



# MIKE MATTHEWS

## THE SPECIAL EFFECT AT ELECTRO-HARMONIX

BY WARD MEEKER

**A**s a child of four, Mike Matthews' mother taught him how to play classical-style piano. Formal lessons followed; the child took to the instrument, and performed at elementary-school concerts from the time he was in first grade. His interaction with the instrument led to one of his fondest – and most prescient – childhood memories; as a fourth-grader, he was once again set to show his skills to classmates, but...

"I was a wild kid! I got into some trouble for climbing the rafters, and the teacher punished me by not allowing me to perform. So I quit playing piano."

For the founder of Electro-Harmonix, that rebellious nature not only surfaced early, but later pushed him to discover rock and roll.

"When I was in 11th grade, rock and roll was just starting to get hot, and I started playing around with boogie-woogie licks on the piano, then rock and roll," he said. "Then, when I went to college, one of the first things I saw was an all-black band playing R&B. So I started to play keyboards in that style – funky stuff like Wilson Pickett, early Isley Brothers, 'Twist and Shout.' Nobody did originals until the Beatles, then *everything* changed."

As a way to stay involved in music and make some money for his effort, while still studying at Cornell University, Matthews worked as a concert promoter. Ever-vigilant of the nearby N.Y.C. music scene, as the guitar became dominant in popular music, Matthews saw opportunity as certain guitarists rose to prominence. The sum total of his experience and keen eye were the essential basis in his career direction.

Today, E-H effects are as popular as ever. So popular, in fact, the company has just moved its operation to a new 90,000-square-foot facility overlooking New York's East River.

**When you started Electro-Harmonix, you operated like a lot of boutique amp or pedal builders today – part-**

**time, while you worked full-time for IBM...**

I graduated from Cornell with an undergraduate degree in Electrical Engineering and a Master's in Business Management. I also had a band—a really great R&B band and I was promoting a lot of rock and roll shows in those days, and I was always interested in some business. And I had three nice job offers after college; one was to join Texas Instruments in sales, and at that time they only had a sales staff of six, so it was a great opportunity. I liked Dallas, but IBM gave me an offer to work in New York, and I just felt New York would have more opportunities for me to eventually go into my own business. And I still had the music itch; I wanted to play in a band again, but I also wanted to make money so my wife would have a little nest egg while I was out trying to rock and roll!

**What's the story behind your first pedal, the Linear Power Booster, or LPB-1?**

At that time, Fuzztones were really popular—the Rolling Stones had released "Satisfaction," and Maestro couldn't build them fast enough. But there was this guy, Bill Birco, who ran a repair shop on 48th Street and was making

fuzz pedals. He asked if I wanted to go in with him. One day, though, he suddenly dropped out, and I was left making these fuzztones... well, I didn't actually *make* them, I took them to a contractor. Then, one day, Al Dronge, the founder of Guild Guitar Company, called and said he wanted to buy all of them. By that time, Jimi Hendrix was hot, so Al decided to call them Foxey Lady.

**Hendrix's sound wasn't based on a fuzz tone, so you must have had something else in mind...**

Well, everybody then wanted to emulate Hendrix using his finger vibrato to create this sweet, long sustain.

**So what did you do about it?**

A fellow salesman at I.B.M. introduced me to an inventor at Bell Labs named Bob Myer. I asked him to design a distortion-free sustainer, which in those days, was a very difficult thing. I went to his lab to test a prototype, which had a little box plugged into it. I asked, "What's that little box for?" He said, "It's a simple one-transistor preamp; the output of the guitar isn't enough to drive the circuit. I needed another stage." I plucked the guitar and out came this loud-as-hell clean signal. I turned to Bob, amazed, and that box became the first Electro-Harmonix product – the LPB-1 signal booster.

In those days, if you turned an amp up to 10, it was still clean. But with the LPB-1, not only would it get a lot louder, with extra headroom, but if you continued to turn it up, it went into overdrive. It was the *first* overdrive unit in the market. I sold hundreds of thousands of them.

I then exhibited at my first N.A.M.M. show, I had a room at the Hilton, in Chicago, and people waited in line to see it. Hartley Peavey waited 15 minutes to see what all the fuss was about; he often tells a story of waiting to buy one, taking it back to his shop, opening it up, and incorporating it into his first hit amp!

So I hired a guy to build them and started selling mail-order. Soon after that, I quit IBM.

**Do you get nostalgic about the LPB-1 and maybe other early pedals?**

Well, we still sell a lot of LPB-1s even now, 40 years later. The first thing I did after it caught on was bring out a few other things in that same small box. One was a little overdrive I called a Muff Fuzz, because of its muffled sound. Others included the Screaming Bird Treble Booster, the Mole Bass Booster, and later came the Big Muff. I called it the Big Muff because by then we'd established the Muff name – and *yes*, I was goofing with the name!

A lot of stars use the Big Muff, like David Gilmour of Pink Floyd, and even Hendrix bought one early on. The Big Muff Jimi bought was at Manny's Music. I knew Jimi, so I went over to where he was recording, and sure enough, he had one on the floor, plugged in.

People still love that old sheet-metal packaging in a die-cast box.

**Is there a particular pedal you view as a company cornerstone?**

Well, we have about 70 pedals, including some very popular ones like the Holy Grail, Cathedral, and the POG II. I'd say right now, the POG II second-





Matthews with George Clinton.



Matthews lends a funky piano groove to a recent jam.

generation octave generator is a bigger seller than the Big Muff.

**Do you have a personal favorite?**

My favorites are the ones that sell (laughs)! If musicians dig it, and it sells... it all still comes down to business. Unless you make pedals that sell, you won't have the money to come up with new stuff. And I guess one of my best skills is picking the right product—the next thing to go after. I have a pretty good percentage of pedals that have become successful. It's easy to start designing complicated stuff that goes on forever in design, then doesn't sell, so I try and stick to simple ones.

**How did you get involved in making vacuum tubes?**

In 1979, I got an invitation to do an exhibit at the first trade show in Russia open to Western companies. Usually, I'd take just a guitar player to demonstrate pedals, but that time I took a whole band! This was a *huge* trade show, it was scattered over several buildings in Sokolniki Park, in Moscow. We demonstrated product, then three times a day, the band would do a set. When we started playing, the whole fairgrounds closed down and everybody would jam into this one building to see these crazy Americans (laughs)! That gig later led to talking with the Russian companies that made vacuum tubes. It was at this trade show I met the brilliant and beautiful Irusha Bitukova, and she has controlled all my business in Russia ever since.

**Which players, through the years, have done the most to keep E-H effects at the forefront? You mentioned Gilmour...**

I think almost *every* star has used some Electro-Harmonix pedal. John Frusciante, with Red Hot Chili Peppers, used a lot of our stuff. In fact, I met him at a trade show, and he told me, "I want

to thank you." I said, "Thank me? For what?" He said, "Well, years ago, I was a student and I came to the N.A.M.M. show with my teacher, and you were very nice to me. You let me try all the pedals. I've always remembered that." About 10 years ago, as a favor to me, he



spent two days in a studio creating audio demos of the Holy Grail. And Jack White, in the film *This Might Get Loud*, with Jimmy Page and The Edge, was shown using a Deluxe Memory Man. At the very beginning of the movie, Jack takes a board and puts some nails in it, runs a string across it, hammers a pickup onto it, plugs into a Big Muff and an amp, and starts playing. Later in the film, he plays again through a Big Muff.

Gilmour also used a Big Muff, and I'm pretty sure Jimmy Page used an Electric Mistress. There were so many, I forget who used what.

**When you hear certain songs on the radio, do you hear E-H effects?**

Yeah, but it's hard to exactly pinpoint.

Sometimes, though, songs on the radio actually give me an idea of what to go into. Like the last few years in pop music, that auto-tune effect has been really big. So we brought out the V256 Vocoder, which also has autotune. Sometimes I think I hear one of our products – the lick on "American Woman" sounds like a Big Muff to me, but I'm not sure if that's what Randy Bachman

me called and said, "Mike, I need you to do me a favor." I says, "What?" "Well, I got this band, I've got a guy that plays with his teeth, he's really good and I need you to take them for three nights, and I'll give them to you for 600 bucks." I said, "I'm giving you 600 bucks for nothing... people are coming to see Chuck Berry." He said, "Please Mike, I need a favor. You can have them for three nights, 500 bucks." So I figured I'd do him a favor, then he'd owe *me* one.

So, after Chuck Berry did his first set, this other band, Curtis Knight, went on. I went off the stage – I was tired and had to check the gate – when the guys in my backup band said, "Mike, that guitar player is really great."

That's when I met Jimi. He was a very mild-mannered guy – quiet. In those days his style was just a very loose R&B; he didn't develop his more spacey style until he went off to England and changed his name to Jimi Hendrix.

But yeah, we used to hang out a lot. While I was working at IBM, I'd meet Jimi at lunchtime a couple times a week. He had a room in a fleabag hotel in Times Square, a small room with no bathroom, there was a shared bathroom down the hall. I'd go up there and we'd talk music talk about bands and this and that. He was a loner, and I was a loner, but we were best friends for a while. Jimi always had his hair set with these pink curlers.

One night, Curtis Knight was playing a club on the west side, and on break, Jimi was telling me how he wanted to quit, but he was a little scared of Curtis, because he was a gangster. Jimi wanted to have his own band and be a headliner. I said, "If you do that, you'll have to sing." He said, "I know. That's the problem... I can't sing!" And I said, "Well, if you work on it, you can do it. Look at Mick Jagger, look at Bob Dylan, they don't really sing, they just phrase stuff out, and they're great." And I think my encouragement helped him to start singing. He had that same

**"...the lick on 'American Woman' sounds like a Big Muff to me...It's simple, sweet, and my cockatoo always sings along to it!"**

used. I really like the lick. It's simple, sweet, and my cockatoo always sings along to it!

**You mentioned Hendrix. You had a fairly close personal relationship with him, right?**

We used to hang out a lot, going back to when I knew him as Jimmie James. In fact, he invited me to all of his recording sessions in New York City. I met him when I was promoting Chuck Berry and he was the second act with a band called Curtis Knight and the Squires.

**What was the connection? Was it simply that you were the promoter, and so into the music scene?**

I was promoting Chuck Berry and I had him for two nights at this big club in Long Island. Chuck cost a thousand bucks a night and also traveled alone, so the promoter had to get a backup band. I got a friend's band who were really into Chuck's music to play, and I played keyboards. About a week before the gig, the agent who booked Chuck for



style – more about soulful phrasing – he wasn't really a singer.

**Any other favorite anecdotes?**

This isn't directly connected to Electro-Harmonix, but when I played with a band here in New York, this guy who lived in my apartment building named Bobby Colomby jammed with me, and eventually he was one of the founders of Blood Sweat and Tears. He once asked if he could use my loft, which was the first Electro-Harmonix factory, to practice. And they did a couple times. They then rented an adjacent loft where they often rehearsed.

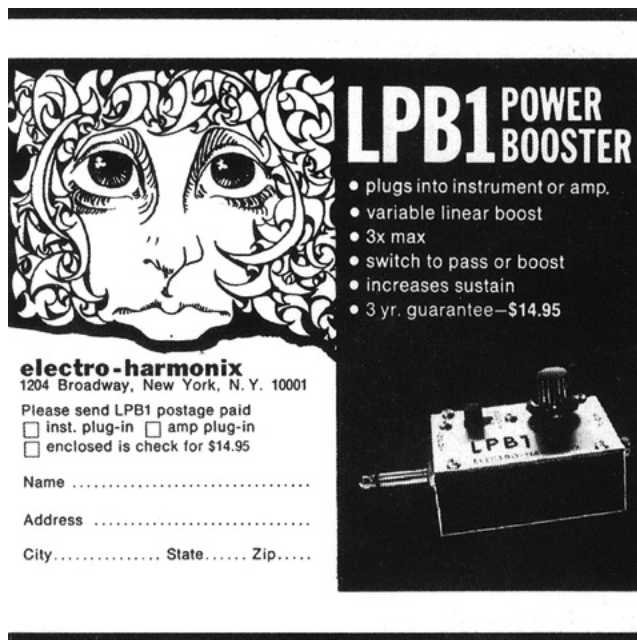
I've had plenty of wild experiences... doing that gig in Russia, fighting racketeers both in the United States and in Russia... and ups and downs. In the early '80s, I went belly-up, bankrupt. At the time, we were developing – and first to have – low-cost samplers. So I introduced the Japanese electronics company Akai to the technology and the designer. They went to dominate the sampler market for many years. I also tried to get them to get into random-access recording. In those days, you could do 16 bits – four tracks – for five minutes. And they said, “No, no, no. You need 16 tracks and 20 minutes.” And if they'd listened to me, they'd be in business today and would have dominated a bigger part of the industry than samplers. But whatever...

**How did that Russian trade show evolve to getting you into amps?**

Before I went to Russia, we were already selling E-H pedals in Hungary, Czechoslovakia, Poland, and Yugoslavia – all communist countries. So I thought we'd do well in Russia. At the trade show, there were a lot of organizations that wanted to buy products, but had no money. So I started thinking on the business side, “Well, they need money. What can I buy from Russia?” So my first idea was low-technology integrated circuits, because I'm a manufacturer. We would use some integrated circuits called Jellybeans, which cost \$.15 to \$.20 each. Then, every year and a half or two, when a new round of integrated circuits would come out, the prices would go up to a buck, two bucks. I figured if Russia made quality ICs, I would be able to make a killing in those cycles. So I bought some ICs,



MattheWS with an original Sovtek amp.



The original ad for the E-H LPB-1.



MattheWS with a ton of pedals in the E-H warehouse.

tested them – they were good, but the pins were a little bit smaller, so you could only push them in by hand, not with automated insertion equipment.

Still, I started developing a market for these Russian ICs. Then, in 1988, I went to visit the central Ministry of Electronics. There, hanging on the wall, was a display of vacuum tubes. And I thought, “Vacuum tubes... those are used in guitar amps.” So I got samples and took them to my friend, Jesse, who designed our early amps, and he tested them. The tubes were good, so I started selling them. At that time, I was all alone – I had the tubes in my apartment and I stopped with the ICs and focused on tubes. That grew really fast, and by the early '90s, the Soviet Union had collapsed, the Russian military-industrial complex collapsed, and they were all looking for work. The tube factory was part of a big electronics conglomerate – they made ICs, they made military equipment, they made digital clocks, and they spun all these different companies into little pieces. The tube factory borrowed money from a Russian bank and couldn't repay it.

They told me, “Mike, either we sell our company to you or we sell it to Groove Tubes, or we just close.”

So that's how I ended up buying the factory. Also, about that time I noticed how the Electro-Harmonix products I made in the '70s were selling at multiples of what I had originally sold them for – the vintage market was beginning. It was amazing, this new market in electronic musical products had evolved. So I hooked up with another Russian military factory in St. Petersburg and gave them the plans for the Big Muff, the Bassballs pedal, and the Small Stone. They then laid out circuit boards, designed chassis, designed a footswitch... And that's how I got back into Electro-Harmonix, and I eventually started making some of the old stuff here in New York City and a lot of new stuff.

Now, it's to the point where Electro-Harmonix pedals are a much bigger part of our business than vacuum tubes.

**Did Jess Oliver design Sovtek amps for you?**

No. Actually one of the early amps,

the Mig 50, was designed by Tony Bruno. It was just really an upgrade mod of an early Fender amp. And the other amps were designed by Russian guys. When I first sold Sovtek amps, the prices were very low and the sound was great. We had orders for thousands. But the Russian mechanical quality was poor and too many of the amps broke and so we lost that opportunity. Eventually, costs went up. So I stopped with the amps and focused on the pedals.

**How long were you making amps?**

The amps were all made in Russia, from '91 or '92 until '96 or '97.

**Day to day, what occupies your time at E-H?**

Well, first of all, I live at the factory...

**...Literally?**

Yeah, I live at the factory, in a small room near my office. There, I have a jacuzzi and weird sleeping habits! Ever since I started going to Russia in the late '80s/early '90s, in those days I went four times a year, and my body clock switched. So I go to sleep around 8 p.m. and then at 11 p.m. or midnight, I wake up for an hour, then go back to sleep for an hour, get up for an hour... I walk to my computer and

answer my foreign e-mail in those see hours of the night.

**Do you spend much time on the factory floor?**

Oh, yeah, I'm constantly monitoring what production is going to do and keep an eye on which products work, how our new designs are progressing. There are about 10 guitar players in the company that check over designs and make valuable comments.

**How many people work in the factory?**

We've got about 70 here in New York in production, shipping, sales, accounting, purchasing and marketing.

**But you're still hands-on.**

I'm very hands on. Some people think I'm a micro-manager. But I'm here 24 hours a day, except on weekends!

**What's next on your plate?**

We just rolled out the Ravish Sitar, and I really dig it. And shortly, we'll unveil a new pedal line that will be as revolutionary as anything we've ever done. They're code-named “Magic,” and all I can say is, don't touch that dial, they're game-changers! VG