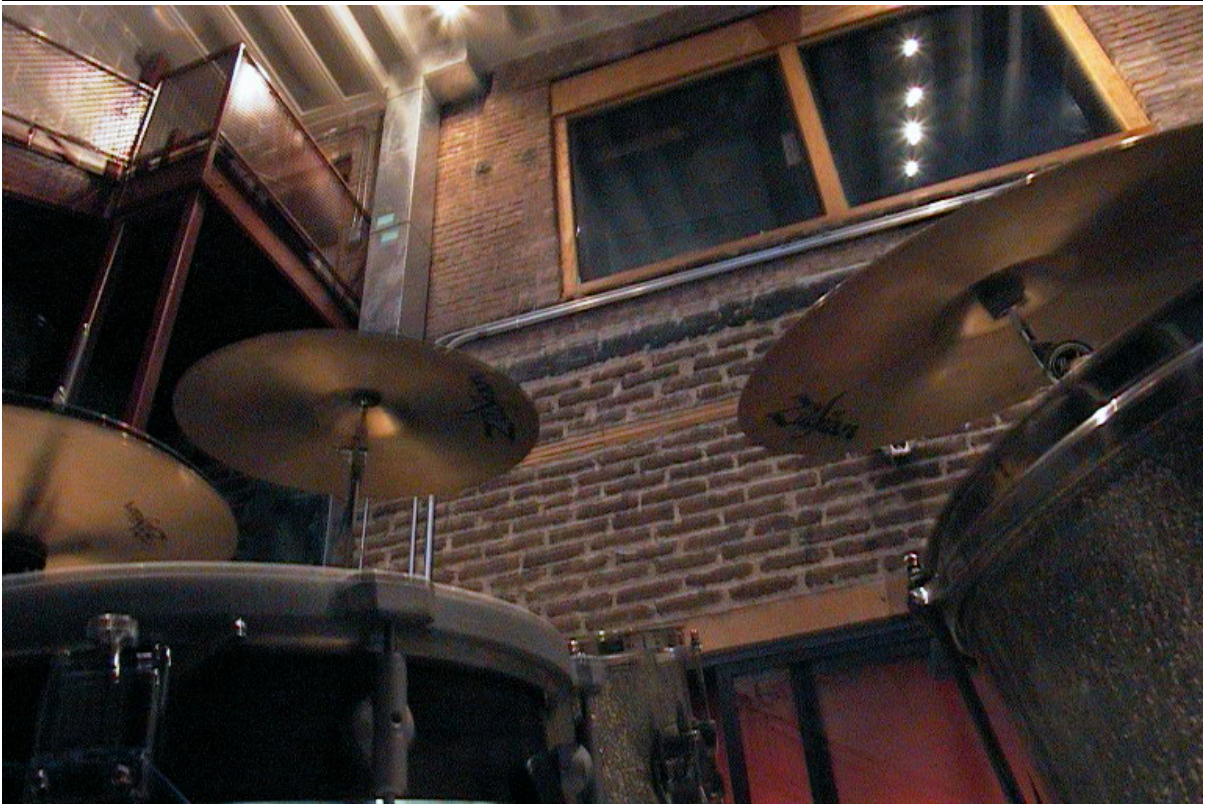
















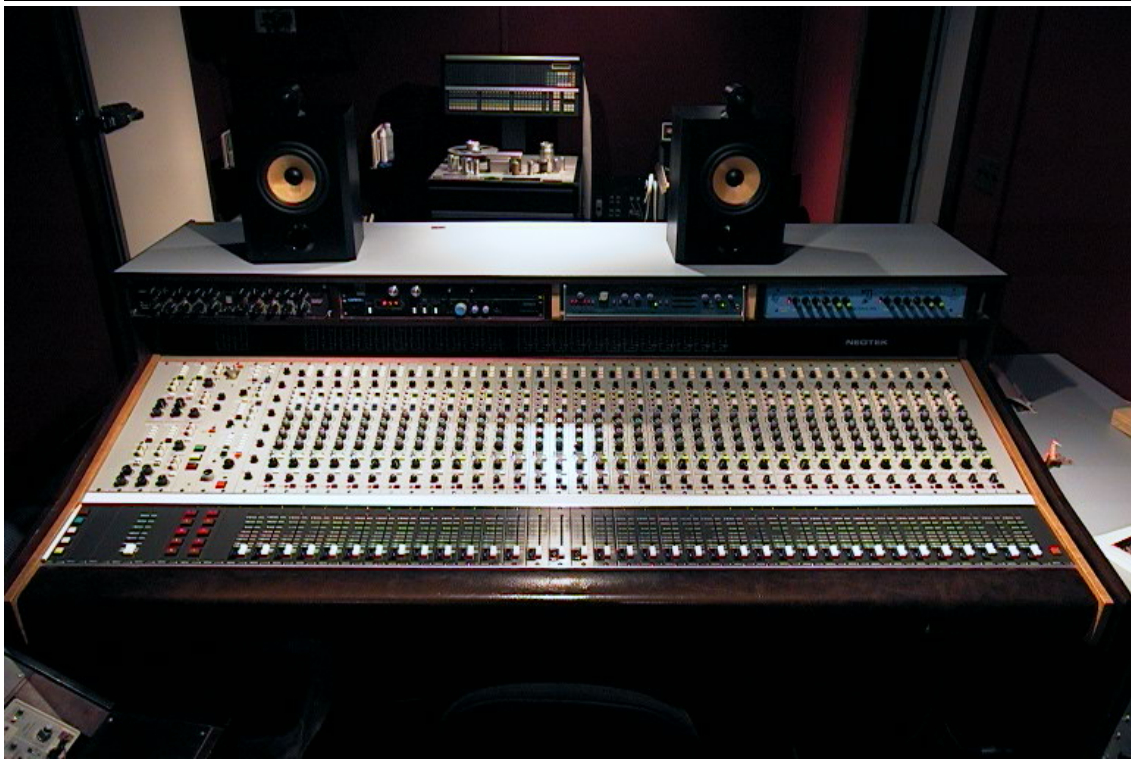


### STUDIO B – CONTROL ROOM [Details]

Studio B's control room has room for one multitrack and several mixdown machines, and sports a 36-input Neotek Series II. The console has been extensively modified for flexibility, but the audio circuits have been left as they were made.

Most of the interconnection flexibility described in Studio A applies to Studio B, with the exception that it is a bit more cumbersome to have a large outboard workstation or second multitrack added to the existing multitrack. It is certainly possible to wire another multitrack or multichannel system in place of the multitrack, but the desk and tie lines are not made to accommodate a large number of channels.

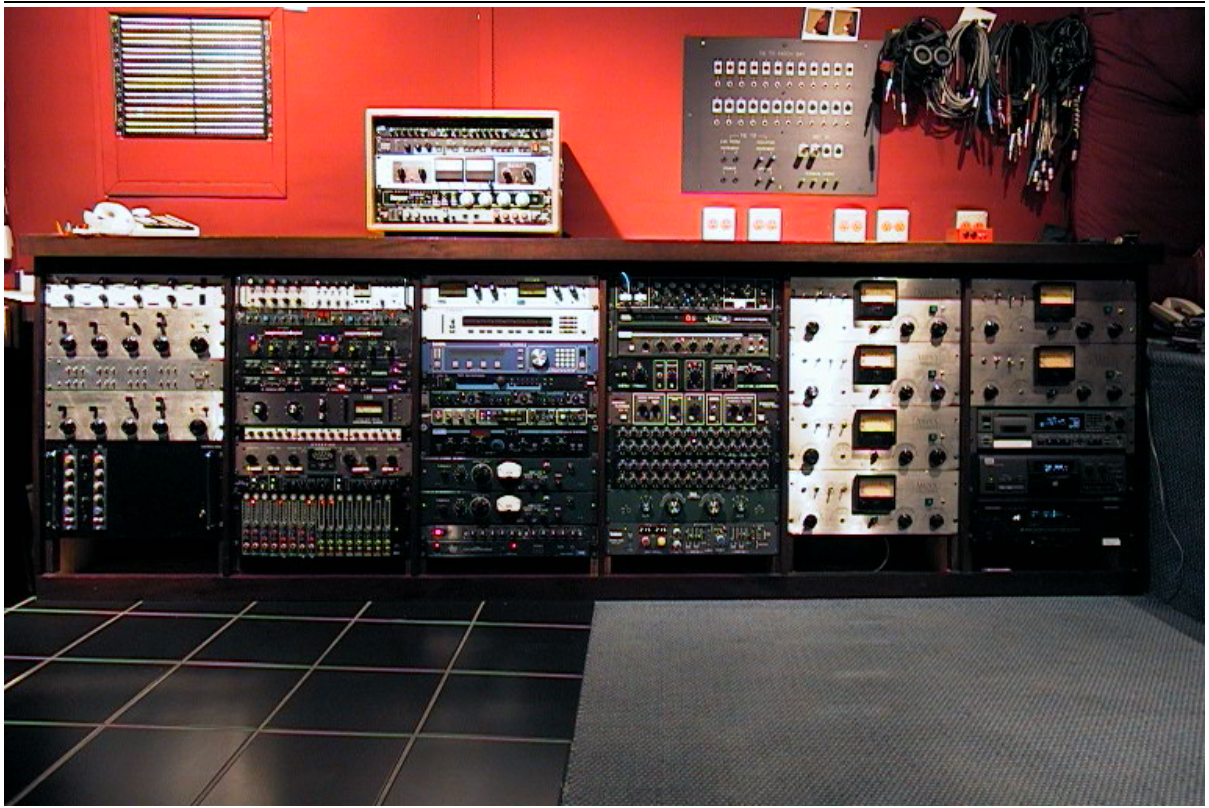
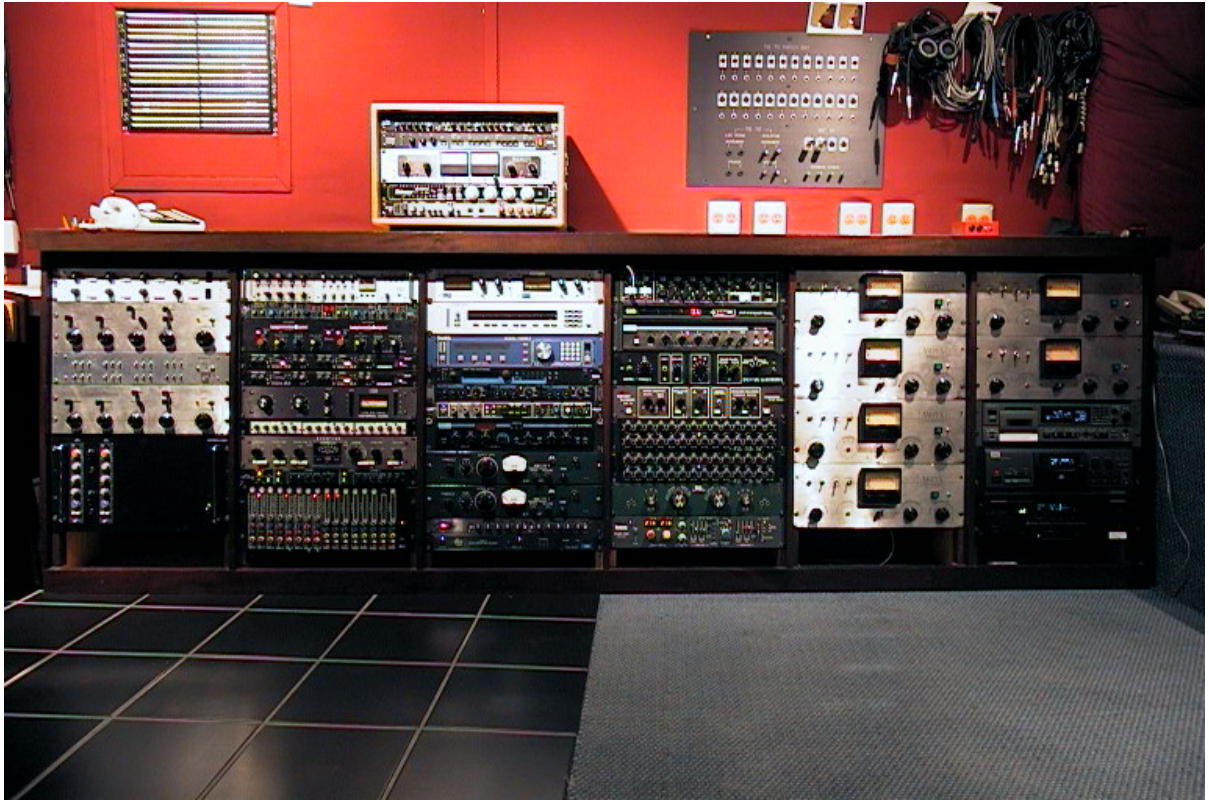
## Control Room B [Photos]











## Bear Claw Recording Sessions Photos



**Piccoman2**

Hi Everyone,

Bear Claw just completed our new album which is entitled "Slow Speed: Deep Owls" and will be out on Sick Room Records this coming September (2007). The record is 11 tracks and is 48:15 minutes long. We tracked and mixed the record at Electrical Audio in Studio A with Steve Albini between 4/19/07 - 4/22/07. We had the record mastered at Chicago Mastering Service by Bob Weston on 5/1/07 - 5/2/07. It turned out absolutely fantastic. We could not be more happy with the result. Special thanks to Steve and Bob for all their hard work as well as everyone else at EA and CMS that assisted with the project.

Below are two links. One is a link to a page on our site with 3 MP3's from the album ripped at 160kB for download. The second link is to a page I quickly put together to post the session pictures I took during the track/mixing and mastering. Any feedback would be most appreciated.

**MP3's of 3 select tracks (finished audio):**

<http://bearclawrock.com/media.html>

**Session Pictures:**

<http://bearclawrock.com/recording.html>

If you have the time and resources my advice would be go to Electrical Audio and Chicago Mastering Service to do your record. You will not be dissappointed.

Thanks,

Scott  
Bear Claw

**Jordanosaur**

Those pictures are awesome -

Thanks for posting - I'm checking out the songs as I write this. Sounds pretty great. If I only had a C-24 to mic my bass drum with....

### Piccoman2

C-24? The bass drum has an AKG D112 on the front head and a Sennheiser 421 on the batter side. Not sure where you got the C-24 unless you were not referring to the session pictures.

### Jordanosaur

Isn't that a C-24 put back a few feet from the front of the set? I think it's the two capsule version of the C-12 - Maybe it was meant as more of a full kit mic.

### Piccoman2

Ah... yes the C-24 is being used as you've described (3 or so feet from the front of the kit). I was just thinking right on the bass drum.

### Skatingbasser

Doesn't Steve usually use that mic as an M-S overhead for in front of the kit?

### that damned fly

what's with two ampegs on top of one 8x10?

### Piccoman2

That's two Ampeg's on top of one 2x15 and that's a Bear Claw "secret" 😊

### sunset\_gun

Rich went over it with me at one point some years ago. If I remember correctly, one is cranked for the overdrive tone (the old tubed head) and one is for cleans. They may also be mixed at some point, but that's the gist of it.







# B

RENT SIGMETH WAS SURE OF THREE THINGS AS HE TURNED UP AT Pachyderm Recording Studio for the first day in his new job. First, he knew that none other than Steve Albini was booked to come in. Second, he knew that Steve Albini was coming in to record a band called The Simon Ritchie Bluegrass Ensemble.

Right away, this sounded curious. Who the hell were The Simon Ritchie Bluegrass Ensemble? Brent had certainly never heard of them. Although Albini had recorded at Pachyderm before, it was to make albums with established artists of some renown, notably The Wedding Present and PJ. Harvey. Situated 40 miles south-east of Minneapolis, surrounded by woods and with only the one-junction, two-street 'town' of Cannon Falls (population: 3,400) by way of local civilisation, Pachyderm is an isolated residential studio, offering clients comfort and privacy. Distractions in the immediate neighbourhood are few; bands go there to get away from the irregularity of their 'normal' lives, to get a job done. Although not the most expensive example of such a facility, it was way beyond the means of most of the bands Albini worked with, recordings which usually took place at his home studio in Chicago.

All this, and the fact that 'Simon Ritchie' was actually the real name of Sid Vicious, led Brent and his colleague Bill Satler to conclude that if Albini was bringing to Pachyderm a band which required booking in under a pseudonym, then this was not just any band. Whoever it turned out to be, Brent Sigmeth was sure of a third thing: that one of his chores on his first day as house engineer at Pachyderm Recording Studio was to drive to Minneapolis-St Paul International Airport, collect the mystery outfit and take them to what would be their home and workplace for the next fortnight. He was not expecting a group of bluegrass musicians.

Midway through February 1993, thick snow lay on the ground in Cannon Falls. Minnesota winters are notoriously harsh, with temperatures struggling to rise above double digits below freezing. So when an articulated truck loaded with band gear arrived that evening, it was unable to negotiate the final hill up to the studio. Brent and Bill, the outgoing engineer who was staying for a couple of days to help his successor settle in, took a four-wheel drive van and went down to meet the larger vehicle, where they began decanting the gear from the big road cases. Now the true identity of Pachyderm's latest clients became known. Written all over the cases, in stickers of various sizes and hues, was the name of the equipment's owners. It was not The Simon Ritchie Bluegrass Ensemble. It was Nirvana.

"And then I had to go to the airport to pick them up," says Brent. "On my first day at work! Which was kinda wacky. I was supposed to

hold up a sign that said 'The Simon Ritchie Bluegrass Ensemble'. Which I didn't! I just waved at them. Kurt and Krist were coming through and I said, 'I'm your ride'. They figured it out."

Today, 30-year-old Brent Sigmeth is the firmly ensconced house engineer at Pachyderm. Eight years ago he was fresh out of engineering school and looking for a job. Having grown up in Cannon Falls, it seemed common sense to approach Jim Nickel, Pachyderm's owner, and see if he'd give this local boy a shot. Nickel hired him, and Brent was still settling into his new home when his illustrious room-mates arrived.

"So there I was, this person pretending that he wasn't a bit star-struck and confused about how Nirvana showed up in his living-room almost unannounced!" he laughs. "It seems surreal now, 'cos it was the first thing I was involved with here, and I've been here ever since. It was definitely really super-inspiring that as an engineer I got to see Steve Albini work. He's brilliant. I think it's his overall grasp on the engineering tools he works with. He knows what he's using and he knows what he's doing, he's very intelligent about it. He's all about sonic integrity, which I appreciate. He's made it more acceptable that you can record something that's represented in an honest way, and get away with it. I think him and Nirvana was a really cool union of creative people."

Few now would dispute Sigmeth's assessment. *In Utero* was then and remains today an awesome piece of work. As well as a torrid personal treatise from a troubled but fearless artist, it also presents some of the most graphic rock ensemble performances ever committed to record, the result of a band relocating its sense of collective purpose – stretched as it had been to breaking point by the pressures of unanticipated instant celebrity – and finding the perfect conduit through which the three principals could transmit their special chemistry in its purest form. At the time, however, and at each stage of its genesis, the third Nirvana album was an object of often fierce, sometimes bewildering contention. Much of this centred upon two factors: the phenomenal commercial success of Nirvana's second album, and the subsequent decision to make its successor with Steve Albini.

Of course, had *Nevermind* not disrupted the weft and weave of popular music so fundamentally, teaming Nirvana with Albini would hardly have been worthy of mention, beyond the fact that it seemed very apt for the most potent punk rock band of the day to work with a man who, as both musician and recording engineer, had become synonymous with malevolent self-expression. Slightly but significantly older than the band, Albini recognised them as people, knew the cultural

milieu from which they had sprung. His years playing and touring with Big Black and Rapeman made him a contemporary of Sonic Youth. Before Nirvana unwittingly instigated the mainstream co-option of so-called alternative rock, Sonic Youth were considered the model for independent bands operating with integrity on a major label. Nirvana signed to Geffen's DGC imprint in early 1991 largely because Sonic Youth had done so two years previously. Nirvana's managers were also Sonic Youth's managers. Success, inasmuch as Nirvana had bothered to



Pachyderm Recording Studios, in the remote Cannon Falls, Minnesota. Below, 'live room' and mixing desk.



In Utero's gestative pain:  
Kurt Cobain could no  
longer listen to *Nevermind*.  
"It's too slick."



“WE DIDN'T WANT TO BE  
SELL-OUTS — AND ALBINI  
IS KNOWN FOR INTEGRITY.”

conceive of it, would be to sell as many records as Sonic Youth.

Or maybe the Pixies. On completion of Nirvana's first UK tour shortly before the end of 1989, Kurt Cobain told this writer that his favourite album of the decade was “definitely *Surfer Rosa* by the Pixies”. The record had been produced by Steve Albini. Early the following year, Nirvana were making the long journey from Seattle to Madison, Wisconsin for their first recording session with Butch Vig, who would eventually produce *Nevermind*. On the van stereo was *Surfer Rosa*. At home today in Naselle, some three hours south-west of Seattle, Krist Novoselic remembers the scene vividly.

“We were somewhere like Montana or North Dakota. Chad was driving, I was in the passenger seat, and Kurt was sitting in this chair in the back that was higher up than the others. He's sat there, like he was in a throne (*laughs*), gripping the elbow rests, and then he lifts up his finger, like an edict, and he goes, ‘This shall be the snare sound we shall have!’ And then the tyre blew out. Pow! Anyhow, I guess it was kind of a fulfillment of that edict.”

In particular, Kurt was drawn to how Albini managed to convey the natural acoustics of a rock band playing together in a room. Which was absolutely not how Nirvana were represented on *Nevermind*. With its double-tracked vocals, drum samples and radio-friendly gloss, *Nevermind* was a synthetic impression of what Nirvana really were, as much a tribute to the digital chicanery employed by mixer Andy Wallace as anything the band actually played. In creating their major label debut the way they did, the members of Nirvana more or less willingly offered themselves up as a test case in how to make alternative rock music comprehensible to a mass audience (for the story of the making of *Nevermind*, see MOJO 54). Having succeeded beyond anyone's most deluded expectations —

and almost destroyed themselves in the process — they resolved to take advantage of what they assumed was a position of power and do things exactly as they saw fit the next time.

“I don't listen to records like [*Nevermind*] at home,” Cobain told Jon Savage in 1993. “I can't listen to that record. I like a lot of the songs. I really like playing some of them live. In a commercial sense I think it's a really good record, I have to admit that, but that's in a Cheap Trick sort of a way. But for my listening pleasure, you know, it's too slick.”

“I know Kurt liked the way *Nevermind* sounded,” says Novoselic. “That was just a reaction, a reaction to a lot of things. It was kind of a reaction to get Albini. We didn't wanna be sell-outs and Albini is known for having integrity. It just seemed like it made sense, going back to our roots instead of just making another really slick album. The material on the record, too, was dark. It's a dark record. It's intensely beautiful but at the same time it's very dark and abrasive. Whereas *Nevermind* was kind of like a bubblegum record.”

Once Nirvana had decided that their third album would not be a retreat of their breathtakingly popular second, then Steve Albini was the perfect choice of producer. For a start, he famously disavows the notion that he ‘produces’ records at all. Instead he strives to ‘record’ bands the way they sound, taking pride in doing a good, professional job. Whether or not he likes the band's music is secondary; an irrelevance, even. Constantly in demand, these days he works out of his Electrical Audio base in Evanston, Illinois, just north of Chicago. Shellac, his latest combustible musical vehicle, exists above and beyond the demands of the market-place, eschewing the industry's traditional promotional gambits (potential reviewers are invited to buy advance copies) and getting together whenever he and bandmates Todd Trainer and Bob Weston — both recording engineers too — see fit.

A self-confessed loudmouth with a point of view, Steve Albini did not get to be Steve Albini by currying favour with the rock Establishment. ➤➤

◀ Big Black split in 1987 just as they were attaining a degree of popularity – “to prevent us from overstaying our welcome” – and Albini’s principles don’t seem to have wavered far from those stated in his typically brusque liner notes to the posthumous live album, *Pigpile*. “Treat everyone with as much respect as he deserves (and no more). Avoid people who appeal to our vanity or ambition (they always have an angle). Operate as much as possible apart from the ‘music scene’ (which was never our stomping ground), and take no shit from anyone in the process.”

For all their respect for his abilities as a producer, Nirvana must have seen in Albini a route to rekindle a sense of their former selves. In hiring someone they were sure wouldn’t try and persuade them to do a second take, who wouldn’t insist on smoothing over rough edges, in fact someone as intuitively disgruntled as themselves, they hoped they could wrest back control of the juggernaut that had lurched so wildly away from them during the mayhem of 1992, a year of some highs but a good many more lows. Nirvana had always recognised the value of gesture politics: working with Albini was a single-digit salute to the forces of commerce, to whom they had sold their soul and then watched it commodified like a zesty new brand of processed cheese.

“After *Nevermind*, we had the power,” Dave Grohl told Phil Sutcliffe after *In Utero* was completed. “Our A&R man at the time, Gary Gersh, was freaking out. I said, Gary, man, don’t be so afraid, the record will turn out great. He said, ‘Oh, I’m not afraid, go ahead, bring me back the best you can do.’ It was like, ‘Go and have your fun, then we’ll get another producer and make the *real* album.’”

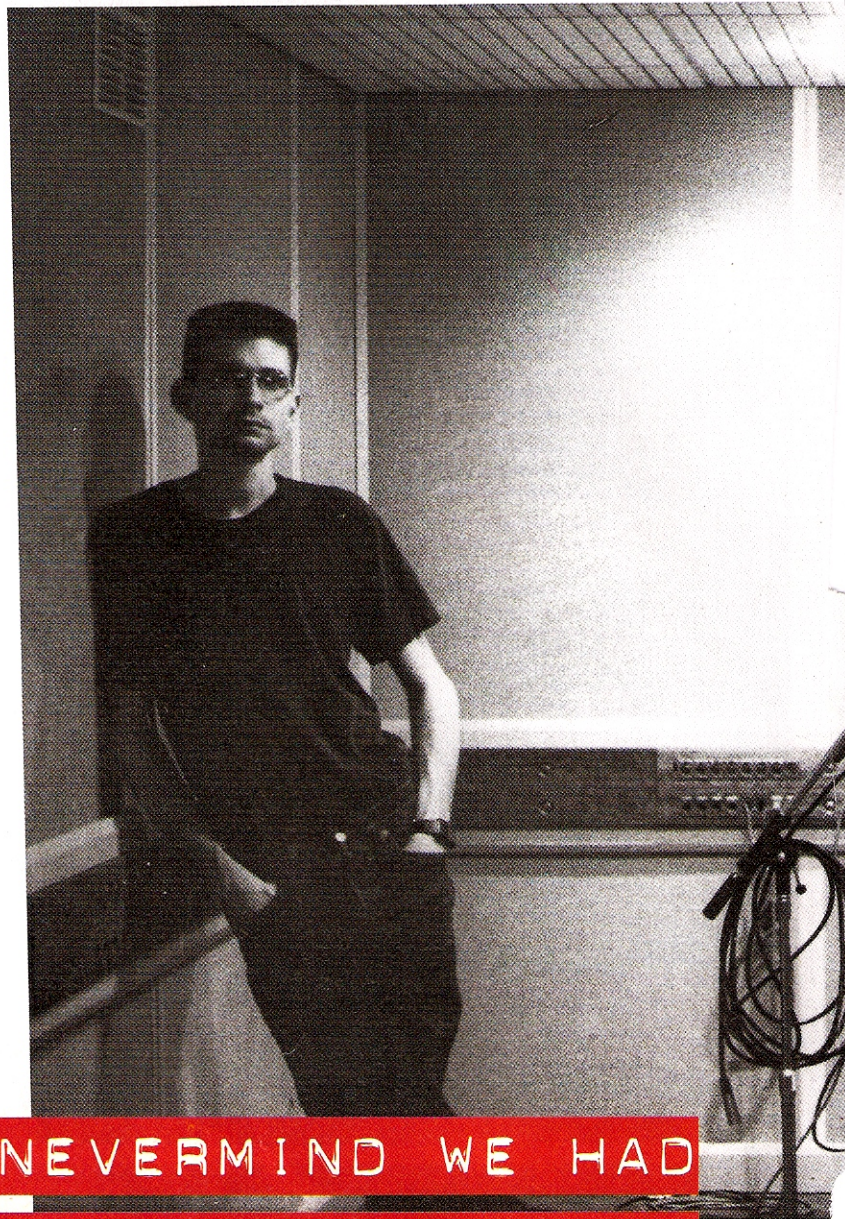
“I don’t think they were behind it!” laughs Krist Novoselic. “But we’d sold enough records to do whatever the hell we wanted.”

The week before he got a phone call from Kurt Cobain asking him whether he might be interested in making a record with Nirvana, Albini had been moved to write a letter to one of the British music weeklies denying a story alleging that he already was. Such was the media feeding frenzy regarding the most successful band of the ’90s and how they proposed to follow an album which had shifted multi-millions of units and turned its creators into tabloid news fodder. Months of unfounded speculation that his name was on the producer’s chair for the new Nirvana album had, he claims, cost Albini work among his underground peers.

“I started seeing stuff in the fanzines that I was above working with the small bands, that I had ‘sold out’, that I had done this horrible thing. And at that point, I hadn’t even spoken to the band. I had *never* spoken to them! I think I did get a drunken phone call from Kurt one night while he was on tour, maybe a year prior, but he didn’t identify himself...”

Once he did get the invitation from Cobain, Albini had to excuse himself and embark upon a little homework. “As absurd as it sounds, at the time I wasn’t that familiar with Nirvana’s music. Y’know, I had heard it at other people’s houses. I couldn’t count myself a fan at that point and I didn’t think particularly that they were the best of the bands of that generation and of that geographic/temporal nexus. I picked up their other records and listened to them. It didn’t really change my impression. Their weakest album is obviously *Nevermind*. It’s also the least representative of the band as I knew them. As their friends described them, that record was the least like they were. There was a strange intensity to all their records, and there was a sort of subtle perversion to almost everything that came out of Kurt’s mouth that I liked. And Dave Grohl is an absolute monster of a drummer, so it’s hard to imagine a record with him drumming on that wouldn’t at least be fun to listen to.”

Thus brimming with enthusiasm, Albini spoke once more to Cobain. He suggested he write up a proposal of how they might make a record together, what the good and bad approaches would be. Even at this preliminary stage, Albini showed his hand unambiguously: virtually everything he suggested was the diametric opposite to how *Nevermind* was recorded. They would work quickly and efficiently, the way Nirvana would have worked when left to their own devices in the days before very few people other than Nirvana cared two hoots for what Nirvana were doing. The record company wouldn’t like this, of course, but then



“AFTER NEVERMIND WE HAD  
THE POWER. OUR A&R MAN  
WAS FREAKING OUT.”

in Steve Albini’s vision of how to make the next Nirvana album the record company wasn’t part of the equation. They weren’t even going to be paying for it.

“Let the band be in charge of everything. Because the more expensive a proposition it is to make a record then they have to use outside money, and whenever there’s money coming from somebody else there’s a presumption that those other people are gonna have a say in how the record comes out. So I was suggesting they make the record themselves, using their own money. I’d give them whatever assistance I could, but I wasn’t going to get particularly involved with the music, I wasn’t going to be making musical suggestions. It would be my standard job.”

The band agreed. They would go to Minnesota for a self-imposed deadline of two weeks and make a record with Steve Albini. Recording costs: \$24,000. Much wrangling then ensued between Albini and Gold Mountain Entertainment, Nirvana’s management company, about how much he was going to be paid. Gold Mountain suggested a form of royalty arrangement, whereby Albini would recoup a percentage of every copy of the record sold. Despite the fact that the next Nirvana album was all but guaranteed to sell over a million copies and he could therefore be looking at earning somewhere in the region of \$500,000, Albini refused – “I’m disgusted by that concept, and that’s an absurd amount of money.” Instead, he proposed a one-off flat fee of \$100,000 up front.

“That seemed to satisfy everybody,” says Albini. “I think at that point



**Producer Steve Albini: disgusted at the \$100,000 he was set to earn. Below, Pachyderm engineer Brent Sigmeth and an al fresco Nirvana.**

there were still people who were sort of justifying their jobs by being suspicious of me. Saying, 'Well, we don't want to waste a lot of time and money with this guy if it doesn't work out.' People oblivious to the notion that I have never worked on a record where it didn't work out. I am not a cantankerous freak where my peccadilloes might upset the applecart and stop progress on the record. But of course, people who don't know me and who have never interacted with me, acting in some fiduciary capacity, I guess they feel obliged to feel suspicious of me. So those people were still nattering in the wings. The record company was not going to be involved in the record from a production standpoint, and they were paying lip service as though that were a good idea, but it was obvious that made everybody feel very uncomfortable. It was obvious they had a Plan B folder somewhere."

Given Nirvana A&R man Gary Gersh's aforementioned comments to Dave Grohl, this seems very likely. Post-*Nevermind*, Andy Wallace was not short of job offers. In 1992, the man who had made his initial breakthrough by producing Aerosmith and Run DMC's *Walk This Way* either mixed or engineered high-profile major label albums by Sonic Youth, the Rollins Band, Screaming Trees, Soul Asylum and Rage Against The Machine. Much to Steve Albini's chagrin, Wallace also mixed a track

that he had recorded with the ascetic avant-metal crew Helmet. Albini added a clause to his financial proposal to Gold Mountain, stating that if anything he recorded with Nirvana was to be altered subsequently, then he preferred to do it himself.

"I don't think it's necessarily that Andy Wallace shouldn't remix records," says Albini, "I just don't think records should be remixed. It's a stupid tactical manoeuvre that record company people do to cover their asses. I didn't want it to become a situation where I record a bunch of stuff and then it gets turned over to somebody else. 'Cos every time that ever happened to me it had been an unpleasant experience, and every time I'd tried to remix something somebody else had recorded I don't feel like I did a good job either. I just don't think it's possible to do an adequate job on something you're ignorant of.

"So, that was it. We went to Minnesota. Twelve days later, we had a record."

**A**FTER DRIVING FROM THE AIRPORT WITH BRENT Sigmeth, Kurt Cobain, Dave Grohl and Krist Novoselic arrived at Pachyderm to be greeted by Albini, his studio maintenance technician Robert S. (Bob) Weston IV, Carter Nicole Launt, a macrobiotic chef who happened to be dating Weston at the time and whose job it was to cater to the diverse culinary needs of the workers... and Launt's dog, Z. Only these seven people were present for the entirety of the session. At the behest of the band, no one from Geffen or Gold Mountain visited at any point.

Work on the making of *In Utero* started in earnest on Valentine's Day 1993. The three band members set up their equipment, then began recording the basic tracks. The set-up was the same for each song, except for the faster, more aggressive songs like *tourette's* and *Very Ape*, where the drums were recorded in a kitchenette adjacent to the main recording space, which was found to have its own natural reverb. Brent Sigmeth remembers watching intently as Grohl's drum kit was painstakingly miked up; indeed it was Albini's knowledge of microphone technique which most impressed Cobain. He estimated 30 were used for the drums alone. "We had big old German microphones taped to the floor and the ceiling and the walls, all over the place," he told Jon Savage. "I

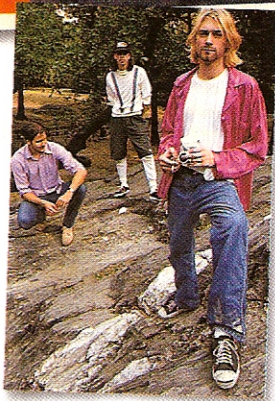
don't know anything about recording, but it just seems so obvious to me that is what you need to do. I tried to get Butch Vig to do it, I tried to get Jack Endino to do it, and everyone's response was, 'That isn't how you record.' Steve Albini proved to me on those songs, although I don't know exactly how he did it, I just knew that it had to be that way. He had to have used a bunch of microphones... It's very in-your-face and real."

For most of his guitar parts Cobain used a cheap guitar which, according to Albini, looked like it came from a pawn shop. On one song he played a rare all-aluminium guitar called a *Veleno*,

originally made popular in the '70s by Grand Funk, which Albini had brought along specially. Albini ascribes the strained, distorted guitar sounds on *In Utero* to a Fender Quad Reverb amp of which Cobain was particularly fond, in which three of the four power tubes were either broken or missing. Generally, however, Albini doesn't recall recording Nirvana any differently from any other band.

"On every record there are a few little things that somebody asks you to do that you have to figure out. At the end of *Rape Me*, there was meant to be this really extreme vocal... (pause). Ah, I can't remember which song it was. I think it was the Milkmaid song, or whatever it's called [Milk It, actually], the vocal had to sound more crazy than it had up to that point. So I had to find a way to make the vocal leap forward at the end. Those are things you solve at the moment.

"But there were no magic tricks. There was no, Well, we wrapped the microphone in foil and put it in a bucket of sand! (Laughs) Whenever anybody involved in making a record tells you stuff like that he's either feeding you a line, or if they actually went to that much trouble to do something like that they probably didn't know what the hell they were doing. Making records is a very straightforward process, it's not ➔



black magic. You put up a microphone and listen to what it sounds like. If it doesn't sound good you put up another one. In order to figure out where to put the microphone and what to do with it you have to know something about acoustics and you have to know something about electronics and you have to know something about the interaction of sounds in the studio, and I suppose that's where the experience comes in. But I'm still convinced that any competent engineer who doesn't run away with himself, who doesn't become infatuated with his own ego, can make a decent record."

The average day at Pachyderm began at around 10am, when everyone got up and hung around the house eating breakfast. At noon, the band and engineers would make their way down to the studio where they would work until evening. Meanwhile, Carter Nicole Launt would prepare lunch, which would be delivered to the studio mid-afternoon, then dinner, which was a big family-style affair around a table. Launt remembers each member of the band had particular food requirements.

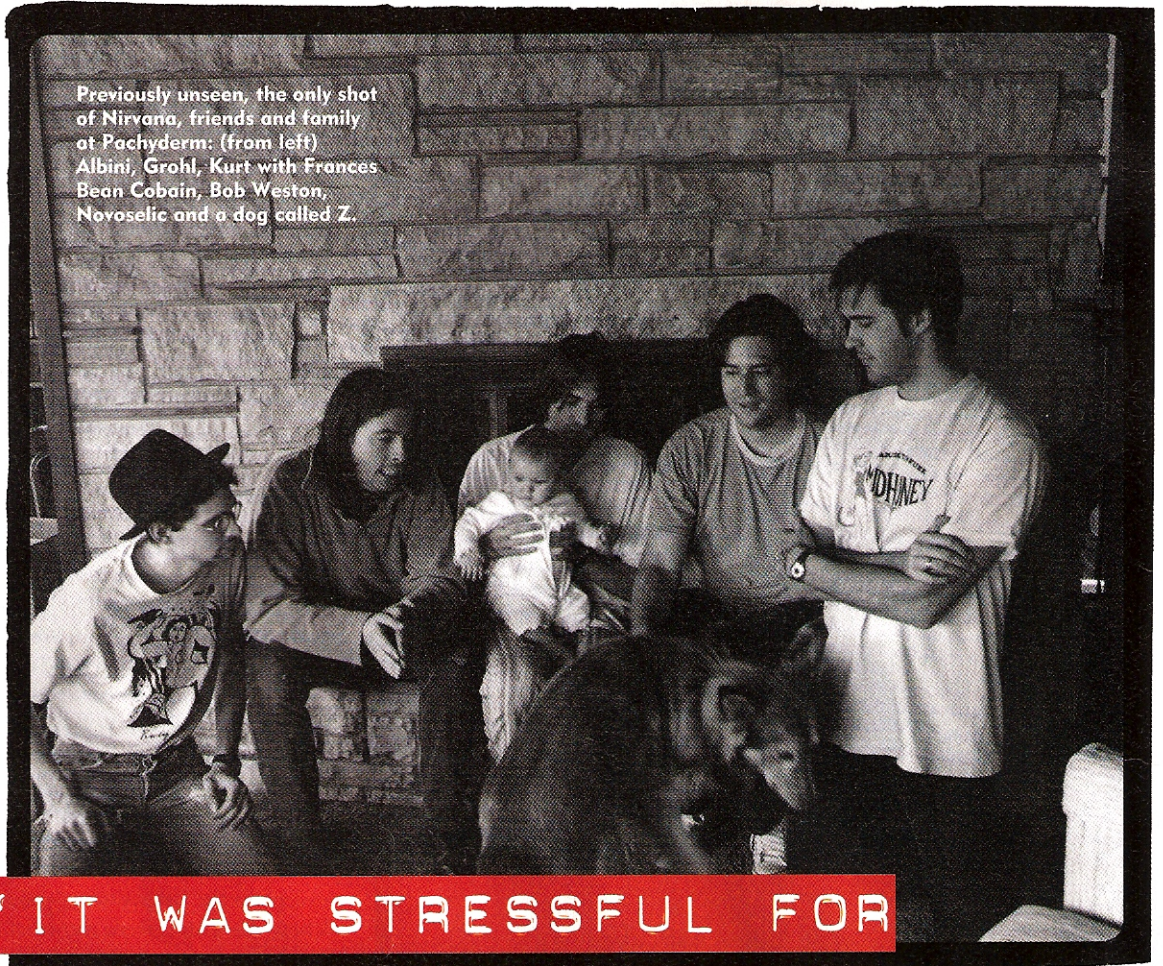
"Krist was a vegan," she says, "so no dairy and no meat. Kurt, he had a little erratic schedule of eating. He liked frozen pizza and he would get up in the middle of the night and make himself something. Dave was kind of the all-American eater. Nothing too strange!"

After dinner, there might be some TV action. Late evening it was back to the studio, until midnight or maybe 1am. Aside from one weekend trip to Minneapolis to see local hardcore grotesques the Cows and a couple of forays to the local mall – Kurt's visit, to buy a present for Z the dog, caused some consternation among the youth of Cannon Falls – the band never left the studio/house complex, and never wavered from their daily routine.

Albini and Weston estimate that basic track recording took four, maybe five days, then a couple of days overdubbing and five days mixing. That the album was completed slightly ahead of the two-week deadline is tribute not only to Albini's work ethic but to the provision for the job in hand made by Nirvana. "They knew the material, they'd figured out all the little details," says Steve. "I don't know how quickly the songs were worked up, but... they certainly weren't sitting down in the hallway trying to come up with more words or whatever. They were as prepared as any band I've ever worked with."

"We just focused intensely on rehearsing," recalls Krist Novoselic. "That's the thing that we did best. Just got in the rehearsal room and knuckled down. We had the songs down tight. So we showed up in Cannon Falls, we set up our gear and we started playing. We tracked almost all the songs in the first two days. Some of the songs, I think over half of the songs, we did first take. We knew that Albini didn't wanna deal with some big-time rock band or have to coddle some half-assed musicians. So, we knew how to rock! We'd been rockin' for years, we had our licks down. I remember Albini standing there by the tape machine with his arms folded, bobbing his head and we would just pop 'em out one after the other. 'Well, that sound-

Previously unseen, the only shot of Nirvana, friends and family at Pachyderm: (from left) Albini, Grohl, Kurt with Frances Bean Cobain, Bob Weston, Novoselic and a dog called Z.



**"IT WAS STRESSFUL FOR KURT. COURTNEY PUT A LOT OF PRESSURE ON HIM."**

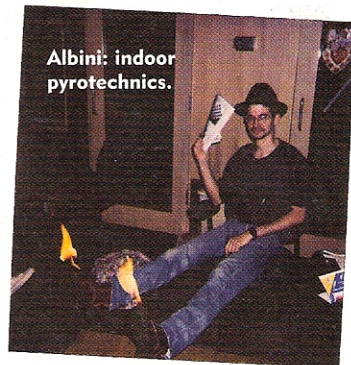
ed good. Let's do this song.' The record was recorded really fast."

For most of the songs, Kurt's lyrics were finalised only on the day of recording. Not in the hallway: more likely in his head. Once, he sent Carter Nicole to the local grocery to buy some cherry-flavoured lozenges to soothe his sore throat. These became the "cherry-flavoured antacids" mentioned in Pennyroyal Tea. He subsequently claimed in an interview with Dutch magazine *Oor* that "only half the compositions were ready. The rest originated from messing around in the studio."

Nirvana's 'messing around' on *In Utero* puts the hard graft of most other groups into cruel perspective. That they were able to conjure such potent material under such circumstances and then render it with such trenchant conviction reaffirmed how precious this band really was. A two-day demo session with Jack Endino in Seattle the previous October had been a half-hearted affair – unsurprisingly, given that Cobain and Courtney Love were embroiled in a battle for custody of their two-month-old daughter Frances Bean – with Kurt singing on only one of the six songs

recorded (*Rape Me*) and a reportedly tense atmosphere prevailing amid the trio. The Pachyderm session, by contrast, was characterised by dedication to the music and much camaraderie, notably between the band and their producer. Practical jokes were a speciality: prank phone calls to, among others, Evan Dando, Gene Simmons and Eddie Vedder, as well as indoor pyrotechnics...

"We had this Isopropyl alcohol in the studio to clean tape heads with," remembers Brent Sigmeth. "Steve was taking a nap one day in the lounge. Dave took this alcohol and poured it on his baseball cap and walked into the lounge, lit his head on fire and went, 'Steve! My head's on fire!' Steve woke up and looked at him with his flaming head, frowned and just went back to sleep. We still have the remains of



Nicole Launt, Idols, Michel Linszen/Redferns

the hat here somewhere.” After this, everyone took turns setting light to sundry parts of their anatomy.

“It was the easiest recording we’ve ever done, hands down,” Cobain later told Nirvana biographer Michael Azerrad. “I thought we would eventually get on each other’s nerves and end up screaming at each other. I was prepared to have to live with this person who was supposedly a sexist jerk, but he was surprisingly helpful and friendly and easy to get along with.”

Krist Novoselic: “The guy’s a sweetheart! He’s a totally mellow dude. (*Knowingly*) Steve’s from Montana!”

From his perspective, Albini says he tried to strike a balance between respectable professionalism and sympathy in his day-to-day interaction with the band. “They were the same sort of people as me. I admired and respected them. I never tried to be intimately *friendly* with any of them. They had been subjected to a million fleas jumping out from the bushes at ’em. People wanting something from them, people wanting to be a part of their show. The least I could do was to give them the courtesy of having them being in control of our relationship. I didn’t try and get too inquisitive into Kurt’s life. As much as I grew to admire and respect them, I didn’t want them to feel like I was another one of these fuckers who was trying to latch onto their rocket.”

**T**HE ARRIVAL OF COURTNEY LOVE A WEEK INTO proceedings disrupted the harmonious atmosphere. Albini, having previously described Love as a “psycho hose-beast”, will not be drawn on the subject (“I don’t have anything to say about her”).

“It did affect things, definitely,” says Carter Nicole Launt. “I think it was stressful for Kurt. I think she put a lot of pressure on him and wasn’t always as approving of the way the songs were. She was very critical of his work, and actually was kind of confrontational with people there. Yeah, it definitely was stressful. I just think it made people uncomfortable, to bring a lot of their personal things into the public arena. Because we were strangers, basically, to them. It made him uncomfortable.”

But by the time of the final playback, nothing could dampen an ecstatic mood. Wine and cigars were the order of the evening.

Albini: “Everybody was really happy. There was this really serious, really congratulatory sense of accomplishment. I thought they did a great job. I’ve been asked repeatedly if Kurt was on drugs while I was there. And I’ve been around people who use dope a lot, and on the one hand I know how they behave and on the other hand I know how deceptive they can be. And my best estimate was that no, he wasn’t, he was being very productive. That was a period of his life where he was very focused. He was focused on making this record and he didn’t want to let the other guys in the band down. He was committed to the task. He was as sober – and I use that adjective to mean serious – as anybody I’ve ever worked with in the studio.”

**T**HUS NIRVANA LEFT MINNESOTA HAPPY AND SATISFIED. It wasn’t to last. One or two weeks after the Pachyderm session had finished, Cobain called Albini to tell him that Nirvana’s A&R man hated the album. “He said, ‘It sounds like crap,



**Kurt and Courtney’s only performance together, late ’92.**

there’s way too much effect on the drums, you can’t hear the vocals,” Cobain later told The Stud Brothers in *Melody Maker*. “He didn’t think the songwriting was up to par. And having your A&R say that is kind of like having your father or stepfather telling you to take out the trash.”

Gary Gersh wasn’t alone. The band’s management were hardly enamoured with what they’d been handed. Nonetheless, Cobain stressed to Albini that the band were determined the album should be released as it was.

“I know for a while there was a reactionary element to our mindset back then,” Novoselic recalls. “I know for a while I felt like we shouldn’t touch it as a point of principle. But that’s not very rational. That stuff clouds your judgment.”

Albini: “The next thing that happened was that I got a call from a journalist in Chicago saying that Geffen’s publicity department had gotten in touch with him and off the record had told him that the new Nirvana record was awful and that it was all my fault. That it was unreleasable and that I had fucked up, and what did I have to say about that? What I said was that Nirvana made the record they wanted to make and the record company could stick it up their ass... I believe actually that he got a call from Gary Gersh – Gary Gersh was saying this to anyone who would listen, ’cos I was hearing it from a number of different sources. The word was out that I had fucked up this Nirvana record. And I don’t know if that was being done specifically to embarrass me or if it was being done just to put pressure on the band. I really don’t know what the rationale was. But everyone involved in that record, except the band, was not being shy about letting everybody know that they didn’t like the record and they thought it was my fault.”

**G**REG KOT’S ARTICLE IN THE APRIL 19 ISSUE OF THE Chicago Tribune, headlined ‘Record Label Finds Little Bliss In Nirvana’s Latest’, was seized on by other titles, from *Village Voice* and *Rolling Stone* upwards. In the meantime, Kurt Cobain had again called Albini, this time to tell him that the band were having second thoughts and were thinking of remixing some tracks. Steve feared that the band’s insecurities were being manipulated by their label. Worse, it seemed he was being set up as the villain of the piece, the inveterate noise guru who’d ruined the next Nirvana album. Albini called Kurt to say he didn’t think he could improve on the Pachyderm mixes.

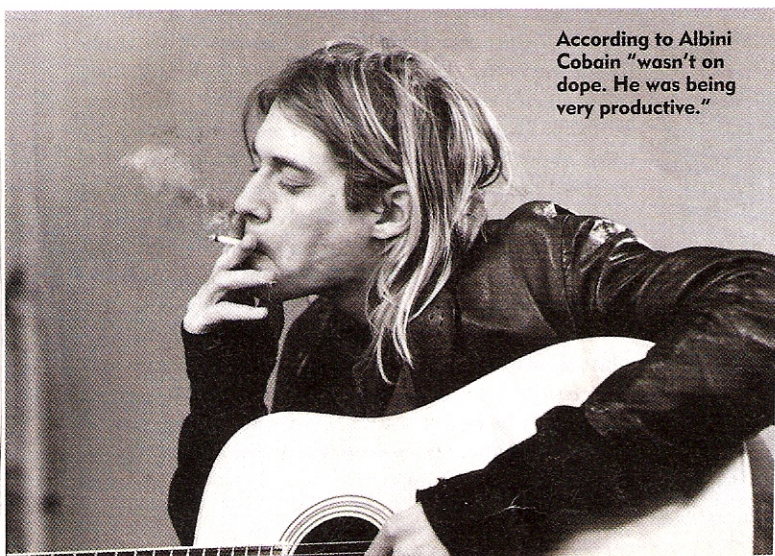
Albini: “Then Krist called me and said, ‘Y’know, it just doesn’t sound as good as it did in Minnesota.’ And I reiterated that I felt like we’d gotten the full monty, I felt like we’d gotten everything we could out of the master that we could when we were in Minnesota. And that I was still of the opinion that we shouldn’t tamper with it.”

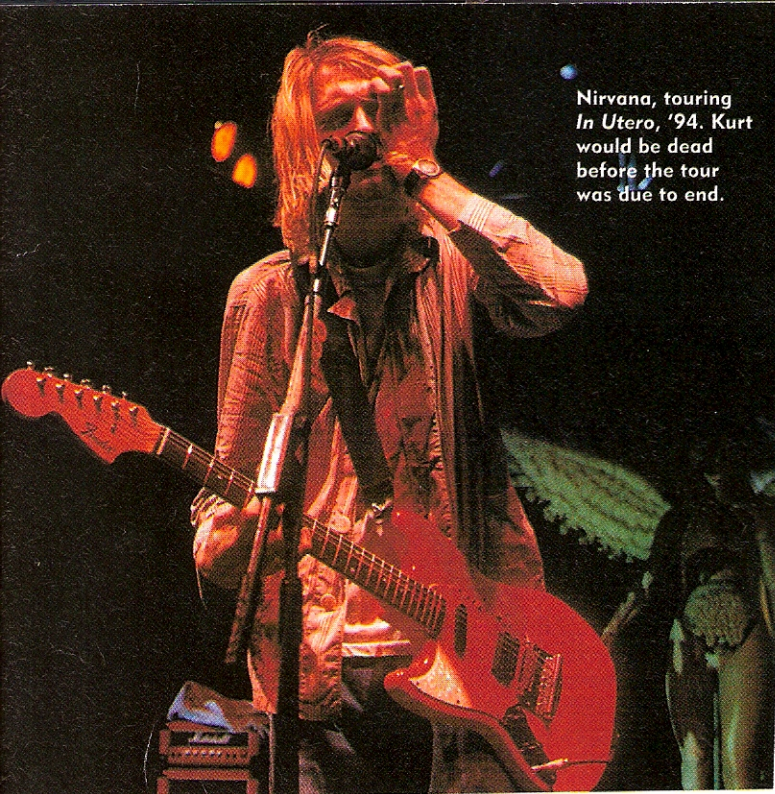
The band, however, was becoming increasingly glum about the Pachyderm recordings. They were determined to remix two songs – All Apologies and Heart-Shaped Box. And if Albini didn’t think he could improve upon his own recordings, he would clearly take a dim view of anyone else trying. Especially if one of those people happened to be, say, Andy Wallace. In the end, he acceded to the wishes of the band, and gave them his blessing to “tinker around” with his recording. Krist Novoselic now says he feels the band simply didn’t have enough time to reflect properly on what they had recorded at Pachyderm.

“That was the thing with Steve, it felt like once the record was done it was completely done. That’s when the record label kinda stepped in and said, ‘Hey...!’ We had a confrontation about the situation. Maybe I shoulda spoke up at the time. I think it’s a great sounding record. It’s a highly artistic record. I don’t know who else could have produced it except Albini.

“But,” he laughs, “you know why we had to remix Heart-Shaped Box? You should hear the original version of that song, the guitar solo has this effect on it, it just sabotages the whole song. Steve and Kurt were colluding! I would go to Kurt. Why are you sabotaging this beautiful song by putting this hideous abortion in the centre of it? He’d be like, ‘Well, I think it sounds cool.’ I don’t even remember what their arguments were. Some statement against commercial radio or something, the popular mainstream aesthetic... I dunno! I guess I finally got my way. Scott Litt was an opportunity to change things.” ➔

**According to Albini Cobain “wasn’t on dope. He was being very productive.”**





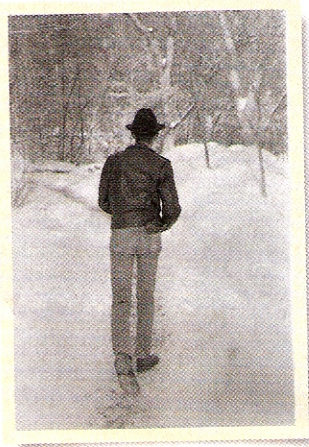
Nirvana, touring *In Utero*, '94. Kurt would be dead before the tour was due to end.

By the time Nirvana had repaired to Seattle's Bad Animals studio with R.E.M. producer Scott Litt in early May, the reverberations caused by Greg Kot's article were seismic. Newsweek ran a full-page story on Geffen's alleged infringement of Nirvana's artistic control, backing the essence of the Kot piece. Geffen issued a press release quoting Kurt as saying, "There has been no pressure from our record label to change the tracks we did with Albini. We have 100 per cent control of our music. The band felt the vocals were not loud enough on a few of the tracks. We want to change that." Nirvana wrote a letter in response to the Newsweek article, criticising writer Jeff Giles on the grounds that he "ridiculed our relationship with our label based on totally erroneous information." The letter was subsequently reprinted as a full-page advertisement in *Billboard*. In the Geffen press release, meanwhile, company president Ed Rosenblatt stated: "As I have assured the members of Nirvana and their management all along, we will release whatever record the band delivers to us."

Which, in the end, they did. The version of *In Utero* that finally went into the shops on September 14, 1993 was exactly what Nirvana delivered to Geffen, exactly what the band wanted people to hear. The album was as recorded in Minnesota with Steve Albini, save for the two remixed tracks – both of which were released as singles – and a remastering session at which, in the assessment of Bob Weston, the band hoped to "change the overall sound of the album. The stereo doesn't sound as wide. The guitar has been flattened out a bit. On the original mixes the guitar would just leap out.

"But," adds Weston, "even with the changes that were made it's a great record. The songs are great and the recording is great and the performances are great. And besides, it's their record. If they wanted to remix a few songs and do a lot in the mastering, that's their prerogative. All that matters when you make a record is that the band is happy with the final result."

**S**ENTIMENTS WITH WHICH ALBINI concurs absolutely, although he feels the final mastering was "overbearing. For my own personal satisfaction, because I worked on that record and felt close to it, I felt like it sounded better before any tinkering was done. When they sent me a copy I put it on and instantly I was disappointed in the mastering." Yet it was as much the media brouhaha over the mooted remix of the album which soured his relations with the band during a period when both parties should have been basking in the glow of a good job well done. In interviews around the release of *In Utero*, Kurt Cobain repeatedly stated that the shitstorm had all been Albini's fault, that he had no reason to be so paranoid. But as



Kurt himself once sang: "Just because you're paranoid/Don't mean they're not after you..."

Greg Kot, for one, feels Albini has been hard done by. Like all good journalists, to this day he continues to honour the confidentiality of his sources who told him off the record that Steve Albini had made an "unreleasable" album.

"But I will say that it was several people in the Geffen hierarchy, including highly-placed people," avers Kot. "Not publicists. There were people involved who would know the inner workings of Nirvana. The problem is that nobody wanted to go on the record. It was more people spouting off, and I thought, How much of this is real? In order to run a story I needed to have somebody on the record who would comment on this, who would talk about what kind of pressure was on the band at the time. And, of course, I called Steve. My impression when I talked to Steve was that he was aware that the band was under some kind of pressure from the label and he was able to confirm basically everything that I had been told by people within the label. That's pretty much it. I'll say this – it wasn't publicists, it was people that I trusted and who would know the story. So Steve ended up being sort of a fall-guy – unfortunately, 'cos he was the only one with the balls to stand up and say what was happening to the band. My personal impression is that the band was sort of embarrassed by the whole thing. They were shown to be not quite as punk rock as they were, because they were caving in a little bit to pressure from the record label to tweak the record. Again, Steve was the guy hung out to dry. But that's the way Steve is: he sticks by what he says and he isn't afraid to say it. Everybody else is afraid to say this – 'cos oh, we're gonna offend poor Nirvana. So anyway, I just thought it was bad manners. I think Geffen showed their true colours there."

Gary Gersh, who subsequently became President of Capitol Records and currently runs GAS Entertainment with former Gold Mountain prime mover John Silva, managing the careers of Beck, Beastie Boys and Foo Fighters among others, declined to be interviewed for this article. But when *MOJO* spoke to Novoselic, currently working on the long-awaited Nirvana box-set due to be released by the end of 2001, he had nothing but warm regard for the album which eight years after it was created represents Nirvana's unwanted epitaph, as well as the band's towering artistic peak.

"Y'know man, it's my favourite Nirvana record, and I'll you why – there was a lot of stuff going on with the band, externally and internally, there was a lot of pressures. But when we walked through that door we left all that stuff outside the door. We just played music, we worked together really well, we were laughing, we were concentrating, we were open. And that really shows on the record. We didn't mess around. Nobody got bombed, everybody was focused and clear-headed. I'm really proud of it, it's a beautiful record. Sometimes the lyrics on *In Utero* are really creepy. I listen to 'em now and it's like – why didn't I hear that back then?"

It may have been *Nevermind* that broke the mould, but it is *In Utero* that curates the soul of the most indelible rock'n'roll phenomenon of the past 10 years. And along with Dave, Krist and Kurt, it was Steve Albini who made it what it is. Small wonder that today, the producer who insists he is nothing of the kind, is left with mixed emotions about the affair.

"It was just the ugliest side of the record business," he reflects. "All these people trying their hardest to manipulate every situation, and just chewing up people in the process. It was fucking hideous. It was really disgusting to me. And I think everyone involved in that, really, I can't understand how they can live with themselves. So I haven't listened to that record a whole lot. If I think about it, I think about it fondly. I really enjoyed meeting the band, I have a lot of respect for them as people and musicians. I'm really proud of the job that I did on the record – with the reservation that the band and I are probably the only people who have genuinely heard the work I did! I don't have any reservations.

"Not long ago, I was asked to play it for somebody who was in the studio and wanted to hear it, for some reference to something. So I played bits of it, and it brought me back. It brought back the whole experience. I really enjoyed working on the record. I'm really sad Kurt's gone. And I would do it again."

Joe Giron/Rephoto

## Nirvana In Utero – Leaked 24-Track Multitrack Sessions: Electrical Audio Forum Questions

### Argyreia Nervosa

Yes this is great fun, there's a slew of multitracks coming out these days. The Sgt. Pepper ones are quite revealing and Bohemian Rhapsody is insane.



I think Electrical needs a rogue intern, bring on the Slint lol. 😊

Anyway this is what my track list says, I'm not sure how accurate it is.

#### Quote:

#### Moist Vagina

- 01 – nearly total silence (time code track?)
- 02 – kickdrum
- 03 – snare drum
- 04 – toms left
- 05 – toms right
- 06 – overhead mic left
- 07 – overhead mic right
- 08 – close room mic left
- 09 – close room mic right
- 10 – far room mic left
- 11 – far room mic right
- 12 – vocals high harmonies
- 13 – bass amp
- 14 – bass DI 1
- 15 – bass DI 2
- 16 – guitar 1 A
- 17 – guitar 1 B
- 18 – guitar 1 C
- 19 – guitar 1 D
- 20 – guitar 2 A
- 21 – guitar 2 B
- 22 – vocals
- 23 – vocals w/ effect



24 - bass and drums recording w/ scratch vocals

## Sappy

- 01 - nearly total silence (time code track?)
- 02 - kickdrum
- 03 - snare drum
- 04 - toms left
- 05 - toms right
- 06 - overhead mic left
- 07 - overhead mic right
- 08 - close room mic left
- 09 - close room mic right
- 10 - far room mic left
- 11 - far room mic right
- 12 - nearly total silence (probably reserved for never added harmony vocals)
- 13 - bass DI 1
- 14 - bass DI 2
- 15 - bass amp
- 16 - guitar 1 A (with totally messed up guitar solo!)
- 17 - guitar 1 B (the solo part is left off, but includes tapping on the mic)
- 18 - guitar 2 A
- 19 - guitar 2 B
- 20 - guitar 2 C
- 21 - vocals 1 A
- 22 - vocals 1 B
- 23 - vocals 1 C (w/ effect)
- 24 - bass and drums recording w/ scratch vocals

## Very Ape

- 01 - nearly total silence (time code track?)
- 02 - kickdrum
- 03 - snare drum
- 04 - toms left
- 05 - toms right

06 - overhead mic left  
07 - overhead mic right  
08 - close room mic left  
09 - close room mic right  
10 - far room mic left  
11 - far room mic right  
12 - nearly total silence (probably reserved for never added harmony vocals)  
13 - bass DI 1  
14 - bass DI 2  
15 - bass amp  
16 - guitar 1  
17 - guitar 2  
18 - guitar 3 A  
19 - guitar 3 B  
20 - guitar 3 C  
21 - vocals 1 A  
22 - vocals 1 B  
23 - vocals 1 C (w/ effect)  
24 - guitar 2, bass and drums recording w/ scratch vocals

### **Pennyroyal Tea**

01 - nearly total silence (time code track?)  
02 - kickdrum  
03 - snare drum  
04 - toms left  
05 - toms right  
06 - overhead mic left  
07 - overhead mic right  
08 - close room mic left  
09 - close room mic right  
10 - far room mic left  
11 - far room mic right  
12 - nearly total silence (probably reserved for never added harmony vocals)  
13 - bass DI 1  
14 - bass DI 2

15 – bass amp  
16 – guitar 1 A  
17 – guitar 1 B  
18 – guitar 2 A  
19 – guitar 2 B  
20 – guitar 2 C  
21 – empty vocal track  
22 – empty vocal track  
23 – empty vocal track  
24 – guitar, bass and drums recording w/ scratch vocals

### Steve

For what it's worth, there was no DI Bass recorded during the Pachyderm sessions. There may have been overdubbed bass added to some songs later, but I don't know which ones.

I am enjoying the irony of a record leaking like this, to great interest, when the original record company position was that it was an un-listenable record and nobody would like it.

I haven't heard these leaked files, so I don't know if they're legit, but there's no reason to think they aren't.

-----

steve albini

Electrical Audio

sa at electrical dot com

*Quicumque quattuor feles possidet insanus est.*

### Argyreia Nervosa

Yeah, its definitely not a DI. I'm pretty sure its just the different mics on the cabinet. Its the same with the guitar, multiple mics per take. By varying the levels of the different mics and using the phase invert there's an endless combination of possible guitar tones, without touching EQ. Who would've thought? Why use artificial reverb? Just stick a room mic 20 feet back etc. There's a lot that can be learned from these.

I'm wondering about the drums. Which tracks require M/S decoding?  
There's overhead, close room and far room pairs...

Can anyone think of the common denominator is between all of these different multitracks? Different artists, labels, studio's, producers, genres, Now there's some NIN, I heard it through the grapevine and Def Leopard.

Yes 48 tracks background vocals! 🤪

### Steve

At some point, someone decided to make digital work copies of the masters, either for remixing for release or for use in soundtracks or whatever. As soon as the reels were sent off to the cheapest studio the intern could find in the yellow pages, the later leaking of these files became certain.

## Session Documentation Pics (Unknown Band)

rob v.

these were not ment for documentation purposes but you guys keep asking so take it or leave it.

If you care to see some funny video footage of me erasing a few scratch tracks with the tape speed set at 30ips as opposed to the 15ips at which it was recorded go here...

<http://www.1908.com/video/DSCF0826.AVI>

or

<http://www.1908.com/video/DSCF0827.AVI>

go here dukes...

<http://homepage.mac.com/rvester>

-----  
rob









## Recording Sessions Photos (Unknown Band #2)

### Random Toxy

If you go to [russianrecording.com](http://russianrecording.com), there are photos of when my old band Lucky Pineapple got to spend a weekend at Electrical. There is a lucky pineapple link in the 'clients' section. There are about 40 photos and a song we recorded there. That was in 2005 and I still cannot believe it happened. It was a dream come true.

### Jeremy

I was just looking at the pics on the russian recording site – I noticed what looked like an M/S with a 121 as a side mic and an earthworks as the mid mic on the floor. I'm totally trying that this week.

### Eliya

Isn't it a 121 and an Altec Coke bottle?



Jeremy  
by gollie, I think you're right.

00tim





jgeiger

here's a video documenting our **session** from september of 2006. you can really see behind the scenes of Pip hard at work...

<http://www.youtube.com/watch?v=RNkmjJ67sD0>

## EXP Recording Sessions Photos

Greg

Here is a website of a band I just finished with some photos.









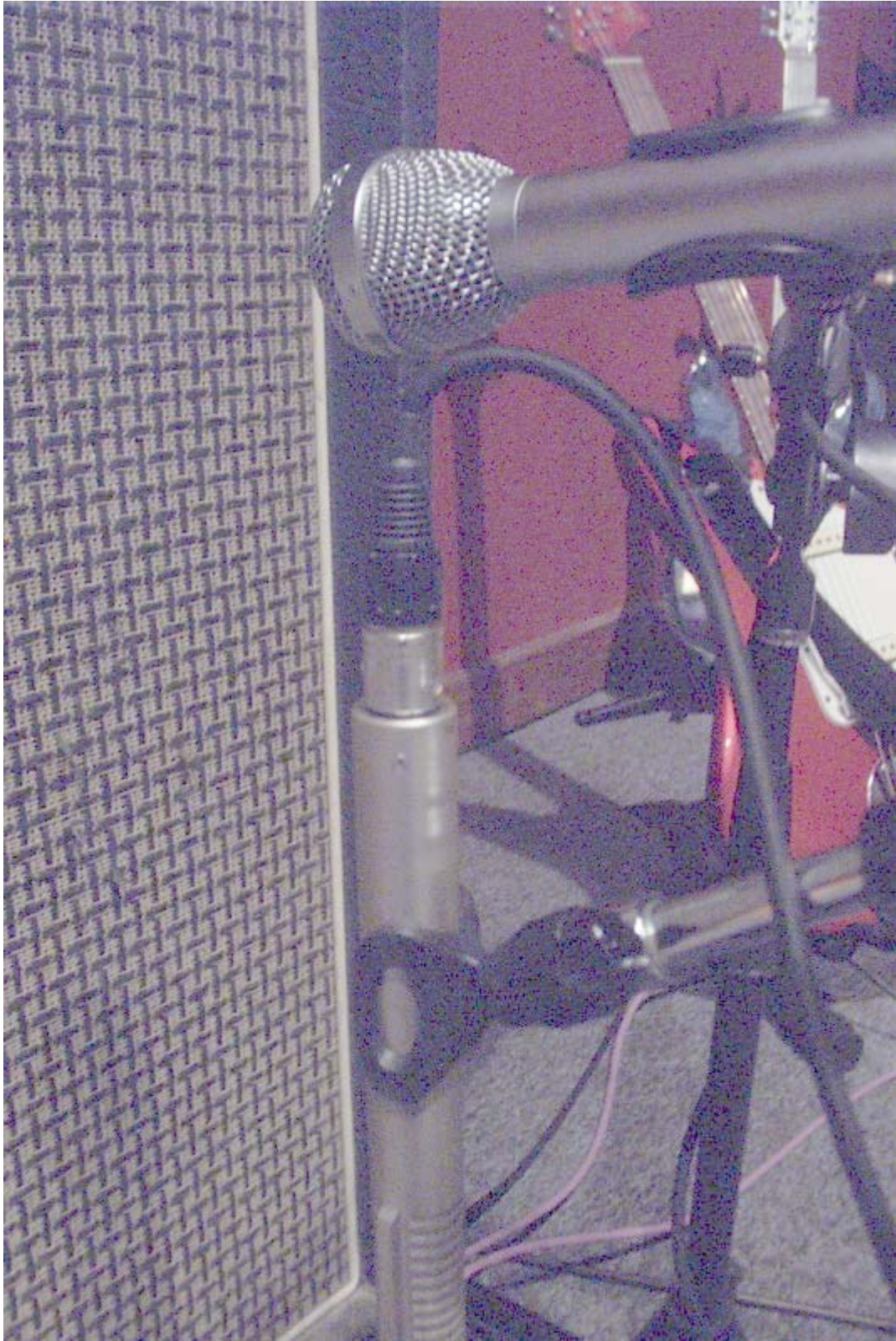














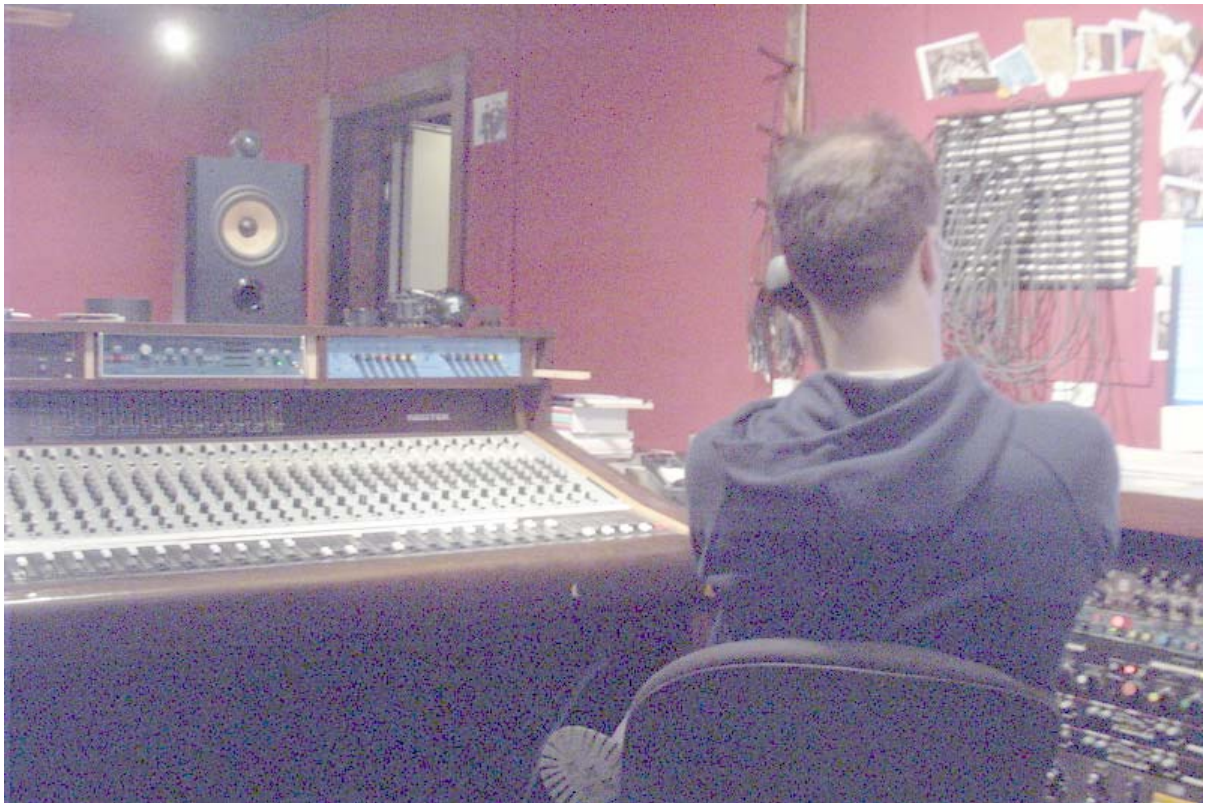










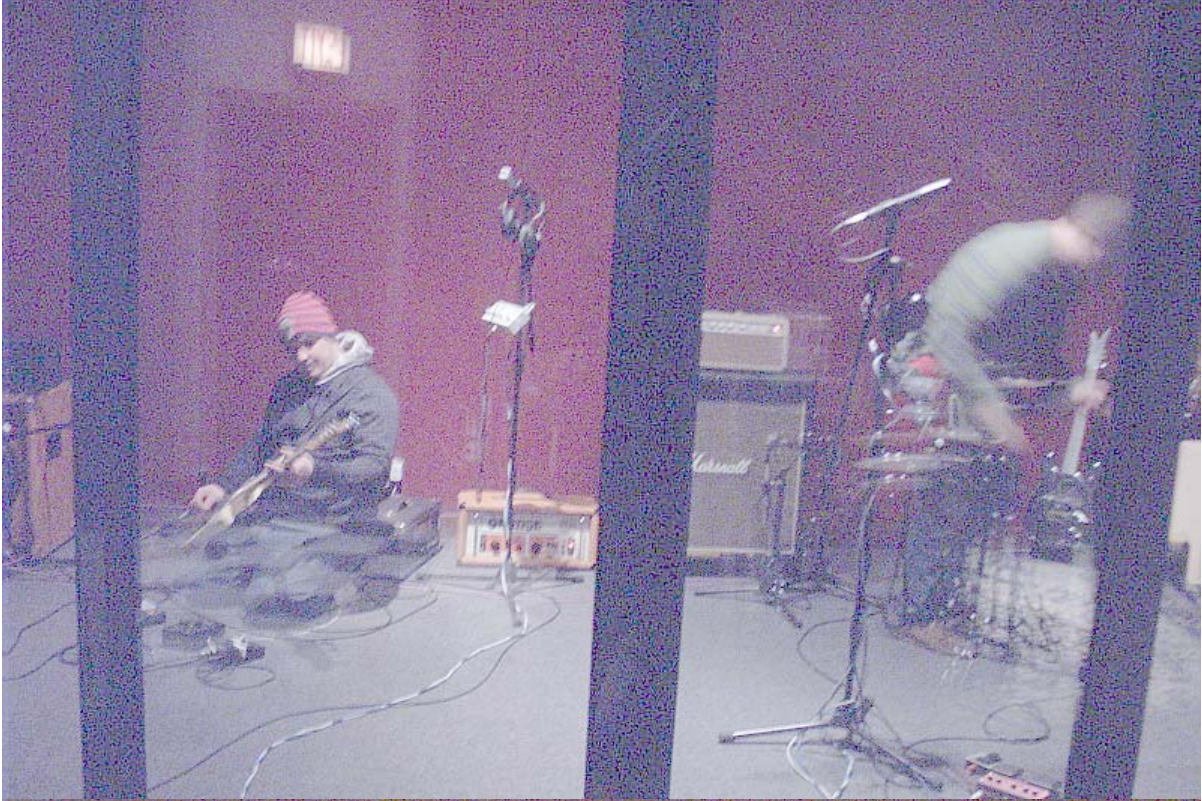












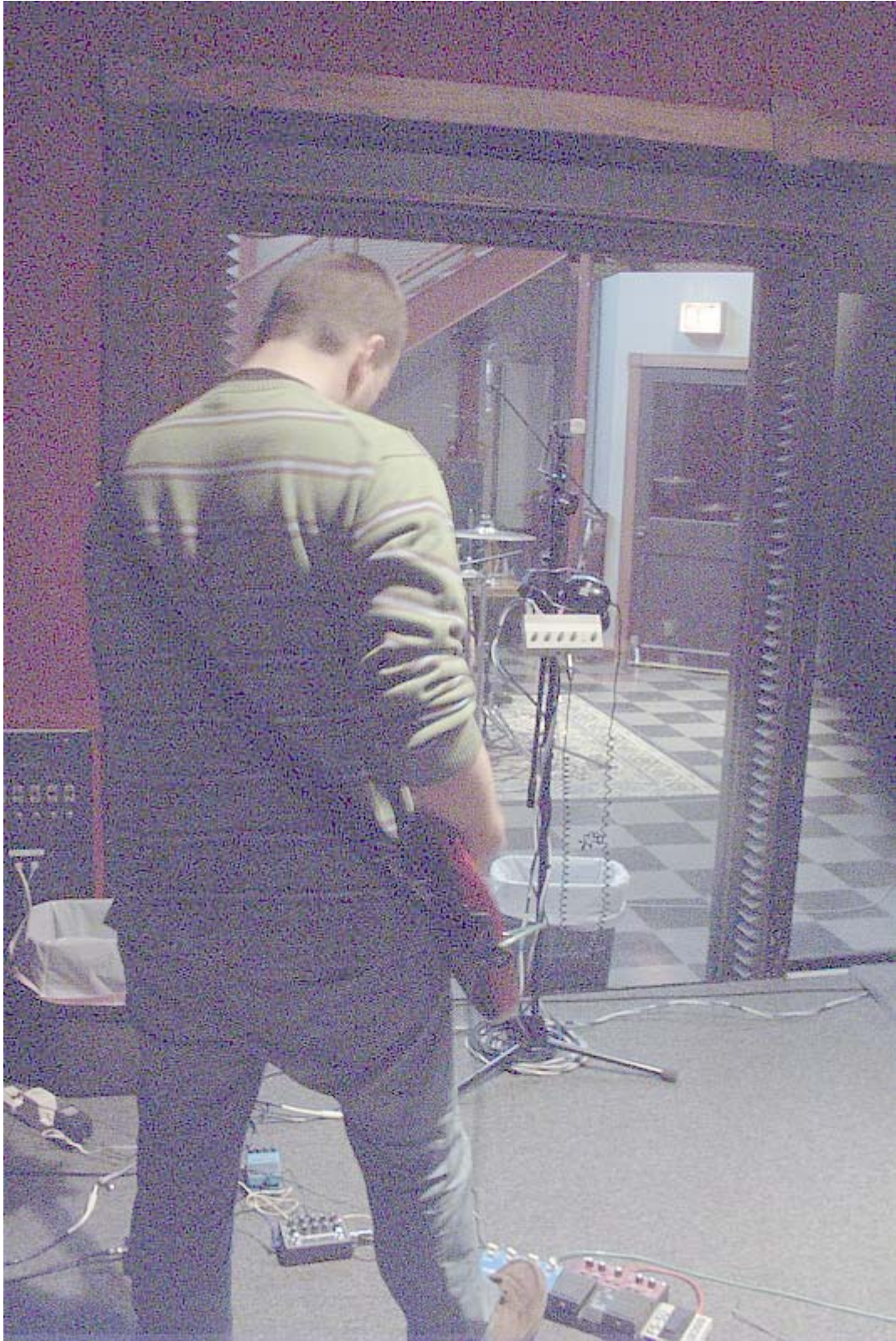
















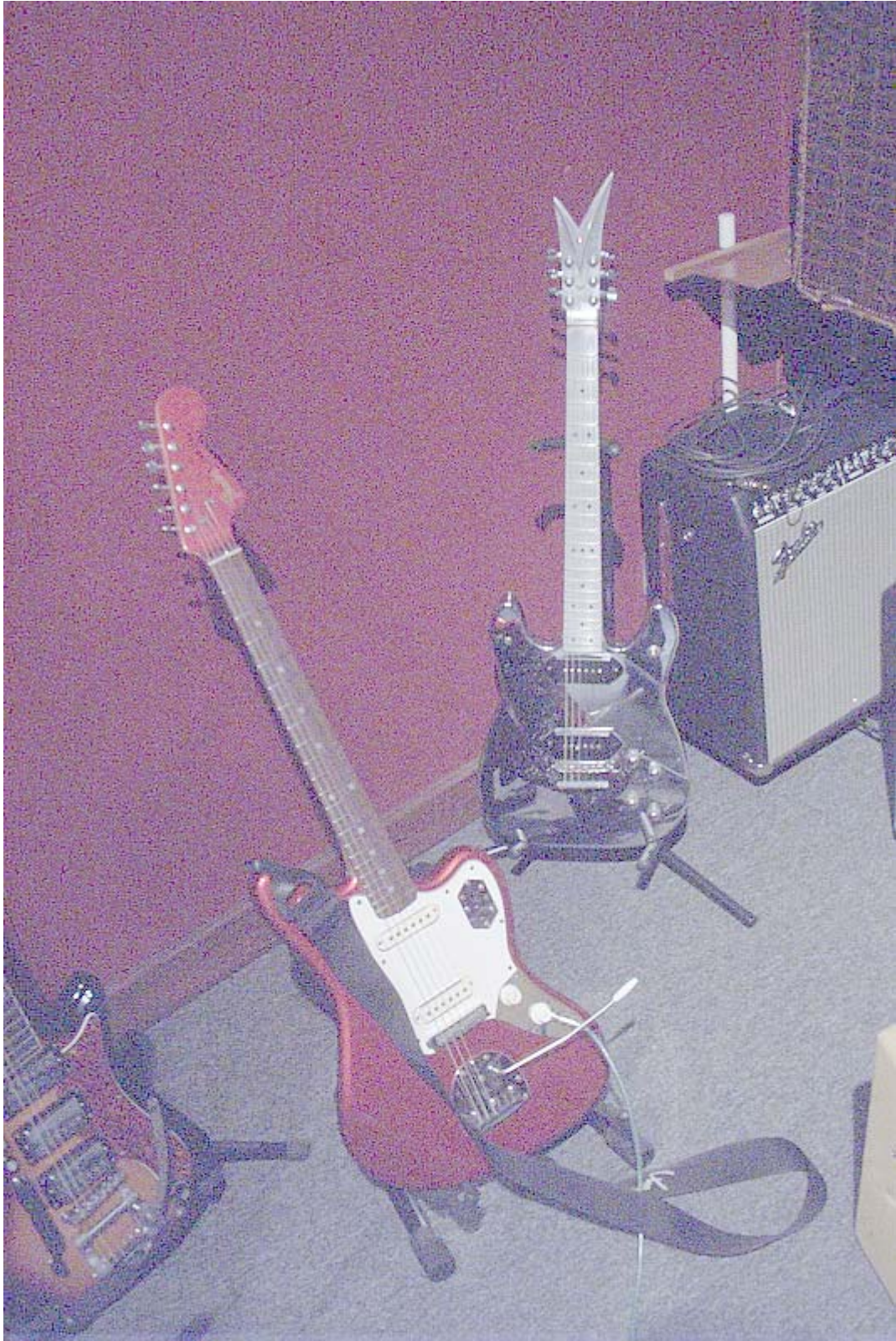


















## Call Me Lightning Recording Sessions Info

### Jnelson

Does any one have information or **pictures** dealing with Call me lightnings recent recording **session** at Electrical audio? I would like to see how they miced things up and such

### nick92675

greg recorded it, and i was there for a bunch of the basic tracking and most of the mixing. vocals were done at shane's house on the computer. maybe some gtr ODs too. they did some stuff at greg's too, but i dunno if any of that ended up staying for the record. mixed at electrical.

it was in studio a. drums were first tried in the dead room but ultimately moved to kentucky. [this became a recurring joke for something that seemed like a good idea in theory, but in fact sucked in practice] nathan was in center field, bill in alcatraz. a lot of time was spent on bill's bass trying different heads and cabs until ultimately settling back on his own. sorta typical norman-ish drum setup - i forget specific mics, but def the josephsons on top/bottom toms. some overheads.... some room mics.... a compressed mono mic.... kick was def 2 mics - in and out... (i'd wager 421 on kick in and 380 on outside).... a snare mic.... (speculating again, maybe the altec 175?) nathan was also sorta typical greg gtr setup, 2 close mics and a room mic.

the toms were from the kit shane's selling (see my post in tech room), kick was EA's orange ludwig... snare shane's yamaha sparkly thing. 2 sweet rides as crashes.... maybe a paragon ride? and shane had some old 70s hats that he used.

## Ativin Recording Sessions Info

### Mnotaro

It just so happened that two fellas I knew from Bloomington, Indiana were recording with Greg Norman in studio B. Their group, Ativin, was a three piece. Greg started by calibrating the Studer 820 MCH. He needed 355 nWb/m<sup>2</sup> for a certain fluxivity used at another studio. The Studer calibrates itself with the guidance of jinshu, or the human touch. I asked about the sync of a half-track Studer 820 and when it would be used. On television piss fizzle. I was a studiofly.

The group was recording new parts to some tracks recorded at another studio. At breaks in the **session**, I would go and look at the microphones set up in the dead and live rooms. Ativin brought in a Red Bear amplifier head to complement a Marshall cabinet. I know nothing of Red Bear, except that McCarthy would have gladly blacklisted them. EA also has many pieces of electrical gear and instruments. They don't have a vibraphone, but they do have a Mellotron.

The amps were in the plush dead room. The drummer's kit was in the live room. A real sexy atmosphere unfolds when one heads down the stairs at night. A great rug really brought the checkered tile floors and ceiling addition in the live room together. An even mixture of frequency balance and delayed interactions created a distinct flavor. The ceiling is acoustically treated with a full body massage. The dead room just 'sweats'; it gets all warm and receptive.

I noticed a doubled Coles 4038 and CMV528 mic scheme in place, on the drums. The 4038s faced the kit, almost perpendicular to the floor, four feet above the ground and the 528s rested on the ground pointing in the same direction. They were creating a triangle of sorts with the kick drum. Josephson 606s were top and bottom mics for the tom-toms. I noted that evening: Stainless steel as overheads. Greg would mix the music in his house.

The 26th of June:

I spent time in the studio B dead room. It doubles as an equipment room.

Oranges, Sovteks, a Hiwatt, some Traynors, and others reside there. Electro-harmonix pedals up the culo. Many pedals, and a cigarette pack amplifier later, the inventory list I was making became half-assed. If my hands were empty of knowledge, a pen would offer no rewards. I simply picked up several amplifier heads and placed them in an order on the shelves.

'Decibel-u' was on my mind this day. Why would 0.775 Volts be so important? I guess it was important enough to become a standard reference for comparing measurements of electronic equipment. Truly a meditation: the decibel, a unit of measure for the intensity of a sound pressure wave. The 'u' simply lets one know that 0 dB is a reference voltage of 0.775 volts. Transduced information from acoustic vibrations.

## Neurosis Recording Sessions Info

### Mnotaro

Neurosis was there in August. An amp cabinet of theirs showed up a few weeks prior. I was pumped for this. I didn't normally work on Fridays at the studio, but I went in on this one to document the first day of their **session**. I left for the Dan Ryan, the same time as usual, only to wind up at my destination 4 hours later. Nature and the human were in full oppositional-force this day. I listened to A Sun that Never Sets, an album by Neurosis, about 4 times on my trip to Illinois. The rain fell like fallout eventually and I ceased fire when I finally reached the tiny e.

Albini worked an upward compression with an RNC to even out Von Till's various guitar patches. He amplified the clean, softer signal to match an overdriven level. The 'loud' signal was not compressed. The softer one was. A slow release rid of any swooping. A Sony C38, Josephson 609 (gold), and RCA 74DX were used on two guitar cabinets. A Massenburg preamp was implemented in part of the chain.

The monster bass cabinet was miked with a Shure 45 and Beyer M380. While one captured the beef and the other chewed the bones, an UREI LA12 kept that bitch caged in.



Noah's keys were DI, but he did have some small amps around him.

I listened to the first takes and saw the song raised in its infancy. No vocals were done, but I did hear Von Till key the group with, 'Don't let them steal your'. It was a pure moment, unbelievable. I made a fluffy coffee drink for everyone in the group. I had a problem frothing with the metal pitcher so it took me some time.

Jason Roeder Drum kit:

Altec 150s for the room; top snare, lipstick; bottom snare, SM98; hi tom, lo tom, top and bottom, C609; kick front, D112; kick beater, SM98; crash left of drummer, Royer 112; crash right of drummer, Royer 112; ride, C606A; china crash, Josephson C42.

The room pair was sent through an Eventide Harmonizer set at 20ms. The top snare was sent to the key input of the bottom snare (dbx 172). The bottom snare was sent to a dbx 172 triggered by the top snare, while it triggered the beater mike to duck when the bottom snare mike reached a certain maximum. The two snares were mixed to one track. Beater kick was sent to a dbx 172. The front kick was sent to an 1176, foreignated. The crashes went through an 1178, foreignated, GML EQs?, maybe the GML preamps also. The spoke bell was sent through some limiter, the same as the china crash.

The specifics of the rest are similar to how many Vietnam vets it takes to screw in a light bulb.

## Purplene Recording Sessions Info

### Mnotaro

Fosters, Australian for beer is not sold in Australia:

They came from the land down under. The recording they were making was being funded by grants their government gave them. That is almost more sour than fresh, white t-shirts. These guys came at the end of my transit. I saw the **session** from mike set-up to mixed product. This was Purplene.

Kick front, SM98; kick beater, D112; snare top, Sony C37; snare bottom, SM98; hi tom, lo tom, top and bottom, Josephson 609; crashes Royer 112; room, Altec 150; unknown on ride. The snare was mixed to one track with the same trigger/key expansion scheme. An NT1 was used to brighten up the darkness of the C37. The kick was also mixed to one track with the batter side keyed to duck the expander with the snare hit. This may remove that overall kit bleed from the nastiest of spots. The front kick was limited with an 1176, foreignated. The toms were all summed together to one track. The three cymbals were mixed into two tracks.

The guitar bass electric was miked with a Beyer M380 and condenser. The 380 went through the Omnipresser. A -5dB threshold, 10ms attack, 100ms release. An LA-4 was used due to the boosts that will occur at some frequencies when the two signals are mixed. A gentle compression will even these out leaving a dynamically stable signal. This is the last thing in the chain. Threshold +2dB, gain was set as unity.

The guitars were recorded in heaven. God only knows.

The vocals were done right here on Earth. A Neuman U-49 and Lomo Art Deco were set up side by side. These were not absolute in terms of which was used and when. The U-49 was sent through a Neve 3115. A KSM44 was placed vertical to the floor, capsule closest to the ground, upside down. This was an ambience mic triggered by the composite signal of the vocal mics. Expansion occurred at -3dB. A louder sound contains more room, while the softer sound remains very intimate.

## Detachment Kit Recording Sessions Info

### Mnotaro

Detachment Kit:

Business as usual. Detachment Kit came to record with Greg in studio A. This is when I noticed a book that had been doodled in by several people. I think it was a visitors journal moderated by Greg.

Kick beater was miked with an SM57 and SM98. EA preamps were used and so were George Massenburg EQs. This was sent to the Dynamite and ducked as usual. The kick front was a D112 sent to an EA preamp and then to an LA-12 set at 2:1, +5 threshold, fast attack and a mid release. The snare was picked up by a transducer and sent to Massenburg EQs from an EA preamp. I only noticed the top mics for the tom-toms to have any EQ. The floor tom had -9dB of gain where as the rack tom had +6dB. Room mics left and right were sent through John Hardy and a fast attacked, long released, 4:1 compressed 1178.

I only noted a Beyer M-88 sent to an Ampex mod (436 to a 436c) for the guitar. This was in Alcatraz with an Earthworks, capsule covered with plastic protector, for an ambience mic. The signal was very distorted. It rounded out the guitar sound like a dash of cayenne pepper to some hash browns.

### Electrelane Recording Sessions Info

#### danmaksym

Steve and the rest of the guys at Electrical (as well as the band) were kind enough to allow me to observe the recording of "On Parade" for "The Power Out." I saw that the Leslie was mic'd with a AT 4033 placed about 8 inches from the openings at the bottom of the cabinet. This was probably the setup for "I'm on Fire" as well. Any other questions regarding the recording of that particular song I can answer in detail if so desired.

I also have copious **pictures** of the recording **session** and would be willing to post them if anyone is interested.

### June of 44 Guitar Sound Info

#### Kyuss

Right-oh - well, basically I really want to know what equipment was used to get the guitar sound on 'Tropics and Meridian' by June of 44  
I really like it, and want to at least get an approximation of it. If anyone has specifics on what was used then that would be great.

#### Bob Weston

Probably a couple of ribbon mics on each amp.

## Kyuss

do you remember wich amp they used?

## Bob Weston

According to Sean:

"if i remember it straight, i think i had that sovtek (mig 50) that you or steve ordered for me...and ran it through that ampeg 4x12...i don't think mueller had the music man yet...he was playing a fender bassman through a fender cab...2x12 or 4x12...something like that"

## Don Caballero Recording Sessions Photos

### Russ

Here are some pictures I took of the microphone setup for Don Caballero's *American Don* sessions. Keep in mind that the setup could have changed at any point after I took these photos.

This first one shows the drum kit from the front. The drums are in the Kentucky room of Studio A. You can see an AKG C-24 out in front of the kit as the stereo overhead mic, a D112 for the kick, Josephson 606/609's on the toms, looks like a Beyer 160 as a mono overhead.



This next one of the drums clearly shows the positioning of the C-24 (used as M-S pair) and you can also see the Altec 150's as room mics, and the Altec 175 on the snare.



This shows a close up from behind the kit. There might be something strange going on underneath the hi-hats, but I can't quite tell.



Here you can see another Altec 175 on the auxillary snare.

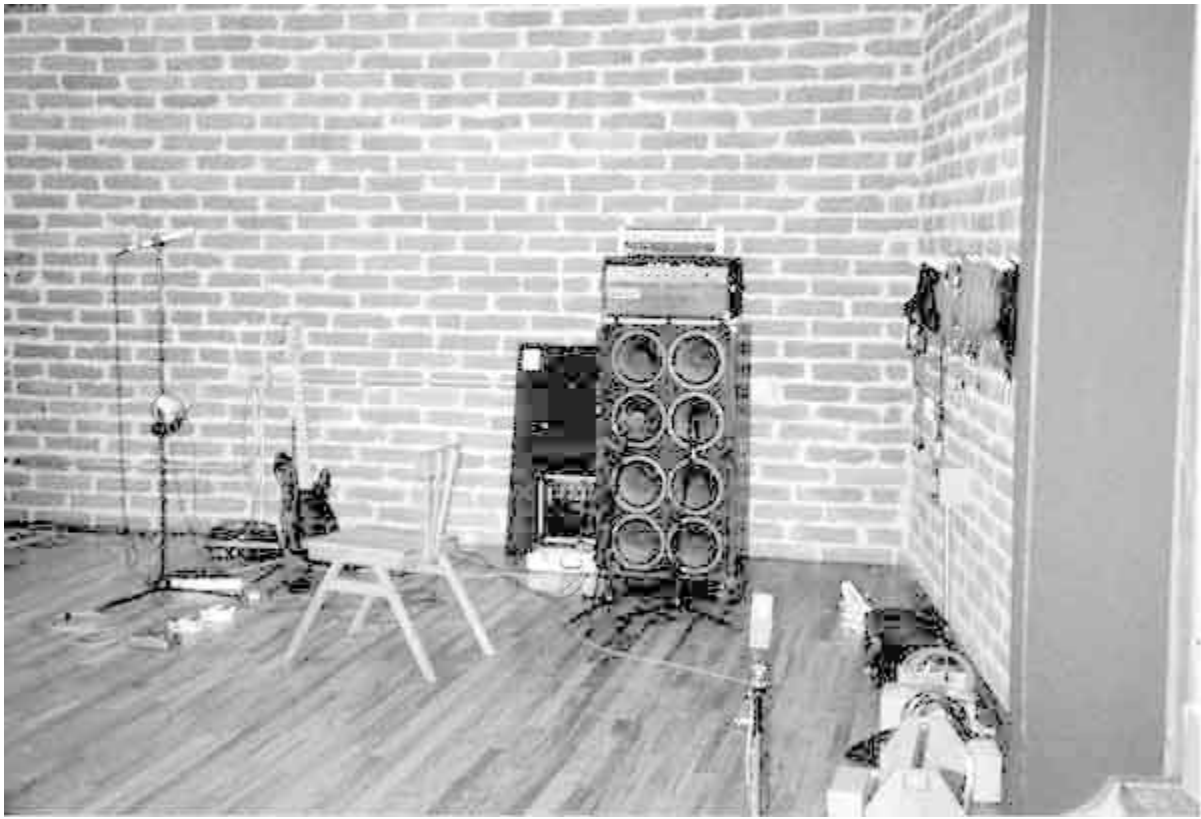


Moving on to the bass guitar cabinet which was in Center Field along with the guitar cabinets. That's an EV RE-20 on the left and an Audio Technica 4033 on the right.





This one just shows the room mic for the bass cabinet – an AKG C-414.



Two final shots of the guitar cabinet setup. From left to right it goes RCA BK-5A (room), VTL CR-3A, **AKG C-28 w/ CK-4 (bi-directional) capsule**, Coles/STC 4038.



And here's a close up of the three close mics.



In the fifth picture we see a Gallien-Krueger 800RB head and a vintage Ampeg SVT Classic head sitting on top of an Ampeg SVT-810E cabinet. I was wondering whether the two heads were used separately or "in tandem", i.e. with the G-K's preamp output going into the Ampeg's power amp input (or vice versa). Assuming, of course, that the G-K has a pre out jack and the Ampeg a power in jack (or vice versa).

### Seaside Lounge

How do you use a single stereo mic (the C24) as an MS pair? Is the Beyers 160 the middle signal?

### hollis

[/So one capsule is in figure 8 and the other is in cardioid? ]

well, you can move each capsules pattern between cardioid and omni on the power supply. I seem to remember that there is a half-step between

cardioid/figure 8 and figure 8/omni. Its been a while since I've used one so I could be wrong but I do remember loving it and using it alot on drums. I assisted Brian Paulson many moons ago and he dug it, in front of the kit similar to the session above.

[/that placing a mic directly in front of a guitar cab speaker cone was a bad idea]

I've found that the sound right in front of the speaker is somewhat brighter than towards the edge. I assume thats because of the additional excursion of the driver at that point and possibly more uniformly formed soundwaves. That is, there would be a more focused signal in the middle of the speaker.

The best way of getting a decent guitar sound is to place the mic where it sounds best.

Now that I've typed that I feel that it's a stupid answer to a normal question. But seriously, have a friend or a remote controlled robot move the microphone in front of the best sounding speaker up and down, back and forth. If your friend is wearing headphones, you can dictate him from the control room what to do – just like a robot. Let him/her/it leave the microphone where it sounds best. Easy.

I've read in a book about recording to place the SM 57 in a 37 degree angle to the spot where the cone meets the centre of the speaker.

That's what I call a stupid advice.

## Leftover Crack Recording Sessions Info (no pictures available)

### Andrew Weatherhead

This second post in the **Session** Documentation series will detail a day I watched Steve and Leftover Crack record guitar overdubs and begin mixing. As the majority of the day was mixing, my post will not be as long or as interesting as the first in the series; however, I will do my best. Oh, by the way, I do have the bands permission to use their name, as they have nothing to hide.

As the day started with guitar overdubs, that's what I will talk about first. Leftover Crack has two guitar players: Brad and Sturgeon (who also sings). Brad was using a combination of Sovtek and Rivera amplifiers with a Marshall 4x12 speaker cabinet. Here is a picture:

As you can see, the cabinet was miced using two mics. The microphone on axis with the top left speaker of the cabinet is a Lomo 19a-9 (<http://www.electrical.com/item.php?page=147&pic=pictures/147.jpg>), the mic on the bottom right speaker is an RCA 74-JR (<http://www.electrical.com/item.php?page=145&pic=pictures/145.jpg>).

Here is a better look at the microphones and their distance away from the cabinet:

The other guitar player/singer, Sturgeon, used a Roland JC-120 Jazz Chorus Amp. Here is a picture:

On the left speaker is a Sony C37p microphone (<http://www.electrical.com/item.php?page=286&pic=pictures/286-0.jpg>) and on the right speaker is a Coles 4038 mic (<http://www.electrical.com/item.php?page=7&pic=pictures/7.jpg>).

Again here is the microphones in relation to the amp:

Here is a picture of the vocal mics in the Alcatraz room of Studio A:

The mics you see here are the Sony C48p (<http://www.electrical.com/item.php?page=285&pic=pictures/285-0.jpg>) on the left and the EV PL-20 (<http://www.electrical.com/item.php?page=89&pic=pictures/89.jpg>) on the right. These mics were not used simultaneously: the Sony C48p was

used as an overdub mic for backing vocals and the PL-20 was used to record lead vocals. The approach taken to record the lead vocals was fairly interesting. The PL-20 was routed into an old Fender Twin reverb amp, which was miced with a plastic cup around the microphone. I can not recall the model of the microphone, I am sorry, but I found the plastic cup technique fascinating. As you may guess, the Fender Twin amp gave the vocals a little bit of warmth and crunch due to the distortion of the amp. However, when I inquired about the plastic cup, Steve told me that it added even more harshness/distortion to the vocals because it pronounced the midrange frequencies. Sturgeon, the guitar player/singer added with a bit of sarcasm, "It makes it sound like you're singing into a plastic cup." And by gone it, he was right, during the mixing you could really hear the combination of the Fender Twin and the plastic cup adding extra growl and harshness to the vocals.

Here are two **pictures** of the vocal amp and mic set up:

Here is an overview of Centerfield, where all of the amps were located: Upon completion of the overdubs, Steve and Sturgeon began mixing. This was much less exciting than overdubs and I have no **pictures**; however, I learned a lot just from watching. Actually, I have one picture, here it is: I guess that concludes **Session Documentation #2**. Please tell me what you think: What was helpful, what was good, what was bad, what was unclear.

Oh, one more thing. I saw this on the drive home and it ended up being picture number 666 on my camera, very strange:

-Andrew

### Jlarcombe

I'm thinking of buying a second-hand Sony C-48. I've heard a lot of good things about them and I need a variable-pattern mic that I can also use for vocals with good results. Anyone have anything to add to the description on the equipment page that Intern\_8033 linked to in his post?

### Cgarges

I've found them to be dull-sounding on both guitars and lead vocals. Dull in a mostly non-exciting or not-very-accurate sense, not just rolled-off top end. They make for a nice character on background vocals, though. This has

been my experience, but they obviously work well for some people who know what they're doing.

### Tmidgett

hey

i used a C48 (one of electrical's) to record all the vocals on a recent acoustic EP

three people sang, and we all have very different voices

one guy's deep and rumbly, one guy has a real pronounced midrange, i have kind of a higher, scratchy voice

i was surprised to find that the sony worked pretty well on each of us

plus you can power it w/a 9V battery

### Andrew Weatherhead

cgarges wrote:

Quote:

Do you plan on posting any details about the mix?

Talking about the mixing is extremely difficult because I don't have anything to reference, but I will try and explain a little of what went on:

The majority of the mixing that went on on this day was dedicated to one song, I am not going to name the song because the record has not been released yet and I may be giving details away which would upset the band or their record label. For reference purposes, I will call the song "Song #1," however it is not a Fugazi cover. Well "Song #1" features a breakdown featuring a melody played by baritone violin, acoustic guitar, and electric guitar using an e-bow. This was a topic of much debate as Sturgeon, who was directing the mixing, had a clear idea of how he wanted it to sound, but it wasn't exactly translating to the mixing board. First of all, Steve and Sturgeon worked on the eq and effects settings for each instrument (baritone violin, acoustic guitar, and electric guitar using an e-bow). The

baritone violin was run through the Lexicon Primetime Digital Delay (<http://www.electrical.com/item.php?page=255&pic=pictures/255-0.jpg>). After setting effects and eq, they mixed the levels to get an ideal balance of the instruments. Sturgeon still wasn't getting the sound that was in his head, so he vocalized his ideas to Steve and they continued to work on it. After changing some of the effects and eq settings and rebalancing the levels, Sturgeon was happy. Then, Steve was worried about the overall mix not being "bright" enough, in his opinion it was too midragney. To fix this, Steve added a touch of overall eq with the GML 8200 (<http://www.electrical.com/item.php?page=263&pic=pictures/263-0.jpg>). At this point, Steve made a burn of the cd so Sturgeon could go play it for the other guys in the band who were up in the lounge. Everyone seemed to be happy, so, after a few minor changes to the mix, Steve was ready to make a master using the ATR 102 (<http://www.electrical.com/item.php?page=278&pic=pictures/278-0.jpg>). While they were doing this, I, unfortunately, had to leave because my band was playing a party that night, but I gained a great deal of knowledge and experience from the day I spent mixing with Leftover Crack.

## MTAR

**djanes1 wrote:**

I enjoyed seeing how far away the mics were from the amp. I dont know anything about recording techniques, so now i will stop mic ing my amp 1 inch away and start micing it 3-4" away like it is done at EA.

Yes, different mic positions will yield different results. I too have found that pulling a mic away from an amp can, in the right situations, yield a better tone, especially with a nice room with lgood isolation from other sources. But this depends on the amp, the mic, the polar pattern of the mic, the mic pre, the guitar, the player, the room, other sources in the same room, and what I ate for lunch. You really dson't have to "stop micing (your) amp 1 inch away and start micing it 3-4" away like it is done at EA". A mic 1" away can sound good in some situations. Or maybe it sounds best with only one mic 10' away. Trial and error is the best way to learn good mic technique.

## B



It looks like a beyer m201 in the red cup. Ha ha ha.

My initial thoughts where that it was a m201n/c. If you look at the second picture, a little before the mic enters the cup you see a white line. It may just be a reflection of where the tape meets the body of the mic. On the m201n/c that's about where the writing of model number is. That's what made me think it was one. But looking at the first picture I don't really see that line. On the newer m201tg models the writing is at the base of the microphone. If mike says it's an sm57.... I can see his point looking at them again. Oh well, I tried. The m201 is a awesome mic. I do like looking at the **pictures** of recording setups. You should definately post more.

### Yokophono

Something else I noticed about the picture concerning the unique mic recording technique that was more than likely a key part of the 'overdriven/distorted' vocal sound. It appears the PL-20 was routed to a DI box (the red box) to convert from balanced XLR to unbalanced line for the amp input. From the DI there is a cord going to a white stomp box which is then plugged into the input on the Twin. It looks like the white stomp box is a Crowther Hot Cake overdrive pedal. Am I correct?

I'm kind of interested in hearing the end result as I own one of these as one of my main overdrive/distortion stomp boxes. I generally hate most distortion stomp boxes as they often sound like stomp boxes, i.e. overdrive from a little metal canister. It's very transparent and very natural sounding. It sits very nicely in front of a tube amp and accentuates the amp's natural tone quite nicely.

However, I've noted in trying to use it in other applications such as a distortion/overdrive pedal for my roommate's keyboards the result is less than stellar. So if the end result on the lead vocals sounds good it's another nifty use for the damn thing.

### Andrew Weatherhead

iandisurvive6 wrote:

alrite on the 4x12 why do you use 2 mics on the top left and bottem rite?

No particular reason, at least I can't recall any. But using two different mics to record the same sound source will produce two different sounding results which can be combined/blended/mixed during mixing. Hopefully the result will sound good, but if it doesn't, you're probably not cut out to be an engineer.

### MTAR

Often times cabs will have two different speakers installed, so you may want to mic the 2 different speakers, or make sure you only mic one type of speaker and not the other.

Also, if you listen to each speaker in any multiple speaker cab, you will notice that each speaker sounds quite different. Im not sure if this is due to a natural inconsistency in the impedance of individual speakers (maybe from aging...) or if it is from the acoustics happening in the cab or a mixture of both. At any rate, there is quite a noticeable difference . I learned this at my internship at EA. I was amazed when I tried this on my own. Be careful though! Putting you ear up to a blaring speaker can do some serious damage.

### Velocity Recording Sessions Info (No pictures available)

#### Intern\_8033

This post will document half a day I spent watching Russ, a staff engineer here at Electrical, record a band. I'd appreciate feedback as to what is useful information and what you would like to be more detailed.

In order to protect the privacy of the band, we will call them "Velocity," because that is an awesome band name. I don't think the band really needs their privacy protected, but if I use too many pronouns I'll get depressed and won't finish the article.

It was a brisk and bright summer day. Velocity arrived at 11:30, excited to start work recording the music they had worked so hard on. The sun burst through the ajar loading dock door, giving studio B an aura appropriate for the beauty that had graced its walls. I watched the silhouettes of the eager band members as they unpacked their equipment. I sighed, thinking of the

marvelous things that this day would bring. Some might say, "another day, another band," but I was still young and inexperienced, and every band provided new challenges, and in its turn, exhilaration. I'm not actually going to write like that, I just thought it would be neat to pretend like I was going to. Every story in the literary magazine from my junior high starts like that. I wrote one called "The River Ran Red" about a friend of mine who was walking through a storm sewer and hit his head on a pipe. Here is a picture of Velocity loading their gear. It was early in the **session**, so I was perhaps overzealous with the picture taking.

As you can see, that silhouette stuff was all bullshit. Russ got in early and aligned the tape machine before the band arrived. The fancy looking text below is how I will signify that it is the engineer's own words.

**Quote:**

Yeah, dog, bands love it when you align the tape machine on their clock. NOT! LOL!!

*Russ aligning the tape machine*

The band made a decision to record the drums in the live room and two electric guitars and a bass guitar in the dead room. Like most bands, they would play live and record all instruments to tape simultaneously.

Setting Up Microphones

**Drums**

The drummer brought his own kit, which can be seen in the picture below. He didn't use any muffling in the kick drum. Once the drums were setup, Russ made sure they were in tune and the heads were in good shape. He then decided on microphones, which are listed below.

1. Kick drum (front): [AKG D112](#)
2. Kick drum (batter): [Shure SM98](#)
3. Snare (top): [Altec 175](#)
- 4-7. Rack toms (top and bottom): [Josephson 609](#)
- 8, 9. Floor tom: [AKG 414](#)
- 10, 11. Overheads: [Coles 4038](#)
- 12, 13. Ambience: [Stapes](#)

A few pictures.

*The drums from the front*

*Here is a picture of the mic on the batter side of the kick. I can never remember if it is called batter side or beater side. I could just asked someone what it is called for the sake of accuracy in this article, but I wanted to leave it up in the air just to prove my point that there is more than one way to do something.*

The most interesting thing about the positioning of the microphones is probably that the ambient mics are taped to the floor. Steve wrote about why this is done in [another post](#).

### **Bass Guitar**

Russ used two microphones for the bass guitar, a [Beyer 380](#) and an [Audio Technica 4051](#).

#### **Quote:**

the Beyer sounds good on bass, is dynamic and has a slow transience, and I used the condenser 4051 to get the transience. Also, I made sure the capsules were the same distance from the speakers to minimize phase problems. Boom.

### **Electric Guitar 1**

Russ used the [Coles 4038](#), because it generally sounds good on guitar and he has been trying to use it a lot lately to get an idea of how it sounds on different things. He also used a [Sony C48](#) because he had seen it used on guitar before but never used it and wanted to see how it worked.

### **Electric Guitar 2**

For this one, Russ used another [Coles 4038](#) and a [Sony C37](#), also because he had never used one and wanted to see how it worked.

[Sennheiser 421s](#) were used for talkback and to record scratch vocals. An [RCA BK-1 mic](#) was used for ambience in the dead room.

Russ let me help plug in some of the microphones, and it was AWESOME. I had someone in Velocity take a picture of me plugging one in and I mailed it to my mom. She won't let my dad see it because they are divorced and hate each other. She won't send it back because she thinks I'll show my dad, so I don't have a copy to post in here, sorry.

## Setting Levels

Russ started by setting the kick mics which went fine. To do this, he tells the drummer to play and adjusts the preamp gain while watching the volt peak meter on the [Studer 820](#) tape machine. Russ sent the two kick channels to discrete channels on the tape machine so he would have the ability to adjust the attack later.

When he got to the snare, he wasn't getting any signal from the mic. First he tried using a different preamp, but that didn't solve the problem. Next he tried switching the power supply. Now we were getting signal, but there was an occasional inexplicable "pop", so Russ decided to switch the mic out for another Altec 175.

One of the problems with using a batter side mic on the kick is that it picks up a lot of snare. In order to fix this, Russ set up a [Valley Dynamite](#) as a ducker on the batter mic that is keyed by the snare. In other words, whenever the snare is played, the batter mic gets quieter proportionally to how hard the snare is played.

The toms went without any trouble. Top and bottom mics were sent to the same channel of the tape machine.

[Sytek MPX-4A](#) preamps were used for the overheads and room mics. He did this to keep things clean and clear. Russ used an [Eventide Harmonizer](#) to delay the overhead mics twenty milliseconds.

Russ also checked phase.

This is it for the drums. We recorded a short bit of the drums and brought the drummer up to listen. He liked them.

Next was bass guitar, through a [Neve 3115](#) preamp. Russ did this because it has good bass extension, good low end, and he likes the way it sounds. The microphones went to discrete mics on tape.

Guitar 1 used more Sytek preamps. This was primarily because of the ribbon mic being used, and the Sytek's tend to behave well when used with a ribbon mic. The ribbon mic was overloading so we moved both microphones back about an inch. Both were moved to keep them aligned and in phase with each other.

Guitar 2 went through the Sytek pres.

Russ ran the guitar room mic (RCA BK-1) through an [ampex 351](#) mic pre amp.

Used a total of 17 tracks,

Kick 1, kick 2, snare, tom 1, tom 2, floor tom, OH l, OH r, Room l, room r, bass 1, 2, guitar 4 and guitar room.

Now the band started tracking, which was pretty uneventful. They are coming in another time to do mixing, which is convenient because I've totally exhausted my interest in writing things.

This was meant to be a kind of prototype of how this kind of thing can be done, so please let me know what would be helpful to include. And let me know if linking to the equipment is useful because it's a total pain in the ass.

Thanks,

Intern 8033

### Greasygoose

Nice work, Intern. I have to say, though, if that particular drummer walked into one of my sessions, I think I would be inclined to pull out the shittiest mics I could find. He's what musicians refer to as a "clubber." Didn't he write that song "Walk Loudly and Carry a Big Dick"??

Seriously, though, I have a question about mic placement. From the **pictures**, it appears that the tom mics are more or less parallel to the head of the drum (i.e. they're pointing straight down at the head, a few inches in from the shell). The snare mic looks to be in a similar position, but aimed more toward the center of the drum. Why do you suppose Russ did this? Do you think it's because a snare drum emits less tone than a tom tom, or is it to prevent Rummy from whacking the snare mic (he smells fear and snuffs it out)? Maybe both?

### Russ

**benadrian wrote:**

Why are the overheads that distance from the top of the kit? Why are the overheads delayed 20ms? Is that to bring them into time-coherence with the ambient mics, or was that not an issue?

Yeah, that's a mistake on Intern\_8033's part. It was the ambient mics that were delayed 20ms, not the overheads. That's something Steve taught me. There's a great reason why that he can explain better than I can, and it takes a pretty little picture to do so. So, I won't do it.

russ

### Intern\_8033

**cgarges wrote:**

Also, because I had a post a while back about the kick batter mic issue, I have a particular interest in Russ' technique. Just out of curiosity, was he ducking the kick mic on the way to tape or just monitoring that way?

He was recording it to tape that way.

As for the rest, thanks for your feedback. I'm glad you liked it -- my girlfriend said that the part about my parents was "alienating" and would make the reader "uncomfortable" and "they won't read anything after that." I thought she was right and got upset and hit her. Now I know she is ignorant and I can ignore at these accusations and not hit her anymore for that reason.

If I didn't answer your question it is because I don't know the answer, but that gives me an idea of what to focus on in the next **session**. I'll be sure to ask the engineer about mic placement.

The **session** isn't up anymore, its actually like a month old, I just kept putting off adding the cyber links.

### Gaetano

i notice there's a mic under the floor tom.is that one of the josephsons?  
also,were the mics under the toms phase-reversed?

you did a really good job documenting this,thank you.

## Googacky

this is exactly the sort of stuff that those of us who aren't interns love to see. it's like being a vicarious intern. thanks for taking the time to enlighten us. i do have some questions. how is the ambient mic in the dead room set up? both guitars and bass were tracked in the same room, correct? does the ambient mic pick up all three of these elements or is it intended mainly for the guitars? also, what is the panning situation for such a mic? wouldn't it smear stereo placement on the guitars? i've never tried a catch-all ambient mic like this, so i'm interested in how it's used and what it's like.

thanks.

## Russ

The ambient mic in the dead room (where the bass cabinet and guitar cabinets were) was placed across the room from and roughly in between the two guitar cabinets. Here's some ascii art to clarify.

BC = BassCabinet, GC1 = GuitarCabinet1, GC2 = GuitarCabinet2, M = Microphone

```
Code:
BC      GC1      GC2

              M
```

The way that I typically use an ambient mic, you're not going to be getting many spacial cues from it when it's used with the close mics. Unless you are going for a certain effect or if only one guitar is playing at a time, I'd generally have this panned somewhere in the middle. You can figure it out pretty easily if, for example, let's say that you have GC1 mostly panned to the left, GC2 panned mostly to the right and you have a good balance between the two, you solo up those with the ambient mic, move the pan of the ambient mic around the center point until you feel like you have a good balance, bring in the bass to see if it gets weird, and, if it doesn't, then you're done.



An ambient mic like this for your guitars can really add some realism to the sound of electric guitar amps, that's why you'll see it used quite often. It probably comes from realising that the sound of the guitar amps was better whenever some bleed from the talkback/scratch vocal mic was in the monitoring mix.

russ

**Cgarges**

Gaetano,

I believe (and correct me if I'm wrong, guys) that it's another 414 under the floor tom.

Russ,

Thanks much for the info on the ambient mic. I'm waiting in anticipation of Intern's article on the mix sessions. I'm quite curious about pan positions, especially in regard to stereo recording of amplifiers. By the way, what did you learn regarding the use of the Sony mics? I have my own opinions of them , but I'm curious as to what you found. Thanks again.

Chris Garges  
Charlotte, NC

PS-Spell check caught "I'm" and "mic," and "mics." Does the spell check have something against contractions and abbreviated studio terms?

**Seb**

Hi,

I have tried to put a third mic about 4 or 5 feet from the guitare cabinet and it alway's seems to be out of phase, I have tried to invert the phase, I've tried with condenser's, dynamic's... nothing will do it.

Is this just the room sound that gives me that impression or did I do something wrong?

## Bubbleboy

Hi seb

You're not wrong and it's next to impossible to get the ambient completely in phase but that (to me at least) is part of the point. People tend to forget that phase isn't always your enemy and can actually be used creatively. For instance, if you're double tracking a rhythm part try panning close mics hard left and right and the ambients to the opposite 3 and 9 o'clocks to their close mic counterparts. As you bring the ambients up you'll hear the comb filtering effect wash the guitars in to the track a bit more in a way that I at least really like.

Glad to see Steve does the 20ms ambient mike trick too. Been doing that for a while to clear up phase relationship and give the impression of a larger room. Also good to see the two close mics on bass pointing at the same place, another favourite of mine. The ducking on the batter side of the bass drum was a great idea that never occurred to me. Are there any other applications for ducking mics from others on a kit you've found work well?

Anyway, already taken far too much of your time up but thanks loads for the insights anyway intern.

## Drums – Ambient/Room Mic'ing: Electrical Audio Forum Questions

### Mason

I'm curious as to how you guys go about capturing that ever-so-crucial ambient sound when it comes to drums -- the sounds that float around the room and keep the mix from sounding so dead (as a simple direct mics-and-overheads mix certainly will without it). What sort of tools and tricks do you guys use when you go about doing this?

### Dontfeatheringo

when you say "you guys," do you mean Electrical or anyone who feels like chiming in?

Here's my \$.02:

I run a pair of Cascade Fat Heads in the M/S configuration. I use the stereo bar that they sent me with the mics. I set it about seven feet back from the center of the bass drum, and six and a half feet off of the floor. I preamp them with the M-Audio Octane, which happens to have channel 7 and 8 set up for M/S mikes. The stereo spread there is adjustable, AND the matrix apparently flips phase on one channel so you don't get cancellation. I do not understand how that part of it works, but when I buss the side mics to pro tools, I don't have to reverse polarity in the single band EQ inside pro tools or at the pre amp.

the BEST sounding room mics I have ever heard were a pair of matched U47s (surprise!) set about eight feet back at four and six o'clock from the bass drum. I have never heard toms sound that nice.

Also, your room treatment is crucial to the point of actually being what we should be discussing FIRST, then mics.

I have a room with a tile floor and an eight foot by eight foot carpeted drum riser. The riser has some rock wool stuffed underneath to keep low freqs under control.

I have sound traps in all of the corners- 30" by 48" frames with Owens Corning 703 insulation inside. I have also mounted a couple of these on

every wall, offset from the wall by about three and a half inches. I built these sound traps with plans [I found here](#).

I didn't go crazy with the auralox yet, because I am pretty happy with the room as it is now, but I am sure someone more competent could dial it in for me. (Let me know when you need a vacation to a southern college town, Otis...)

### Omaroski

mine is a different home situation where i have the drum in one room and the ambient mic in another room, not adjacent but with a hall and a bathroom in between, so even if there is still no acoustic treatment in those room there is natural reverb which i pick up using a microphone with the highest output level sensitivity and the lowest self noise.

### Rodabod

You need to experiment with trying mics in different places and seeing what the effects are. It's good getting to know your room as well. Are there any good sounding or bad sounding spots?

I like spaced pairs as they give nice depth, and can sometimes create a hole in the middle of the stereo field where you can fit the other elements of the drums.

Regarding tricks, I'm not sure if I'd call any trusted techniques tricks, but quite a few people here seem to like the boundary/PZM method where you place omnis on the ground pointing towards the drums. There were threads regarding delaying room mics by several milliseconds too which offers a couple of benefits including potentially increasing the perceived size of the room and avoiding comb-filtering. I've tried it with cardioid condensers too and it can be quite effective.

### Benjaminwayne

i used to record in a wooden floored large open plan space with very high ceilings (kinda like a church in fact.) i found that live or ambient sounding drums sounded great in there with very little effort. i had success with using just one mono overhead about 6 feet away from the kit and a couple of feet above the cymbals, and also, when tracks allowed, i ran a pair of studio

projects, one parallel with the rim of the floor tom but a few feet away from it and the other above the cymbal closest to the hi-hats. depending on what kinda band i was recording (ie: if the drummer wasn't pounding away on the hats/cymbals all the time) and the drummer had a dynamic playing style, this technique worked quite well.

## Recording Bass: Electrical Audio Forum Questions

### Xxalex

I'm looking for a little advice about **recording** bass for our next album. It's a postrock type sound, that varies quite a lot: something along the lines of the tortoise meets polvo. There are lots of delayed and ambient guitars that I'd like a smooth low bass sound for and then there are bits of angular rock where I'd like a more punchy sound.

(If it helps, you can listen to the title track from our last album here (<http://www.traceramc.co.uk/high/flux%20and%20form.mp3>)

The set up is this.

Fender Mustang (new D'Addario **strings**) >> (pedals\* big muff, akai headrush)  
>> Ampeg SVT >> Ampeg 8x10

\*pedals aren't being recorded yet (they'll be done separately)

Mics available are: D112 and AT4033.

I've taken the cloth off the front of the 8x10 and spent a day experimenting with mic placement on this set up. I've been close miking the bottom 2 of the upper 4 speakers.

Standing in the room while **recording**, the sound coming out of the amp is bright and not boomy yet when I play it back the sound that's being recorded is overpowering the rest of the mix considerably.

As I said before, I'm looking for a smooth sound where there is bass but the

notes and melodies that I'm playing can be clearly heard.

How can I make best use of the mics (placement) and how should I make the amp sound in the room? Should I eq it with a lot more treble than usual or should I record the sound that I'm getting and smooth it out with eq during mixing?

How much of the bass sound that's recorded at electrical is the sound recorded in the room and how much of it is affected by eq and compression afterwards?

Hope you can help me,

Regards

Alex

**Bob Weston**

I've never used a DI for shellac or Polvo or 95% of the basses I've recorded.

I usually blend 2 close mics (maybe 6 inches away pointed straight on at the center of the cone) when mixing.

Some combination of D112, Beyer 380, TGX50, 4033.

Probably a little compression.

Oh yeah, if you don't like the sound you're hearing in the control room, try changing the EQ on the bass amp, not the console.

bob

**InvalidInk**

I know it is always best to try and get the absolute best sound out of your equipment before you put it to tape, but why are people so apprehensive about using EQ on the console?

**Bob Weston**

Oh, I'll use the console eq. But why not get it right the first time?...make some decisions as you go and don't keep putting all these decisions off until you mix?

Also, ever wonder why the rough mixes often sound better and more "rocking" than the "real" mixes? It's the console EQ.

Most inexpensive console eq adds phase shift. (I suppose the more the console costs, the less phase shift?). If you eq a few channels you're fine. But when you routinely go down the console, solo every track, and feel like you need to add some eq to each track, the result is a mess.

Each individual channel, when soloed, sounds fine with the eq in. But sum all 24 channels of phase shift together at the mix bus and no wonder it never sounds as good as the rough mix.

bob

**run joe, run**

So *that's* why people always tell you to lay off the console eq.

**shagboy**

that only happens if you tracked everything at once, right?

**Bob Weston**

Nope. I'm not talking about relative phase shift between the same sound sources showing up on multiple channels.

An ideal equalizer will only alter the amplitude of the signal at the desired frequency. A real-life equalizer also alters the phase response as an undesired by-product (or maybe desired if you happen to like that sound).

If you listen to a GML eq and a Mackie eq with the same settings and same desired amplitude response (eq curve), you'll hear very different things coming out the other end.

bob

### Shagboy

that's interesting... what makes it sound worse? do good software EQs change the phase as well? is this avoidable?

### Bob Weston

At this point in my life, I don't think I can really explain it well. In 1988 when I was fresh out of college with my EE I would have been able to. Maybe Tim Midgett will speak up, being a recent EE graduate?

I'm told that the software EQ can be done without phase shift. But I'm sure some software EQs add it in because it's a sound we're used to hearing. It depends what you want to use the eq for: clinical/surgical/non-invasive.....or sonic sculpting.

### Lehabs

From what I've read, some software programs add more phase shift than others. I think you are correct in that they try to emulate what their analog counterparts do.

But, back to really good eq....GML, api, neve, pultec, etc.....

it's just as much about hitting the other circuitry in them as it is the eq curves themselves. Stuff just sounds rockin when i put them through my api 560b, even when it's flat. Is it the op amp? The tranny? Who knows. It's that "good gear mojo" workin'.

later,

### cgc

A software Infinite Impulse Response (IIR) filter will exhibit phase shift just like it's analog counterpart. The high end Oxford, Cranesong and GML DSP EQ uses a Finite Impulse Response (FIR) filter and these can be constructed in a way that will not affect phase. I do a pretty poor job of explaining how these filters work, but can provide both the equations and C code (possibly even an Altivec FIR) if needed - audio DSP filter design is not my specialty.



## LondonRoots

Hey guys,

I have done quite a few recordings at my Uni studio. I am doing a Music Tech course and I have a reasonable and expanding understanding of the whole process from capturing sound to the mix and production.

Its a pretty basic setup, Makie D(something) desk, 72 channels into a mac with logic 7 pro. 2 x AKG C414s, 2 x Neumann M50, 2 x Oktava MK12, SM57/58s, 2 x Rode NT1 1 x AKG D112.

I think I get the best sound from these microphones generally, but I have never been happy with my bass guitar sound. I have used a Rode NT1 and the AKG D112 to record it. The Rode amplifies certain low frequencies too much, making some notes far louder than others, compression only slightly rectifies this. The D112 doesnt define the sound enough, it lacks the punch to get through the mix.

I am talking about light rock music generally, although I have an RnB band to record in a couple of weeks. I really have got to nail the bass sound for that.

With what I have, is it maybe best just to DI the bass?

What would be an ideal mic to record bass guitar?

What techniques do you guys use to record bass?

Is my problem something I could sort with EQ and compression? What might you suggest? I'm particulally stuck about the EQ.

Thanks for your help,

Andy Hammond

## Robot near failure

I have heard the D112 doesn't always work that great and I did not like the rode on bass cabs either I'm not saying you have to have these 2 mic but I use an re-20 right at the middle of the cone slightly compressed 3 to 1 4 to 1 tops and an at4033 on the edge of the cone slightly compressed very happy with the bass tone.

### Tmidgett

R&B--if they have old-school R&B bass sound, Beyer M380 has better low end than any other mic I have heard. Beyer TGX50 is pretty much the same thing

### LondonRoots

Dam I love this site. Within 5 minutes there is some helpful replies. Thanks guys.

I never thought of using two mics on a bass, now it is mentioned it doesn't seem unreasonable.

Its great to hear what other people like to use, but unfortunately I don't think I can afford to hire mics at the moment, and I am not charging for **recording** bands atm. So keeping in mind the list of mics I mentioned at the start, has anyone any suggestions to achieve the best sound available? Or am I doomed to have whumfy bass :S

Andy

### Robot near failure

I dont think your doomed, can you use one of those 414's on the edge of the cone 4 to 1 compression and this might sound weird but try turning the d112 backwards in the center of the cone I'm not making promises but try it at least then if not. Forwards and mix and blend with the 414 to desired taste.

### Seaneldon

half direct/half amp

or

direct and then while in later stages of the **recording**, reamp it out to a killer amp to get your "perfect" tone. i like reamping once to a clean bass amp and once to a overdriven guitar amp.

btw: for reamping or just regular cab **recording**, i like electrovoice re20s, at4047s, soundelux e47s, and c414s use a high headroom preamp.

### Big John

or bass I usually use a dynamic mike, the type used for bass drums rated to go down into the lower frequencies. I think your AKG is a dynamic and although I do not own one I have sounded good when recorded with one. I also use a LG Condenser some distance away 2 to 3 feet, and a DI. This seems like over kill but by balancing the three I get the bottom end I like and the warmth - color of the amp and the effects if any are used. The DI does most of the work getting the very bottom frequencies and some attack as well.

I think some of the frequencies on the bass amp take some distance to develop or at least that is what I have been told (standing waves) so the DI can capture this low end that is lost due to having to mike the amp fairly closely due to bleed issues and it compensates for any loss of low end of the bass passing through effects.

I usually do not play the bass amp at very loud volumes in **recording** studios. I would use on stage and have smaller amps that capture my sound at lower volumes as well my regular amp sound fine at lower volumes, during **recording** so I don't know if your are, playing at stage volumes would -of course- effect the **recording** and how what equipment you would use to record it. Sometimes I have used a 2 - 15 cabinet and one speaker is miked for the low end and the other for high with a different microphone. Many times the mikes are blended to one or two tracks and the DI is on it's own track.

I generally do not use any compression on the bass. I sometimes use EQ before the amp to get the best responce from the amplifyer and attempt to have the bass sit well in the live band mix.

### Scott

Well it's not one of the mics you have handy, but I've been pretty happy with the SM7, on 15's and smaller speakers, too. And it's great for vocals. And guitars.

### Tds

I struggle to get a good (rock) bass tone with some of the same mics, so I'm really interested in the responses to this, as much as being able to offer advice. But based on my experience so far:

I actually found the DI out from my SVT was pretty passable once sitting in a dense mix, but it did lack a bit of 'air' without a mic when exposed. The D112 is OK, but it does emphasise exactly the same frequencies as in the kick drum if you also use it there, which can lead to a little bass build up.

Rode NT5 seemed surprisingly weighty and went low (the Oktava MK12 would be your closest equivalent, I think) and subjectively produced a very realistic approximation of what I heard in the room – just a little 'sterile'. Hard to explain! However for an R&B sound, rather than a slightly distorted rock tone this might be OK.

I will definitely try with a AT4033 time next as I have access to one of these – I have never found an application for that mic where I could live with its colouration, perhaps this is it!

I know reamping has already been mentioned, but if you're nervous then **recording** the DI direct from the instrument IN ADDITION to whatever else you do is a good idea. Then you can always reamp if you're unhappy at mixdown.

One other thing – when mixing two tracks of the same bass instrument always try flipping the phase to see which gives the most 'solid' low end.

### KilledByAlbany

Big John wrote:

I think some of the frequencies on the bass amp take some distance to develop or at least that is what I have been told

I've found this to be the single most important thing about getting a good bass sound in the studio. The lower the frequency, the longer the sound wave takes to reach a pressure apex when travelling from the source. If you have the room to do it, try taking the D112 and pulling it back from the source a bit until you start to hear a little more of what you want. Then take the NT5 and close mic the amp to get more of the "growl" and once you're at the board, check your phase, and you can mix and match them to taste.

The RE-20 is also one of my first choices for bass. If you continue having the same problems, be sure to keep an eye out for one. They are very

reasonably priced used. Plus they look like Darth Vader's cock. You can't lose!

### Bubbleboy

If you're using 2 mikes be VERY careful of phase, it can sound amazingly weird on bass if you get it wrong. I've heard some engineers actually use it positively to comb filter certain mids but this is seriously advanced and dicey stuff.

The question I can't believe no one's asked so far is what bass and amp are you using and how's the technique?

If the set up is poor you can use any mic you want and it'll still sound like shit. If you have a great bass and a crappy amp just DI the bass, something like a sansamp box is great for this but if you don't have one a regular DI box coupled with an amp sim, (even a software one) can beat **recording** with a crappy amp.

If the amp is good then pick just one mic. I don't know what kind of music you're **recording** but if the bass is to be more of a feature then start with the 414, condensers tend to get more detail on the string sound. If you're looking for it to "RAWK" then try the D112 again but maybe try driving the amp or something (gain on the amp, lowish gain on a guitar drive pedal, driving input on a tube compressor too hard etc) to get a bit of character and definition on there, don't go too far or you'll lose those very qualities.

Oh, and EQ questions.

If you're not getting enough definition from the D112 look at the EQ.

100hz and below can make your bass sound deeper but in a rock **recording** they're not the ones you want to be boosting, they take up too much energy and don't add much in the way of clarity. Instead try boosting around 200hz for warmth, 1khz for presence and 2.5 for the sound of the **strings**.

These frequencies will sound nasty on there own but should help your bass cut through.

Of course, the same applies for bass as for all instruments, don't reach for the EQ automatically, try changing the amp sound, the amp, the bass etc first.

good luck

## Recording Cello & Strings: Electrical Audio Forum Questions

**Cagacazzi**

I'm thinking about a flat small diaphragm mic (large or ribbons are too expensive for me).

I think a flat mic will do it better than a bright mic with peaky high ends.

Something like Beyer MCE 94 or Sennheiser MKH 40.

Do you think looking the graphs is a good way to choose a mic?

And what do you think of these mics?

Thanks.

**steve**

Hey:

On Bob Weston's suggestion, I have used and liked the Audio Technica 4051 (at a distance of about 1m). I was surprised how nice it sounded, as I was used to struggling a bit with 'cello.

The big problem with 'cello is the "wolf tone" that howls out differently on each instrument. Try to match the mic's response to the register of the instrument's loudest natural-key note.

The mic should not emphasize that register, if possible.

-----  
steve albini

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*Quicumque quattuor feles possidet insanus est.*

**Bob Weston**

I often record **cello** for the Rachel's using the \$130 AT Pro37R

bob

**Jet**

i'm sure i could look in a book and find a couple methods which work alright for micing a cello for simple home **recording**, but i was thinking that perhaps there would at least be some different techniques that some of you would know about.

i'm a guitarist, and so know nothing about other types of stringed instruments. i haven't really had time to experiment with different set-ups and see if i could happen upon something that works. the mics i would be using would be an akg c1000s, and a rode nt-1, but if there would be better choices in a low price range, perhaps someone could mention that, also?

and another thing, i forgot where i was told that i could find the book, "Small Speaker Enclosures"? i've looked everywhere on the internet, but can't find a single reference to it.

i appreciate anything anyone can share.

regards, jet.

**Mnotaro**

By using the large diaphragm as a close pick-up and the AKG as a distant pick-up or vice versa, many sounds may be achieved. The more distant mic will grab the tones as they interact with the room. The close mic will be good for enriching the roomier sound by adding detail to the cello. Play with the faders to find your liking.

An omni mic would be ideal for a room mic. The AKG is switchable between cardioid and hypercardioid pick-up patterns. The hyper setting picks up sound at the back of the mic to a certain extent. This might capture more of the interactions taking place in the room kinda like the ideal omni.

Stereo pairs:

You must have two channels available to create the stereo image. Distance from the source to the mics, the elevation, and the amount of angle you point toward the source is something to tickle your fancy with.

Two pairs of cardioids can be placed in an x-y arrangement, this is where the diaphragms would create a 90 degree angle and be placed very close to one another. One of them picks up more left and one more right. The sound source is centered between them.

ORTF arrangements are similar. 110 degrees is the angle between diaphragms and you space the mics 17cm, or something close, apart. This can work really well in a larger setting. The center image may be weaker than expected if you are within close quarters. It really comes down to experimenting.

A split-pair omni setup uses two omni mics spaced several feet apart, capsules parallel, and diaphragms pointing straight ahead. This is very good for orchestras, but it may work well for a solo instrument. This will definitely add some room action and if spaced too far apart the center image may suffer. It can help to use a spot mic with this to add that extra gravy. Then you need three channels.

Beefin',  
Mike



## Recording Clarinet: Electrical Audio Forum Questions

### Vetter

I will record a clarinet very soon, i've never do that before.

did i need a multi microphone set up or only one will do the job?  
my first idea was to place a dynamic (M88) looking to the "horn" and a small diaphragm condenser (MK012) looking at the finger plates or mouthpiece....

and why not placing a stereo pair XY away in the room to add ambient sound ....

It could be great If someone can give me some guide lines.

### Steve

If you're not too close to the bell, any spot in the room where it sounds good by ear should be okay. If you want to be able to hear the mechanical action of the keys, keep the mic up off the floor. If you want a smoother sound, leave the mic on the floor.

Clarinets are cool.

-----  
steve albini

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*Quicumque quattuor feles possidet insanus est.*

### Arthur

Do you really mean "on the floor"? (like in "let it lay on the carpet")

Wouldn't there be some kind of pressure null or bell, or whatelse (never actually tried it)?

### Steve

When I put a mic on the floor (which is a lot), I just put it on the floor. Or a piece of paper if the floor is dusty.

-----  
steve albini

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*Quicumque quattuor feles possidet insanus est.*

Greg

I like mic'ing the person chest or belly height 2 feet away with a dynamic mic like an M-88 or 421. If you want more breathing noise, you could use a small diaphragm condenser like an AKG 451 or AT 4051

-----  
Greg Norman FG

### Recording Vibraphone/Xilophone: Electrical Audio Forum Questions

Amos

Hi,

I will soon be recording one of these things for the first time, any mic'ing suggestions would be much appreciated. This will be a location recording of a jazz group with **cello**, bass and cornet in addition to the vibraphone.

thanks

-Amos

Steve

I normally use an overhead mic (or pair) at considerable height. Four or more feet above the tone bars. I recently did a session where the stereo movement and mallet sounds were most important, so I had mics closer to the tone bars -- winging on either side -- facing in toward the center.

For quiet playing with a lot of room sound, I would use high-definition condensers -- AT4051, C12, B&K or Earthworks.

For dark, mellow playing, or playing with a lot of mallet "clonk," I would use 4038s or Royers.

Good luck.

-----  
steve albini

Goosman

Depending on the condition of the vibraphone and the relative dynamics of the song, you may want to have a small can of sewing machine oil or some lithium grease handy.

Most vibraphones I've run into, much like most bass drum pedals, are quite noisy and need a little TLC to coax them into recording well.

Vibraphone is such a fun instrument, I wish I had more come through the door. Same goes for marimba...what a cool instrument.

### Recording Studio Options: Electrical Audio Forum Questions

**BMPI**

Hi,

I've tried searching the forums but couldn't find any help - if this has been asked already, I am sorry in advance.

So - My band is going to record an album in a studio, and we have several options. The first is to record Drums+Bass+Guitar together in the same room, which is the size of a small club. This will enable us to play the basic tracks "live", and get the feeling of a band that is playing together. Obviously, we can expect leakage of sound, i.e. Guitar track can be heard on the drums Mic, etc.

The second option, is to place the equipment in different rooms, and record using earphones. While this will probably give more clear and distinct sound, it will probably be harder to play together, in sync, etc...

Any suggestions?

Thank you

**Spoot**

I think you'll get less bleed in a big room than you'd expect. Then again, I also think you'll find it's easier to play in separate rooms than you'd expect. Base your decision on the sound you'd like to get, rather than on where you

want to stand when you're recording.

Bleed (leakage) can be cool on a live-sounding rock record; but you're removing some options when you record in one big room. If I was you, I'd do some songs one way, and some songs the other way. Mix it up a little, the record'll be more interesting.

**run joe, run**

I can't be of too much use, except to suggest these:

<http://www.electrical.com/phpBB2/viewtopic.php?t=4782&highlight=separation>

<http://www.electrical.com/phpBB2/viewtopic.php?t=4873&highlight=separate+separate>

<http://www.electrical.com/phpBB2/viewtopic.php?t=3126&highlight=separate+separate>

for starters. Other people will be able to help more.

**Jeremy**

Spot is correct - you can also get away with facing amps away, putting baffles up to get less bleed.

**nick92675**

you also have another option of having the amps separated in another room from the drums and having the players standing in the same room as the drummer, listening on headphones.

a disadvantage of this approach is if there's some gtr parts that are feedbacky and you need to "play the amp" to do the part (and you can't overdub this part for some reason). if not i think it works well, at least for basics.

**BMPI**

First of all, thank you for answering my first question.

Now for the second one...

If I didn't mention this before, we are a trio (drums,bass,guitar). For distortion, I am using the EHX BigMuff PI - I love the fuzzy-low sound of the BigMuff, but during recording and rehearsals, I noticed that it tends to get hidden behind the sound of the band. I was told by the recording engineer, that it is probably going to be hard to record it properly, and get a distinct sound out of it...Any experience with such problems? Any suggestions on better sounding distortions/fuzz that are more distinct and clear (I still want to have that low bzzz sound...)?

### Shagboy

why not double the signal from your guitar and put half into the fuzz and the other half into a clean amp? that way you can get some attack into your tone (how much exactly can be decided after tracking).

### Dylan

Distortion has a law of diminishing returns - the more you add, the less you can discern. Sure sounds good, though, right? Try backing off a little bit. Most people tend to want to pile on distortion to get that dirty rock thing going, when just a little overdrive will do it.

Other than that, shagboy has a good idea.

### Steve

ot to oversimplify it, but if you like the way your guitar sounds, you can tell your engineer to go fuck himself. It's his job to record it.

Now, if he tries real hard and you still don't like the sound when you hear it played back, then okay, maybe you overdid it -- but only if it sounds better when you turn the distortion down. If it sounds no better turning the Big Muff Pi down, then recalibrate your expectations, and use what you normally use, damn the consequences.

As for the all together or all apart thing, it's best if you can maintain sightlines even if you're in seperate rooms -- open a door, look through windows, etc. Otherwise, everybody's overdubbing live rather than playing live.

good luck, and don't be afraid to ask questions here, there or anywhere.

-----  
steve albini

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*Quicumque quattuor feles possidet insanus est.*

**Jon**

with reference to your guitar tone; i take it you are referring to your cool guitar sound when playing by yourself. if you're finding the sound muddies and becomes indistinct in rehearsals and gigs, then it's possibly due to the fact that you're playing with other people who are playing around similar frequencies. i.e. if you're looking for a low buzzy sound, and your bassist is playing low end notes, then you're both around the same sonic area.

for distinction and clarity, i'd suggest (without meaning to come across like one who is well practised in vainglory or hubris) you could try moving either your or your bassist's playing position; i.e. if you're playing the low end of the neck, get your bassist's finger's up to the top end.

just a thought.

**BMPI**

Hello,

Have you ever recorded a band, while everyone was playing in the same room? If so - can you specify the name of the band/album? (I am asking of course, in order to have a reference of how it may sound, and what to expect).

**Steve**

Just finished the **Electrelane** album, which should be out on Too Pure not too far into the future. Everybody was in the same room.

-----  
steve albini

Electrical Audio

sa at electrical dot com

*Quicumque quattuor feles possidet insanus est.*

BMPI

Hi,

What I meant to ask was:

Did you record a band, while all the amplifiers were in the same room. If so- did you use any barriers between the amps, drums, etc?

Dlayphoto

Steve also recorded parts of Ballydowse's second album (I can't remember the name) in a garage.

I sat in on some of the tracking...was very interesting to watch him at work.

I remember Nate was fiddling with the mic on his amp and Steve said something like "I'll give you a dollar for every time you don't mess with it."

### Documentation Of Sessions: Electrical Audio Forum Questions

Mayfair

I have recently had to go back through a bunch of old tapes and tape boxes from **session** over 10 years old. I was lucky enough to have recorded with very good engineers that took a lot of time with getting great recordings and also writing all pertinent information down about those recordings for future reference. Though I have not had to use much of this written information, I really appreciate it and loved going through it all.

So I guess my question is, what should an engineer document? Track listings with times are good.... tones on a reel and length of tones are good.... instrument/track order from the board is handy if you will ever re-enter the material....but also nice simple overhead drawings of the set-up with general mic placement is nice to have and refer to. I know of some engineers that take digital pics of their board and faders and of their outboard gear and settings for future reference. They just include it as a digital file in the folder of the **session**. Is this too much or is an extra five minutes worth the time for this sort of comprehensive documentation?

Champion Rabbit

In this day and age, I can think of absolutely *no* excuse for not taking a quick polaroid of your ST.

### elisha wiesner

yes, write everything down. recently i was listening to a record i recorded and loved the drum sound. i went and found the reels and looked at the track sheets to see what i had done. there it all was. mic's mic pres, amps, guitars etc... there was also a picture of the drum set up in the box. in the pic i had an re-20 on the kick and on the track sheets i had written d-112. i guess my over documenting plan had failed me. still, it is a very good idea to write everything down.

### Jet

mayfair,

i seem to be dispensing a lot of tech talk today and i apologise, but i have been reading a lot of shit by john g. mcKnight and so i have some additional things for your engineer's log. pardon me if i repeat some of the things you've already said, it's just easier to make a complete list:

- track titles w/ complete running time of each track
- tape speed (in/s--american standard, of course)
- equilisation standard (NAB, AES, CCIR [europe]; IEC I, IEC II, DIN [german])
- alignment tones (Hz) shown in dB@VU
- reference fluxivity (nWb/m--nanoWebers per meter)
- note how your tape is packed, so you (or someone else) doesn't mindlessly load the tape backwards
- also, make a note of what mics you used, and their positions. usually, people will mic an instrument the same way each time, so notating "treble/bass" is sometimes helpful. however, if you're having trouble with mic placement, a particular signal, or something else, a little diagram may be good for future reference. i wouldn't make **pictures** and drawings a habit,



though--after many sessions with similar set-ups, it seems a little pointless.

-noting outboard effects, settings, and levels are also good. and of course, if you decide not to use a track, note that also.

you will find your own shorthand as you are recording, and if you forget to do something enough and have to kick yourself in the ass, you'll eventually remember to do it. you will learn how to take better **session** notes through trial and error.

if there's something i forgot, or don't know, sorry.

good luck,  
jet.

### Jordanosaur

When I interned/assisted at a local studio, I documented almost everything including the level of coffee in the pot after the **session** closed. One of the staff engineers was a little more intense about documentation than the others, and would have all preamp/eq/compression settings committed to paper during the tracking side of a **session**. When running tape, we would document:

MRL used  
Operating level  
EQ standard  
Test tones printed (1k, etc...)  
I'm probably forgetting something else..

We were lucky to have a console that had snapshot capability, as I can't imagine having too much fun documenting individual channel strips (much respect to those who do).

Although some of the documentation we produced might not have been used in a follow-up **session**, it was always good to have it around. We definitely never ran into any hiccups during **session** recalls.

Other stuff we wrote down:

ALL outboard gear and settings including reamp levels  
Thorough patch bay documentation  
Mic placement (usually took **pictures**)  
Mics used (would write on tracking sheets for tape)

As I am writing all of this, I am realizing the original question was relative to what should be documented on the master tapes for future repro. I will leave everything else because I am too lazy to erase it.

Jordan

### Studio Preparation Tips: Electrical Audio Forum Questions

Steve

Christopher wrote:

Figure out what you want the track order of the songs to be for whatever you're going to be doing with the recording (if it's for a release), and record the songs in that order. You'll save time and money on the mastering end (I guess this only really applies to the analog process).

Ignore this suggestion. You save no time, and will probably waste a lot of time doing this. Re-sequencing songs is a trivially easy task. It is a good idea to *know* what order you want the songs to appear in, so they can be assembled into that order eventually. But there is a better way to organize the songs for efficiency:

Organize the songs into groups that have similar sounds, instrumentation and equipment settings, and do all the song in a group at the same time, then move on to another group. Here's an example:

"Bad Equestrians" John plays bass, Hymie plays the Gibson with the Big Muff, Tsing-Tao uses the normal snare.

"Horse Ventriloquist" John plays bass, Hymie plays the strat with the other amp, Tsing-Tao uses the piccolo snare.

"Bogarting the Curry Comb" John plays bass, Hymie plays the Gibson with

the Big Muff, Tsing-Tao uses the piccolo snare.

"Jockey Club Sandwich" John plays the bass, Hymie plays the strat with the other amp, Tsing-Tao uses the normal snare.

"Saddle Soap" John plays bass, Hymie plays the Gibson with the Big Muff, Tsing-Tao uses the normal snare.

"Soiled His Silks" John plays bass, Hymie plays the Gibson with the big muff, Tsing-Tao uses the piccolo snare.

"Fuck Me, I'm Flying" John plays the bass, Hymie plays the strat with the other amp, Tsing-Tao uses the normal snare.

The groupings would be:

Group one: "Bad Equestrians" & "Saddle Soap"

Group two: "Bogarting the Curry Comb" & "Soiled his Silks"

Group Three: "Horse Ventriloquist"

Group Four: "Jockey Club Sandwich" & "Fuck me, I'm Flying"

You could most efficiently record these by starting with group one, then changing the snare drum, then group two, then changing the guitar amp, then group three, then changing the snare, then group four. In this manner, you can record each entire group in one go, and only make one change in between groups.

It is absolutely critical to know what sounds you want to use for each song, and a list like this will help organize your thoughts.

#### **Christopher wrote:**

Interesting. It was actually Mr. Weston that hinted at the efficiency of doing this when my band recorded with him.

Don't most mastering houses charge studio time for sequencing and such? Or is it so trivial as to end up being worth the minimal charge so you can record the drummer's forty different snares in comparable song clusters?

Re-sequencing itself is easy, but deciding on the sequence and spacing takes thought and listening. Doing it at the mastering stage requires rounds

of reference- and approval copies to be mailed back and forth, interpretations of instructions, etc. It is fraught with peril.

Do it now, while you're in the studio and listening, so it doesn't cost any more and you can approve it. There is no excuse (No excuse!) for not sequencing the album before you send it off for mastering. To do it at mastering is more expensive and provides an opportunity for mistakes to be made. If you sequence the record first, then you can listen to and approve the sequence, and re-do it if necessary, without spending any more time or money on the record. Doing all of that at mastering requires time and money, both of which are worth saving.

-----  
steve albini  
Electrical Audio  
sa at electrical dot com

**matthewbarnhart**

**toomanyhelicopters wrote:**

i'm hoping to get in at Electrical as soon as possible, and was planning on spending one day tracking the live music and overdubs, a second day on finishing the overdubs, doing vocals, and putting together super-rough mixes. then taking a CDR home, to mess with order, and listen to it a ton and see if anything jumps out at me that i though i was okay with but find i am not, etc... and then come back for a 3rd day, for the actual mixing. is that a reasonable plan?

Bands do this pretty often at our place. Since you're in the same city as the studio, I don't see why this would be much of a hassle.

Obviously, the more time you spend fixing parts on the "mixing" day, the more pressed for time you'll be when you finally get around to mixing.

If you'll be punching-in a few notes here and there, make sure you have reasonable notes on your equipment setup and the signal path used to record it. As much as you think you'll remember these details, thousands of other facts will crowd your brain and push out this stuff in the days/weeks/months between tracking and mixing, meaning you'll spend

two hours of your "mixing" day trying to get something close to what you had before.

If you can live with this possibility, I say, "go nuts".

### Congleton

Do it now, while you're in the studio and listening, so it doesn't cost any more and you can approve it. There is no excuse (No excuse!) for not sequencing the album before you send it off for mastering. To do it at mastering is more expensive and provides an opportunity for mistakes to be made. If you sequence the record first, then you can listen to and approve the sequence, and re-do it if necessary, without spending any more time or money on the record. Doing all of that at mastering requires time and money, both of which are worth saving. [/quote]

for years and years i am ashamed to say i didn't sequence albums at the end of the mixing. it wasn't until steve himself asked me why i didn't do it that it finally occurred to me that it was so obvious and that i would save the artist so much time and money in the act of.

its all the small things.

## Steve Albini Web Interview (Excerpt)

You're quite against people embellishing their records with samples and stealing other people's ideas, yet in your other capacity you work away at improving people's work i.e. making something sound better than it is. How can you reconcile the two?

My actual work ethic is based on making things sound exactly as they are, with the intention of letting the artist's technique and execution do the work. I never feel guilty about making a record sound as good as it possibly can. I don't really understand your question, in that you are implying that stealing other people's ideas or sampling someone else's actual record is a necessary part of making a good record. That position is ludicrous.



Do you have some sort of quality control on who you accept work with, do you have to like the band already? (Failure come to mind; your recording them was, shall I say, a 'surprise' to me as they're less musically outstanding than anyone else you've been involved with.)

You haven't heard 90 percent of what I record (no-name bands, many of whom are just starting out), who make Failure sound like Stravinsky. I do have criteria for accepting offers, and they are inclusive (e.g. if a session satisfies any of the criteria, I can find reason enough to do the session):

If I really like the band as people

If I really like the music

If I would otherwise enjoy myself (technically or culturally interesting)

If a friend is involved in any capacity (label, whatever)

If the session enables another band to afford a session (doing three bands in one go at a distant locale, for example, where no individual band could afford to bring me out)

If the band, though seemingly unsuited to my techniques, have a genuine interest in doing things this way, with an open ear for results.

You may notice that how much I get paid is not a criteria.

OK, then, Shellac – do you think you might be better served sometime by an outside producer/engineer (for new ideas etc?) Not that I'm trying to imply it's needed (oh goodness me no), just from your perspective as one who spends a lot of time recording other bands, how might it look from the other side of the fence?

With Bob (Weston) and me in the band, we pretty much have the bases covered. Can you imagine how uncomfortable another engineer would be working on our records? "Production" is rarely needed on any bands' records, and certainly not on ours.

Ask a music scene micro celebrity: A compilation of forum questions posed by Internet users at Steve Albini

“I have traveled in the music scene as a musician and recording engineer for better than 25 years. I have worked on a couple thousand records, some of them with famous rockstars, though most of them you're probably never heard of. I know a lot about making records, recording technology, touring, being in a rock band and the like. I own [Electrical Audio](#), a 2-studio recording complex in Chicago, Illinois, where I make records every day.

I will answer any questions related to being in a touring/recording rock band, working in the studio with musicians both great and famous, making records, brushes with actual rock star celebrities, etc.

In NLHE, I am a prolific donator. I can hold my own in 7stud.

Any questions?”

PattdownManiac

You are Steve Albini? That is awesome. Of all the people you've worked with what bands do you feel have the best musicianship.

Pattdown, the Jesus Lizard was easily the best *group* of musicians I've ever worked with in terms of aggregate talent and ability, but I've worked with a bunch of incredible musicians on individual instruments. I have been most impressed by great drummers and great singers, because drumming and singing are the two most difficult things to do well.

Drummers:

Jim White (Dirty Three, Nina Nastasia)

Rey Washam (Scratch Acid, Big Boys, Rapeman, Ministry)

Britt Walford (Slint, Breeders)

Martin Atkins (Public Image Ltd, Ministry, Pigface)

Glenn Kotche (Wilco, Edith Frost)

Bun E. Carlos (Cheap Trick)

Dave Grohl (Nirvana)



Singers:

Nina Nastasia

Robin Zander (Cheap Trick)

Kim Deal (Pixies, Breeders)

Most recently, I had my mind blown by Joanna Newsom's playing on the harp. She is a wonder on that thing.

### whale\_hunter

Do you honestly feel like Cobain was a genius? Or just a hard worker guy who hit the lotto?

Genius is a weird and inappropriate word, and hard work is underrated, but Kurt Cobain had a distinct and personal take on the world, and generally, when someone strikes a chord with his audience, that's what people respond to.

There were a lot of bands the "sounded like Nirvana" at the time Nirvana made it big, but none of them have had the same long-lasting influence. I have to admit that I wasn't particularly a fan of Nirvana when I was asked to work on *In Utero*, but during the course of making the record I came to appreciate that they were genuine about their band and their music, that Kurt was capable of sophisticated thinking, and that they and their music were unique.

If you think of the other bajillion-sellers of the Nineties, not very many of them have survived as significant influences today. I think there's a reason beyond luck for that to be the case.

### MikeyPatriot

My ladyfriend tells me that your original mix of *In Utero* was not green lighted by their label, and they went with a different mix/track list. She claims that your version is floating somewhere (she says a coworker has it on his iPod) and she's wondering how she could get a hold of it?

There were only a couple of different mixes used on the final album. Ultimately, the band made the decision about what versions they would use, though they had to suffer a combination of their own insecurity and a bunch of people at their label freaking out, which probably influenced their

decision. The version of the album in the stores is the version the band wanted people to hear, and I respect that. Any "alternate version" floating around out there is either totally bogus or a generations-removed copy of a cassette dub, and not worth your attention.

### [MikeyPatriot](#)

She also would like to know the rate you charge to record at your studio? Whether you or someone else is the engineer.

Pricing is kinda complicated, depending on which studio is being used, which engineer, whether there is an assistant required, lodgings, etc. There is a session cost calculator on the [rates page](#) of the studio website. For location recording at an outside studio, I charge my normal daily rate, \$650 a day. I don't charge a royalty on any record I work on, something that has caused some controversy within engineering circles.

I try to make myself as inexpensive as possible for the underground and independent bands that are my closest peers and regular clientele. For big label stuff that will require an open-ended schedule and a lot of bureaucratic nonsense to get paid, I get paid a lot more.

Who were the worst musicians? Any guys that could barely play their instruments?

Well, very few people who can't play *at all* find themselves in the studio making a record. More common is a band whose expectations outstrip their abilities, even if only by a little bit. If the band's aesthetic allows their record to reflect their limitations, then it isn't much of a problem. Many great records have gaffes and clinker notes on them -- listen closely to Led Zeppelin or Crazy Horse records and you'll hear a bunch of clams. If a band wants an album with no imperfections on it, but is unable to play impeccably, then the meticulous process of piecing-together a record can be exhausting. I am grateful that the bands I work with usually don't have budgets at their disposal to make records like that, because it is torture.

Forgot to answer your actual question. Urge Overkill.

## [Georgia Avenue](#)

This is the greatest thread in 2+2 history, not close.

Hi Mr. Albini sir,

Do you think downloading is killing the music industry or is it something else? Is rock with guitars becoming like Jazz in the 70s? Do you think bands that are severely derivative, like most garage rock bands, are inferior to bands like Jesus Lizard who sound totally unique? Can you name drop some very new or recent young bands that are carrying the torch for rock and roll? Do you find your taste for heavy noisy stuff is diminishing as you get older (mine is!) and your appreciation for quiet folksy stuff is growing?

Sorry for the barrage but im about to get on a plane to vegas. Feel free to ignore...

Thanks!

Downloading and the culture of free music have affected the income of record labels, but the street-level music scene (as defined by bands, entrepreneurial independent record labels, studios like mine, etc.) is doing great. Bands have an easier time than ever getting their music out into the world, and bands don't even need a label to have an international following. It's actually a great time to be in a band.

Can you name drop some some very new or recent young bands...

Dude, I hear them all the time. Just did a record for a band from Denton, Texas called Record Hop, and they were terrific. Rock bands are everywhere, and there are always a few good ones.

I have noticed that a bunch of people who were previously making really intense, hard rocking music have gravitated toward making moody acoustic music, and these audiences have overlapped. I still enjoy freakish noisy music, if executed with authority, and I still enjoy acoustic music likewise.

[oddjob](#)

there have been many a time i hear an album the band sounds so good, and then you see them live, and you're like, wtf is going on?

which band have you made the biggest improvement on their sound, in this manner?

Well, sometimes a band sets out to make a record that doesn't really sound like they do. To these bands the record is the public face of the band, and the live shows are more of an obligation than an art form, and so they are generally pretty disappointing live.

Other bands enjoy touring and express themselves onstage more than in the studio. These bands see their records as a kind of still photo of their live existence, and you can expect those bands' records to sound pretty much like their live sets. My favorite bands were always like this: the Minutemen, Wipers, Birthday Party, and my own band thinks this way, pretty much.

There are also the rare cases of bands who change from the second type to the first,, and they have an obvious cutoff date after which they went from awesome to awful. Aerosmith and ZZ Top are the most obvious examples.

To answer your immediate question, Urge Overkill.

PITTM

Vinyl or Digital?

Neither. I go straight for the vagina. You find them on women.

Tigermoth

Are there any bands around that you would like to work with?

Any swinging dick whose checks won't bounce.

Are you married?

You gay or something?

Not gay. Chicks listen to good music sometimes, too, you know.

Not straight ones in my experience, no they don't. You are either a lesbian, a dude, or you don't really like good music. This is a fact proven with science and charts.

Do you know if Arab on Radar have considered reforming? Did you ever do anything with them?

Ah, you're from Providence. Okay. That explains everything. Forget what I said about the lesbian thing. You were probably just experimenting in college. But short hair looks good on skinny girls.

[MikeyPatriot](#)

In vein of another question above, what classic mainstream albums of the past would you like to remix? I've always thought that a lot of Hendrix's studio stuff could have been done better.

Well, mixing isn't the magic bullet it's purported to be. A recording is about 90 percent as good as it's ever going to be from the moment of the first rough playback.

Most records that have survived scrutiny for a long time have some qualities that we all associate with them, and presenting them in a new way ("better sound" or whatever) cheapens them a little, and in the case of ZZ Top's '90s remixes, turns them straight to [censored].

I worked on a new version of Cheap Trick's *In Color* album (not a remix, but a whole new recording), and although everyone involved liked it, it's never seen the light of day, and I can't fault that decision.

About the only "classic" record that has ever been improved-on with a new mix and master is the Who's *Live at Leeds*, and there is a additional album's worth of excellent extra material added.

[nyc999](#)

what's the worst you have seen in regards to the band's experience? Have you ever seen a band fall apart in the studio?

The worst scene is when a band has a bunch of unspoken or passive/aggressive tension bubbling along in the background, but they've kept their [censored] together long enough to get into the studio. Once the session is winding down, in the last couple of days, the gloves start to come off and little complaints can turn into real freak scenes. I once saw a drummer quit a band while I was making him a cassette copy of the final

master, over an argument about whether or not the last song should fade out a few seconds faster.

Obviously, that isn't why he quit. He quit because he couldn't stand being in the band, but this argument happened at a point where he could use it as cover. That's the sort of thing that I've seen happen.

Shit like overdoses and tantrums, that only happens with childish rockstars of the type I seldom encounter.

[please.muck](#)

For your own listening pleasure, digital music (CDs) or analogue (vinyl)?

If I'm going to put on a record for pleasure, it will be a vinyl record, unless I'm at work. Understand though that I listen to original masters all day every day, and so I'm less likely than most people to want to throw on an album when I knock-off at midnight or whatever.

Any thoughts on the new higher sample rate/bitrate SACD or DVDA releases?

Doesn't matter, since both formats are now dead, but I think a greater bit depth (24 bits is plenty) grants a bigger quality improvement than increasing the sample rate. The downloadable version of the new album from my band (Shellac of North America) is available in compressed formats, but also 16-bit or 24-bit 44.1kHz versions. We did it as an experiment to see if anybody appreciates having it available.

I thought the Bob Dylan and Rolling Stones remasters sound great on regular systems. Maybe SACD would be better.

No, I'm pretty sure they're still going to have Dylan and the Stones on them.

[oddjob](#)

who was the biggest pain in the ass to work with?

That would be Urge Overkill.

were there any bands you recorded that were so damn good, you wish you were in their band?

Yeah, I wanted to be in the Jesus Lizard and Fugazi after about ten seconds. In either case it would have made the band more lame though.

### Quannah Parker

What do you think of the chopping and screwing mixes of hip hop music?

I have heard the DJ Skrew version of Big Moe's *City of Syrup*, and that record is extraordinary and f'd up. Almost everything else I've heard like that has been lame and typical, so I think that's the one good one right there.

Does this type of remix have any future in rock?

Oddly enough, some bands ask for specific Skrew-isms (super-low speed vocal takes, brutal disruptive edits) and they seldom work very well. Similar to when the 808 bass drum sample was all the rage, and usually just sounded stupid and tacked-on.

### PITTM

Can you tell us what your home audio system consists of? Be specific plz <3

Not all put together at the moment, but here's what I got:

VPI record cleaner (incredible, I recommend it)

Studer linear-tracking TT (to be replaced by a VPI JR)

Ortofon cartridge (to be replaced by a pair of bayonet headshells, one with a Shure VR15X and one with a Sumiko Blue Point "nude" special)

Hagerman Bugle phono preamp

Marantz integrated amp (to be replaced by a home-made tube amp once I get off my ass and finish it)

Custom Linnaeum-tweeter speakers with reflex bass cabinets. No model number, but made by Linnaeum with Focal drivers.

### manpower

Hey Steve,

Do you do any mastering work and how valuable is it to a recording? Do you have a take on the so called 'loudness war'?

mastering is the last step before CDs or records are mass-produced. Lately there has been a trend toward making records "loud" at this stage by compressing and clipping the audio for a more aggressive sound. I am of the opinion that the record shouldn't leave the studio until it is pretty close to exactly what the band want, and consequently I prefer more judicious mastering.

If a record needs aggressive mastering to "save" it, then aggressive mastering isn't enough to save it. Given a choice between sound quality and apparent loudness, I will side with sound quality every time.

[oddjob](#)

how many musicians have you nailed?

Had to do some research and cyphering. I think it's about a dozen.

[Quanah Parker](#)

Do you have any favorite "toys" you're really digging right now? (Musical or otherwise.)

Kevin from [Electrical Guitar Company](#) is making some incredible guitars right now. Beautiful workmanship, they sound incredible, and he'll custom make anything you ask for. There's a new low-power Orange guitar amp called the Tiny Terror that is great for recording and is really versatile. I'm still really into the David Josephson microphones, specifically the e22S (which we had a hand in designing) and the C700 (awesome vocalist microphone).

[turnipmonster](#)

how often do you know when a record you are making is going to be really effing great?

Another very good question.

There is a sort of clinical distance I have to maintain as an engineer that



precludes forming an opinion about the music I'm working on. If I'm getting wrapped up in the music like a fan, then I'm not paying proper attention to the technical side, the way the equipment is behaving, etc.

I've used this analogy before, but I like it, so I'll use it again: While the recording is underway, I'm like a gynecologist, and it would be inappropriate for me to be getting turned-on by the vagina I'm working on at the moment. I need to have a different relationship with the vagina.

Imagine for a moment that I *did* allow myself to harbor opinions about how good a record was while I was making it. Two bands come into the studio, one of which I really like, and one whose music I dislike. It wouldn't be fair to that second band for me to let my distaste for their music affect the job I did, and that would be inevitable.

Also, all records aren't being made (ought not to be made) to suit me alone. My tastes are really fucked up, and if I tried to make records to suit myself, rather than the band's tastes, I would make a lot of freakish records that nobody liked and didn't suit the band.

So, in order to maintain a professional level of concentration on the task at hand, and to allow the band to make a record that represents them accurately, I try not to even think about whether or not I like the record. Having said that, sometimes everybody can tell that a record is going to be awesome anyway, and of the records I've worked on that ended up being really great, the majority of them showed their greatness in the first couple of hours of work.

If there is something unique and subtle about a band that makes them great, then sometimes it takes longer exposure to become aware of it, but in general everybody can tell right away.

any surprises, times you have thought the record sucked but heard it later and thought it was great? how often in general do you hear the records you've made after you're done?

I probably get to hear 10 percent of the records I work on after everything wraps. Usually they sound about like I remember them, but I have often been surprised that an opinion I held at the time of the session (the guitar is

too loud, the vocals are too quiet, this song is a turkey...) end up being completely incorrect. For this reason I am not the least bit insistent when the band and I disagree on a matter of taste. I know for sure that I am fallible, and I know the band is more familiar with their own music than I am. When in doubt, do it their way.

I did an album in the 90s for the band Bush, after they had had a couple of big hits already. While we were working on their second album, they kept pursuing a particular song that I thought was a the weakest and most derivative of the whole set of songs we were working on. A complete dog. Whenever they asked my opinion, I would admit that this particular song struck me as disposable, and they should concentrate on other stuff.

In the end, they did a version they liked, which I still thought was a turkey, and the song "Swallowed" was released as the first single from the album.

It was also their first Number One hit single. I apparently know nothing about what makes for hit records.

Gavin Rossdale, singer of the band, forgave me enough to invite me to his wedding to Gwen Stefani, where my girlfriend was able to pocket all kinds of "Gwen&Gavin" monogrammed trinkets, none of which have yet made it to eBay.

[Oevg0](#)

What do you think about the commercialization or "selling out" done by bands in the indie scene, such as licensing songs for movies, TV shows, and corporate commercials?

This is a pretty big topic.

A band that willingly associates itself with some commercial enterprise is attaching itself forever to that business and everything that business does. If a band abdicates that decision to a third party, then the band is admitting that its music doesn't mean enough as art to be protected from such associations.

There is also a distinction to be made between music made for its own sake

(say for records) and music made for hire for commercial use, which seems like a completely different kind of music to me. Companies choose to use the first kind of music (let's call it "real" music) because the band, the music and the audience have cultural significance that the advertiser wants to co-opt and attach to a product or movie or whatever.

There are very few circumstances where using the first kind of music (let's call it real music) as a cultural lubricant for commercial intercourse doesn't creep me out a little bit, and I tend to think less of people who sell out their art, their reputations and their audience this way.

### rubbrband

Pro tools or logic? explain plz.

I don't use computers to make records. I use tape machines, like nature intended. I use computers for correspondence, arguments, poker and porn.

### Max Raker

Why do you think you have become famous (in a relative sense) for doing something that usually doesn't make a person a household name. How much of this was your skill in engineering vs. luck. vs recording really good bands.

Almost any competent engineer could have done what I have. I have been incredibly lucky to be working in a music scene that spawned a huge number of distinctive, talented bands, and I made myself available to them. There is no doubt in my mind that I get some credit I didn't earn, for working on records that were going to be incredible no matter who was in the chair at the time.

There are a few things about my approach in the studio that I think have made a positive contribution to the records I work on. I come from a band background myself, so I'm sympathetic to bands, and I understand how they work, both internally and in relation to the outside world. I know that asking a band to do things differently in the studio than they would onstage or in the practice room is bound to make them uncomfortable, and is not going to make them play well, so I try to let them play as normally as possible.

I also respect the decisions the band makes about their own music: What it should sound like, how fast it should be, etc. Whenever I hear that a producer made a band add a chorus or shorten a solo or tack-on a string section, my blood boils a little.

I also pride myself on being a bargain. A lot of people in my position try to maximize their income on every project, and eventually they price themselves out of the scene where all the good music is, and end up doing a few sessions a year for music that totally sucks. By keeping my rates reasonable, I get to work with all the good bands, not just those who have money and hype behind them at the moment.

The other thing I have is experience. I've made an assload of records, and any problem that's ever going to come up in a session, I've probably already figured out how to solve it or defend against it. I can work more efficiently than a lot of engineers because I'm not guessing and I'm virtually never stumped.

As percentage, I'd say my own contribution and tendencies are about ten percent of the value of my job. Eighty percent is the band and their abilities and ten percent is luck and market forces. That's a wild guess.

Who have you worked with that you felt had the best understanding of recording?

Excellent question.

I think any band has a pretty good handle on things by their third album or so, and they can start to anticipate the technical considerations. Bands with recording engineers in them are a little quicker in that regard. Neurosis and the New Year are probably the most studio-savvy bands I've worked with, in that they often have pretty specific studio techniques in mind for individual songs.

[donfairplay](#)

Do bands get a fee or residual for having their songs released on the major online subscription services? (ex: Yahoo, Rhapsody, Napster)

There is some tiny royalty paid, but it's hardly going to be anybody's bread-and-butter.

I'd like to think I'm supporting the bands, but I can't see how thousands of bands can live off of my measly \$6 a month subscription. As a band member yourself, do you have an opinion on the subscription services versus, say, pay-per-song itunes?

You are supporting the band by being a fan. Over the course of your life, you'll have many opportunities to buy records, Tee shirts, concert tickets and the like. Don't worry about your downloading/listening habits. The bands are happy that anyone is listening at all, and they will make a little money off you over time. They're glad they're in the game and that someone is listening.

[Max Raker](#)

Was Phil Spector as innovative and important as Rolling Stone says he is?

Oh hells yeah. Most record producers are parasites on the careers of bands and artists, but Phil Spector was actually the creator of everything on the records he produced, regardless of whose name was on the credits. He was also an extreme sex perv freak, gun nut and paranoid coke fiend. he was about as high-roller as dudes like that can be, and it all drove him nuts. Unique character.

[charlatanric](#)

Hey Steve,

Curious about your production on a couple Mono albums and GY!BE...

At the beginning of some songs (Ode, Yearning, and 09-15-00), the listener can hear your voice saying, "You're on." I understand these were recorded live, but I was curious what the purpose of leaving the command on those songs served.

I didn't mix the Godspeed! record, so I don't know what decisions were made there. With Mono, I think they started thinking of that as the beginning of the song. In one case, I remember they asked me to overdub a

"you're rolling." I never pressed them for a specific reason and they never gave me one.

[jht](#)

Mr Albini

I'm particularly fond of the Electrelane albums you worked on, I was wondering how you found working with them and what you think of the albums yourself.

I think Electrelane are an awesome band, with really ambitious ideas. Each of the women is a unique character and I enjoyed working with them tremendously. Verity is a fantastic musician with the capacity to hear impossibly complex arrangements in her head, and I admire that.

Also, I was wondering what record producers you particularly admire yourself.

I don't think too much of producers, honestly. There are some great sounding albums out there (Highway to Hell, Back in Black, Zuma, Led Zeppelin albums, Spiderland) but I attribute that to the bands themselves. If you listen to the crap Mutt Lange has done since Back in Black, for example, you can tell that giving the producer any credit for that album is going too far.

[turnipmonster](#)

what's your relationship with the guitar and how has it changed over the years? do you spend a lot of time playing for fun, or not so much?

Hardly ever. Once a month or so I'll get to play a little. More if the band is rehearsing for a tour or writing songs. Still hardly any.

[ua1176](#)

with digital audio getting better as time goes on, is there gonna be a Pro Tools rig at Electrical? do you ever do sessions at other studios where you end up using Pro Tools?

We have digital sessions at Electrical pretty regularly. If a session comes in that requires a Pro Tools rig, we strap one in, and we wouldn't be being reasonable if we refused.

Personally, I have never used Pro Tools, and never worked from a computer for any part of a recording session. I have never felt limited by this arrangement, and there has never been a moment in a session where I have had to say "we can't do that" because we were working on tape.

Since you're working primarily with 2"....have you ever run into a session that needed an absurd amount of editing?

Yes. We have another appearance of Urge Overkill in this thread.

I've not worked much with tape in my time as an AE....is there ever a point at which it becomes counterproductive to do a large amount of editing on analog tape?

Well, you sort-of answered your own question there. A lot of editing means that there's something terribly wrong with the recording, and you're going through heroic steps to salvage it. I try never to let things get that far out of whack.

It is counter-productive to try to turn crap into gold.

Since editing is relatively quicker in the digital domain, a lot of digital-only engineers use editing as their default tool in every situation. I think that's profoundly lazy, and the equivalent of trying to build a house with just a hammer, pretending that everything is a nail. It is one of the earmarks of a hack. You could say "fish" instead.

Since you're dealing with semi-long term sessions that (as far as i can tell) have a definitive start date and end date....how do you deal with situations where things take longer than planned?

I don't let them get that far out of hand. If need be, I'll work a long night, but if I sense that there won't be enough time to finish at the current pace, then I get the band to comprehend and either lighten the work load, schedule more time (usually requires a bit of lead time) or get the band to work quicker. Except in a few rare cases (acts of god, injury, illness, personal

tragedy etc.), I wouldn't impose on an upcoming session. I can't justify letting a band's simple lack of preparedness interfere with another session.

In an absolute sense, the budget decides everything. If there's money enough, then nothing is really a problem. If there isn't, then the band gets to make the kind of record their budget allows, and at the pace the budget dictates. If they can't deal with that, then they have bigger problems than finishing their record.

But one way or another, I'm not going to send the band back to Belgium without their record.

[vibizoom](#)

Also, if you were a musician of modest means, who had an appreciation for analog recording, what type of multitracker would you use for home recording?

If you want to build a studio, you can buy an excellent multitrack tape machine for a grand or so, but they are inappropriate for just putzing around. They're a commitment of time and money.

I'd just get a simple 4-track and see how you like it. If you do, then you can move up to more sophisticated gear.

[markoelreno](#)

how do you keep your objectivity when it comes to your own performances (and bandmates, whom you are close with)?

Making a record isn't an objective exercise like counting peaches in a basket. Objectivity has no place in the creative part of the recording process. In the technical side, yes. The equipment and the technique need to be appropriate for the job, and most of the time that means operating everything within its technically-correct specifications, and with two engineers in the band, that part is pretty easy.

I am convinced that any decent art (including records) is made with a measure of disregard for its audience. Good art is an almost entirely selfish pursuit, in that the artist is doing something unique to him, and any outside



perspective (this "objective" one) would be ignorant and unable to judge it completely. Having seen many bands go through the process, I am convinced that making concessions to the imaginary audience (or any "objective" considerations) almost always weakens the record.

Good records are made by freakishly-obsessed people, driven to do what only they can do, and their thinking and processes are often "objectively" wrong. Objective measures are at best a benchmark of mediocrity and shouldn't be in consideration.

How in particular did you get those (string) sounds and was it any different then just miking up, sans amp, an acoustic guitar or something like that?

Much of the string recording for the Low records was done in Minneapolis by Tom Herbers, and I shouldn't get credit for it. Some of it I did, and yes, I just put a microphone where it sounded good and pressed "record." Room acoustics are critical for string ensemble recording, and I'm lucky that I get to work in good-sounding rooms.

### G Street

I liked some songs on Exit the Dragon by Urge Overkill a lot, do they suck that bad?

Yeah, they do. You probably don't even like those songs you think you like.

### O Talbot O

I think that the past 10 years give or take have seen really [censored] music. Mostly just brainwashed junk where nobody seems to stand out.

Nothing ever stands out. You have to look for anything you might like. Clearly you have given up looking.

Tell me what you think of this argument since you are one that has been in the business for the past while.

I think you're a defeatist and you are destined not to enjoy music. If you wait for other people to thrust music under your nose, you'll be listening to

nothing but crap for a long while, because that's what gets thrust at us. Music is not a spectator sport.

[Greg P](#)

How true is what you wrote in [the problem with music](#) today? Are most of those pitfalls easier to avoid because of less expensive equipment? Just curious.

It is certainly possible to avoid the mainstream industry altogether, but that would have been my advice 15 years ago as well. It remains that if you get involved with the mainstream music business, even today, you're screwed.

[felix240](#)

I grew up in the 80s listening to Pussy Galore, Big Black and Sonic Youth and their ilk (the SST bands, the T&G bands, etc.). It seemed like all those bands were fellow travelers, there was a legitimate scene. It seemed like, post-Nirvana, a scene of that sort was no longer possible and a sort of "are you with us or are you with them?" mentality sprung up. You and SY had some public bad blood, as did many of the underground bands that comprised that American underground 80s network. As a participant in this small historical moment (now long dead), what happened?

You have summarized events pretty nicely. What happened was the overt polarization of the underground into two camps, those who thought they could follow in the footsteps of Sonic Youth and (more importantly) Nirvana, and breach the barricades of popular culture, and those who thought such aspirations were not just unlikely but ill-advised. Such mainstream gamesmanship was unprofitable, and by removing bands and resources from the underground was destructive to the underground culture, which had been flourishing, and usually led to the demise of the bands who took their shot.

An era of competitiveness ensued, with bands, clubs and labels trying hard to get noticed by the big players in the conventional old-school music business, and a veneer of professionalism interceded between people who had previously dealt with each other as real people.

The whole thing creaped me out and destroyed a lot of bands. That there

were bands in the scene urging other bands on in this rat race seemed almost treasonous.

That said, I have always gotten along with Sonic Youth, and I consider them friends despite our differences in the culture wars, and they have been specifically kind to me and my bands over the years.

[dhattis333](#)

1. What's your opinion on this statement that Bob Dylan made last year:

"I don't know anybody who's made a record that sounds decent in the past 20 years, really," ... "You listen to these modern records, they're atrocious, they have sound all over them. There's no definition of nothing, no vocal, no nothing, just like ... static."

Given that Bob probably isn't combing the mom-and-pop stores for independent releases, I can't really fault his observation. And it's a nice turn of phrase.

2. Who do you think you're going to vote for in the upcoming presidential election?

Anything the Democrats run out there, I'll vote for it. Broken piece of elk antler, chalkboard eraser, whatever.

[ZeTurd](#)

How is it working with Neurosis? How much work is it recording their often complex song arrangements? Listening to what's going on on most of their records one would assume it's a very time-consuming process.

Not particularly. Neurosis are pretty meticulous in having their act together before they come into the studio, and Noah (their keyboard/electronics guy) has a studio where they work on pre-production demos in detail.

3. Can you recommend music in a similar vein to Neurosis? (excluding the obvious candidates such as Isis, Sparowes, Sum, Cult of Luna, etc.)

You may already be familiar with them, but obvious suggestions would be Harvey Milk, Melvins, Pelican, Zeni Geva, Oxbow, Mono, Om, Sunn0))) and

Dazzling Killmen. You might also enjoy the power electronics/noise music like Whitehouse, Japanese noise guitarist Keiji Haino, and early material from Swans and Killing Joke.

4. Do you listen to a lot of metal? If you are, what kind of metal are you generally listening to?

My standard answer for this is that I listen to the sort of metal that appeals to non-metal guys like me. The bands mentioned above, Motorhead, High on Fire, and the occasional black metal classic from Burzum, Immortal and the like.

### pivot

Let's say if i think im a pretty good producer, programmer and sound designer (for a 26 year old) .. how would i be best to go about finding management or someone to help me obtain and negotiate professional work.

I do not have a manager, I have never needed one, and I don't recommend them.

In this business, except for generic dollars-an-hour hack work (where you, rather than somebody else, records 100 iterations of the word "stop" for a talking traffic cop doll), an engineer doesn't find work, the work finds him. People use you for a session because they specifically think you will do a good job, and for them to think that, you need to develop a working clientele who will say your name out loud.

I can only advise you in the manner that I eventually became a full-time engineer. You should start by hanging out with people whose music you understand, and who think like you do. Make yourself available to them, and those people will let you help them make recordings.

First you work for free, then they cover your expenses, and eventually you will become valuable to a peer group who also compose your client base. Through word of mouth, your work will eventually become worth something (in real money terms) to them, and they will pay you what they can afford.

The time lapsed between the first free demos I recorded for bands and the moment I could afford to quit my straight job and work in recording full-time was about 8 years. I don't see how I could have done it faster.

You can also just wait for somebody to throw gigs at your feet. Good luck with that.

### MikeyPatriot

G7 Welcoming Committee in Canada recently decided to stop pressing music onto a physical disc and release everything strictly as digital downloads. Do you think that this will catch on and become the norm for independent labels?

This then puts the label on exactly the same terms as a novice band with nothing but a demo and a Myspace page. If I were a band faced with the choice of a label who would sell nothing but downloads and selling those self-same downloads myself (and keeping all the money), I'd have no use for the label.

### TopTop

How would you feel about working with Nickelback? What would you do to improve upon their already amazing sound?

**Man, don't mess with the formula.**

(<http://www.npr.org/templates/story/story.php?storyId=4258547>)

### Andy B

You are aware that I'm a tuba player. One thing that I cannot stand is when some sound guy wants to stick a microphone in my bell. The sound of a tuba is the sound it makes as it fills a room. Judging from your comments on recording strings, I'm guessing you appreciate where I'm coming from. Apparently, you've recorded at least one tuba player. How do *you* mike a tuba?

Attributes of individual instruments can make them easier or more difficult to record accurately. Tuba has about four bumner characteristics, making it a bigger bitch than almost anything short of a temperamental soprano:

1) Low fundamental frequencies correspond to long acoustic wavelengths. These need a large acoustic space to avoid self-cancellation or booming ("wolf" tones). A low E natural is about 40 feet long, and cannot be properly resolved without either a very good bass trap or a large acoustic space, and both bass traps and empty space require real estate.

2) Extremely wide frequency response. Simultaneous with the low fundamental frequencies are a blistering array of higher partials, harmonics and violent transients typical to horns. Picking this stuff up requires a microphone and signal path that can comfortably pass (phase-linear) components in the 30kHz range. That's where the "fraap!" resides. Appropriate microphones are somewhat esoteric, and don't necessarily have a lot of other utility, so investing in microphones appropriate for horn recording is often a marginally -EV business decision.

3) The instrument is physically large, and sound radiates not just from the bell of the horn, but also from the body, and an isolated pickup pattern is not very accurate, so it needs to be recorded from a distance. A distant mic will by necessity be exposed to every other sound in the room, so it becomes not just a "tuba" mic, and the penalty for trying to record a tuba is losing control of every other sound in the session.

4) Tuba players are weird.

So how do I record tuba? In a big room, with a ribbon mic (specifically an STC 4038 or a Royer 122) not too close to the bell, through a wide-bandwidth mic preamp (GML most recently) and a separate distant microphone to pick up the room sound.

How do you really feel about Urge Overkill? 😊

Pretty much like everybody else.

[Georgia Avenue](#)

...something Henry Rollins said on his show... about bands selling out their music to commercials. His claim: Who cares? Let good musician make a few bucks being appreciated now that they are respected instead of dismissed and ignored.

Precisely the answer you'd expect from *the Voice of GM Trucks*. It's an argument that holds absolutely no water.

To say that an artist with a legion of devoted fans and a culturally-significant body of work is being "dismissed and ignored" is ridiculous *prima facie* and doesn't really need further debunking. What he's talking about is money. Whenever anybody starts justifying taking money with language derived from some other consideration, he's actually talking about the money.

I cannot fault anybody for taking money for their work, especially in dire circumstances (people often do degrading things for money, especially in dire circumstances), but it is ludicrous to suggest that as a fan (a participant in the celebration that made the song "Lust for Life" a valuable commodity in the first place) I shouldn't notice that it has happened, and that it shouldn't change the meaning of the song in my estimation. Of course I will, and of course it does. Previously, "Lust for Life" had been an ode to decadence, written and performed in a frenzy of cocaine, heroin bingeing and buggery. It has now become a mormon-worthy family-fun cruise jingle. Of course it has changed.

Do artists really have some kinda responsibility to their audiences...even though, as you say, the best records are made without giving a crap what the public thinks?

No, they owe us nothing. That also means that my enthusiasm for artists isn't bulletproof, and I owe them no allegiance either. If they become something I cannot get behind, then they are likely to lose me as a fan.

I want Iggy to be as rich and popular as Justin Timberlake

Rich, okay, but what benefit is it to the world to have douchebags and Justin Timberlake fans listening to Iggy Pop? Not everything is for everybody, and I don't think everything is universally improved if you lay it on with a ladle.

[mikebarr](#)

Do you have any tips on capturing a good rock snare? I don't have decent dynamic mic's (only sm57 and 58) and seem to always overload any condenser that I put near it.

Looks like it's time to buy a microphone or two.

Readily-available modestly-priced mics that work well on snare:  
Sennheiser 421, Beyer M201, Shure KSM141. Start there.

[arbuthnot](#)

What's your motto?

It's easier to apologize afterwards than get permission first.

What does every girl really want?

Another pair of shoes, someone to call a whore and a reason to cry.

(Anonymous Poster)

A friend recently suggested that perhaps bands should just accept that there is a new paradigm. People are going to copy their music, and the way that they're going to make their money is from touring, merchandise, etc. You made a comment that suggested to me that you might agree with this. Care to comment?

My long experience with bands and musicians has taught me that they understand their place in the world pretty well. They also understand that music is (always has been) free to consume. If you play your radio, it costs nothing to listen. If you walk by an open window while someone is playing an album, it costs nothing. If you stand outside a club and listen, it costs nothing. Music is free. Musicians often sing and play informally (*get this!*) *just for fun*.

Records, concert tickets and the use of music in commerce -- those things cost money.

The primary relationship that drives all parts of the music business is the relationship between a band and its audience. Record retailers, labels, producers, managers, lawyers, promoters and other parasitic professionals all subsist on whatever money they can siphon off of this fundamental relationship. Mechanical and broadcast royalties (the royalties supposedly "lost" through file sharing) are the part of this transaction that is *least*



*efficient in getting money to the artist because most of it is siphoned-off by the rest of the music industry.* Of a \$15 sale, the average band stuck on a major label may not receive a single penny, and amortized over the life of a release may receive (after all the other players take their rake) a buck or so.

I should note that entrepreneurial independent labels that operate on a profit-sharing model can be an order of magnitude more efficient, and that one of the efficiencies is the lack of promotional outlay required *because fan file sharing does the promotion for free*

In short, these "lost" royalties are a huge part of the revenue stream of the institutional part of the mainstream music business, but a miniscule part of the income of a band.

Almost universally, bands and musicians are happy anyone is interested in their music enough to become a fan, and they know there are many opportunities to do some business with such a person that may or may not involve selling him a particular record.

They also recognize that a download by someone unwilling to buy a record is not a "lost sale," because that person has made it clear that he is unwilling to buy a record. You haven't lost a sale, you've made a fan for free. Fans eventually want to buy records, concert tickets and other things.

A single sale = a small bet.  
A lifetime fan = a huge pot.

[NozeCandy](#)

How much money would it take for you to work on the next Fergie album?

We discussed rates earlier.

[whale\\_hunter](#)

I think Private Dancer is a great song. Do you see a problem with that?

Do you ever get a song stuck in your head? It happens to most people. Some little ditty or the memorable part of a hit song or a carpet company jingle, you try to go to sleep and there it is, doot-doot-doo-ing away in the back

of your mind. Super annoying.

Have you also noticed how the song "Private Dancer" by Tina Turner never ever gets stuck in your head, no matter how many times you've been forced to hear it? That's because "Private Dancer" is so formless and hideous that there isn't even enough of a tune there to get stuck.

"Private Dancer" is the absolute zenith of the art of 80s schlock. There's a sort of synthetic rhythm, and some schmeer of digital drama provided by the Yamaha DX7 keyboard, but no actual music. On top of it all, a creaking, tuneless yowl of a vocal, rattling up from the guts of a parchment-skinned old woman trying to sexy at you. Hideous.

So, "Private Dancer" makes the perfect palate-cleanser. Whenever you have a song stuck in your head, force yourself to mentally trudge through the song "Private Dancer," at least as much as you can remember. It also helps to imagine the video of a once-stunning, now-cartoonish Tina Turner, the last of the pain pills and red wine finally down her throat, heaving her clattering bones around the soundstage trying to sexy.

Run that through there for twenty seconds, and it's better than Drano. It clears-out whatever was stuck and leaves on its own, leaving no trace behind.

### [FF\\_Woodycooks](#)

A - Billy Corgan. Huge ahole right? Like tremendously?

I have had limited dealings with Billy Corgan, and everything I *personally* dealt with him on, he was totally reasonable and unpretentious. He was also very generous with his time in regards to some charity stuff he was asked to do, and I applaud him for that.

Many people have passed judgment on him based on some public statements and presumptions about how he managed the membership of his bands. Even a micro celebrity like myself is occasionally asked to make statements for public consumption, so I know that things said in haste or without consideration can come back to haunt you. Also, not having been in

his bands, I'm not prepared to say what he should or shouldn't have done with the members, and who "counts" as a "real" band member.

I always heard he was kind of reviled by the 'real underground' Chicago bands for being a sellout...

The first part is true, but not necessarily because of the second part. You are asking about historical perspectives, and I happened to be around while this was underway, so maybe I can shed some light.

In Chicago in the late 1980s, there began to develop a kind of budding professionalism that struck us in the punk/underground scene as distasteful: Bands with managers, publicists and other agents were encroaching on a self-made scene that had previously been by, for and about the bands themselves.

The Smashing Pumpkins personified this creeping professionalism, having a management relationship with a creepy local music business player who was also responsible for booking the biggest venue in town. As a result, any decent touring band that came through town would have the Smashing Pumpkins added to the bill as a support act. This was rightfully seen as an imposition, and patrons learned to arrive at the Metro an hour later than usual in order to miss them. It isn't overstating things to say they were something of a joke in Chicago -- a band imposed on an existing audience by the music business rather than a band building its natural audience through accretion.

Additionally, early on they were associated with the exceptional band the Poster Children, through some shows and a shared label. The Poster Children (and other bands from the same downstate scene, like Hum) were an obvious and direct influence on the Smashing Pumpkins' sound. For anyone familiar with both, it is hard to see how the a lesser derivation of the Poster Children's sound could be hailed as some kind of revolutionary genius, except by rock critics and music business people unaware of anything at the street level.

In some of those public statements I mentioned earlier, Billy Corgan has derided the underground scene of the day, saying it was clique-ish and insular, and that he wanted to rebel against it by going through

conventional rock star channels to become a conventional rock star. Well, bully for that kind of thinking, I guess, if you think being a retrograde reactionary and joining the suffocating mainstream culture and business is some kind of rebellion, and if you think the penthouse of the managers and lawyers is somehow more open and inviting than the open field of the DIY scene.

For those of us involved daily in bucking that system, it was gross.

[239](#)

Do you need a cranked tube amp to get a good overdriven amp tone on to tape? Any tips for miking 1x12 combo amps, multiple mics?

A good rule of thumb is that if you want the sound of a certain amplifier, then you ought to use that amplifier to record. Trying to fool Mother Nature is seldom a realistic goal. There isn't a single standard for what makes a good guitar sound -- it's all relative to the kind of music being played and the techniques in play. But if you aren't happy with the sound of your amplifier, you shouldn't record it and hope that some magic happens to make you like it on tape. If you *are* happy with the sound as-is, then you need to get better at capturing that sound, and that takes experience.

What would your advice be for a 34 year old singer songwriter who just wants to get his music recorded for himself more than for release? Hire musicians and go to the cheapest studio possible? Try to do it at home?

Recording is a strange objective. I have always seen playing the music as the goal, and recording as a document of the playing. To that end, I would suggest trying to get a band together (even as a pastime) and get comfortable playing the songs. Recording it with this band should then be a pretty straightforward exercise, and you can certainly do it in the practice room. If you just want to make demos of the songs without putting a band together, then you'll either need to pay or cajole musicians into playing them, or you can do everything yourself as overdubs.

It seems that a lot of "indie music" rejects pop type melodies, what is your take on music that's easy to listen to in that sense, too obvious to be good?

You are apparently ignorant of the enormous number of indie pop bands out there who strive for nothing more than obvious, memorable melodies. There are thousands of such bands. If you mean the ugly end of the spectrum, okay, there are people like me who have no taste for pop music, and don't pretend to understand it.

What's your guitar rig (guitar, pedalboard, amps, etc)?

It's posted on [guitargeek](http://guitargeek.com/rigview/446/), (<http://guitargeek.com/rigview/446/>) and is pretty accurate. There is no external A/B box, but otherwise, they got it right.

### Max Raker

If your only goal was to sell records, how big of a rock star do you think you could have been? Billy Corgan big? Much bigger? Which rock star would you place as the upper bound on how famous you could have become?

You realize that I have worked on records that have sold many millions of copies, right? I've made a reasonable living for 20 years doing only things that I thought were within the bounds of my ethics. I'm not just guessing when I say it is possible to survive and flourish without "selling out." Along the way, I have been offered things that would have earned me literally millions of dollars, and I decided that my peace of mind was worth more than that, so I didn't do them.

The most obvious case is that I am paid a flat fee for my work as an engineer, rather than paid out of a band's royalty. This has directly benefited the bands I work with (and consequently cost me) several million dollars. Despite which, I have never gone hungry, built a nice business and been able to release records and tour the world pretty much at will. Not selling out hasn't hindered me in the slightest.

I mention this not to make note of any accomplishments of mine (a necessity, but one that took me several pages of discussion to relent to), but to show you that the world is not divided into rock stars on one hand and miserable bar bands on the other. There is a comfortable independent realm that is inhabited by thousands of bands like mine, and selling out is neither an objective or necessarily any real improvement in conditions for them.

There is an apocryphal story about Ahmet Ertegun approaching Ian MacKaye of Fugazi in an attempt to get him to sign with Atlantic. He says something like, "I can offer you your own label and *a million dollars*." To which Ian replies, "I already have my own label and a million dollars."

If you mean could I have been a rock star in the manner Billy Corgan, well no, probably not. I'm not a very good singer, I'm nothing special to look at, and the music I make doesn't appeal to a large audience.

### Max Raker

Also, I believe you charge bands like Bush and Nirvana more than if I or some other random dudes wanted to record with you. Why do you think this is ethical?

Big label sessions demand more administrative attention, take more time to organize in advance, and are often open-ended, in that I may find myself working much longer than anticipated on such a session, and most importantly, it is bastard hard to get a major label to pay its bills, and I want to be compensated for that nuisance. I have to cover the cost of lost work, often there is travel and associated living costs, sometimes I even need to hire someone temporarily either to cover my ass back home or keep up with the session I'm on. Additionally, big label sessions often have some prick demanding changes and revisions long-distance, and that is much more time consuming than working with just the band in the studio.

Working on big label projects can be a royal pain in the ass and cost money to execute. I want all that covered, and I want to make a profit, so I charge them more. Still, I charge them less than most people in my position, and I am undeniably a bargain.

### FF\_Woodycooks

So most underground bands would turn down a big record deal and national promotion so they can continue to work the local scene for free beer, and finally retire to a carpet cleaning business or whatnot?

So much you do not understand. So many words it will take to teach you. Okay.

I don't suggest that most bands would turn down big deals. Most would take them and be worse off eventually. Luckily, most bands are not offered deals, and so don't have to make such choices, and the question is therefore moot.

Of those bands who are offered deals with big record labels, many of them (not a majority, but enough to prove my point) are already comfortable on independent labels that serve them well, and they see no need to move to a more bureaucratic situation that works less efficiently and cares less about them specifically. Not all bands think this way, but quite a few (especially those who have been paying attention and can do their own math) do.

National and even international promotion and touring is available to bands of no stature and no resources through the extremely efficient fan-and-band network that has supplanted the mainstream outlets for independent bands.

If you're talking about payola, okay, that single example of the incredibly inefficient music business is only available to big label acts. Whoop de doo. If you're not satisfied with selling records and concert tickets, and getting played on enthusiastic independent/college/internet/satellite stations, but also insist on getting played on am and morning zoo fm radio, then you have no choice.

Independent bands tour the world and play in front of crowds in the many thousands. To suggest that they will be playing "Proud Mary" in local taverns forever is to display utter ignorance of the music economy. Some of these bands can command fees better than \$10,000 a night, and a few can get a multiple of that. Hardly beer money.

As for the carpet-cleaning business, where do you think major-label artists end-up once their advance has been spent? In the palaces of the old rock star gated retirement community?

No, they end up getting jobs, just like everybody else. Where's the shame in embracing that reality instead of deluding yourself about it?

I mean you make a nice living, you have a skilled technical profession, I am speaking more of band members that have nothing else to lean on. Does 'keeping it real' trump all?

If you will starve unless you become a rock star, then you have bigger problems than whether or not you are a rock star.

Yes but its because you already have money/millions and are happy.

Do you think I dropped into the world that way? Do you think I did not have my share of \$8 an hour jobs? I am older than you, probably, so the figure was more like \$5, but you get the idea.

Would you believe me if I told you that not compromising my principles is what got me whatever money and success I have enjoyed in excess of that \$5 an hour?

If not, I'm sorry, but you will never understand. If you believe me, then the rest of your curiosity should satisfy itself, QED.

Hi, I was more just making an argument to understand why bands like SP are reviled as 'sellouts'...

And I tried to explain (in a couple hundred words you chose to ignore) that selling out has nothing to do with success, and is not why people disliked the Smashing Pumpkins in the first place.

just because they were good enough and good at the game, and didn't mind making a nice living.

It is a ridiculous straw man (and a common one among apologists for mainstream culture) that independent-minded people are against success, and that we see something inherently wrong with making money, being well-liked, etc. I will say it again here (and for the 10,000th time in my life in identical discussions with people who are misrepresenting this position):

Nobody thinks success is a bad thing, nobody thinks less of a band just because they are successful, and nobody faults a band for wanting to make money. All of those things are embraced by the independent/underground culture. My band is reasonably popular. My bands have all turned a healthy



profit. My bands' tours are all profitable. My bands have all sold a lot of records. I am glad it is so, and I have never wished that it was otherwise.

What is rejected is the bulldozer of corporate intrusion, the enforced group-think of the mass culture and the herd-of-sheep mentality that makes it possible. When someone embraces all those things, we are within our rights to notice and form an opinion of that embrace, and the person performing it.

I cannot say it any more clearly: Nobody has a problem with success. We have a problem with an oppressive, monolithic culture being thrust on us at every juncture, and those who would help it along using the excuse that they "just want to be successful."

I am totally fine and understand just doin it for fun and enjoyment, I don't think those are the people that take it seriously enough to produce something fantastic that reaches a ton of people.

You are apparently ignorant of the careers of the many independent bands who have made "fantastic" records that have changed lives. How many people is a "ton?" Is a million enough? I can name you a dozen independent bands who have reached that many people and more.

Is it wrong to seek commercial success if you think you're good enough and palatable enough for broad consumption?

The way you pose the question makes the answer obvious: No, of course not. That's also not what anybody is complaining about. "Seeking success" can be done without joining forces with the most destructive elements of the business and culture, and *that's* what you're excusing by reducing the discussion to a simpleton's level; "they just want to be successful." This is in keeping with the way the outfit excuses torching a restaurant and threatening the family of the proprietor, "it's just business."

[matt0009](#)

Hello Steve.

In a Joanna Newsom article from the January issue of Performer magazine it states:

'...She went and recorded with Steve Albini, famed producer of neo-folk geniuses Jawbreaker and Cheap Trick. Well, he has also with Newsom's tourmate Smog. "I had always heard that Steve Albini was the best at accurately recording acoustic instruments and making them sound like exactly what they are," she explains. He helped her create the "rough and stark and exposed and grounded" sound she says she was looking for – and invented some unorthodox ways of micing the harp, which shall henceforth remain a mystery. "I don't think I should talk about them because I kind of feel like they're his intellectual property," she says.'

Now speaking to the man himself, is this mystery technique something you'd be willing to expand upon a little bit? Does it involve a multitude of intricately arranged microphones or something along those lines?

Thanks.

I have no secrets in the studio. Everything I do is either learned from someone else, in the prior published literature or figured-out from core principles known to pretty much everybody in the game.

In the case of Joanna Newsom's harp, I used close mics, a mono area mic and an ambient mic.

The close mics were four Crown GLM100s attached to the the body of the resonator box, evenly spaced along the length of the harp. I needed four to get even coverage without hot spots, and these mics are small and light enough that they wouldn't interfere with the sound or playing. Taped in place with a little square of gaffer tape, they didn't need stands or other hardware. These mics were recorded discretely (one to a tape track) but could easily have been sub-mixed to stereo.

The area mic was either a Sony C500 or a Neumann U47. We tried both, and I don't recall which was eventually chosen. It was about head-high and about a yard away, directly in front of the harp.

We tried a C24 stereo mic in that position (or a Neumann SM2, I don't remember) but I don't think those survived the audition.

The ambient mic was an AKG C12A in omni, resting on the floor as a

boundary mic about 12 feet away in a hard-sided room.

That's it.

### [60Vauban](#)

Have you listened to Brian Eno's work (personal and collaborative) and wondered how creative he would be if his digital "toys" were taken away?

Eno has answered this question for us. The records he made before he had access to samplers and digital editing are all unique, timeless and fantastic. Since then, meh.

Is there any sound or effect created using Protools that you simply can't recreate in an analog environment?

Not with a little effort, no.

Or perhaps is that just not the point, that the music should be transmitted in its purest form from the studio experience to the commercial release.

I just think most bands ought to be respected as they exist in nature, and I don't have a strong enough ego to presume that I can "improve" a band by making them change to suit me, or using software to determine the parameters of their weaknesses.

### [felix240](#)

Similarly, how do you regard artists whose idiosyncratic recording style is essential to their musical expression? I think of Jandek, for one, where the hiss and tin are actually as much music as the voice/gtr/whatever. Or Royal Trux, who used effects with a kind of historical and theoretical sophistication...

Those people make records they do (and have what value they have) precisely because a producer didn't make them change their idiosyncrasies. Bands ought to be allowed to make the record they want to make, without anybody shoe-horning them into a prescribed aesthetic.

I mean, isn't recording as straight up documentation kind of like a painter limiting himself to portraiture?

No. A recording engineer isn't a painter. A recording engineer works (or ought to work) under the direction of his client, not ask the client to work to his direction. If a band wants a sound abstracted from reality, fine, but that abstraction ought to be *their* idea.

Isn't any tool useful in the right hands?

In the abstract, sure. But when the things a tool makes easier (editing and manipulation, or, say, automatic machine gun fire) are so subject to disfiguring abuse, there are precious few "right" hands. The tool itself may not be the problem, but having it in use is almost always worse than not.

### killideas

Recording the Godspeed record where there any particular challenges recording a group that big (or perhaps they were pared down for recording?). They have a reputation for being this quiet shadowy group. True? I've always assumed this was a rep that came from not talking to the media etc so media just makes something up. Also any particular reason you didn't mix the record? Was the final project much of a departure from what left your studio? How long did the record take to make? thnx.

The Godspeed! sessions were done in two chunks, totalling about three weeks, and were taxing, but inspiring in a couple of weird ways.

The collective aspect of the band is something I'm familiar with and comfortable with, so that wasn't a problem, other than occasionally having to get everybody together and discuss different options at a little more length than usual. It intruded more when trying to decide where the smokers were going to smoke than any recording consideration.

Anybody who has been in even a three-piece band knows how difficult it can be to keep the peace, and I was impressed at the lengths these guys went to to make sure everyone in the band was heard.

The formal elements of the band and the music have their own inherent problems. The band had nine members: two drummers, three electric guitarists, two bassists, a 'cello, violin, various mallet percussion instruments, a music box and a penny whistle. Their music often has crescendos that begin very quiet (ppp) and are eventually hard rock loud

(ffff). This mix of loud and quiet sounds, acoustic and electric instruments and a lot of people makes even the physical setup in the studio difficult. We had to try several arrangements of chairs and rooms, often moving everything involved in the session before everyone was comfortable.

The next problem was recording both the very quiet and very loud sounds accurately. Ordinarily, small adjustments can be made in mixing to compensate for louder and quieter parts, but this was an extreme case, with an active dynamic range of better than 28dB. The conventional or hack approach to a problem of wide dynamic range is to use compressors to restrict the top-end of the dynamic range, but I have never liked the artificial sound quality imparted by this method.

The "clamping" action of the compressor is noticeable, and it sacrifices detail at the highest point of the dynamic, when the music is reaching its biggest moments. This would be a particularly inappropriate choice for a band like Godspeed! Still, I needed to be able to ride the gain on as many as a dozen microphones in a smooth, repeatable fashion, so I used the channel grouping feature of our console to create sub-masters for each of the instruments, and I rode the gain on the individual instruments, keeping them at a reasonable level throughout the course of songs as long as ten minutes.

Several of the pieces were meant to flow seamlessly from one to the next, but could not be performed this way because of instrument changes or other reasons, so I needed to be able to knit together several chunks recorded separately while maintaining the illusion that they were performed at once. In most cases there was a transitional moment, where piece "A" ended and piece "B" started, so these transitional moments were scripted into each piece, so there would be a range of editing options. In one case, there was a gradual guitar crescendo, so the edit needed to observe that dynamic and avoid creating a jarring change. This part of the session organization took more thought and preparation than I was expecting, but eventually it all worked out.

There were some additional musicians recorded for a couple of parts, in particular a string section comprising several double-basses, but the original session was still set-up and couldn't be disturbed, so during this

period the band were occupying both studios.

As the session progressed, individual players needed to add overdubs, and we would concentrate on one person until finished, and then move on to the next player. This part of the session involved some very long days for me, and it seemed like the band were eating and sleeping in shifts while I worked every minute.

Eventually, the record was finished and mixed, and the band went on their way. I wasn't party to the discussions after they left, but with such a complex project, it isn't surprising that there were things the band were dissatisfied with over time, and they decided to mix the album themselves (there was some additional recording done as well) at the studio they normally used in Montreal, with an engineer (Howard Bilerman) who is a friend and an important part of their extended family. That they were eventually happy enough to release the record is good enough for me.

Any other complications involved boiled down to me not speaking French very well, the US border crossings being a bastard, and Canadians being weird in general.

[ec3to1](#)

Shellac records somehow make it to the CD format with their dynamic range still intact, which is great, but I've heard other albums that you recorded (High On Fire is a good example) that are completely obliterated with peak limiting. How much control do you and the rest of the band have over the mastering of your own records? And how much control, if any, do you have over the mastering of your recordings of other bands?

It's pretty rare that I have any influence on the mastering of records I record. I always give my recommendations, but what happens to the record after it leaves here is the business of the band and the label. I didn't think the High on Fire record fared too badly though.

[buhce](#)

Although you seem quite anti-digital, in respect to recording sound, or maybe just more so, music. Do you think that if you were in the same position today as you were when you first thought about recording your

own music, you'd have embraced the technology - un-willingly or otherwise. Or do you think you would have still sought after, the more expensive, more cumbersome, more second hand (and harder to get fix with a steeper learning curve, especially these days) alternative, of analogue?

I think I would have done whatever everybody else was doing. I don't think the advantages of analog recording are obvious to people who don't work with it everyday, and who haven't seen digital recording technologies consistently fail to solve their fundamental problems.

Does that mean you have never been apart of a "layered" recording before, where the band records not only separatly but to a click track?

I have. That's how I know it's a drag.

And if not, why not, and does it mean you would agree to be at the helm of such a recording if a band expressed the desire to record in such a way ?

I'll do whatever the band wants to do. I haven't had good results using the piecemeal technique you describe so I don't generally advocate it, but if somebody wants to do it, then whatever, it's his funeral.

### [ICallHimGambler](#)

"WHEN IN FIVE YEARS, THIS REMARKABLE ACHIEVEMENT IN THE ADVANCEMENT OF FIDELITY IS OBSOLETE AND UNPLAYABLE ON ANY 'MODERN' EQUIPMENT, REMEMBER: IN 1971, THE 8-TRACK TAPE WAS THE STATE OF THE ART." -- Steve Albini about CDs, 1987.

Have you changed your opinion about digital or the media now that twenty years have elapsed?

I was off by a little, but right in principle. Do you own an Ipod? That's not a CD player, is it.

Vinyl records will still be in current manufacture after CDs are a dimming memory. Vinyl sales have been trending up, as have electronic sales (downloads), while CD sales have been in decline.

I don't want to put words in your mouth, but as I recall, your argument was that digital recordings were fragile and unrecoverable, thus analog was the

preferred format. CDs are still by far the dominant format in an admitted failing industry and the public moving to ipods doesn't exactly support your point, right?

This argument is two decades old, so I am sorry if I misremembered your original point....

The way I understand it, vinyl sales are only trending up for 7 inches, not cds, more for 'trend' value than media shift. And since when does the trends and whims of the public make a compelling argument for you? Your point was that the media would be unplayable.

Sincerely looking forward to your response...

Cds have a per-unit lifespan of 20 years or so, if you're lucky. Many fail in as little as 5 years. Other than physically breaking or gouging it, there's no reason a vinyl record won't last several hundred years. Purely-digital data (downloads and other sound files) are infinitely more fragile, since they exist only resident on a drive (which is itself vulnerable to failure) and dependent on software to make any sound at all, and that software is beholden to the software maker for all its functionality, and that software is beholden to the computer industry as a whole. This is more of a problem with proprietary file formats for professional use, but it is true nonetheless.

I have been through this particular debate almost as often as the major label vs independent label debate, and I don't have the energy to recite all the point-by-point discussions, but if you do archive searches at prosoundweb and rec.audio.pro and the Ampexlist at recordist.com you'll find several thousand words from me on the topic.

Once you're up at the front of the boat, we can discuss what's ahead.

Regarding sales, CD's only real advantage (not perceived, but real) over vinyl is convenience, and that is how they won their market share. Ipods et al trump that step in convenience by a mile, and so I expect that CDs will lose the convenience-first battle to downloads. That will be the end of them.

[pointfive](#)



during your many years in the music business, I'm sure you've been made countless offers that would require you to compromise your values in order to accept. Have there been any you were particularly tempted by? Were there any you seriously considered accepting? (Or did accept?) Share as many details as you like.

The common stuff, offers of management, major label deals for bands I've been in, that sort of thing, I've never been tempted by. It's obvious to me that I handle my affairs better than anybody else could, I get all the work I need, and my bands have not been limited in any aspirations. Getting more involved with the mainstream showbusiness industry would be a step backwards.

While Shellac was a new band, we played a few European festivals and were disgusted by the whole scene. The promoters were offering a mixed slate of bands, some of whom they were obligated to have because of backroom deals with agencies and labels, some of which were flavor-of-the-month crap, and the rest were just generic light entertainment, where any old band will do. The bands were using these non-critical (but lucrative) gigs as a kind of subsidy, the fans were not being treated well, and the whole thing was a grotesque abstraction of the legitimate band-fan relationship. After a couple of those, we decided that we would be unavailable for festival gigs.

A few years later, we were asked to play All Tomorrow's Parties, under the pretext that "this festival is different." We declined. The promoter and the curating band who nominated us asked again, with a very generous offer. We explained that we didn't care about the money, we just didn't play festival gigs out of principle. That led to a conversation about the festival, and we were persuaded to play.

As it turns out, this festival was different. It was curated by a band, so all the acts were being vouched-for, the patrons got a weekend ticket including a little apartment (rather than a space in a field for a tent) with a private kitchen and bathroom, and the shows were in proper indoor venues rather than in tents exposed to the weather.

For the first time in history, someone said, "but this one is *different*," and it actually was different. Not only that, but its success as a festival fostered a

whole trend in curated, civilized festivals, and now some of the curated festivals are quite good.

Also, any tips for recording violin? Any special considerations to take into account when recording electric violin vs. acoustic?

Electric violin I treat like any electric instrument -- make sure the band is happy with the sound coming out of the amplifier and record that sound as clearly as possible.

Acoustic violin is a rough one. Microphone choice is pretty important. There is a ton of energy in the very high frequencies, and any peaking in the mic high frequency response can make the violin sound shrill or thin. The holy grail for violin recording is a mic with a smooth and phase-accurate high frequency response (not necessarily flat, but without irregular peaks and notches). A couple of mics come close, good ribbon mics like the Coles/STC 4038 and the Royer R121, and measurement-caliber omni condensers like the DPA 4000 series, the Earthworks mics and the Josephson 617. The only directional condenser mics I have found to sound good on violin have been Schoeps 221b and a Russian mic, the Lomo 19a18, which has been fitted with a new diaphragm by David Josephson.

### buhce

But you must use compressors for some things, though surely.

Bass guitar, 2-3 dB, Bass drum, 3-6dB (usually a peak limiter), vocals 6-8dB (occasionally more in extreme cases), occasionally snare drum 2-3 dB (again a peak limiter). That's about it. Anything more than that and there's some problem that ought to be solved another way.

### squashed

I hate to be disagreeable...

I hear this all the time. I guess I bring it out in people.

- (vinyl) has very high noise floor. This is okay for rock/casual room listening, but as more and more people uses high quality headphones, creating their own digital music and exploring different texture and music

style, the noise is very noticeable. Plus, over time, vinyl's groove also collect dust. Wear and tear.

I guess I disagree. A properly maintained record should not be objectionably noisy. If the sound of the silences between the songs is the most important part of the record for you, then I guess you shouldn't listen to vinyl records.

- dynamic range. digital is better long term. Beyond current CD limitation, digital really only limited by actual players ability to come closer to theoretical limit of electronics. music file will simply carry more and more information for more accurate sound representation. We haven't even begun exploring the possibility of high fidelity consumer electronics. Vinyl however is pretty much it.

Again, you're talking about the sound quality at the noise floor, which is not where I do the majority of my listening.

I'm going to skip over the points I concede regarding cost and convenience. Of course manufacturing nothing is less expensive than manufacturing something.

- A digital file is infinitely reproducible. All current CD/.wav are reproducible and it is not locked. Popular lossy compression (.mp3) patent will expire in 2010. I am sure it won't go away anytime soon. Then there are more than enough lossless compression available online including Open source (FLAC). So all in all, the idea that a digital file will become unreadable is bunk, because the "data" itself is reproducible. It only take one person in the world to post a raw .wav file online and that file is immortal. As cost of storage and bandwidth plummet, this will be truer. The best audio codec has yet to be written. DRM/closed standard will die, as it is rejected by user.

That digital data are reproducible in no way ensures that they will be copied, and the nature of digital files is they inevitably *will* disappear unless they are perpetually copied and migrated onto new storage media as the old ones become obsolete (a regimen that absolutely no one is undertaking). Analog recordings just sit on a shelf until you need to play them, and then they play just like always.

I can give you a short (incomplete) list of digital audio formats that are now unrecoverable, despite that they *could have been* migrated onto other

formats: DAT, ADAT, ADAM, DTRS, DCC, 1610 (also 1630), F1 (also 601-901), DBX, JVC Soundstream, Mitsubishi X80, X850, ProDigi, DASH, 3M... You get the idea. What would you do if you found a nine-track tape of some SD1 files, or a U-matic tape with Soundstream data? You sure wouldn't be able to play them.

On the other hand, if you bring me any (yes, *any*) analog audio recording made in the last 100 years, I'll be able to play it. The more obscure formats might require me to jerry-rig a player, but I'll be able to do it. Anything. Soundmats, anything.

Total sale of LP is hardly worth arguing in term of mass entertainment medium. It's undetectable compared to recorded download transaction every day. The situation wont' change anytime soon. I might as well believe in second coming rather than waiting for LP's return. So discussing LP will be forever tied to hardcore audiophile.

Serious hi-fi listeners and their equipment are a billion-dollar+ industry (or so said a friend of mine who ran a hi-fi magazine). Independent labels sell a modest but valuable percentage in vinyl, and there are vinyl specialty labels that sell nothing but. A new disc-cutting lab opened in Chicago a month ago, and they have had regular work. Vinyl records are not going away any time soon. They are not a mass market item, but then neither is anything of superlative quality.

A silly elitism. Palm reading and mystics sort of elitism.

I'm sorry you don't like vinyl records, but you're talking like an idiot here.

A little bit like discussing hand made 1934 Bugatti vs. 2007 Honda accord. Yeah the Bugatti won '34 grand Prix, but I need something that can survive NJ turnpike.

I wouldn't suggest that vinyl records are a good replacement for convenience-listening items like Ipods. A wedge isn't a universal replacement for a putter either, but it has its place.

[squashed](#)

From music fan point of view, naive one mind you:

big picture wise, one only needs to convert once to a Harddrive with some standard format, and keep data specification as a note. Plus, data storage/digital locker service is a dime a dozen these days.

at practical level, you pretty much take home the argument. It's not possible to save people from every stupidities/freak accident. If a person doesn't have the foresight and not transferring their digital data into most common/most reliable/cheap medium/not controled by single corporation. ... well. ... The music is owned by the guy who control the mechanism plus hand of time. That's pretty much true for any medium. It's only a question if a person is comfortable rigging an analog reader or write a digital hack.

So if I find any random digital maste" from who knows where, as a music fan I pretty much look at it like I find a moon rock. If I am curious enough, I might then google and find a studio that still has said equipment so I can read it. Not an elegant solution I am sure.

The very point of "digital" is to be able to precisely extract out information and seperate it from the medium later. If a person doesn't take advantage of this feature and wishing a medium will last forever. Well, ... I mean. Whaddya gonna do?. In that case, record in the best analog devices.

" DAT, ADAT, ADAM, DTRS, DCC, 1610 (also 1630), F1 (also 601-901), DBX, JVC Soundstream, Mitsubishi X80, X850, ProDigi, DASH, 3M... You get the idea. What would you do if you found a nine-track tape of some SD1 files, or a U-matic tape with Soundstream data? You sure wouldn't be able to play them."

As exercise, if hypothetically I find a master in those standard, can I get a service to shove it into a HD today?

F1

<http://www.audiotubes.com/prorates.htm>

X850

<http://www.soundonsound.com/sos/sep05/articles/fxcopyroom.htm>

DBX

<http://aroundcny.com/technofile/texts/dbx700recorder86.html>

nine-track tape

<http://www.chicorporation.com/ninetrack/drives/index.html>

SD-1

[http://www.youngmonkey.ca/nose/audio\\_tech/synth/Ensoniq-DiskFormats.html](http://www.youngmonkey.ca/nose/audio_tech/synth/Ensoniq-DiskFormats.html)

PS. very clever Steve. yer not probing me trying to figure out if I am a programmer or a studio engineer are ya? :P

PPS. I am surprise there is no "general" catalog, on the net describing various recording specification and where people can go to get the data out. I bet there are plenty of desperate people wanting to know that.

"On the other hand, if you bring me any (yes, any) analog audio recording made in the last 100 years, I'll be able to play it."

be carefull what you wish for, you might have to eat your short. :P  
(but then again, you might call my bluff and ask me to bring in a holographic disc containing analog sound recording.)

<http://www.freepatentsonline.com/20060050339.html>

A hologram recording method includes generating a signal beam with data formed by superimposing pattern data, the pattern data representing a pattern in which a large number of plural kinds of pixels having different tone values are arranged in a two-dimensional manner, on an image data of respective pixels represented by tone values corresponding to density, and recording a hologram by irradiating a converted beam formed by Fourier transformation of the generated signal beam with a lens and a reference beam to an optical recording medium.

Squashed, you will doubtless appreciate that I don't want to rely on hiring someone off the internet to make a copy of old masters for me, and in what

an awkward position this would put the rights owner. A couple of years ago, some original Led Zeppelin master tapes made their way out onto the internet via a "simple" copy someone wanted to make.

Additionally, playing a digital master is not necessarily the simple process you imagine. The Mitsubishi X-series tape machines, for example, have mechanical head alignment adjustments, which tend to drift more and more over time. Mitsubishi did not supply alignment tapes or instructions (as they were considered intellectual property), and it did not allow them to be made by a secondary source. For this reason, if you find a working X-series machine, it is unlikely to play back any master tape not recorded on it.

I only know this because I was peripherally involved in another studio trying to play an X80 tape about 8 years ago. It proved to be impossible on the two machines they found in Chicago and three more in Nashville -- including the one it was supposedly recorded on.

Eventually they used a commercially-pressed vinyl record for the re-issue master.

I tell this story because it demonstrates that the digital nature of the data is meaningless, because the data are still resident on a medium (there are another couple of pages I could fill about the volatility of digital media, but this is far enough afield for the moment), and that medium is subject to the failures of time, the playback device, penetration of the technology and (increasingly) intellectual property protections. The story would be the same if the data were on one of the many proprietary removable tape systems or any other format long since discarded by the computer industry.

Analog recordings are much more robust, and playback devices are ubiquitous, non-proprietary and not particularly difficult to make, if it comes to that. Analog recordings require no additional attention to last centuries. Longevity is built-in.

If you want to continue the sport of trying to find "solutions" to my reservations about digital recording, be my guest. It is clearly entertaining you, and it might be entertaining for others. You are unlikely to come up

with anything that hasn't occurred to me in the last 20 years that I have been working on the problem myself, but it can't hurt anything.



## The Problem With Music

By Steve Albini

Whenever I talk to a band who are about to sign with a major label, I always end up thinking of them in a particular context. I imagine a trench, about four feet wide and five feet deep, maybe sixty yards long, filled with runny, decaying shit. I imagine these people, some of them good friends, some of them barely acquaintances, at one end of this trench. I also imagine a faceless industry lackey at the other end holding a fountain pen and a contract waiting to be signed. Nobody can see what's printed on the contract. It's too far away, and besides, the shit stench is making everybody's eyes water. The lackey shouts to everybody that the first one to swim the trench gets to sign the contract. Everybody dives in the trench and they struggle furiously to get to the other end. Two people arrive simultaneously and begin wrestling furiously, clawing each other and dunking each other under the shit. Eventually, one of them capitulates, and there's only one contestant left. He reaches for the pen, but the Lackey says "Actually, I think you need a little more development. Swim again, please. Backstroke". And he does of course.

Every major label involved in the hunt for new bands now has on staff a high-profile point man, an "A & R" rep who can present a comfortable face to any prospective band. The initials stand for "Artist and Repertoire." because historically, the A & R staff would select artists to record music that they had also selected, out of an available pool of each. This is still the case, though not openly. These guys are universally young [about the same age as the bands being wooed], and nowadays they always have some obvious underground rock credibility flag they can wave.

Lyle Preslar, former guitarist for Minor Threat, is one of them. Terry Tolkin, former NY independent booking agent and assistant manager at Touch and Go is one of them. Al Smith, former soundman at CBGB is one of them. Mike Gitter, former editor of XXX fanzine and contributor to Rip, Kerrang and other lowbrow rags is one of them. Many of the annoying turds who used to staff college radio stations are in their ranks as well. There are several reasons A & R scouts are always young. The explanation usually copped-to is that the scout will be "hip to the current musical "scene." A more important reason is that the bands will intuitively trust someone they think

is a peer, and who speaks fondly of the same formative rock and roll experiences. The A & R person is the first person to make contact with the band, and as such is the first person to promise them the moon. Who better to promise them the moon than an idealistic young turk who expects to be calling the shots in a few years, and who has had no previous experience with a big record company. Hell, he's as naive as the band he's duping. When he tells them no one will interfere in their creative process, he probably even believes it. When he sits down with the band for the first time, over a plate of angel hair pasta, he can tell them with all sincerity that when they sign with company X, they're really signing with him and he's on their side. Remember that great gig I saw you at in '85? Didn't we have a blast. By now all rock bands are wise enough to be suspicious of music industry scum. There is a pervasive caricature in popular culture of a portly, middle aged ex-hipster talking a mile-a-minute, using outdated jargon and calling everybody "baby." After meeting "their" A & R guy, the band will say to themselves and everyone else, "He's not like a record company guy at all! He's like one of us." And they will be right. That's one of the reasons he was hired.

These A & R guys are not allowed to write contracts. What they do is present the band with a letter of intent, or "deal memo," which loosely states some terms, and affirms that the band will sign with the label once a contract has been agreed on. The spookiest thing about this harmless sounding little memo, is that it is, for all legal purposes, a binding document. That is, once the band signs it, they are under obligation to conclude a deal with the label. If the label presents them with a contract that the band don't want to sign, all the label has to do is wait. There are a hundred other bands willing to sign the exact same contract, so the label is in a position of strength. These letters never have any terms of expiration, so the band remain bound by the deal memo until a contract is signed, no matter how long that takes. The band cannot sign to another laborer or even put out its own material unless they are released from their agreement, which never happens. Make no mistake about it: once a band has signed a letter of intent, they will either eventually sign a contract that suits the label or they will be destroyed.

One of my favorite bands was held hostage for the better part of two years by a slick young "He's not like a label guy at all," A & R rep, on the basis of such a deal memo. He had failed to come through on any of his promises [something he did with similar effect to another well-known band], and so

the band wanted out. Another label expressed interest, but when the A & R man was asked to release the band, he said he would need money or points, or possibly both, before he would consider it. The new label was afraid the price would be too dear, and they said no thanks. On the cusp of making their signature album, an excellent band, humiliated, broke up from the stress and the many months of inactivity. There's this band. They're pretty ordinary, but they're also pretty good, so they've attracted some attention. They're signed to a moderate-sized "independent" label owned by a distribution company, and they have another two albums owed to the label. They're a little ambitious. They'd like to get signed by a major label so they can have some security you know, get some good equipment, tour in a proper tour bus -- nothing fancy, just a little reward for all the hard work. To that end, they got a manager. He knows some of the label guys, and he can shop their next project to all the right people. He takes his cut, sure, but it's only 15%, and if he can get them signed then it's money well spent. Anyways, it doesn't cost them anything if it doesn't work. 15% of nothing isn't much! One day an A & R scout calls them, says he's 'been following them for a while now, and when their manager mentioned them to him, it just "clicked." Would they like to meet with him about the possibility of working out a deal with his label? Wow. Big Break time. They meet the guy, and y'know what -- he's not what they expected from a label guy. He's young and dresses pretty much like the band does. He knows all their favorite bands. He's like one of them. He tells them he wants to go to bat for them, to try to get them everything they want. He says anything is possible with the right attitude.

They conclude the evening by taking home a copy of a deal memo they wrote out and signed on the spot. The A & R guy was full of great ideas, even talked about using a name producer. Butch Vig is out of the question--he wants 100 g's and three points, but they can get Don Fleming for \$30,000 plus three points. Even that's a little steep, so maybe they'll go with that guy who used to be in David Letterman's band. He only wants three points. Or they can have just anybody record it (like Warton Tiers, maybe-- cost you 5 or 7 grand] and have Andy Wallace remix it for 4 grand a track plus 2 points. It was a lot to think about. Well, they like this guy and they trust him. Besides, they already signed the deal memo. He must have been serious about wanting them to sign. They break the news to their current label, and the label manager says he wants them to succeed, so they have his blessing.

He will need to be compensated, of course, for the remaining albums left on their contract, but he'll work it out with the label himself.

Sub Pop made millions from selling off Nirvana, and Twin Tone hasn't done bad either: 50 grand for the Babes and 60 grand for the Poster Children-- without having to sell a single additional record. It'll be something modest. The new label doesn't mind, so long as it's recoupable out of royalties. Well, they get the final contract, and it's not quite what they expected. They figure it's better to be safe than sorry and they turn it over to a lawyer--one who says he's experienced in entertainment law and he hammers out a few bugs. They're still not sure about it, but the lawyer says he's seen a lot of contracts, and theirs is pretty good. They'll be great royalty: 13% [less a 10% packaging deduction]. Wasn't it Buffalo Tom that were only getting 12% less 10? Whatever. The old label only wants 50 grand, and no points. Hell, Sub Pop got 3 points when they let Nirvana go. They're signed for four years, with options on each year, for a total of over a million dollars! That's a lot of money in any man's English. The first year's advance alone is \$250,000. Just think about it, a quarter million, just for being in a rock band! Their manager thinks it's a great deal, especially the large advance. Besides, he knows a publishing company that will take the band on if they get signed, and even give them an advance of 20 grand, so they'll be making that money too. The manager says publishing is pretty mysterious, and nobody really knows where all the money comes from, but the lawyer can look that contract over too. Hell, it's free money. Their booking agent is excited about the band signing to a major. He says they can maybe average \$1,000 or \$2,000 a night from now on. That's enough to justify a five week tour, and with tour support, they can use a proper crew, buy some good equipment and even get a tour bus! Buses are pretty expensive, but if you figure in the price of a hotel room for everybody in the band and crew, they're actually about the same cost. Some bands like Therapy? and Sloan and Stereolab use buses on their tours even when they're getting paid only a couple hundred bucks a night, and this tour should earn at least a grand or two every night. It'll be worth it. The band will be more comfortable and will play better.

The agent says a band on a major label can get a merchandising company to pay them an advance on T-shirt sales! ridiculous! There's a gold mine here! The lawyer Should look over the merchandising contract, just to be safe. They get drunk at the signing party. Polaroids are taken and everybody looks thrilled. The label picked them up in a limo. They decided to go with the

producer who used to be in Letterman's band. He had these technicians come in and tune the drums for them and tweak their amps and guitars. He had a guy bring in a slew of expensive old "vintage" microphones. Boy, were they "warm." He even had a guy come in and check the phase of all the equipment in the control room! Boy, was he professional. He used a bunch of equipment on them and by the end of it, they all agreed that it sounded very "punchy," yet "warm." All that hard work paid off. With the help of a video, the album went like hotcakes! They sold a quarter million copies! Here is the math that will explain just how fucked they are: These figures are representative of amounts that appear in record contracts daily. There's no need to skew the figures to make the scenario look bad, since real-life examples more than abound. income is bold and underlined, expenses are not.

<b>Advance:</b>	<b><u>\$ 250,000</u></b>
Manager's cut:	\$ 37,500
Legal fees:	\$ 10,000
Recording Budget:	\$ 150,000
Producer's advance:	\$ 50,000
Studio fee:	\$ 52,500
Drum Amp, Mic and Phase "Doctors":	\$ 3,000
Recording tape:	\$ 8,000
Equipment rental:	\$ 5,000
Cartage and Transportation:	\$ 5,000
Lodgings while in studio:	\$ 10,000
Catering:	\$ 3,000
Mastering:	\$ 10,000
Tape copies, reference CDs, shipping tapes, misc. expenses:	\$ 2,000
Video budget:	\$ 30,000
Cameras:	\$ 8,000
Crew:	\$ 5,000
Processing and transfers:	\$ 3,000
Off-line:	\$ 2,000
On-line editing:	\$ 3,000
Catering:	\$ 1,000

Stage and construction:	\$ 3,000
Copies, couriers, transportation:	\$ 2,000
Director's fee:	\$ 3,000
Album Artwork:	\$ 5,000
Promotional photo shoot and duplication:	\$ 2,000
Band fund:	\$ 15,000
New fancy professional drum kit:	\$ 5,000
New fancy professional guitars [2]:	\$ 3,000
New fancy professional guitar amp rigs [2]:	\$ 4,000
New fancy potato-shaped bass guitar:	\$ 1,000
New fancy rack of lights bass amp:	\$ 1,000
Rehearsal space rental:	\$ 500
Big blowout party for their friends:	\$ 500
Tour expense [5 weeks]:	\$ 50,875
Bus:	\$ 25,000
Crew [3]:	\$ 7,500
Food and per diems:	\$ 7,875
Fuel:	\$ 3,000
Consumable supplies:	\$ 3,500
Wardrobe:	\$ 1,000
Promotion:	\$ 3,000
<b>Tour gross income:</b>	<b><u>\$ 50,000</u></b>
Agent's cut:	\$ 7,500
Manager's cut:	\$ 7,500
<b>Merchandising advance:</b>	<b><u>\$ 20,000</u></b>
Manager's cut:	\$ 3,000
Lawyer's fee:	\$ 1,000
<b>Publishing advance:</b>	<b><u>\$ 20,000</u></b>
Manager's cut:	\$ 3,000
Lawyer's fee:	\$ 1,000
Record sales:	250,000 @ \$12 = \$3,000,000
Gross retail revenue Royalty:	[13% of 90% of retail]: \$ 351,000
Less advance:	\$ 250,000

Producer's points:	[3% less \$50,000 advance]: \$ 40,000
Promotional budget:	\$ 25,000
Recoupable buyout from previous label:	\$ 50,000
<b>Net royalty:</b>	<b>\$ -14,000</b>

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**Record company income:**

Record wholesale price:	\$6.50 x 250,000 = \$1,625,000 gross income
Artist Royalties:	\$ 351,000
Deficit from royalties:	\$ 14,000
Manufacturing, packaging and distribution:	@ \$2.20 per record: \$ 550,000
<b>Gross profit:</b>	<b>\$ 710,000</b>

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**The Balance Sheet: This is how much each player got paid at the end of the game.**

Record company:	\$ 710,000
Producer:	\$ 90,000
Manager:	\$ 51,000
Studio:	\$ 52,500
Previous label:	\$ 50,000
Agent:	\$ 7,500
Lawyer:	\$ 12,000
Band member net income each:	\$ 4,031.25

The band is now 1/4 of the way through its contract, has made the music industry more than 3 million dollars richer, but is in the hole \$14,000 on royalties. The band members have each earned about 1/3 as much as they would working at a 7-11, but they got to ride in a tour bus for a month. The next album will be about the same, except that the record company will

insist they spend more time and money on it. Since the previous one never "recouped," the band will have no leverage, and will oblige. The next tour will be about the same, except the merchandising advance will have already been paid, and the band, strangely enough, won't have earned any royalties from their T-shirts yet. Maybe the T-shirt guys have figured out how to count money like record company guys. Some of your friends are probably already this fucked.