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A HISTORY OF BASS GUITAR EFFECTS PEDALS:
LINER NOTES

By
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A PRODUCTION PAPER

Submitted in partial fulfillment of the requirements for the degree of
Master of Music in Commercial Music Performance
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Submitted by David Lloyd in partial fulfillment of the requirements for the degree of Master of Music in Commercial Music Performance.

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Introduction

Bass guitar, to me, has been exactly what it has always been—a stringed instrument that plays low frequencies in order to establish root notes within chords played by any kind of ensemble. When I got my first effects pedal, my perception of what a bass guitar could be shifted. The Boss SYB-5 Bass Synthesizer pedal was my introduction into any kind of bass synthesis. The presets included various sounds—such as octave shifters, envelope filters, and wave-shaping tones—that were very easy to dial in by using a singular knob.

While the possibilities seemed endless, I quickly outgrew the limited controls of the SYB-5. My sights were then set on building a pedalboard with dedicated devices for each sound. This would make it possible to combine effects in a modular sense to further customize tones. Breaking down the most usable components of a synth bass into individual effects pedals, I found that I would need individual gain, phaser, chorus, octave, and envelope filter pedals to maximize the tonal variety.

This project became an ideal opportunity to further research the history of these pedals and their use in commercial music history, so I set out to find the most iconic recordings that use these effects. I then used what I had learned about each effect in order to combine them to create my own synth bass sounds. My hope is that this project will serve as reference material to bassists studying effect pedal technologies.

Track 1: “Think For Yourself”

“Think for Yourself” was recorded in 1965 at Abbey Road Studios (formerly known as EMI Recording Studios). Written by George Harrison for the Beatles, this song was released on December 3, 1965 on the band’s sixth studio album, *Rubber Soul*.

Two bass guitar parts are featured on the song—one clean bass that is panned to the right side, meaning it is only heard out of the right speaker, and one is played through a fuzz pedal that is panned to the left side (Fujita et al. 1993). When listening, pay attention to the right-side speaker to observe a highly-distorted guitar sound. The fuzz bass part played by Paul McCartney was the first time that a dedicated fuzz effect unit was used to process a bass guitar part, as opposed to manipulating other studio equipment to achieve a similar distorted sound. In the years prior, The Beatles experimented with an early version of the Gibson Maestro Fuzztone, the first fuzz-dedicated effects pedal ever made, which can be heard on Keith Richards’s guitar part from The Rolling Stones “(I Can’t Get No) Satisfaction.” However, the fuzz device used on “Think for Yourself” was a pedal unit called “The Tone Bender,” which was personally made by pedal maker Gary Hurst for the group (Lewisohn 1990). These two pedals feature very similar controls, with one knob controlling volume and one knob controlling attack.

In the modern Maestro Fz-M Fuzztone, a switchable control was added to toggle between a “classic” emulation of the original pedal and the “modern” setting, providing a

thicker tone to cover a full range of frequencies. Maestro has also added a tone control knob, which allows the user to sweep through a frequency range to introduce more harmonic treble frequencies, or to enhance the low-end frequency content (Gibson 2022).

To recreate this sound, I used a Fender Precision bass with round wound strings, setting the tone and volume to one hundred percent. I used a plectrum to pick the strings in order to get the same kind of attack on the strings heard in the original recording. I ran my bass signal into my pedal board, and the only active pedal is a fuzz effect.

The fuzz pedal I used is the “Doom 2” by 3 Leaf Audio. The controls on this pedal are a volume knob, gain knob, three equalization knobs (bass, mid, and treble), and two tonal switches. The first switch in position one (clean) passes the full clean signal of the bass along with the fuzz signal, while the second position (bass) filters out the high and mid frequencies of the clean bass sound to combine with the fuzz signal. The result here is a fat, cohesive sound that acts more as a bass-boosted fuzz tone. The second switch has two different tonal characteristics: In position one (labeled ‘you’re’), there is a boost in mid-range presence, while in position two (labeled ‘your’), there is a low-end presence boost with fewer upper harmonics (Doren 2019).

To achieve the fuzz tone utilizing the Doom 2, and using clock face terminology, I set the volume at twelve, the gain knob at eleven, the bass equalization at nine, the mid equalization at five, and the treble equalization at twelve, while the bass switch was set to “bass” and the tone switch was set to ‘you’re.’ The equalization and gain staging that I used best emulated the sound of the Maestro fuzz pedal used to produce the original recording, while the tonal switches helped to eliminate any clean bass tone and introduced more upper mid-range to the fuzz signal.

Once recorded, I used a Pultec EQ audio plugin to boost the frequency at 3 Kilohertz to give the sound a more nasal tonality, and then I followed with an Abbey Road Saturator plugin to emphasize the high frequencies to an extreme degree.

The Beatles' history of sonic innovation, both live and in the studio, is lengthy to say the least. This particular use of one of the first ever "stomp-boxes" helped usher in the modern pedalboard era as we know it and paved the way for creativity to come.

Track 2: “For the Love of Money”

“For the Love of Money” was recorded in 1973 at Sigma Sound Studios in Philadelphia. Written by Kenneth Gamble, Leon Huff, and Anthony Jackson, this song was recorded by The O’Jays for their 1974 studio album *Ships Ahoy*.

This song featured the iconic bass playing of Anthony Jackson, an acclaimed session musician and live artist whose contributions to the innovation of the modern bass guitar are countless. Born June 23, 1952, Jackson started as a pianist before moving to bass guitar. He worked with Gamble and Huff to cowrite both the composition and the lyrics on “For the Love of Money.” On this recording, Jackson used a Fender Precision bass with round wound strings and a plectrum. Jackson’s playing style emphasized the ‘ghost notes,’ which are the notes that he picked that do not have a pitch and are played to fill the space in between the ‘main’ notes. This technique gives the instrument a percussive role in the mix of the song (Jackson 1986).

The signature effect heard on the bass guitar part is the Maestro Phase Shift pedal (Xybil 2020). Maestro was one of the earliest effect pedal companies, and the Phase Shifter was an iconic addition to their lineup. With a limited number of controls, the Phase Shifter is a relatively simple pedal. There are three toggle switches that control the speed of the phasing effect. With each toggle, the speed of the phaser gets faster; one important note is that each switch below the desired speed must be on to use the fastest one. For example, to use the fastest setting, the medium and slow toggle must be on

(Cline 2020). The phaser effect can be heard as a sweeping tone moving up and down the frequency spectrum. This effect can be heard on Jackson's bass part as it takes on the characteristics of a swishing sound. The same effect can be heard on the cymbals of the drum set for reference.

To recreate this sound, I used a Fender Precision bass with round wound strings, setting the tone and volume to one hundred percent. I used a plectrum to pick the string to get the same percussive tone heard on the original recording. I ran the bass signal into my pedal board, and the only pedal active is a phaser effect pedal.

The phaser pedal I used is the H9 Harmonizer Effects Processor by Eventide. This multi-effects pedal boasts several tone shaping and effects options, including phasers, flangers, chorus, delay, and reverb. There are numerous control functions on this pedal, and they are accessible through the Eventide H9 Control Application on iPad. With the selected Phaser preset to 'PHASER,' I adjusted certain parameters to more accurately mimic Jackson's phaser tone. A list of the parameters and the customized positions includes: Intensity—69, Type—Positive, Depth—81, Speed—1.45kHz, Shape—Sine, Stages—2, Depth Mod—0, Speed Mod—1, Mod Rate—1xSPD, Mod Source—Sine. These are far more controls than Jackson had access to with the Maetstro Phase Shifter, but the amount of control makes this pedal one of the best for its customization.

Once recorded, I used a Pultec EQ audio plugin to boost the frequency at 400 Hertz to add lower midrange frequency content, as well as added a large boost at 3 Kilohertz to add more attack and clarity to the sound. I also routed the bass to a reverb auxiliary send for the opening measures.

The sound of the phaser is almost inseparable from the generations of funk music in which it has been used, and those pioneering players helped cement it as one of the essential effects for any pedalboard. Anthony Jackson's utilization of tonality through his use of a plectrum has made "For the Love of Money" one of the most iconic songs to ever use bass guitar pedal effects.

Track 3: “Something About You”

“Something About You” was released in September of 1985 on Level 42’s sixth studio album, *World Machine*. It was written by band members Mike Lindup, Phil Gould, Mark King, Rowland Gould, and Wally Badarou, who also produced it with contributions from the rest of the band.

Mark King, bassist and lead vocalist for the band, has a playing style that is all his own, and his signature slap technique and tone helped establish the slap bass sound of the 1980s. The slap bass technique sees the player using their thumb to ‘thump’ the lower strings on the bass, and they use their index finger to ‘pop’ the string by pulling it vertically away from the fingerboard so that way it pops against the fingerboard when released (Oppenheim 1981). This is a highly percussive technique that highlights multiple portions of the frequency spectrum, both lows and highs. With bright round wound strings on King’s Status graphite basses, his tone could cut through any mix with plenty of clarity and definition. His basses all used active electronics that provide more tone-shaping options, which are helpful for establishing a clear slap tonality. The last element of his signature tone is a chorus effect. The chorus effect is like a phaser, but this effect duplicates the signal at least twice and then modulates each signal in and out of time. The resulting sound is like multiple basses slightly out of tune with each other playing at the same time (Kody 2021).

King has been endorsed by TC Electronics for many years and uses their effects in both live and studio recording environments (King 1992). In an interview with *Bass Player Magazine*, King provided a diagram of his pedal layout, which mainly features a TC Electronics Multi Effects Processor that covers his signature chorus sound. In more modern interviews, he can be seen using the TC Electronics Corona pedal, which is a dedicated chorus effect pedal (King 2017).

To recreate King's sound, I used a Music Man Stingray HH 5 string bass with active electronics and round-wound strings because this is the closest sounding bass to Mark King's Status bass. I set the pickup selector to use both pickups, and I set the EQ knobs to fifty percent treble, twenty-five percent mid, and fifty percent bass. This scoop out of the midrange helps to provide more high-end and low-end clarity without any 'muddy' frequencies in the middle. I used the slap technique on this bass to best emulate King's playing style. I ran my bass signal into my pedal board, and the only active pedal was a chorus effect.

The chorus pedal I used is the 'Bass Chorus Deluxe' by MXR pedals. The controls on this pedal are bass and treble knobs, chorus intensity, rate, and width, as well as a crossover switch and a flanger switch. The crossover switch rolls off the modulation effect below 100 Hertz, which loses the chorus effect in the low range frequencies, so I left it off for the recording. The flanger switch adds an effect that sweeps the whole sound up and down the frequency spectrum, so I also left it off for recording. I left the treble and bass knobs at 'noon' so it would not affect the signal because I already used the EQ on the bass to shape the tone. I set the intensity knob to 100% to maximize the amount of chorus. I set the rate to 'one O'clock,' which sounded like the optimal speed of

the chorus to closely emulate King's tone. Finally, I set the width control to 'three O'clock,' which gave a wide chorus that sounded most like King's tone.

Once recorded, I used an 1176 Compressor plugin to get a more even dynamic response with the bass performance. I then used an API 560 EQ plugin to add more bass and treble frequency at 125 Hertz and 4 Kilohertz, giving the performance more punch and more crisp clarity.

The most obvious way to characterize the sound of the 1980s is the chorus. Mark King, like Anthony Jackson before him, decided to use a unique tonality to emphasize the sound of his effect, slapping the strings in the case. Though many were exploring this sonic palette at this time, King manages to give one of the most iconic performances of his generation in "Something About You."

Track 4: “I’m Gonna Tear Your Playhouse Down”

“I’m Gonna Tear Your Playhouse Down” was written by Earl Randle and first recorded in 1972 by Ann Peebles, then was covered in 1984 by Paul Young and released on his 1985 album *The Secret of Association*. The Paul Young recording will be the focus of this analysis.

This song features the iconic bass playing of legendary live and studio musician Pino Palladino. Palladino’s career has spanned decades and countless genres. His early work in the 1980s with Paul Young established him as a top session musician with a unique fretless bass sound. In the early 2000s, he also worked with D’Angelo on his classic neo-soul album *Voodoo*, as well as John Mayer on his blues trio project.

The bass part of “I’m Gonna Tear Your Playhouse Down” is elevated by the tonality and effects used by Palladino. His signature sound comes from his use of a fretless Music Man Stingray bass, and his fretless tone is often compared to that of Jaco Pastorius (Prown 2021). Both of their tones have come to be known as the most iconic fretless bass sounds—while Jaco’s tone is plucky and nasal, and Palladino’s tone is warm and round.

The effect used by Palladino is an octave pedal, which duplicates his bass signal and transposes it one octave down. This effect essentially adds another sub-frequency instrument to the mix with a synth-like characteristic. The pedal that Palladino used is the ‘OC-2’ made by Boss pedals (Palladino 2004). This pedal has stood the test of time to

become one of the most sought after octave effects due to its unique tonal characteristics that closely emulate modern synth basses.

To recreate this sound, I used a Music Man Stingray fretless bass with flat-wound strings, setting the EQ to fifty percent treble, seventy-five percent midrange, and fifty percent bass. I ran my bass signal into my pedal board, and the only active pedal was an octave effect.

The octave pedal I used was the 'OC-2' by Boss pedals. The controls are very simple, featuring a direct signal control knob, one-octave-down knob, and two octaves down knob. These knobs control the volume of the selected octave parameter, making it possible to blend these signals to a desired level. I set the direct level knob to 50% to provide a consistent dry bass level to the signal, and I set octave one to 50% to introduce an even amount of pitch shifted signal to the dry signal. I set octave two to 0% because there was no super-low octave in the original recording. Between the use of the Stingray fretless bass and the Boss OC-2, this was the most accurate recording to the original in terms of the gear that I used.

Once recorded, I used an 1176 compressor at a 4:1 ratio to get a more even dynamic performance throughout the recording. I then used a parametric EQ to add 8 decibels of gain at 1 Kilohertz to add more midrange frequency content, making it possible to hear the punchiness of the bass part. Finally, I used the Renaissance plugin RBass to add more low-end frequency content, which accentuated the octave-down bass part. I set the controls on RBass to a frequency of 90 hertz, and set the 'intensity' control to -6, which asserts the amount of low frequency compression. These controls were

subtle, but they helped add the depth to the sub bass that was necessary to mimic the tone of the original recording.

The use of an octave pedal in this era was far ahead of its time. The more modern use of an octave pedal is to emulate sub-synthesizers, but the blend of Palladino's clean bass and his effected tone create a new instrument altogether, and has become a popular tone amongst modern bassists.

Track 5: “Them Changes”

“Them Changes” was released by Stephen “Thundercat” Bruner as a single on June 18, 2015, and then on his third studio album, *Drunk*, on February 24, 2017. This track was written by Bruner, Stephen Ellison, Chris Jasper, Ernie Isley, Marvin Isley, O'Kelly Isley, Ronald Isley, Rudolph Isley (Spotify).

Arguably Thundercat’s most commercially successful song, the most integral feature of “Them Changes” is the sample from the Isley Brothers’ 1977 song “Footsteps in the Dark, Parts 1 & 2” (Larson 2015). This two-measure drum intro is sampled and repeated throughout the song to provide the vintage foundation for the single. Bruner’s signature bass tone comes from his six-string Ibanez bass guitar with flat-wound strings. Bruner used a custom model Ibanez six-string semi-hollow body bass for the recording, which was commercially released in 2017. The Ibanez TCB1006 bass has a uniquely dry and ‘woody’ quality that reacts well to the nasal and plucky tone of the back pickup configuration Bruner uses (Johnson 2020).

The addition of an envelope filter completes his iconic tone, which he used both live and in studio recordings. An envelope filter is a tone-altering effect that is controlled by the dynamics produced by the player. As one plays louder, the change in tone gets more intense. Bruner’s envelope filter of choice is the Moogerfooger Lowpass Filter pedal made by Moog (Hirway 2015).

To recreate this sound, I used a Music Man Stingray HH 5-string bass with active electronics and flat-wound strings because it is the closest-sounding configuration to Bruner's signature bass that I can reproduce. I set the pickup selector to use only the back pickup, which takes away the round tone of the bass and accentuates the plucky tonality, and I set the EQ knobs to seventy-five percent treble, one-hundred percent midrange, and fifty percent bass. This configuration further accentuates the nasal characteristics of Bruner's tone. I ran my bass signal into my pedal board, and the only active pedal is an envelope filter effect. It is to be noted that Thundercat must have recorded this bass part as three different parts to process each region of frequency differently as can be heard in the recording, with one low part, one midrange part, and one high part.

The envelope filter I used is the 'Bass Envelope Filter' by MXR pedals. The controls on this pedal are the dry and FX blend knobs, as well as decay, Q, and sensitivity knobs that control the filter. I set both the dry and FX knobs to 'noon' to get equal parts of the unaffected and filtered signal. This makes it possible to hear the bass part clearly while also having the effect still be heard. The decay control sets the endpoint frequency, so at its lowest, the filter sweep ends at a low frequency, and at its highest, the filter remains closed, which only lets the high frequencies through (Dunlop 2012). I set the decay knob to zero percent, which provides the largest span of frequencies that come into play, like Bruner's tone. The Q knob controls the intensity of the effect, so I set it to 'noon,' which I feel dials in the perfect amount of filtering to emulate Bruner's tone. The sensitivity control adjusts the level of attack that the filter is activated by, meaning the higher the sensitivity, the easier it is to activate the filter. I set the sensitivity knob to

100% to capture the most dynamic performance possible, closely emulating the original recording.

Once recorded, I used a Pultec EQ audio plugin in three separate ways, one for each track. For the low track I boosted the frequency at 100 Hertz and rolled off the treble frequencies. For the midrange track I boosted the frequency at 200 Hertz and 3 Kilohertz, while rolling off 4 Kilohertz and above. For the high track, I boosted the frequency at 800 Hertz and at 8 Kilohertz. This combination of EQs divide each track into a unique place in the sonic spectrum, giving a well-balanced blend across the range of hearing. Lastly, I routed those three tracks to a buss compressor (a single compressor that multiple tracks are run through) to get a more even dynamic response, making the pieces sound like one bass part.

Brunner's love for funk music of the 1970s is immediately apparent in all of his productions, but "Them Changes" stands out as a love letter to the tones of Bootsy Collins and other iconic bassists who helped introduce the world to the envelope filter. This bassline is special because of the symbiotic relationship between its inspirations and its innovations.

Track 6: “I Feel Love”

“I Feel Love” was recorded in 1976 at Musicland Studio in Munich, West Germany. Written by Donna Summer, Giorgio Moroder, and Pete Bellotte, this song was released on July 2, 1977 on Summer’s fifth studio album, *I Remember Yesterday*.

Moroder not only cowrote and produced this song, but he also programmed the iconic Moog synthesizer bass part heard throughout, with help from German composer Eberhard Schoener and his assistant Robby Wedel. The Moog modular synthesizer was borrowed from Schoener, and Wedel stayed to assist Moroder in navigating the complexities of the synth. One technique Wedel recommended that helped production was to synchronize the sequencer with a click track. This would help keep the synth part to a grid in perfect sync with the drum tracks.

The Moog was integral to the production of this song because it makes up most of the instruments heard in the track. In fact, the only two components that were played by the Moog were the kick drum and Summers’s vocals. The ‘hi hat’ was made by filtering a sequenced white noise generated by the synth, and then processing it with an envelope. Every other pad synth and lead synth heard are also played by the Moog (Brewster 2017).

One effect used on the bass synth part was to use a single-note delay effect to double the speed of the repeated notes. The single delay was played at the same volume of the original signal in time to imitate sixteenth notes. This would make what was being played as eighth notes originally sound like sixteenth notes, which would synchronize

with the 'hi hat' part. The original synth line was panned to the left side speaker, while the delayed signal was panned to the right side speaker (Reynolds 2017).

To recreate this sound on bass guitar, I used a Fender Jazz Bass with round wound strings, setting the neck pickup volume to zero percent, the bridge pickup volume to one-hundred percent, and the tone to one-hundred percent. This provided the clearest and punchiest foundation to build the synth tone. I used a plectrum to pick the strings to get the most attack and the least amount of roundness in tone. I ran my bass signal into my pedal board, and used a fuzz, chorus, and delay effect.

The fuzz pedal I used is the 'Doom 2' by 3 Leaf Audio, with the gain control set to '9 o'clock,' the bass to 'noon,' the mid to '9 o'clock,' the treble to '100%,' the volume to 'noon,' and the switches to 'you're' and 'bass.' These fuzz settings closely emulate a square wave sound that can be heard on Moog synthesizers. The chorus pedal I used is the 'Bass Chorus Deluxe' by MXR pedals, with the bass and treble controls set to 'noon,' intensity set to one-hundred percent, rate set to 1 'o'clock,' width set to '3 o'clock,' and the flanger and crossover switches off. This chorus amount widens the sound of the square wave bass and makes the bass sound bigger. The delay effect I used came from the 'H9 Harmonizer' by Eventide. The delay preset used a one note repeat, set to the same volume as the original signal, with the tap tempo function set to 123 beats per minute.

Once recorded, I used an 1176 Compressor plugin to capture a most dynamically consistent performance. I used a parametric EQ to high pass filter at 90 Hertz employed a four decibel cut at 600 Hertz, a five decibel boost at 2 Kilohertz, and a five decibel shelf cut at 8 Kilohertz. These compression and EQ settings shaped the tone to mimic the

sound of the original synth more accurately. The last piece was an auto panner set to sixteenth notes which panned the monophonic bass line to each speaker back and forth.

Bass does not always have to mean a stringed instrument, and the advent of the synthesizer and producers like Giorgio Moroder have made that apparent in the commercial music sphere. Translating the iconic Moog sequence to bass guitar was not an easy task, but it is one that I believe can help modern bassists to make better use of combining pedals in sequence.

Track 7: “Cruel Summer”

“Cruel Summer” was recorded in April of 1983, initially released by Bananarama as a single on June 27, 1983. It was then included on their second self-titled studio album the following year. The song was written by band members Sara Dallin, Siobhan Fahey, and Keren Woodward, as well as Steve Jolley and Tony Swain, who also served as producers.

English girl-group Bananarama, made up of Sara Dallin, Siobhan Fahey, and Keren Woodward, saw immense success in the 1980s in the U.K. The band even has a *Guinness World Records* entry for achieving the world's highest number of chart entries by an all-female group (Carr 2010). The group had 30 singles reach the “UK Top 50 Singles Chart” between 1982 and 2009. Their most successful song, “Cruel Summer,” was notably featured in the 1984 film *The Karate Kid*, which helped spread the reach of the band to the United States.

To recreate this sound, I used a Fender Jazz Bass with flat-wound strings, setting the neck pickup to zero percent, the bridge pickup to one-hundred percent, and the tone to one-hundred percent. I used a plectrum to pick the string and get attack and definition. I ran the bass signal into my pedal board, and used a fuzz, envelop, and chorus effect.

The fuzz pedal I used is the ‘Doom 2’ by 3 Leaf Audio, with the gain set to ‘9 o’clock,’ the volume set to ‘noon,’ the bass set to ‘10 o’clock,’ the mid set to ‘4 o’clock,’ the treble set to one-hundred percent, and the switches set to ‘you’re’ and ‘bass.’ The

envelope filter pedal I used is the 'Bass Envelope Filter' by MXR pedals, with the dry set to 'noon,' the FX set to '11 o'clock,' the decay set to 'noon,' the Q set to '10 o'clock,' and the sensitivity set to one hundred percent. The chorus pedal I used is the 'Bass Chorus Deluxe' by MXR pedals, with the bass and treble knobs set to 'noon,' the intensity set to 'noon,' the rate set to '1 o'clock,' the width set to '3 o'clock,' the crossover switch activated, and the flanger switch not activated. This combination of square wave bass fuzz, slight envelope filtering, and moderate chorus accurately emulate the bass synthesizer sound of the synth used on the original recording.

Once recorded, I used an 1176 Compressor plugin at a 4:1 ratio to achieve more even dynamics in the performance. I used a Parametric EQ, boosting six decibels at 125 Hertz and eight decibels at 2 Kilohertz to accentuate desirable frequencies that help shape the tone to resemble the original recording more closely. I used a transient shaper plugin, the 'T-Puncher' by Techivation, to further shape the dynamics for more consistency with each note, like the notes played on a synthesizer would be. Finally, I used a Reverb auxiliary send to add space to the sound and achieve the 1980s reverb tone.

The "Cruel Summer" bass synth was the last tone I needed to learn to have a well-rounded understanding of how to translate synth bass tonality to bass guitar. Where "I Feel Love" is heavy on the attack and very 'cold,' "Cruel Summer" has a fluid timbre. Having both options was imperative to the bass synthesizer tones from the 1980s and onward. Being able to simulate both on a bass guitar was a huge achievement.

Conclusion

At the start of this project, I was initially worried about the undertaking of research to be done involving technical production details in these recordings. It did not take long at all for that worry to turn into excitement. I was intrigued by the lineage of effects pedals, and more enthusiastic to explore new uses for these simple sound modifiers. Players like Tim Lefebvre, Scott Devine, and Ian Martin Allison have been innovating the pedal scene by combining multiple effects in a particular sequence to create a new and unique tone. They fueled my enthusiasm to attempt the same by recording bass guitar covers of songs originally performed by key-bass synthesizers. I even got the opportunity to interview Tim Lefebvre over email, which I have transcribed and included as an appendix to this paper. He gave wonderful insights into his experience with pedals both live and in studio. I must say, I was extremely pleased by the result of the recordings that I was able to reproduce. It was a lot of hard work to meticulously recreate the bass tones from my chosen songs, but it felt more like a labor of love. I have learned so much during this process, not only about the history of the pedals but also about the possibilities that have still yet to be explored. I hope to see even more sonic exploration from bassists in the future, and it would be a pleasure to continue learning from them, as well as doing my part to add to the conversation.

Appendix

Tim Lefebvre is an acclaimed bassist in both the studio and live performance spheres. He played with artists such as David Bowie, Sting, Wayne Krantz, John Mayer, Chris Botti, and Knower, and was a member of the Tedeschi Trucks Band until 2018. Tim has been integrating effects pedals into his sound over the past decade, and they are a featured piece of his musical identity. His trailblazing techniques in bass synthesis made him an obvious dream pick for an interview for this project. Luckily, Roy Vogt was able to connect the two of us over email. This is a transcript of the resulting interview, conducted while Tim was on tour in Europe with Wayne Krantz in December of 2022.

Q: What was your first effect pedal?

A: *I think it was the Boss Chorus given to me by Leni Stern which I then traded for a Boss OC2.*

Q: What was the first song you heard that utilized bass effects that got you interested in pursuing bass pedals?

A: *The sound of Pino Palladino on fretless with the split octave and then Darryl Jones with Sting using the split were the main two influences. "Every Time You Go Away" by Paul Young. "Consider Me Gone" by Sting, and the "Bring on the Night" Movie*

Q: How do you integrate these pedals into your recording and performances today?

A: *While recording, some people want the full on sub sound . . . I always try to talk them out of it though, lol.*

Performance-wise I use it a lot. It really helps build momentum in the music.

Q: What are some factors that you use to determine what pedals make it onto your pedal board?

A: *Sometimes it's the "lugging it around" factor, sometimes it's what the gig calls for. It really varies a lot.*

Q: How much consideration goes into what kind of bass guitar you play when using certain effects?

A: *Usually, my Moollon P is the best when you're building a big chain of stuff. It tracks great and is the most malleable sound. It takes a lot of consideration about what bass to play through what effects. If you're going to be using distortion or fuzz, I always find that a bass with round-wound strings is the best option.*

Q: What effect do you find yourself using the most?

A: *These days it's the Vongon Ultrasheer. It's a vibrato reverb that I track every synth that I have through. It makes a wall of sound. For bass, it's a combo of make sounds loudly or Mantic reverbs, and the Darkglass ADAM Pedal, which is a whole world in and of itself.*

Q: When recording, how do you determine what devices to use to make your sound unique without possibly overstaying your welcome in the eyes of the producer?

A: I think it's more about the bass choice honestly. I try to find a new, unexpected sonic angle on stuff.

Q: What is your preference between using a multi-effects pedal or multiple dedicated pedals on a larger board?

A: Usually, I go with the multiple pedal approach as it sounds and operates more "analog."

Q: How do the tools you use fit in with the use of modern electronic bass sounds in commercial music?

A: I'm not sure they do, lol.

Q: What innovations do you want to see in the future of pedal technology?

A: I'd love to have someone develop some filters that are only found on software plugins or synths, like serum. You just can't make that sound with any of the pedals that I know of.

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