With the Power of Soul: Jimi Hendrix in Band of Gypsys

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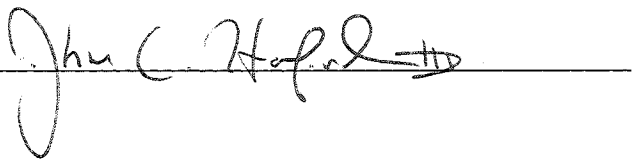
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Abstract

WITH THE POWER OF SOUL: JIMI HENDRIX IN BAND OF GYPSYS

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Jimi Hendrix's work in Band of Gypsys marked an important stage in his later, post-Experience career. The live recording of *Band of Gypsys* is a showcase for Hendrix's skills as an improviser and live performing artist. Moreover, analyses made of the four Hendrix pieces included on *Band of Gypsys* show the composer exploring new musical concepts while he is also drawing on traditional stylistic resources.

In addition to focusing on the recordings of "Who Knows," "Machine Gun," "Power to Love," and "Message to Love," this dissertation also uses *Band of Gypsys* as a platform from which to view Hendrix's larger musical language, exploring aspects of its rich synthesis of traditional and novel stylistic elements.

Chapter I gives general historical background relevant to the formation of Band of Gypsys.

Chapter II, organized under several topical headings, gives an overview of the highly personalized style that Hendrix developed in both the Jimi Hendrix Experience and Band of Gypsys. In addition to giving information about Hendrix's equipment and playing techniques, Chapter II deals with signature guitar licks, chords, and other characteristic ways in which Hendrix organizes pitch materials as both composer and

improviser. Historical information and representative examples from select recordings accompany the treatments of stylistic elements and playing techniques.

Chapter III analyzes "Who Knows" and looks at the piece's performance, stylistic mixture, and possible links to traditional and contemporary sources in blues, rhythm and blues, and jazz.

Chapter IV studies "Machine Gun," a celebrated tour de force and a unique fusion of traditional blues and electronic sound painting.

Chapter V looks at "Power to Love," a complex work whose composition is rooted in an earlier piece by Ray Charles.

Chapter VI investigates "Message to Love," another complex, multi-thematic piece that Hendrix first developed with Gypsy Sun and Rainbows.

Chapter VII concludes the study and offers a critical reappraisal of *Band of Gypsys* as representing a neotraditional work comprising linked traditional and progressive musical features.

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Preface

This study is produced in two volumes. Chapters and text appear in volume 1; appendices containing transcribed musical examples and reproductions of published scores appear in volume 2.

For transcriptions of the performances on *Band of Gypsys*, I have largely relied upon published scores that were produced by Andy Aledort, Steve Gorenberg, and Howard Fields (published in *Jimi Hendrix Band of Gypsys Transcribed Scores*, as given in the List of References). For record release dates and chart positions I have used Joel Whitburn's authoritative set of works (see List of References), unless otherwise indicated. For information on the release dates and chart statistics for British recordings, I have consulted the credited sources by Tony Jasper and Martin Strong. Most of the sound recordings cited in this dissertation are currently available from commercial and library sources.

Biographical information on Hendrix is currently available to the reader in a number of standard volumes, many of which are cited here. However, sources on Hendrix are often contradictory about events and chronology, and there are still many gaps regarding the history and production of Hendrix's recordings. One will welcome the arrival of future biographical research and publications in these areas.

There is considerable confusion in both the literature and published recordings concerning the song and album titles in the Hendrix oeuvre. For example, the title of the original British release of *Are You Experienced* was spelled without the question mark that appears in the title of the American version of Hendrix's debut album. In the

following chapters where it is meaningful to distinguish between the two album versions, the British album will be referred to as it was originally titled; likewise, the American edition of the album will be given as *Are You Experienced?* In addition, I spell the album tracks "Foxy Lady" and "3rd Stone from the Sun" as given on the original British release.

Two pieces on *Band of Gypsys* commonly appear under alternate spellings in Hendrix literature and on various editions of the official record releases; "Power to Love" is sometimes given as either "Power of Love" or "Power of Soul"; "Message to Love" has been titled on various recordings and referred to in the literature as "Message of Love." For the sake of expediency this study will refer to these Hendrix compositions by the most commonly used titles of "Power to Love" and "Message to Love."

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I am indebted to the following people for providing materials, technical support, and historical information: Pernell Alexander; the Bare Roots; Peter Blecha; Bruce Bickford; Burnett Bonow; Tim Bonow; Ken Cole; Ray Cole; Tom Erak; Michael Fairchild; Greg Fulton; John Gibbs; Myra Deborah Hanford; Kim Hanson with Experience Hendrix, L.L.C.; Tim Hughes; Gerard Jones; Terry Johnson; Grant Laughlin; Reed Laughlin; Jim Ojala; Alec Palao of ACE Records; Linda Peragine; L.J. Porter; Neil Rush; Mark Seales; Gary Snyder; Paul Stroh; Dave Voorhees at Bop Street Records; the Fabulous Wailers; and Jimmy Williams. Experience Hendrix L.L. C. has most generously granted me permission to reproduce the transcribed scores that are essential materials for this study.

I am especially grateful to: guitarist and inventor extraordinaire, Vinnie Bell; Jim Fricke; Claudia Jensen; Stuart Laughlin; Sherrilae Chambers and Buddy Miles; John Seman, audiovisual preservationist specialist for the Experience Music Project; and Richard Shurman, blues historian and friend.

Greatest thanks to Professor Larry Starr for his inspiring example—and soul power.

Dedicated to Eloise Elizabeth Hanford

and John Cavanaugh Hanford, Sr.

CHAPTER I: HISTORICAL BACKGROUND TO BAND OF GYPSYS

In a September 1970 interview, Jimi Hendrix (1942–1970) was forecasting an exciting future of musical possibilities to emerge in the post-Beatles era. Indeed, besides the recent breakup of the Beatles, the previous two years had witnessed the demise of several of the defining acts of 1960s rock, including that of the Jimi Hendrix Experience. Despite the loss of the Experience, and his suffering a number of professional setbacks, Hendrix looked ahead and assured fans that "Something new has got to come, and Jimi Hendrix will be there."[1] He was tragically mistaken. Hendrix died within days of sharing his confident vision for the coming era (18 September 1970).

Hendrix, in fact, had been relentlessly working towards his imagined future before it was precluded by an untimely death. Moreover, in making his artistic commitment Hendrix had already faced down formidable challenges, personal as well as professional. The end of the last decade had brought Hendrix mounting financial worries and looming contractual obligations; and, for the better part of 1969, serious legal problems had jeopardized his future.

In the interim period between the releases of the Experience's final effort, *Electric Ladyland* (October 1968) and of the eponymously titled *Band of Gypsys* (April 1970), Hendrix was unable to provide his recording companies with viable new product. As a stopgap measure, Reprise/Warner Brothers marketed a compilation "greatest hits " album; *Smash Hits*, ten of whose dozen tracks were culled from *Are You Experienced? and* early British single B-sides, became one of the Experience's strongest selling LPs.[2] However, other troubles besetting Hendrix would prove more difficult to circumvent.

In 1968, Ed Chalpin, the president of PPX Enterprises with whom Hendrix had signed a slapdash artist's agreement in 1965, threatened Hendrix and his management and record companies with punitive legal action. Hendrix had evidently forgotten about having signed an exclusive contract with PPX until Chalpin resurfaced in 1967, claiming that Hendrix's recordings with the Experience had been made in breach of contract and that PPX was owed substantial compensation. In London, Chalpin instigated legal proceedings to secure a percentage of any subsequent record sales by the Experience. Pending the court's decision, Chalpin's lawsuit froze all royalties coming from the Experience's overseas record sales. In America, Warner Brothers, believing that Chalpin could either make his case or otherwise hamstring Hendrix's career, elected to settle out of court. The agreement reached between Warners and Chalpin in July 1969 obligated Hendrix to provide Capitol Records, which represented Chalpin's interests, with an album of new material. A deadline was set for January 1970.

A new album would not be forthcoming from the Experience, however. Disruptive tour schedules and strained relationships among the band members contributed to undermine the Experience's efforts in the studio. To fulfill Hendrix's obligations to PPX/Capitol, business manager Michael Jeffery (1933–1973) proposed making a live recording of the Experience in concert.[3] However, the days of the Experience were numbered; when bassist Noel Redding (1945–2003) suddenly resigned from the group in June 1969, the original Jimi Hendrix Experience was finished.[4] Hendrix soon announced that his old friend Billy Cox (1941-) would be playing bass for future projects. However, a potentially more serious threat to Hendrix's career than those

posed by Chalpin's lawsuit and the breakup of the Experience had developed during the band's final tour.

In May 1969, authorities at Toronto International Airport arrested Hendrix for the possession of illegal drugs. Released on bail, Hendrix told the press, "I'm innocent, and my lawyers will prove it."[5] However, the charges brought against Hendrix in Canada would take months to resolve. On 19 June 1969, a Toronto magistrate scheduled Hendrix's court date for 8 December. Ten days after the preliminary hearing, the Experience played their last concert (29 June).

It is remarkable that while contending with his financial quandaries, legal nightmares, and the declining fortunes of the Experience, Hendrix kept aggressively searching for new artistic directions. Before the demise of the Experience, Hendrix had begun experimenting with various *ad hoc* ensembles that he would put together in the studio, trying out new combinations of players as well as working on new songwriting material. Such exploratory sessions had produced several tracks on *Electric Ladyland* (1968), including "Rainy Day, Dream Away," and "Voodoo Child." Flush with the success of *Electric Ladyland*, Hendrix began entertaining alternative possibilities to maintaining a regular band with a fixed lineup of musicians:

> It's going to get like the jazz scene where you see an album by [jazz guitarist and session musician] Barney Kessel and his friends. These cats are trying to produce real music. They are jamming together and to hell with the imagery thing. . . This has been happening in the jazz scene for years now. A star, a soloist, gathers some guys around and they groove together. Maybe the group only exists for that one album, maybe they go on for a year or so together, but they don't stretch it out once it's started losing the sheer exuberance of jamming together. You change your style and it's only natural that you should get some new jamming guys round you. I wouldn't want to play with anyone too long.[6]

In 1969 Hendrix would be a "star" gathering "jamming guys" around him for scores of one-off jam and recording sessions. Hendrix directed many of these efforts towards developing fragmentary song ideas. In sessions with other blues-oriented rock musicians, like guitarist Johnny Winter (1943-), Hendrix would also revisit blues and rhythm and blues, using traditional songs as springboards for extended improvisations. But as the statement quoted above would suggest, Hendrix's explorations extended outside of the rock world. In addition to playing with saxophonist Rahsaan Roland Kirk (1936–1977),[7] Hendrix hosted several studio sessions with young jazz musicians who were pioneering the jazz fusion movement.[8] Besides sharing fusion aesthetics for virtuosic improvisation, electronic sound, and rhythmic complexity, Hendrix shared a connection to the movement's *paterfamilias*, trumpeter Miles Davis (1926–1991). In his published memoirs, Davis recounts his relationship with Hendrix, and makes the unique claim to have tutored the younger musician, having instructed him about musical concepts that Davis and saxophonist John Coltrane (1926–1967)) employed.[9] Davis would use several of Hendrix's fusion associates on the groundbreaking album, *Bitches Brew* (1970).[10]

The day before Miles Davis headed into sessions for *Bitches Brew*, Jimi Hendrix led Gypsy Sun and Rainbows through his famous set at the Woodstock Festival of the Arts (18 August 1969).[11] Hendrix's six-member "musical cooperative" evolved out of his post-Experience jamming experiments, and at Woodstock the group premiered a number of new songs and jazz-inspired instrumental compositions by its leader. Following a compère's mistaken introduction announcing the "Jimi Hendrix Experience," Hendrix tried to clarify matters for the Woodstock audience: "We got tired of the

Experience . . . So, we decided to change the whole thing around—and call it, Gypsy Sun and Rainbows. For short, it's nothin' but a band of gypsies."[12] Indeed, Band of Gypsys would be founded close on the heels of its short-lived predecessor, and Gypsy Sun and Rainbows would bequeath a significant part of its original repertoire to the new band.

In founding Gypsy Sun and Rainbows, Hendrix had espoused the hope of establishing a "family thing," a musical cooperative that would be in tune with a set of vaguely defined spiritual and social ideals.[13] Hendrix's first recruit was bassist Billy Cox, whom he had known since 1961, when they were fellow paratroopers stationed at Fort Campbell, Kentucky. Following their military discharges, Hendrix and Cox played together in various rhythm and blues bands, performing around the greater Nashville area before Hendrix set out on his own as a traveling freelance musician.[14]

Hendrix and Cox began meeting in private rehearsal and recording sessions after they renewed contact in April of 1969. Shortly before the breakup of the Experience, Hendrix had mused over the possibility of teaming up with Cox and the Buddy Miles Express, for whose recently released *Electric Church* Hendrix had received producer's credit.[15] Following the Experience's final concert, however, Hendrix retired to a rented house in Shokan, New York.

The "Shokan house" quickly changed from a quiet retreat to an active musical laboratory, where Hendrix and Cox started running over ideas for songs and holding jam sessions. As events unfolded, Hendrix and Cox formed the nucleus around which Gypsy Sun and Rainbows would coalesce. Notwithstanding the storied accounts of rock star

excess that Hendrix and his group visited on the quiet upstate hamlet, Billy Cox insists that the work done at Shokan was fruitful:

> The time Jimi spent up at the house was very productive. He had broken away from the Experience and was able to place his focus on creating new ideas . . . intricate things which no one else would know except for those of us who had to play them. We weren't just jamming.[16]

Cox had been helping Hendrix to develop "new ideas" since the pair had reunited that spring. Evidently, Hendrix's friend played the role of a sounding board for songwriting efforts, and Cox has stated that he collaborated with Hendrix in creating riffs and melodic patterns that formed the bases of many new compositions. Subsequent chapters will show that song ideas that Hendrix and Cox labored on both before and during the time of Gypsy Sun and Rainbows would bear fruit in the repertoires of Band of Gypsys.

Neither Hendrix's Woodstock audience nor his record-buying public would hear much of what he and Cox had been putting together. To flesh out the two-and-a-half hour set, Hendrix fell back on older material, balancing nearly every new composition with a song taken from the Experience repertoire.[17] Only a handful of edited performances from the Gypsy Sun and Rainbows set came out on the soundtrack albums *Woodstock* and *Woodstock Two*, and the poorly engineered recordings gave little evidence of the more complex works that Hendrix was putting together with the group.[18] Omitted altogether was the band's ragged performance of "Message to the Universe," one of the "intricate things" that Cox proudly recalled. However, a revised version of

Hendrix's composition would appear, re-titled "Message to Love," on the Band of Gypsys' debut album.

Hendrix's "scene" with Gypsy Sun and Rainbows would be a brief one. After the group's ramshackle debut and a failed effort in the recording studio, Hendrix evidently lost confidence in the project and cancelled a set of upcoming concert dates.[19] Barely a month after Woodstock, Hendrix's musical cooperative disbanded. From this point, events leading to the formation of Band of Gypsys unfolded quickly. Hendrix summoned the barely relocated Billy Cox back from his Nashville home to join Buddy Miles (1947-) for a session in New York. The trio started regularly jamming together in the city's Record Plant Studios, and, inevitably, plans for starting a band emerged.

Some months earlier, Michael Jeffery had contemplated making a live recording of the Experience with the objective of satisfying Hendrix's obligation to PPX/Capitol. Now, the idea of producing some kind of product to retire Hendrix's debt became a rallying point for the new joint effort. Billy Cox remembers that Hendrix "came up with the concept that we would try something outside of the Experience."[20] Buddy Miles would spearhead the project. Once the idea to form a band was agreed upon, Miles states, "Jimi looked to me to put it together."[21]

Hendrix's professional and personal relationship with Buddy Miles had deepened since the pair had renewed their acquaintanceship at the Monterey International Pop Festival in 1967; they had first met in 1964, when Hendrix was employed by the Isley Brothers and Miles was a backup musician for Ruby and the Romantics. In the 1960s, Miles played with various rhythm and blues acts on the chitlin circuit, and for a time had held the drum chair for soul singer Wilson Pickett (1943-). As drummer and featured

vocalist for the Electric Flag, Miles gained a wide exposure to the FM-oriented rock audience. Performing at Monterey with the Electric Flag, Miles witnessed Hendrix's transformation into an international rock star and counterculture hero. Subsequent to Monterey, Miles made a memorable cameo on Hendrix's *Electric Ladyland*, where he contributed the lazily solid drumming on the companion tracks "Rainy Day Dream Away" and "Still Raining, Still Dreaming." Hendrix frequently sat in with the Buddy Miles Express, and, early in 1969, had found the time to produce tracks for the band's *Electric Church* album. Miles also joined Hendrix for some of his forays into jazz fusion, and after disbanding the Express, Miles would postpone resuming record making under his own leadership for the opportunity of playing with Hendrix in Band of Gypsys.

The name of Hendrix's new trio represented another set of ideas that had been floating around for some time. A former member of the Experience road crew credited drummer Mitch Mitchell (1946-) with having coined the namesake phrase during a 1968 tour; a reportedly exasperated Mitchell characterized the parade of well-wishers and hangers-on that crammed themselves into the Experience's hotel rooms as a "fuckin' band of gypsies."[22] Hendrix evidently filed Mitchell's colorful epithet away in his memory along with the other musical and lyrical ideas that he would tap for musical and poetical compositions. However, "gypsy" imagery had been circulating through Hendrix's songs and poetry since the early days of the Experience (e.g., "Little Miss Lover," "Voodoo Chile," and "Gypsy Eyes").[23] The archetypal fortune tellers and enchantresses that attracted Hendrix were common motifs that had prophesied and charmed their way through the idioms of post-War rhythm and blues he had grown up with and to which he had contributed.[24] Other influences may have been more personal

in nature. Kathy Etchingham (1946-), Hendrix's English lover, was of Romani extraction and may have inspired the song "Gypsy Eyes" ("Oh I realize that I've been hypnotized, I love you Gypsy Eyes").[25] In interviews and in his songs, Hendrix romanticized his vagabond, "gypsy" lifestyle: "If I'm free, it's because I'm always running," Hendrix is quoted as having said.[26] The freewheeling ethos that he epitomized for his fans, alloyed with the magical evocations of his music and his "daemonic" instrumental prowess, fed into Hendrix's mythology to the extent that the standard biography bears the title: *Jimi Hendrix: Electric Gypsy.*[27]

As Band of Gypsys began to take shape, Hendrix and Miles turned to producer and record executive Alan Douglas for assistance in organizing their project. Douglas had formerly worked in the studio with Buddy Miles during the production of British fusion guitarist John McLaughlin's debut American release, *Devotion.*[28] Although their professional circles intersected at several points, Hendrix seems to have first known Douglas on a social basis.[29] According to Alan Douglas, it was sometime in late September 1969 when he accepted Hendrix's invitation to come lend both a critical ear and advice as to how better to organize the Band of Gypsys sessions.[30] As president of Douglas International Corporation, Douglas brought along some impressively "hip" credentials, having at one time produced or supervised record releases by respected jazz artists, including John Coltrane. Douglas's corporation published books and spoken records by social satirist Lenny Bruce (1925–1966) and black activist Malcolm X (1925-1965). The producer remembers Hendrix as being particularly impressed by his having recorded Muddy Waters (1915–1988).[31]

Douglas later described the scene at the Band of Gypsys' first Record Plant sessions as "chaos." [32] While Hendrix, Cox, and Miles jammed away for hours on end, there was no one helping to direct their musical efforts, nor anyone supervising the technicians and activities in the studio. Douglas and his assistant producer and engineer Stefan Bright volunteered to help guide the project. In October 1969, they booked the group into Baggy's Studios, a bare-bones rehearsal facility located in Manhattan. With Douglas and Bright acting as co-producers, Band of Gypsys began to assemble their repertoire. It was during the October sessions at Baggy's that "Power to Love," "Message to Love," and "Machine Gun," along with several other pieces that would form the core of the band's material, began to take shape.

In November, Douglas blocked out session time at the Record Plant Studios. As the recording sessions for a possible album got underway, Douglas's New York office became the unofficial headquarters for Band of Gypsys business operations. "The Band of Gypsys were [sic] put together in Douglas's office," Buddy Miles recollected,[33] and it was to Alan Douglas that record executives from Warners Brothers communicated their growing concerns over Hendrix being able to honor his contractual deadlines. Warners was also troubled about the exceptionally expensive bills for studio time that were being forwarded to their accountants—with, as yet, no finished product to show from Hendrix.

After spending nearly a month in the Record Plant, the Douglas-Bright production team had overseen the recordings of several demo tracks. However, the sessions had yielded no finished recordings, nor even any finished basic tracks. Douglas has reported that his efforts in the studio were frustrated by Hendrix's obsessive perfectionism and by the band's propensity for desultory jamming. In a formal letter of resignation as

Hendrix's "unofficial" spokesperson and producer, Alan Douglas reportedly listed Hendrix's evident "disinterest" as a reason for his leaving.[34] Douglas's detractors, including Billy Cox, have faulted Douglas's and Bright's lack of authority in the studio and their shallow understanding of Hendrix's music.[35]

One might consider any alleged "disinterest" or distraction on Hendrix's part in light of his approaching trial in Toronto, whose proceedings were to start on 8 December. His acquittal on all charges left Hendrix free to retrain his sights on making the end-of-year deadline for Capitol. At this late date, recording a live album remained the only feasible solution. Concert dates at a suitable venue were already in place. Rock impresario Bill Graham (1931–1992) had previously contacted Alan Douglas about having Hendrix's new band headline a special New Year's Eve celebration at New York's Fillmore East. Contracts for a set of four concerts to be held on the evenings of 31 December 1969 and 1 January 1970 were signed on the day that Douglas tendered his resignation (4 December); a rider in the agreement had indemnified Hendrix should he have been forced to spend New Year's in a Toronto jail cell.

Shelving their plans for making a studio-produced album, Band of Gypsys again cloistered themselves in Baggy's Studios where they began rehearsing a program for the Fillmore. Hendrix stated that the band practiced twelve to eighteen hours a day in preparation for their debut.[36] Among the new original compositions that both Hendrix and Miles contributed, the Band of Gypsys' play lists also included Experience hits like "Fire" and "Voodoo Child (Slight Return)," re-worked pieces taken from the Gypsy Sun and Rainbows' repertoire, and a cover version of "Stop," a 1968 hit by soul singer

Howard Tate (1938-).[37] Buddy Miles, however, remembers confronting the challenges of Hendrix's new music at the rehearsals:

> If you really listen to Jimi's music, there are a lot of time changes and different time signatures in the man's music . . . I remember when we were into about the third or fourth days of rehearsals, we had already gone through half of Band of Gypsys songs we were going to play [at the Fillmore]. From there, it was really about improvisation.[38]

With the cooperation of Fillmore manager Bill Graham, Hendrix moved rehearsals into the theater's auditorium. Starting on Christmas Day and running through the week of the engagement, Band of Gypsys spent afternoons going over their set material and jamming on the Fillmore stage. Assumedly, the on-site rehearsals gave Hendrix and the band an opportunity to familiarize themselves with the acoustical characteristics of the capacious, 2,639-seat auditorium. To help ring in the new year and decade, Band of Gypsys rehearsed a tongue in cheek medley of seasonal favorites, comprising instrumental renderings of "Little Drummer Boy," "Silent Night," and "Auld Lang Syne." [39] But the holidays would bring no respite from business worries. An alarming letter from Hendrix's lawyer and financial advisor Henry Steingarten (dated 24 December 1969) apprised his client of mounting debts and impending financial obligations, and reiterated earlier petitions for Hendrix to renew concertizing and album production as soon as was possible. "If you do not take the commitment seriously," Steingarten warned, "your entire career can be seriously hurt, if not destroyed."[40]

Band of Gypsys at the Fillmore East

Programs distributed to Fillmore patrons announced the world debut of Hendrix's new band simply as, "Jimi Hendrix: A Band of Gypsys," with the players' names printed beneath the headline. Inside the Fillmore, Bill Graham's staff provided the New Year's Eve sell-out audience with tambourines in readiness for the midnight festivities. Sound engineers from Wally Heider Recording prepared to record the Hendrix concerts out of a mobile recording facility. Opening for Band of Gypsys was the Voices of East Harlem, a large youth choir that had one time previously performed their gospel-based interpretations of popular songs before a Fillmore audience.[41] Following the Voices of East Harlem and a brief interval, Band of Gypsys began their opening set.

"We didn't know what to expect from the audience and the audience didn't know what to expect from us," Billy Cox remembered, "but from the time we hit the first note, they were in awe."[42] Cox also felt that the audience was awed by the band's celebrity; the name of Buddy Miles, through his stint in the Electric Flag and his lead role in the Buddy Miles Express, was as familiar to any hard-core rock fan as was Hendrix's. Indeed, some may have seen Band of Gypsys as a "supergroup," the term coined earlier that year for Blind Faith, the short-lived merger of ex-members of English bands Cream and Traffic.

Without having a pre-planned song order, Hendrix called out or otherwise cued numbers to his colleagues as the moment struck him. In the event, the band's opening set made a resolute break from the past; not one of the eleven pieces performed by Band of Gypsys represented earlier recordings by the Experience. Instead, Hendrix's new group premiered most of its core repertoire of compositions by Hendrix and Buddy Miles. Hendrix also withheld displays of stage acrobatics and performing "tricks" until reaching the encore of the evening's second show. Echoing his famous Monterey debut, Hendrix capped the evening off with "Wild Thing," and in leading up to it, Band of Gypsys freely borrowed from the Experience songbook during the second show. However, Band of Gypsys' renditions radically changed the tempi, style, and forms of the original hits; the Experience songs functioned more as vehicles for extended, open-ended improvisations. Author John McDermott writes that Band of Gypsys' New Year's Eve performance of "Stone Free," the first song that Hendrix had ever written for the Experience, would come "as close on stage to free-form jazz as [Hendrix] ever would."[43]

Following the New Year's Eve debut and revelries, efforts concentrated on securing a good recording from the second evening's performances. For the first show, Hendrix reportedly stood "stock still" (though film footage shows that he by no means refrained from showing physical expression in his performance) to deliver his stunning performance of "Machine Gun." "Machine Gun" along with five other pieces performed during the pair of New Year's Day shows, would make up the tracks on the *Band of Gypsys* album. From the evidence of the recordings, Hendrix's serious intent rubbed off on his Fillmore rock audiences, who comported themselves with the customary reserve and attentiveness typically attributed to "classical" concert attendees.[44]

"After the gigs were finished, Jimi was quite pleased," Cox states. "We felt the concerts went well, we felt good doing them and Jimi did all of his powerful techniques he could think of."[45] Within two weeks of the concerts, Hendrix began sessions with engineer Eddie Kramer (1942-) to select and mix the Fillmore recordings. Released in April 1970, *Band of Gypsys* was Hendrix's second biggest-selling album during his lifetime, outdone only by the phenomenally successful *Are You Experienced?* while Hendrix lived.[46]

Notes to Chapter I

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[1] Harry Shapiro and Caesar Glebbeek, *Jimi Hendrix: Electric Gypsy*, First St. Martin's Griffin Edition (New York: St. Martin's Griffin, 1995), 446.

[2] Reprise Records released *Smash Hits* (Reprise MS 2025, 1969) in July 1969. The album had a thirty-five week run on the American album charts and peaked at the number six position. (An earlier album release by Hendrix's English label [Track 613004, 1968], bears the same title but has substantially different contents from its American counterpart.)

In 1992, author and Hendrix archivist John McDermott listed *Smash Hits* as being the "most popular release" in the Hendrix catalogue, its combined sales of vinyl and CD versions having equaled those of *Are You Experienced?* See John McDermott and Eddie Kramer, *Hendrix: Setting the Record Straight*, ed. Mark Lewisohn (New York: Warner Books, 1992), 333.

[3] McDermott and Kramer, *Setting the Record*, 162.

[4] Noel Redding and Carol Appleby, *Are You Experienced?: The Inside Story of the Jimi Hendrix Experience*, 2nd ed. (New York: Da Capo, 1995), 130.

[5] Steven Roby, *Black Gold: The Lost Archives of Jimi Hendrix* (New York: Billboard Books, Watson-Guptill, 2002), 149.

[6] The quote from Hendrix appears in Michael Fairchild's notes to the CD reissue of *Electric Ladyland* (MCAD-10895, 1993), 19.

Barney Kessel (1923-), the musician Hendrix esteemed as an artist creating "real music," was an eminent guitarist in the 1950s, 1960s, and 1970s. Kessel was respected by players of rock, R & B, as well as jazz, and his credentials were impressive; accomplished in bebop, sometime accompanist to Charlie Parker as well as Billie Holiday, author of a popular guitar method book, Kessel was also a consummate session musician. In a 1969 interview, producer Phil Spector boasted of using the guitarist on his recordings and once evoked Kessel's name in rebutting the claim that rock 'n' roll records sounded out of tune; ". . . I've never used anybody but Barney Kessel and those kinds of guys, the best musicians," said Spector, "they don't know *how* to play out of tune" (Jann Wenner, "Phil Spector," in *The Rolling Stone Interviews: Talking with the Legends of Rock & Roll, 1967-1980* [New York: Rolling Stone Press, St. Martin's Press, 1981], 75).

In 1968 Kessel took a break from session work to tour as a member of "Guitar Workshop," an ensemble of five jazz guitarists which also included Jimi Hendrix's friend and jazz-fusionist Larry Coryell (1943-) (Leonard Feather and Ira Gitler, *The Encyclopedia of Jazz in the Seventies* [New York: Horizon Press, 1976], 212).

[7] For information about Hendrix's sessions with Kirk, and Kirk's recollection of planning an album collaboration with Hendrix , see John Kruth, "Good-bye To Your Mind," in *Bright Moments: The Life and Legacy of Rahsaan Roland Kirk* (New York: Welcome Rain Publishers, 2000), 214–223.

[8] The fusion musicians whom Hendrix hosted at recording studio jam sessions included: drummer Tony Williams (1945–1997); organist Larry (Khalid Yasin) Young (1940–1978); bassist Dave Holland (1946-); and guitarists John McLaughlin (1942-) and Larry Coryell. All of Hendrix's guest artists would become "stars" in their own right as core players and bandleaders in the fusion movement.

In 1969, fusion was emerging as an international movement (although the term itself would not come into popular use until the 1970s). Fusion's American and British proponents were largely jazz musicians who were trying to find ways to syncretically link their tradition to the sound of contemporary rock music. Fusion was primarily an instrumental idiom that was distinguished by combining the timbres, rhythmic energy, and high volume levels that were characteristic of hard rock, with the scalar and harmonic resources, compositional techniques, and virtuosity more specific to contemporary jazz.

Despite some inaccuracies, Stuart Nicholson's *Jazz Rock: A History* (New York: Schirmer and Prentice Hall, 1998) provides a good overview of 1970s jazz-rock and fusion.

[9] Davis's involvement in fusion is detailed in: Paul Tingen, *Miles Beyond: The Electric Explorations of Miles Davis, 1967–1991* (New York: Billboard Books, Watson-Guptill, 2001).

In his published memoirs, Miles Davis states that Hendrix "wanted to add more jazz elements to what he was doing" and that he expressed admiration for Davis's work on *Kind of Blue* (Columbia CL1355,1959). Davis also remembers Hendrix having expressed feeling an affinity for John Coltrane's "sheets of sound" improvising concept. Davis reports that he tutored Hendrix by demonstrating ideas on trumpet or piano, and by playing recordings. According to Davis, Hendrix "incorporated" the ideas that they went over in their private sessions on his albums, although Davis's account does not offer specific information about the nature of these ideas or on which albums they were incorporated. See Miles Davis and Quincy Troupe, *Miles: The Autobiography* (New York: Simon and Schuster, 1989), 292–293).

Davis's closest professional contact with Hendrix seems to have coincided with Hendrix's involvement with Alan Douglas, producer and head of Douglas records. As recounted below, in 1969 Douglas acted as midwife to the Band of Gypsys project, and also attempted to set up a recording collaboration between Miles Davis and Hendrix.

According to Buddy Miles, at one point during the formation of Band of Gypsys it was anticipated that Miles Davis would be joining the project. Miles recalls that he and Hendrix visited Davis's New York home on many occasions, where Davis would play them outakes from the *Kind of Blue* and *Sketches of Spain* recording sessions (two of

Davis's most celebrated albums). Davis, according to Buddy Miles, expressed an interest in playing with Miles and Hendrix. Buddy Miles also states that in addition to Davis, Hendrix wanted to recruit English musician Steve Winwood (1948-), and if Billy Cox were not able to participate, Jack Casady (1944-), bassist for the Jefferson Airplane. Buddy Miles, telephone interview by author, 9 December 2003.

[10] Sessions for *Bitches Brew* (Columbia GP 26, 1970) were held from 19 through 21 August 1969. Included in Davis's ensembles were the previously mentioned Dave Holland, John McLaughlin, and Larry Young. Besides these musicians, *Bitches Brew* also included Harvey Brooks, former bass player for Bob Dylan and the Electric Flag, who jammed with Hendrix on various nightclub and concert stages.

[11] Gypsy Sun and Rainbows performed at the Woodstock Festival, held in upstate New York, on 18 August 1969. Hendrix's group went by various names during its short existence and it is still referred to in the literature by different titles, including: Sky Church; Electric Church (not to be confused with an album by the Buddy Miles Express that was produced by Hendrix); and Gypsys Suns and Rainbows. Hendrix's musical cooperative evidently planned to conduct business under the rubric of "Heaven Research Unlimited," a "production" name that survived and was printed on the *Band of Gypsys* album cover.

[12] Hendrix's spoken introduction of Gypsy Sun and Rainbows is transcribed from the recording *Jimi Hendrix: Live At Woodstock* (MCA Records, MCAD2-11987, 1999).

[13] See excerpted statements by Hendrix on his "Sky Church" concept for Gypsy Sun and Rainbows in *Jimi Hendrix: Woodstock Recorded Versions* (Milwaukee, WI: Bella Godiva Music, Hal Leonard, 1995), 6.

[14] Through all of 1963 and until June 1966, Hendrix worked as a backing musician to scores of recording artists who were touring the chitlin circuit, the name given to a network of largely unaffiliated nightclubs and performing venues spread throughout the country that catered to black audiences. During this period, Hendrix also performed as a member of the backing bands for the Isley Brothers, Little Richard, Joey Dee, and saxophonist King Curtis.

[15] The Buddy Miles Express, *Electric Church* (Mercury SR 61222, 1969). Hendrix also contributed the album notes to the first Buddy Miles Express album, *Expressway To Your Skull* (Mercury SR 61196, 1969).

[16] John McDermott, Billy Cox, and Eddie Kramer, *Jimi Hendrix Sessions: The Complete Studio Recording Sessions, 1963–1970* (Boston: Little, Brown and Company, 1995), 113.

[17] The Woodstock set included the following songs originally recorded by the Jimi Hendrix Experience: "Spanish Castle Magic"; "Lover Man"; "Foxy Lady"; "Fire"; "Voodoo Child (Slight Return)"; "Purple Haze," and "Hey Joe." In addition, Hendrix performed "Red House," an original blues familiar to fans in the UK, whose recording had only recently been made available to the contemporary American audience on *Smash Hits*.

[18] *Woodstock* (Cotillion SD 3500, 1970), the soundtrack album for a full-length documentary (Michael Wadleigh director, *Woodstock*, 1970), came out nine months after the festival took place. The three-record set featured three performances by Gypsy Sun and Rainbows, including Hendrix's rendition of "Star Spangled Banner," the only work associated with the group that has ranked in status with Hendrix's other most celebrated recordings. The posthumously released *Woodstock Two* (Cotillion SD 2400, 1971), contains another three tracks of edited performances by the group.

To date, no official release has made Hendrix's Woodstock set available in its entirety. However, *Jimi Hendrix: Live at Woodstock* (MCAD2-11987), a double-CD set released in 1999, substantially represents the new musical directions that Hendrix was exploring during the time of Gypsy Suns and Rainbows.

[19] McDermott and Kramer, *Setting the Record*, 220–221.

[20] McDermott, Cox, and Kramer, *Sessions*, 123.

[21] McDermott and Kramer, *Setting the Record*, 232.

[22] Shapiro and Glebbeek, *Electric Gypsy*, 400–401.

[23] In addition to the titles and lyrics represented in the songs given above, written sources and CD releases show that some of Hendrix's demo and unfinished recordings bore the working titles of "Gypsy Blood" and "Gypsy Boy (New Rising Sun)" (e.g., see Sean Egan, *Jimi Hendrix and the Making of Are You Experienced* [Chicago: A Cappella, Chicago Review Press, 2002], 141).

Bill Nitopi's published collection of photographs, and photo reproductions of play lists, song lyrics and outlines, poetry, and movie script ideas, authorized to have been written in Hendrix's hand, show several references to gypsy images and characters (Bill Nitopi, ed. and comp., *Cherokee Mist: The Lost Writings of Jimi Hendrix* [New York: HarperCollins, 1993], 12, 37, 77, 100). (One of Nitopi's photographs, found on page 12, dated from June 1967, shows the backside of one of Hendrix's hand decorated guitars—one evidently awaiting its imminent on-stage destruction at London's Saville Theater—inscribed with a dedication to the "Universal Gypsy Queen of true, free expressed MUSIC.")

[24] Representative examples include: Don Covay's "Mercy, Mercy"; Curtis Mayfield's "Gypsy Woman"; and Muddy Waters's own "Gypsy Woman" and "Got My

Mojo Working," as well as Waters's definitive version of Willie Dixon's "Hoochie Coochie Man." Subsequent chapters will consider Hendrix's historical and artistic connections to these artists.

[25] Etchingham's memoirs are published in Kathy Etchingham and Andrew Crofts, *Through Gypsy Eyes* (London: Victor Gollancz, Cassell Group, 1998).

[26] Scott Isler, ed. and comp., "Jimi Hendrix In His Own Words," *Musician,* November 1991, 44.

[27] *Electric Gypsy*, by Shapiro and Glebbeek, was first published in 1990, and is in its second edition at the time of this writing.

Romantic views of the "drifter" and the "rover" contributed to the mythologizing of country singer Jimmie Rogers (1897–1933) and bluesman Robert Johnson (1911–1938), among others. In the lyrics of rural blues, "gypsies" rub shoulders with root doctors and conjurers, and their magic is associated with the voodoo rituals to which some of Hendrix's songs also allude.

[28] John McLaughlin, *Devotion* (Douglas 3, 1970).

[29] McDermott and Kramer, *Setting the Record*, 233.

[30] Ibid., 231–232.

[31] Roby, *Black Gold*, 137.

[32] Ibid.

[33] McDermott, Cox, and Kramer, *Sessions*, 125.

[34] McDermott and Kramer, *Setting the Record*, 241–242.

[35] Billy Cox has been highly critical of the Douglas-Bright production team, and felt at odds with the band's producers from the outset of the project. Douglas and Bright originally nominated another bass player for inclusion in Band of Gypsys, and evidently wanted to replace Cox after sessions got underway (McDermott and Kramer, *Setting the Record*, 232—233). Hendrix, however, remained loyal to Cox. Hendrix's assurances notwithstanding, Cox has stated that the "bad vibes" he felt in rehearsals both inhibited his own performance and generally poisoned the atmosphere of the early sessions at Baggy's Studios (McDermott, Cox, and Kramer, *Sessions*, 125).

Sound engineer Tom Erdelyi (1952-) remembers Douglas and Bright as offering no substantial musical direction during the Record Plant sessions. Statements by Erdelyi also state that no one in the studio "seemed to understand what Hendrix was trying to accomplish" (ibid., 126). (After his stint as second engineer at the Record Plant, Erdelyi would gain greater notoriety as "Tommy Ramone," the drummer for the rock group, the

Ramones.) Gerry Stickells, former road manager for the Experience, shares Erdelyi's opinion that Hendrix's "producers" were ineffectual, and feels that Hendrix really held the responsibility for producing the band himself (McDermott and Kramer, *Setting the Record*, 240).

In the war of words that has ensued over the years, Alan Douglas has registered criticisms of both Cox and Miles, stating that Hendrix's vision and the band's progress in the studio were hampered by his Band of Gypsys colleagues. According to Douglas, Cox and Miles needed to "grow and expand [their] range" and imagination beyond providing a basic rhythm and blues-flavored accompaniment if they were to fully complement Hendrix's genius (ibid., 240).

One suspects that through the succeeding decades since Hendrix's death, estimations of Alan Douglas's role in Band of Gypsys may have become clouded by his scandalous management of the Hendrix tape archives during the 1970s and 1980s.

[36] Johnny Black, *Jimi Hendrix: The Ultimate Experience* (New York: Carlton Books, Thunder's Mouth Press, 1999), 215.

[37] "Stop" (Verve 10573, 1968), recorded by Howard Tate, was written by producer Jerry Ragovoy (1930-) and Mort Shuman (1936–1991).

[38] The quote from Buddy Miles appears in John McDermott's CD notes to *Jimi Hendrix: The Baggy's Rehearsal Sessions* (Dagger Records, 008 112 956-2, 2002), no page numbers given.

[39] In 1999, Experience Hendrix, L.L.C., issued *Jimi Hendrix: Merry Christmas and Happy New Year* (MCA 088 155 651-2), a demo recording made of Band of Gypsys rehearsing the Holiday medley at Baggy's Studio in December 1969.

[40] A photocopy of Steingarten's letter to Hendrix, dated 24 December 1969, is shown in McDermott and Kramer, *Setting the Record*, 330–331.

[41] Amalie R. Rothschild and Ruth Ellen Gruber, *Live at the Fillmore East: A Photographic Memoir* (New York: Thunder's Mouth Press, Avalon Publishing, 1999), 144.

[42] The quote from Billy Cox appears in John McDermott's CD notes to: *Hendrix: Live at the Fillmore East* (MCAD-211931, 1999), no page numbers given.

[43] McDermott and Kramer, *Setting the Record*, 247.

[44] In his published memoirs, Bill Graham credits himself with having goaded Hendrix into abandoning his showmanship for the sake of concentrating on his musical performance at the Fillmore dates. Graham states that he confronted Hendrix between the New Year's Day shows, and after Graham frankly criticized Hendrix's early

performance, Hendrix gave the Fillmore audience—and Wally Heider's tape recorders—the "*real* thing" in the second show (Bill Graham and Robert Greenfield, *Bill Graham Presents: My Life Inside Rock and Out* [New York: Doubleday, 1992], 302–304). However, Hendrix scholars fault Graham's memory about the incident, and dispute his low estimation of the early show. Indeed, Graham's assessment is impossible to reconcile with Hendrix's staggering first-show performance of "Machine Gun." Moreover, Hendrix had already shown at Woodstock and in other concerts, as well as on the opening night at the Fillmore, a more serious stage demeanor.

[45] McDermott, notes to CD *Hendrix: Live at the Fillmore East.*

[46] *Are You Experienced?* (Reprise RS-626, 1967; as was previously stated, the American version included the question mark in its title; the original, British version issued on Track Records, did not) lasted over two years on the Billboard Top 200 album chart, peaking at the number five position and staying in the Top-40 roster for a seventy-seven week stretch. The Experience's debut album would still be in the charts and competing in the Top-10 with the group's third and final LP, *Electric Ladyland*, issued in the fall of 1968.

Capitol Records' original release of *Band of Gypsys* (Capitol STAO-472, 1970) remained in the album charts for sixty-one weeks. According to John McDermott's liner notes to the 1997 CD reissue (*Band of Gypsys,* EMI-Capitol, Experience Hendrix, L.L.C., 1997), sales of *Band of Gypsys* had exceeded figures for any of Hendrix's other albums except those for *Are You Experienced?*, prior to Hendrix's death in September 1970.

CHAPTER II: HENDRIX'S SOUND: TECHNOLOGY, PLAYING TECHNIQUES, AND STYLISTIC VOCABULARY

When Jimi Hendrix burst onto the international scene with the release of *Are You Experienced* (1967) he immediately distinguished himself from other leading figures in rock by his brilliant and singular virtuosity on the electric guitar. Hendrix's playing was staggering for both its originality and its full command of idiomatic expressions in rock, blues, and rhythm and blues. Most astonishing, though, was the array of new sounds coming out of his guitar; sounds that were overtly electronic and "futuristic" but primal in their affect. Weirdly beautiful, and sometimes of fearsome intensity, they passed by all understanding of conventional frames of reference for guitar playing. The publicity notes printed on the jacket sleeve of *Are You Experienced?* promised Hendrix's new audience that after listening to the recording they would "hear with new ears." Certainly that debut album and the subsequent releases by the Experience did, indeed, introduce listeners to a world of new possibilities for both guitar performance and studio production. Yet for all of its uncanny novelty and an unmistakably radical intent, Hendrix's new sound was immediately appreciated as being highly musical and for having kinships with other styles of music.

Some of what Hendrix was up to was curiously familiar to those musicians who could recognize, even if they could not immediately *identify*, the sounds of toggled pickup switches and of strings rattling on fretwire—noises that, heretofore, had been carefully expunged from the polished "professional performance." But along with discovering musical expression in these rogue sounds and noises, Hendrix's other great

achievement was to give them convincing forms and contexts; these were the songs and the soundscapes whose typically fantastic lyric imagery was ideally expressed in the extraordinary sound of the Jimi Hendrix Experience. At the time of the Experience's third album release, *Electric Ladyland*, critic Albert Goldman wrote that it was Hendrix's sound " . . . that [identified] him as an artist—rock's most resourceful noise sculptor."[1]

In addition to a new spectrum of sound, Hendrix also brought a unique synthesis of styles, a diverse stylistic mixture that included, along with the novel elements, inherited resources that he drew upon for both his playing and songwriting. Some elements bear the stamp of the acknowledged influences of Bob Dylan (1941-), Muddy Waters, and Curtis Mayfield (1942-1999). On a larger scale, one can also hear stylistic elements and formal structures that belong to a widely shared repertoire of blues-based musics. But with Hendrix, especially, what is traditional can be so thoroughly modified and transformed that one no longer associates elements of style with their idiomatic origins; one now hears them in the context of Hendrix's new world of sounds and images.

With Band of Gypsys, Hendrix would harvest and expand playing skills and idioms that he had developed in over three years of concertizing and recording with the Experience. Band of Gypsys' Fillmore audience was also seasoned, and by the time of the New Year's Day 1970 concert, Hendrix's signature sounds and riffs had become archetypes for the thoroughly "experienced" ears of his fans. However, while Band of Gypsys would revisit some of the Experience's "old" repertoire, Hendrix, who was flush with an expanded cache of electronic signal processors, would also unveil some new sonic alchemy at the Fillmore debut.

In terms of the playing techniques and stylistic elements represented in *Band of Gypsys*, the analytical discussions put forth in following chapters will chiefly focus on Hendrix's performances. To better prepare the reader for the analyses in chapters to follow, the present chapter gives information on sound equipment and several playing techniques that contributed to Hendrix's instrumental sound. This information will provide essential background for those with little or no familiarity with the terminology, technology, and playing concepts that are related to rock, blues, and rhythm & blues guitar styles. The entries appearing under the headings of "Basic Equipment," "Electronic Signal Processing," and "Extended Playing Techniques" will also treat historical trends and innovations that gave Hendrix the tools he developed and that otherwise shaped the musical landscape in which his ideas took root and flourished. The headings "Harmonic Vocabulary and Intervallic Designs" and "Aspects of Hendrix's Melodic Language" identify and trace the development of some of the more idiosyncratic aspects of Hendrix's pitch language. "Styles and Idioms of Soul Guitar" discusses an essential part of Hendrix's instrumental style that he helped to develop as part of a loose-knit musical community and movement that arose in the middle 1960s. In addition, "Distinctive Forms: Hendrix's Sound Paintings," will briefly consider a range of compositions and performances of a type that was unique to Hendrix and that reflects an important part of his musical language. The historical notes included in these discussions are intended to supplement the more extensive analytical and critical examinations of specific pieces by Band of Gypsys that appear in the following chapters.

Above all it is essential to understand that technology and musical materials are linked elements in Hendrix's stylistic vocabulary. Therefore, the analyses of individual

pieces in later chapters will reflect the fact that Hendrix's sound is experienced in the pairings of a characteristic pitch language—including chords, intervallic structures, and melodic ideas—with similarly characteristic timbral devices and rhythmic ideas. Analysis will also disclose how the articulation of Hendrix's pitch language through signature timbres and rhythmic structures can occur at the level of the individual sound event—as, for example, a single "guitar lick"—or can extend up to the level of shaping the large-scale form of a piece, as one hears in "Machine Gun" and "Star Spangled Banner."

The present chapter's survey is by no means exhaustive and each of the subsequent chapters dealing with individual compositions will introduce additional concepts. I also wish to inform readers that the entries on playing techniques and equipment reflect the my own understanding and knowledge of guitar performance unless otherwise indicated.

BASIC EQUIPMENT: THE FENDER STRATOCASTER GUITAR AND THE MARSHALL AMPLIFIER

THE FENDER STRATOCASTER

> The Stratocaster is the best all-around guitar for the stuff we're doing. You can get the very bright trebles and the deep bass sound.
> —Jimi Hendrix[2]

Although Hendrix played several different makes and models of electric guitars during his professional lifetime, by far his favorite guitar was the Fender Stratocaster.

The Stratocaster contributed many distinctive colors to Hendrix's sonic palette, and its special design was a catalyst for many of his most revolutionary extended techniques.[3]

Fender Musical Instruments unveiled the Stratocaster model guitar in 1954, and the new "Strat" that Hendrix played with Band of Gypsys was in all essential aspects the same instrument as Fender's original edition. As befits its space age moniker, the Stratocaster's asymmetrical and contoured body style had a modernistic visual appeal and made a radical departure in appearance from preceding models of guitars, including Fender's own highly successful Telecaster. Like the Telecaster, the Stratocaster belonged to the new, post-war breed of solid body electric guitars. However, its unique body shape featured a "double cutaway" design that gave an easier access to the upper reaches of the neck and fretboard. An illustration showing the Fender Stratocaster's basic design appears in Example II-1 (Chapter II examples are given in Appendix A).

The Stratocaster's electronic circuitry was equally innovative and boasted a three-pickup configuration, the first ever to be marketed. An electric guitar's pickup acts as an input transducer that converts fluctuations in its magnetic field induced by a vibrating string into an audio signal. The pickup, then, is the means by which a guitar string's vibration is translated into an electronic signal that ultimately can be converted by another set of transducers (an amplifier and speaker system) into amplified sound. On a solid body guitar the pickups shape the sound of the amplified instrument to a great extent. The relative position of a pickup along the string axis is a significant factor in determining the timbral character of the sound output: for example, a pickup that is positioned towards an instrument's bridge will produce a brighter sound, all things being equal, than a pickup that is situated further away from the bridge. Of equal importance to

sound quality are pickup material and construction: the Stratocaster's narrow single-coil pickups produce a bright and focused sound, a tonal quality and responsiveness that was appreciated by the country and western musicians for whom the guitar was primarily designed.

By reason of their different positions the Stratocaster's pickups give three basic timbral choices: selecting the "bridge pickup" gives the brightest timbre; activating the middle position pickup renders a less brilliant, richer midrange color; the "neck pickup," located furthest from the bridge, gives the deepest and fullest sound. Fender engineers added further refinements: the Stratocaster's pickups feature a staggered pole piece construction designed to balance pickup sensitivity to individual strings; and the bridge pickup sits at an angle, slanted toward the bridge, in order to maximize its response for both the treble and bass strings of the guitar (i.e., the pickup position slants closer to the bridge on the treble side and further away from the bridge in relation to the bass strings). A pair of rotating tone controls provides additional timbral shaping and is positioned for quick accessibility, along with a master volume control, close to the Stratocaster's bridge.

Given the Stratocaster's expanded choice of pickup selections, it is surprising that its three-position pickup switch was intended to select only one pickup at a time. By contrast, the circuit designs of dual-pickup electric guitars invariably offered a combination pickup setting. However, guitarists found out that by carefully wedging the Stratocaster's three-way switch into either of two in-between positions, they could link the outputs of adjacent pairs of pickups. These intermediate and so-called "out-of-phase" positions gave a steely edge and percussive snap to bluesman Buddy Guy's aggressive playing style in the mid-1960s.[4] Hendrix, however, would employ these same settings to

obtain a chime-like clarity for his Curtis Mayfield-influenced ballads (see entry below, *The Curtis Mayfield Guitar Style*).

To understand something about pickup function and characteristics will be important for analyzing Hendrix's performances on *Band of Gypsys*. Changing among different pickup selections reflects a fundamental musical choice for the guitarist, as significant as an organist's choice of registration. In live performance, Hendrix continuously shifted among his different pickup selections and settings, changing them for specific parts and riffs, and shaping extended improvisations. Moreover, because Hendrix restrung his right-hand model Stratocasters to accommodate his left-handed playing (i.e., by inverting the string order, and, in effect, turning the guitar upside down and around), the direction of the bridge pickup angle was effectively reversed and the original pole piece/string relationships were altered: the shifts in tonal and dynamic response attendant to these changes from Fender's stock set-up played a part in shaping Hendrix's personal sound.

The Stratocaster's other great innovation was its spring-loaded vibrato tailpiece system, a mechanism that allowed the player to create vibrato effects by means of manipulating a lever or "whammy bar" attached to the guitar's integrated bridge and tailpiece assembly. A fuller description of the vibrato tailpiece system will follow in the discussion of Hendrix's extended techniques (see *Vibrato Tailpiece/Whammy Bar Techniques*).

Hendrix explored any and all potential sound-making sources that were inherent in the Stratocaster's design and structure. His more unorthodox extended techniques included tapping on various parts of the guitar's body and neck, ringing the strings

behind the nut, and plucking at a set of tension springs that belong to the vibrato mechanism and that are housed in a cavity on the Stratocaster's backside. Shaking the pickup selector switch back and forth was another characteristic maneuver, although for live performances Hendrix refrained from engaging the switch's "out-of-phase" positions that he so frequently employed in the studio. Extreme high levels of amplification made all of these noises plainly audible and Hendrix applied them in many different musical contexts.

THE MARSHALL AMPLIFIER

> I really like my old Marshall amps, because when it's (sic) working properly there's nothing can beat it . . . It looks like two refrigerators hooked together.
> —Jimi Hendrix[5]

Still photographs, taken of the Band of Gypsys' Fillmore soundcheck, picture Hendrix playing in front of three stacks of Marshall amplifiers.[6] The famed "Marshall stack" comprises an "amp head" (containing the preamplifier and power amplifier components) that is perched on top of two stacked speaker cabinets. Each closed-back speaker cabinet encloses four twelve-inch speakers. Along with guitarists Pete Townshend (1945-) and Eric Clapton (1945-), Hendrix made Marshall amplification synonymous with the "heavy" rock sound that is associated with late 1960s power trios and guitar-based bands. The British-made Marshall line remains an industry standard in rock music, prized for a signature tonal quality and the capacity for producing massive volumes. Musicians also esteem the bulky Marshall stack for its visual effect—a "stage

presence" that is made all the more imposing by a hard rock pedigree that is nearly four decades old at the time of this writing.[7]

The Marshall amp models that Hendrix played evolved, in fact, from twin concerns for both sound and image. In 1965 Marshall engineers in England developed prototype Marshall stacks in response to requests by members of the Who, John Entwistle (1944–2002) and Pete Townshend (bassist and lead guitarist, respectively), for increasingly powerful amplifiers that would also have a commanding look on stage. Marshall's "intimidating" stacked cabinet design—being substantially taller than its American and British counterparts—gave Townshend an additional boon; by having speakers situated at above waist level, the amp's sound output was projected more directly at the held guitar, and thus boosted the potential to generate electronic feedback, a featured part of Townshend's stage presentation (see *Feedback*).

Although the architecture of the hundred-watt amplifier was modeled on that of an American-made Fender design, the combined effects of the increased wattage, sealed speaker enclosures, and European electronic components inevitably gave the Marshall a distinctly different sound. Questions over which components are most crucial for creating the "classic" Marshall sound incite spirited debates among both musicians and sound technicians. However, Marshall's celebrated sonic attributes invariably include the amp's "fat," midrange enriched tone and its capacity for developing a harmonically rich distortion when pushed to higher output levels. Guitarists also value the amp's responsiveness. Turning the volume up or down at the guitar controls the input level that the amp is receiving; one can thus shift from a thickly distorted sound quality to a less distorted, "clean" quality by controlling the level of output from the guitar—turning up

for distortion, or, conversely, lowering the guitar's volume or diminishing the strength of pick attack to clean things up. Marshall amplifiers were especially sensitive in these regards, and Hendrix used the aforementioned techniques most dramatically in live performance. In addition, the combination of Marshall's high power output and sealed speaker cabinet construction gave Hendrix a solid bass response that enhanced the sound of his lowered guitar tunings (see Drop/Slack Guitar Tuning). One source reports that Hendrix liked using Marshall bass cabinets for his guitar, preferring the sound and/or greater durability of their higher-rated speakers.[8]

Hendrix equipped himself with Marshalls soon after arriving in England and forming the Experience in the fall of 1966. Although he often used other types of amps and speaker designs in the studio (he would, for example, use brighter-voiced amps to produce a clean sound for his ballads), and sometimes tried out other makes of amplifiers while touring, Hendrix relied upon Marshall for the majority of his concert tours and appearances. In concerts, he would typically run two stacks simultaneously, linking a pair of one-hundred watt amp heads and pumping their outputs through four Marshall cabinets (amounting to a combined total of sixteen individual speakers). In case of equipment failure, a third stack was also positioned on stage for backup. The volume levels went beyond any precedents for rock 'n' roll. Frank Zappa (1940–1993) recalled that on one occasion when he was sitting in front of Hendrix's Marshall stacks at an Experience nightclub gig, he became "physically ill" from the volume. "And although it was great," Zappa remembered, "I couldn't see how anybody could inflict that kind of volume on himself, let alone [on] other people." [9]

Hendrix may well have been running a linked duet of Marshall stacks for the Band of Gypsys sets at the Fillmore. But however many stacks Hendrix plugged into, the trademark Marshall sound audibly fattens up the Stratocaster's tone on the live recordings, and the amplifier's great power was needed to fuel the explosive feedback pyrotechnics in "Machine Gun."

ELECTRONIC SIGNAL PROCESSING

Throughout his career Hendrix used electronic signal processing devices to color the basic sound produced by his electric guitar and amplifier. Although at one time or another he tried many different makes and models of devices, Hendrix gravitated towards a specific few. These favorite devices comprised both custom made and commercial brands of floor mounted, foot-controlled units. Later decades would refer to these types of accessories as "effects pedals" and "stomp boxes."

Hendrix would route the output signal of his guitar through a series of interfaced effects pedals, mixing different combinations of signal processing by switching the individual units on or off and thus either engaging or bypassing them, respectively, in the signal path. The order in which the series of effects is arranged also influences the colorization of the end-product guitar sound.

According to his colleagues, Hendrix debuted an expanded collection of five signal processors for the Band of Gypsys Fillmore concerts.[10] The kinds of signal processors that Hendrix used with Band of Gypsys, and the likely sequence in which they were connected to one another is as follows:

VOX WAH-WAH PEDAL ⇒ AXIS FUZZ ⇒ ARBITER FUZZ FACE ⇒ UNIVIBE ⇒ OCTAVIA

The individual effect of each of these types of signal processors is explained below; the processors are discussed in the order given above.

THE WAH-WAH/WAH-PEDAL/CRY BABY PEDAL

The wah-wah and "Cry Baby" pedals that Hendrix, Eric Clapton, and Frank Zappa began using in 1967 would, like the fuzztone (see *Fuzztone/Fuzz Box/Fuzz*), become ubiquitous signal processors in rock guitar performance. Hendrix was quick to explore both the timbral and rhythmic possibilities that the wah-wah pedal was capable of producing, and his original techniques using the effect would audibly influence a variety of popular music styles.

The wah-pedal is designed to be interfaced between an electronic instrument and an amplifier. The basic wah-pedal design houses a bandpass filter/sweep equalizer within a metal casing and foot-pedal assembly. After one activates the circuitry by means of a switch, the relative position of the hinged foot pedal controls and shifts the peak resonant frequency that is boosted by the sweep equalizer: pressing the rocker pedal to the full forward position (as one would similarly do to accelerate an automobile) will boost the treble frequencies of the input signal; rocking the pedal back towards the heel of one's foot will boost the lower frequencies. As a player rocks the pedal back and forth, the attendant and gradual sweep of peak resonant frequencies can produce vocal-like sound effects (typically described as a "wah" vowel sound) from the processed

output signal and amplified sound. Left in a fixed position, the activated wah-pedal functions as a tone filter, accentuating whatever frequency or narrow band of frequencies is being selected by the pedal's setting.

Before the advent of electronic instruments, New Orleans jazz pioneers and 1930s and 1940s big band-era musicians used plunger and cupped mutes to produce wah-wah effects on trumpets and trombones. One of the first commercially available models of wah-wah pedals was, in fact, named after Clyde McCoy (1903–1990), a dance bandleader whose wah-wah trumpet style gave a novel appeal to the 1930s hit recording "Sugar Blues."[11] But years before Jimi Hendrix plugged into his Vox "Clyde McCoy" model wah-wah, country & western musicians and a few maverick experimenters had been exploring the sound. Lap and pedal steel guitarists of the late 1940s and the 1950s came up with extended techniques to produce the effect on stock or slightly modified instruments. Having rigged up a prototype wah-wah by modifications that he made to a standard volume pedal, country guitarist and record producer Chet Atkins (1924–2001) featured the sound on his 1959 instrumental recording, "Boo Boo Stick Beat."[12] Like Atkins, legendary session guitarist Vinnie Bell (1935-) constructed his own custom designed signal processors; Bell is revered as an avatar of electronic special effects, and along with his patented "watery" guitar sound, he began developing wah-wah effects as far back as the 1950s ("Jersey Bounce," by the Spacemen [1959]).[13]

Although the older generation of urban blues guitarists who inspired Hendrix and his contemporaries seem largely not to have picked up on the effect, one notable exception was Chicago bluesman Earl Hooker (1929–1970). In the 1950s and 1960s, Hooker was reportedly creating "talking trumpet" effects by manipulating the rotary tone

control on his stock instrument. By late 1968, and despite criticism from some blues purists, Hooker began putting the sound of the recently marketed wah-wah pedal onto wax ("Wah-Wah Blues").[14] In an interview, Hendrix indicated that he was familiar with, and had at some time used the same "pre-pedal" wah-technique that was shared by both Hooker and country and western guitarists.[15] By the time Earl Hooker first recorded with the wah-wah pedal, however, Hendrix had used the effect on the recording sessions for the first three Experience albums, and had already plugged his blues guitar style into the new sound.

After first employing wah-wah to subtle effect in "I Don't Live Today" (*Are You Experienced*), Hendrix would combine blues string bending techniques with his new Vox-issue pedal to craft vocal-like phrases in "Up from the Skies" (*Axis: Bold As Love*). For segments of accompaniment in "Up from the Skies," Hendrix also enlivens the rhythmic expression of full-bodied 7th and 9th chord voicings by synchronizing his pick strokes with sweeps of the wah-pedal; this particular stylistic combination of timbral, rhythmic, and harmonic concepts became a cornerstone approach of post-1960s funk. In other passages Hendrix pumps and flutters the pedal to animate both sustained chords and single-note figures.

Electric Ladyland would reveal more discoveries: to orchestrate the stately ritornello of "Burning of the Midnight Lamp," Hendrix merges overdubs of wah-guitar and harpsichord, the instruments' unison lines fusing into a composite sound image of an electronic "guitarpsichord"; the gossiping wah-wah that opened "Still Raining, Still Dreaming" remains the *ne plus ultra* of parlando expression in rock guitar. The solo guitar introduction to the final track on *Electric Ladyland*, "Voodoo Child (Slight

Return)," wherein Hendrix combines scratch guitar technique with wah-wah (see *Scratch/Chugging Guitar Style*), ricocheted all through 1970s soul (Curtis Mayfield, Marvin Gaye), disco (The Pointer Sisters), and reggae (Bob Marley and the Wailers). The scratch and wah-wah sound pioneered by Hendrix became a cliché in the soundtracks of detective and so-called "blaxploitation" films of the 1970s (e.g., the film scores for *Shaft*, *Trouble Man*, and *Superfly*).[16]

By 1968 the wah-pedal had become a permanent part of Hendrix's equipment and an indispensable component of his sound. For his live work, especially, he would mix the effect with various combinations of his other signal processing gear. For solo passages in "Who Knows" (*Band of Gypsys*), for example, Hendrix adds wah-wah to exaggerate and to otherwise shape a gritty distortion produced by the Octavia. Mostly, though, he would interface the wah-wah with the fuzztone to produce a range of timbral effects. In "Star Spangled Banner," Hendrix uses the wah-wah primarily to boost the treble frequencies of fuzztone distortion in order to create shrill sounding feedback at specific points in the anthem's delivery (e.g., to highlight the subliminally heard text, " . . . for the land of the *free*"). In such applications the pickup selections on the Stratocaster guitar also play a significant role: throwing the wah-pedal to the extreme treble position while switching to the Stratocaster's fuller sounding neck pickup can render a metallic "clang" from individual notes in the lower register; switching to the bridge or treble pickup yields a fiercely bright and biting quality from the guitar's upper register.

Hendrix would also funnel his guitar signal through the hollow sounding middle and bass positions of the wah-wah, and route the filtered signal through the fuzztone. This particular configuration could generate darker hues of feedback, and, as the filtered

roll-off of treble frequencies effectively muted the sound of the pick attack on the strings, Hendrix used these settings to enhance the legato articulation of rushing scalar runs and fast licks.

Many of Hendrix's contemporaries in rock and jazz fusion also cultivated the techniques given above; among them were the guitarists Frank Zappa, Jeff Beck (1944-), Jimmy Page (1944-), Tommy Bolin (1951–1976), John McLaughlin, and Carlos Santana (1947-). In addition to his early and most thorough use of the wah-wah, Hendrix is, perhaps, remembered as its foremost exponent for reasons of his mythic celebrity as well as for his performing of many memorable pieces that prominently featured the effect. (The advertising slogans and model names for countless makes and editions of wah-pedals testify to Hendrix's indelible association with the device.) However, Hendrix's influence on important individual artists is also a matter of record: Miles Davis stated that he plugged his amplified trumpet into the pedal in order to "get closer to that voice Jimi had when he used a wah-wah pedal on his guitar."[17] Many musicians in Davis's orbit similarly plugged in, including keyboardists Joe Zawinul (1932-) and Herbie Hancock (1940-). Indeed, in the 1970s the second generation of wah-wahs and "envelope followers," electronic devices that effectively automated the wah-wah effect, became *de rigueur* accessories for fusion guitarists and keyboardists, as well as for many "electrified" saxophone and trumpet players.

Hendrix also shares some credit with Sly and the Family Stone for the wah-wah's transmission into dance-oriented rhythm and blues and funk. Eddie Hazel's guitar work, incorporating both high energy fuzztone and wah-wah, in George Clinton's Parliament and Funkadelic bands clearly reflects Hendrix's influence. Stevie Wonder (1950-) and

Billy Preston (1946-) appropriated Hendrix's and Sly Stone's wah-guitar sounds for the keyboard tracks on some of their major hits in the 1970s (e.g., Wonder's "Higher Ground" [1973], and Preston's "Outa-Space" [1972]).[18]

FUZZTONE/FUZZ BOX/FUZZ

Fuzztones or fuzz boxes are electronic signal processors that distort the sound of an electric guitar to an extreme degree. Ordinarily, the foot-controlled device is placed in the signal path between the instrument and an amplifier, thus modifying the sound of the guitar before it is amplified. Models produced in the 1960s were transistorized, battery powered accessories that boosted the guitar's signal in addition to altering the instrument's normal timbre. Timbral and dynamic characteristics of the effect will vary according to the particular design and make of the fuzz/distortion unit. The quality of distortion will also differ depending upon the choice of guitar and model of amplifier with which the fuzz unit is interfaced.

Fuzztone guitar parts first appeared in a variety of early 1960s popular recordings. Country singer Marty Robbins (1925–1982) featured the sound on his hit single, "Don't Worry" (1961).[19] A year after Robbins's hit, the Ventures, one of the most successful instrumental groups in pop history, employed a fuzztone's "buzzy" sounding distortion as an onomatopoeic novelty for their single release, "The 2,000 Pound Bee" (1962); subsequent releases by the Ventures also exhibited fuzztone guitar parts.[20] When, however, Rolling Stones guitarist Keith Richards (1943-) plugged into a fuzztone for "(I Can't Get No) Satisfaction" (1965), the repercussions were far-reaching. In the wake of the Rolling Stones' anthemic hit record, scores of British recording acts, including the

Beatles, began incorporating "fuzz guitar" in their song arrangements, typically deploying the effect for a prominent riff or hook.[21]

As lead guitarist for the Yardbirds, Jeff Beck would take fuzztone distortion to a new level of expression, incorporating it into a blues-based solo style, as well as developing new kinds of melodic ideas and extended techniques for the sound. A key discovery was made in using a fuzztone in combination with loud volume levels to achieve an extraordinary increase in the sound sustaining properties of the guitar. The increased sustain and an attendant change in the response of the instrument dramatically enhanced the string bending and vibrato techniques that Beck had inherited from blues and rockabilly guitarists, and furthermore enabled him to produce remarkably fluid melodic phrases. Beck was also able to obtain a smoother sound than the raspy-sounding distortion that was heard in the earlier recordings of fuzz effects; a custom-made fuzz box that Beck used in the Yardbirds was specifically designed, in fact, to expand and improve upon the fuzz sounds of the Ventures recordings.[22] The guitar tracks in "Shapes of Things" (1965) and "I Can't Make Your Way" (1966), showcase the singing, violin-like quality that Beck was capable of producing in the studio. He further mined the fuzztone's novel effects to fashion an extended, blues-based improvisation in "I'm a Man" (1965), and to create evocative, vaguely "oriental" sounding melodic ideas in "Heart Full of Soul" (1965) and "Over Under Sideways Down" (1966). By mid-1966, Beck's fuzztone exoticism and evocations of the East Indian sitar were being appropriated by the growing psychedelic movement.[23]

Hendrix would build upon the precedents profiled above, and one hears certain parallels in his playing with Jeff Beck's flamboyant and eclectic guitar style. In terms of fuzztone technique, Hendrix would, like Beck before him, use the device as a signal boost to increase the guitar's sustain and to generate feedback. Hendrix, of course, similarly injected his blues-guitar work with fuzztone distortion, and, it would seem, he also absorbed Beck's sitar-like flourishes into his own style.[24] Beck recalls Hendrix's querying him about the playing techniques that he used on "Happening Ten Years Time Ago" (1966), a Yardbirds recording that anticipates stylistic and formal features of Hendrix's "Purple Haze."[25] Soon after arriving in England, Hendrix had fuzz boxes either specially designed or modified by the builder of some of the Yardbirds' custom fuzztones, Roger Mayer (see *Octavia*).

Notwithstanding the evidence of Beck's influence, Hendrix, as both guitarist and composer, explored techniques of electronically-generated harmonic distortion to an unparalleled extent, and the fuzztone became an integral part of his sound. Used in conjunction with a powerful Marshall amplifier, the proper fuzztone could transform the jangly sound of a Fender Stratocaster into a resonant and robust sonority; single-note lines became exceedingly full-bodied, and the boosted and enriched sound could deliver the chords and riffs in pieces like "Purple Haze" and "Foxy Lady" with the intensity of a rhythm & blues horn section—arguably, the idiomatic roots reflected in those signature guitar parts.

One might argue that even the more radical uses of timbral distortion were connected to post-War traditions in blues and rhythm and blues: one can view Hendrix's fuzz distortion as representing a more electronic-sounding extension of Guitar Slim's

blistering guitar sound, or even of Little Walter's moaning amplified harmonica—sounds produced by overdriving relatively small vacuum tube amplifiers.[26] But Hendrix pushed electronic distortion further than any blues or rock musician before him, layering several tracks of distorted and fuzztone-treated guitars in his multi-track studio recordings. In live performances, too, harmonic distortion became so complex as to verge on noise; when combined with a loosening of fixed pitch values, by special techniques described below (see *Vibrato Tailpiece/Whammy Bar*), the resultant sounds readily moved from tonal to non-tonal worlds in Hendrix's performances.

For the Band of Gypsys Fillmore performances, Hendrix reportedly ran his guitar signal through two fuzztones: first in line was an Axis Fuzz unit, built for Hendrix by Roger Mayer; the output of Mayer's custom designed fuzz was connected to an Arbiter Fuzz Face, Hendrix's favorite commercial brand of fuzztone. It is not clear from the evidence of the recording, however, if Hendrix ever ran both processors simultaneously or whether he only engaged one at a time, switching one fuzztone on while bypassing the other.

THE UNIVIBE

Electronically-produced tremolo, along with reverberation, was the most common type of signal processing used in 1950s and early-1960s rock 'n' roll and rhythm and blues guitar styles. "Tremolo" became increasingly available on many makes and models of guitar amplifiers that were produced during that time frame, and players like Bo Diddley (1928-) and Duane Eddy (1938-), a popular instrumentalist who was reportedly

an "idol" of a teenage "Jimmy" Hendrix, fully integrated the effect into their signature sounds.[27]

In addition to creating a vibrant pulsating effect, electronically produced tremolo generally softens the attack characteristics of an amplified guitar sound, and, on popular recordings, "tremulated" guitar parts seemed particularly well-suited for quietly evocative arrangements: a shimmering guitar strum memorably opened the Everly Brothers' wistful "All I Have To Do Is Dream" (1958); the electronic effect also enhanced "Driftwood" (1959), a moody instrumental by the Wailers, a seminal Northwest band that was reportedly an early influence on Hendrix.[28] Combined with dollops of reverb, and especially when used in minor-key tonal contexts, tremolo treated parts also created darkly exotic soundscapes in instrumental recordings like "Pipeline" (1963) and "Harlem Nocturne" (1959 and 1966), a characteristic usage that was cultivated in proto- and early-psychedelic rock.[29]

Roebuck "Pops" Staples (1915–2000) heard something else in the pulsating effect. Staples was quick to integrate electronic tremolo into his swampy, gospel-blues guitar style after hearing the Crooms Brothers gospel group performing in Chicago. "[The Crooms] came up with the tremolo, but they didn't know what to do with it," Staples remembered. "I said, 'This is soul, this is deep, this is something . . . I really feel.'"[30] Curtis Mayfield, another Chicagoan rooted in gospel, similarly employed tremolo on recordings he made with the Impressions. The Impressions' ballad "I've Been Trying" (1965) gives an example of Mayfield's guitar sound and playing, easily the most pervasive influence on Hendrix's own ballad guitar style (see *Curtis Mayfield Guitar Style*).[31]

Lonnie Mack (1941-), one of rock music's first virtuosi, explored a more aggressive side of electronically generated tremolo and vibrato effects in a blazing 1963 instrumental track titled "Wham!" Mack also pioneered the use of a Leslie rotating speaker for guitar (see below), but the chief inspiration for Mack's sound and his top-40 hit came from Robert Ward (1938-), a legendary blues and session guitarist. Ward's biting and quivering guitar famously contributed to the Falcons' rhythm and blues classic, "I Found a Love" (1962).[32]

Hendrix used tremolo effects on some of the pre-Experience recordings that he made with the Isley Brothers and Little Richard.[33] However, by the time Hendrix entered the studio to record *Are You Experienced*, tremolo guitar effects already seemed to belong to an earlier era of rock 'n' roll; tremolo tended to diminish the increased gain and sustaining qualities prized by 1960s guitar virtuosi, and the feature was eventually dropped in the designs of the Marshall amplifier and other high-wattage amplifiers that Hendrix and his hard rock contemporaries favored. Hendrix, in fact, did not use conventional tremolo effects on any of the official Experience recordings. He would, however, discover in the Univibe an innovative development in that venerable tradition.

The Univibe was an electronic device and accessory that was developed and manufactured by the Uni-Vox company. Originally marketed for keyboard players, the Univibe was designed to simulate the sound of the Leslie rotating-speaker system that is used to amplify electronic organs. The Leslie speaker cabinet houses two rotating components that, running in tandem, produce a unique blend of tremolo and Doppler effects, and generally enhance the quality and dimension of an organ's sound.[34]

However, the Univibe neither exactly replicates nor is it limited to simulating the Leslie speaker, and its range of effects have their own distinctive character.

By the late 1960s, the Beatles, and players like Eric Clapton, were using Leslie cabinets to amplify and to color the sounds of their guitars and electronic pianos, as well as vocal tracks, for studio recordings. Assisted by his recording engineer Eddie Kramer, Hendrix incorporated the sound of the Leslie speaker to process his vocal track on "Little Wing" (1967), Hendrix's Curtis Mayfield-style ballad. The production of "Little Wing" also reflected Hendrix's recent discovery of phase shifting, a studio-produced electronic effect which Hendrix would subsequently employ extensively in the making of *Electric Ladyland*.[35]

Hendrix must have been among the first to adopt the Univibe for electric guitar, and with its addition to his collection of signal processors he was able to approximate the effects of the Leslie speaker, as well as of studio phase shifting—outside of the studio. His first use of the Univibe on record dates from his appearance at Woodstock; the Univibe's pulsating and phase shifting sound is heard throughout his performance, and it is especially audible on "Star Spangled Banner." However, "Machine Gun," from *Band of Gypsys*, more fully exposes the instrument's range of effects, and it has become the piece that is, perhaps, most representative of "the sound" of the Univibe.

For the performances of both "Machine Gun" and "Star Spangled Banner," Hendrix interfaced the Univibe with fuzztone distortion: particularly when performing double-stop string bends, the combined effects produce a phase-shifted stream of noise that "trails" the changing interval shapes—an affective complement to Hendrix's sonic evocations of jet fighters and missiles. Moreover, in "Machine Gun," the heartbeat-like

pulse of the Univibe deepens the mysterious atmosphere of the piece's quieter passages of droning and blues-based phrases.

After Woodstock, the Univibe remained a fixture in Hendrix's bank of signal processors. For subsequent concerts, however, he reportedly confined its use to performances of "Machine Gun," and "Hey Baby (The Land of the New Rising Sun)."[36] To ensure optimal sound production, electronics technician Roger Mayer routinely adjusted the units that Hendrix used for both live and studio work.[37] In the decade following Hendrix's death, guitarists like Ernie Isley (1952-), on the Isley Brothers' "That Lady" (1973), and Robin Trower (1945-), for his album release *Bridge of Sighs* (1974), would use the sound of the Univibe (or of comparable spin-off effects devices) clearly in evocation of Hendrix's style.[38] The international fan magazine dedicated to Hendrix, established in 1991 and still in publication at the time of this writing, is titled, *UniVibes*.[39]

THE OCTAVIA

The Octavia was a special electronic signal processor and foot-activated device that was custom built for Hendrix by its inventor, Roger Mayer. In the mid-1960s, Mayer was an electronics engineer working for the British Admiralty, who spent his spare time designing fuzztones for session guitarists and for clients like the Yardbirds. Mayer was also, in his words, "totally into avant-garde sounds."[40] Mayer told Hendrix as much when introducing himself at an early Experience club date in London. Within a few weeks of their first meeting, Mayer presented Hendrix with a prototype of his Octavia

unit. The novel sound of the Octavia made its recording debut on the guitar solo and coda sections of "Purple Haze."

Mayer and Hendrix would form a close and long-running working relationship, with Mayer tailoring different versions of the Octavia for Hendrix's uses in the studio and on the concert stage. Mayer describes the basic signal processing in the original design, and mentions the purpose for employing the special effect in "Purple Haze":

> All the boxes I made for Jimi were called Octavia, but they were each optimized for different specific sounds. The one that was used on "Purple Haze" gives you an octave above [a given fundamental frequency]. But it's more than that, because the technique we used is actually the equivalent of putting something between two mirrors, so that you get an infinite mirror image, the doubling [of harmonic frequencies and overtones] goes way out. What we were trying to get for Hendrix was something that would be unique.[41]

Hendrix would use the various Octavia units in making future recordings, and, with Roger Mayer's assistance, achieve vastly different expressions from that of "Purple Haze."

Shortly before the debut engagement of Band of Gypsys, Mayer delivered a new Octavia to Hendrix.[42] In addition to using the Octavia's more familiar application as an octave coupler, described by Mayer in the preceding quote, Hendrix used the new unit to produce a variety of timbral effects for specific numbers in the band's repertoire. The particular setting Hendrix uses on "Who Knows" generates a strikingly complex, and noisy distortion: for this track, the guitar's Octavia-processed sound simulates characteristics of a ring-modulated signal, adding a mix of discordant, "inharmonic" frequencies to the guitar's unprocessed output.[43]

Owing to Roger Mayer's design, the Octavia, rather than affecting the guitar's signal in an uniform and thoroughly consistent way, is responsive to subtle nuances of a player's touch; even the particular choice of string or combinations of strings that one plays can vary the relative strength and quality of the effect. In "Who Knows," the idiosyncrasies of the audible effect are compounded by the Octavia's interface with powerful amplification and with other signal processors in a chain of electronic effects. Hendrix thrived in dealing with similar kinds of variability; as discussed below, the expressive use of feedback also involves a high degree of indeterminacy. Moreover, the exploration of electronically produced sound materials and the integration of noise, and of harmonic distortion verging on noise, into otherwise tonal contexts were hallmarks of Hendrix's unique virtuosity.

The post-Hendrix years saw Roger Mayer producing commercially available versions of the Octavia. However, its appearance on recordings has been rare, and, so far, generally limited to explicit evocations of Hendrix's guitar style. Because the Octavia's sound was exclusive to Hendrix while he lived, and, again, because the song contexts in which it first appeared are so memorable, it is difficult to hear the Octavia's "resurrection" as extending much beyond parody. In any case, the effect has not been assimilated into the rock sonic vocabulary to the extent that Hendrix's other sound devices and techniques have been. However, aspects of Mayer's invention did anticipate widespread technological developments that emerged in the 1980s, when "harmonizers" (digital sound processors that are capable of generating multiple intervallic couplings from a monophonic input) became standard equipment in the recording studio, and increasingly available to guitarists.[44]

Hendrix's improvising with ring-modulated-type distortion on *Band of Gypsys* remained a singular event in mainstream rock. Further explorations were taken up in jazz-fusion, however. When production of stand-alone ring modulators began in the early 1970s, jazz trumpeter Don Ellis (1934–1978) and keyboardist Jan Hammer (1948-) incorporated the sound into their improvisations.[45] Synthesizers produced since the 1970s have also made the control of ring-modulation operations a part of their design features. It has only been since around the late 1990s, however, that several makes of ring modulators have been widely marketed to rock guitarists.

EXTENDED PLAYING TECHNIQUES

The following section discusses several playing techniques that were basic to Hendrix's sonic vocabulary. Although each category represents an essential idea that evolved from earlier guitarists' discoveries, Hendrix thoroughly refined and enlarged these basic techniques so as to transform each of them into a signature stylistic component.

DROP/SLACK TUNING

For live performances Hendrix tuned his guitar anywhere from approximately a semitone to two semitones lower than standard "Spanish" tuning (concert E-A-D-G-B-E). Hendrix's bass players would "drop-tune" their instruments to match the guitar, and where no keyboard instrument of fixed temperament was involved, Hendrix was evidently not fussy about keeping to concert pitch. Drop-tuned guitar parts also

distinguish many of the well-known studio recordings by the Jimi Hendrix Experience, including: "Are You Experienced?," the title track of Hendrix's debut album; "Little Wing" and "Spanish Castle Magic," both from *Axis: Bold As Love*; and two signature performances from *Electric Ladyland*, "Voodoo Chile" and "Voodoo Child (Slight Return)." Hendrix used drop tunings for all the performances on *Band of Gypsys*, and the analyses to follow will discuss the various ways in which this crucial sound ingredient contributed to the character of pieces like "Power to Love" and "Machine Gun." More generally, the heftier sonority produced by the drop-tuned and highly amplified guitar and bass was a major factor in developing Hendrix's distinctively "heavy" sound.

In addition to the distinctive sonorities they could produce, drop or slack tunings offered Hendrix some practical advantages for performance. By using lowered tunings Hendrix was able to effectively transpose songs to "lower keys" without losing or having to reposition his carefully worked out guitar parts; this was a particularly relevant concern in regard to the many chordal shapes and melodic lines that incorporated the guitar's resonant open strings. The resultant lowering of keys and of relative pitch level gave some relief to Hendrix's strained vocal range: reportedly, Hendrix told bassist Billy Cox that drop-tuning their instruments would make "his [Hendrix's] singing much easier."[46] In terms of guitar performance per se, the reduction in string tension that was a byproduct of lowered tunings also made rapid and more extreme string bending easier.

The precedents for Hendrix's use of drop tunings are evident in many stylistic veins of popular music. Post-War blues guitarists like Sam "Lightin'" Hopkins (1912–1982) and the virtuoso Albert King (1923–1992) drop-tuned their instruments; as will be shown in another chapter, King's recordings were an early influence on Hendrix,

who reportedly met the great bluesman in 1964.[47] Roebuck "Pops" Staples similarly tuned down for many of the 1960s gospel blues hits by the Staple Singers (e.g., "Move Along Train"). The sound also turned up in pop recordings of the 1950s and 1960s; the electric guitar in Elvis Presley's hit recording "Jailhouse Rock" (1957) is dropped-tuned by a semitone, undoubtedly for the sake of the song's E-flat key setting; the electric and acoustic guitar tracks on a few early recordings by the Who and the Yardbirds also show the approach (e.g., "Out in the Street" [1965], and "Heart Full of Soul" [1965], respectively). But although the technique can be found in blues, folk, country, and earlier rock 'n' roll, Hendrix was the only 1960s-era rock virtuoso who habitually employed lowered guitar tunings.[48]

FEEDBACK

The term "feedback," as it is used in rock vernacular, describes a number of different electro-acoustical phenomena. One kind of feedback is that which is produced by an electric guitar in conjunction with high levels of amplification, and generally occurs in either of two ways. Microphonic feedback is produced by the guitar's pickups responding directly to the sound vibrations produced by an amplifier's speakers. Shrill-sounding and difficult to control, microphonic feedback found limited applications in 1960s rock, and where its squealing sound was not induced for a special effect, it was more often an unintended and an undesired by-product of playing at extremely high volume levels. The predominant type of feedback that Jimi Hendrix and other guitarists would employ in performance involves the sympathetic vibrations of an electric guitar string as it responds to the sound output of an amplifier's loudspeakers; that is, given

sufficient amplitude and conducive acoustical conditions, the resonant frequencies of the strings themselves are excited by the amplified sound of their own output signal.

Through controlled use of feedback, an electric guitar is capable of sustaining individual pitches indefinitely, and a player can modify those sustained pitches as they are being generated. One can, for instance, shift the resonant frequency of a vibrating string from its fundamental to an overtone by changing the proximity of the guitar to the loudspeaker (Hendrix can be seen doing this in film recordings of his Woodstock performance[49]). Besides altering the attack and decay characteristics of the guitar, feedback techniques can also increase the instrument's range: the range of resonant frequencies produced by electronic feedback extends above the range of fundamental frequencies produced by the acoustic or non-amplified guitar.

The production and control of feedback happen, then, in an interactive relationship between player, instrument and amplifier, and the acoustical environment. This relationship involves a high level of indeterminacy, and any number of factors can inhibit or disrupt the generation of feedback; an unsuitable acoustical environment, radio frequency interference, 60 cycle hum, or fluctuations in the power supply—anything that might interfere with either the electrical or acoustical energy in the feedback loop—can thwart feedback. Thus, a player must, if attempting to create and design these sounds in live performance, make instantaneous analyses of feedback potential and be able to improvise alternatives when feedback cannot be induced, or, similarly, control it where it might unexpectedly be generated.

Besides making a sustained and legato expression available, feedback, or rather the control of it, can influence melodic phrasing in another way. The combination of playing at high volume levels and heavily overdriving the guitar's amplification by means of a fuzztone or similar signal booster ensures that the instrument-amplifier interface will perpetually be operating at the threshold of feedback. Given such conditions a player cannot easily integrate "rests" into melodic phrasing; in lieu of making awkward volume adjustments, performers must keep the guitar "speaking"—that is to say, keep directing the sonic output of the amplified guitar by continually playing—lest they lose control of the sound to a random generation of feedback. (The kind of random microphonic feedback that sometimes plagued Hendrix in live performance can be an especially disruptive intrusion in a melodic passage.)

Hendrix would finesse such situations by means of a characteristic gesture and syntactical device: where he required a pause or "breath" in his improvised phrases, and frequently when performing passages in the guitar's upper registers, he would typically effect a phrase ending or caesura by inserting a particular style of portamento, a scooping sound performed by a quick vibrato-bar articulation of an open string. The scooping portamento can serve, then, as both a phrase ending and as a link between two phrases or sets of ideas. Example II-2 shows a representative example from "Machine Gun" (mm. 127–128 [7:15–7:16]). One repeatedly hears Hendrix perform similar gestures, that are, perhaps, analogous to a "vocalized pause" ("uh") in speech, in recordings of his live performances.

Feedback was already becoming a characteristic, if still occasional, sound in rock music when Hendrix arrived on the scene in 1967. The droning introduction to "I Feel Fine," recorded by the Beatles in 1964, marked feedback's debut in pop music.[50] Subsequent to the Beatles' novel experiment, feedback took on a more aggressive edge and expression. In "I Need You" (1965) by the Kinks, the brittle "power chord" introduction played by guitarist Dave Davies (1947-) flares up—for a memorable instant—into ringing feedback.

British guitarists Pete Townshend, Jeff Beck, and Eric Clapton further developed feedback techniques, and their distinctive approaches became distinguishing features of their styles. Townshend's pioneering work integrated microphonic squeals and feedback drones into the Who's live "destruction art" performances and on recordings like "Anyway, Anyhow, Anywhere"(1965).[51] The Yardbirds' Jeff Beck was the first guitarist of note to employ fuzztone-produced feedback as a means to enhance the melodic lines of his solos: Beck's multi-track collage of feedback on "Shapes of Things" (1965) also anticipated Hendrix's similar explorations on *Are You Experienced.* Eschewing the "transistorized" coloration of a fuzztone in favor of a more "natural" and blues-affiliated sound quality, Eric Clapton created striking feedback effects by using a select combination of a Gibson Les Paul model guitar and Marshall amplifier, and without relying on any auxiliary signal processing. Clapton's varied and subtle application of the technique is evident in his benchmark recordings of 1965–1966, when he was featured soloist with John Mayall's Bluesbreakers ("Steppin' Out" and "All Your Love"), and later with Cream ("I'm So Glad" and "Toad").[52] By late 1966, another English guitarist, Syd Barrett (1946-), founding member of Pink Floyd, was incorporating feedback along

with tape echo and experimental techniques into extended improvisations: some regard Barrett as being a key influence on Hendrix's radically expanded use of feedback.[53] Hendrix's own early use is, perhaps, most dramatically evident in film and sound recordings of the Experience's 1967 performance at the Monterey International Pop Festival (18 June 1967).[54]

Hendrix would greatly expand the dimensions of the basic feedback techniques he shared with his contemporaries. By combining the production of feedback with other extended techniques, and by using several types of electronic processing, he shaped feedback-produced sounds to an unprecedented extent. Through these combined means Hendrix could adjust the pitch level, timbre, and volume of the sound. The analyses of *Band of Gypsys* to follow will discuss Hendrix's improvised designs of changing hues and densities of feedback. Demonstrating an exceptionally high level of control, Hendrix also shaped the dynamic levels of "kaleidoscopically" shifting clusters of feedback in his performance of "Machine Gun."

UNISON BENDS

The term "unison bend" refers to a guitarist's playing technique of bending one string up, to make a unison sound with an adjacent string. The technique lends itself to producing a number of different timbral and rhythmic effects. For instance, when a player alternates picking between two strings sounding the same pitch, the resultant alternations in tone quality and intonation between the two notes creates a hocket-like effect. By pre-bending the one string, and then attacking the two tones simultaneously,

one can, depending on the register one is playing in, produce either a thick-textured drone or a keening unison sound.

Post-War jazz and rhythm and blues guitarists like Aaron "T-Bone" Walker (1910–1975) may have developed unison bend figures as part of a melodic strategy to emulate a swing era, jazz saxophone technique.[55] By the late 1950s, Chuck Berry (1926-) had established unison string bending as a stock device in rock 'n' roll guitar playing. Largely owing to Berry's colossal influence and signature riffs, unison bends became a component part of many guitar licks heard in popular recordings of the next decade, including records by the Beatles and the Beach Boys. Hendrix's contemporaries in 1960s urban blues were also exploiting the sound in their solo work.

On his early recordings, Eric Clapton displayed the technique in his heavily electrified blues guitar style. Overdriving his amplifier to achieve maximum sustain and a richly distorted tone color, Clapton would achieve a howling unison sound by sustaining both tones and applying a rapid vibrato on the bending string. A stinging, high-register unison launches Clapton's solo on "Key to Love," a song he recorded for John Mayall's *Blues Breakers* (1966) album. This historic record, establishing Clapton as Britain's premier blues guitarist, came out while Hendrix was still playing nightclubs in Greenwich Village. According to Experience manager and producer Chas Chandler (1938–1996), Hendrix's great wish upon first coming to England in 1966 was to meet Eric Clapton.[56]

Hendrix changed the sound and expanded the function of this basic idea. Adding studio and electronic effects to the types of unison bends mentioned above, Hendrix also incorporated the sound into his compositional ideas: a double-tracked and electronically

processed unison drone highlights the concluding section to "Purple Haze." The larger technical innovation was to play consecutive unison bends, formed on successive pitches, to fashion melodic lines. Hendrix used this approach most famously in "Manic Depression" (1967). The transcription in Example II-3 shows the series of wailing unisons that introduces the guitar solo in "Manic Depression"; enhancing the wailing quality of the melodic line, Hendrix also sings in unison with the guitar part.

The sound of unison string bends, as they occur in "Manic Depression," "Purple Haze," and several other recordings, became so identified with "early" Hendrix, that it has been used to parody his style.[57] By the 1970s, the technique had entered rock guitarists' repertoire as a "Hendrix lick."

COMBINED GUITAR-VOCAL MELODIC LINES

Playing melodic lines on the guitar in either unison or harmony with his singing was an especially important technique for Hendrix in live performance. Although many jazz artists sang scat or hummed along with their instruments while performing improvised solos—multi-instrumentalist Roland Kirk being one exemplar of that tradition—Hendrix also played guitar lines in tandem with his texted vocal parts. Blues guitarists, and particularly Muddy Waters, undoubtedly inspired Hendrix's practice. Early Waters recordings like "I Can't Be Satisfied" (1947) and "Rollin' and Tumblin'" (1950), showcase Waters's "steel guitar" (Waters playing a conventional six-string guitar with a slide bar) doubling his vocal melodies at the octave or in exact unison (more often, the guitar does not duplicate Waters's melodic line in *exact* detail, but rather sounds a heterophonic-style doubling).[58]

Hendrix seldom played traditional steel guitar style, and never did so in concert. But he became extremely proficient at matching the nuances of his vocal phrasing and pitch inflections by subtle control of string bends (facilitated by fretting pliable light-gauged and slack-tuned guitar strings) and sensitive dynamic articulation. In addition, Hendrix's virtuosity in improvisational contexts required a keen ability to "pre-hear" the melodic ideas that he was about to play/sing.

In the studio, Hendrix applied the combined sound of guitar and voice most famously in his recordings of "Voodoo Chile" and "Voodoo Child (Slight Return)," from *Electric Ladyland*. On *Band of Gypsys*, Hendrix relies on the technique both to reinforce his vocal parts and to expand the overall texture in heightened passages of polyphonic complexity.

VIBRATO TAILPIECE/WHAMMY BAR TECHNIQUES

Many of Hendrix's most remarkable playing techniques and sounds involved his revolutionary use of the Fender Stratocaster's vibrato tailpiece. By depressing a "vibrato bar/arm" or "whammy bar" that is attached to the Stratocaster's floating bridge assembly, one activates a spring-loaded mechanism that lowers tension on all six strings of the guitar and thus drops the pitch level of any sounding string. Releasing pressure on the bar allows the counterbalancing spring mechanism to return the strings to normal tension, thereby restoring the strings, with relative accuracy, to their original tuning.[59] On his guitars, Hendrix adjusted the setting of the tailpiece assembly so that he could also pull

up on the vibrato bar to increase string tension and thus raise relative pitch levels by as much as a whole step.

Originally designed with the country and western guitarist in mind, Fender's vibrato tailpiece was intended to approximate the sound of the electric Hawaiian steel guitar.[60] After the Stratocaster was introduced in 1954, however, the Fender Company's country clientele employed the tailpiece to create subtle pitch inflections rather than to imitate the wide and sustained glissandi produced by steel guitarists. Both the guitar's basic character and the design of the vibrato assembly itself imposed some practical constraints on the employment of the effect: the Stratocaster's sound would not sustain like a steel guitar, and if the vibrato mechanism were to be depressed by more than a moderate amount—beyond lowering a string's sounding pitch by, say, a semitone—the guitar could be thrown considerably out of tune.

Sixties surf guitar players, along with the decade's two preeminent guitar-instrumental groups, the Ventures and the Shadows, found more adventurous uses for the vibrato bar. Fender-style vibrato effects were pervasive in the recordings of these musicians, whose twangy and typically "wet" sound also incorporated electronically-produced tremolo, echo, and reverberation. By the mid-1960s wobbly-sounding vibrato effects started turning up on the odd instrumental novelty number (e.g., 1964's "Scratchy," by Travis Wammack [1946-]), while blues and rock 'n' roll guitarists like Buddy Guy (1936-) and Lonnie Mack (1941-), respectively, displayed an aggressive use of the vibrato bar in some of their recordings.[61] It was, however, rhythm and blues guitarist and bandleader Ike Turner (1931-) who was making the most radical use of the whammy bar at this time. Turner's striking use of the Fender vibrato is documented on

several recordings, and is spotlighted on an instrumental track recorded in 1965 titled "The New Breed, PT. 2"[62]; Turner's rubbery-sounding guitar, produced by a rapid shaking of the tailpiece (alternately both pushing down and pulling up on the vibrato arm), anticipates similar sounds and techniques that Hendrix would develop.

Hendrix may have had professional contact with Ike Turner in the pre-Experience days; various biographical accounts claim that in 1965 Hendrix auditioned and subsequently played for a short time as a backup musician with Turner's *Ike & Tina Turner Revue.*[63] The Stratocaster-wielding Turner might very well, then, have been of some influence on the younger musician. But Hendrix's use of the vibrato tailpiece to shape electronic feedback—changing both the pitch level and intensity of the sound by careful manipulation of the vibrato bar—was without precedent. Moreover, having adjusted the action on his tailpiece for near-maximum flexibility, Hendrix would depress the vibrato arm to its full extent, creating a variety of glissando effects and extending the range of the guitar far below its normal compass. Reportedly, Hendrix was developing these techniques before he arrived in England, though their signature sounds would not be recorded until the formation of the Jimi Hendrix Experience.

Both "Purple Haze" and "3rd Stone from the Sun," early tracks from *Are You Experienced*, feature a characteristic application of the vibrato bar. For select segments in both pieces, Hendrix uses the bar to sculpt the distorted sounds of his guitar's resonating open strings, fashioning them into what are essentially atonal masses of sound/noise. These amorphous shapes of sound, continually shifting in pitch level and swollen with electronic distortion, comprise individual tracks and sonic layers in these multi-track recordings. In "Purple Haze," one such layer of surging noise forms a

mysterious sounding sonic element in a montage of electronically processed vocal and instrumental tracks.[64] The effect is more discretely audible in "3rd Stone from the Sun." A representative excerpt from "3rd Stone from the Sun" is transcribed in Example II-4: the guitar's heaving mass of fuzztone-distortion accompanies an extraterrestrial being's soliloquized threat to annihilate the human inhabitants of planet Earth (mm. 126–127).

Subsequent to the making of *Are You Experienced,* extended vibrato-bar techniques became indispensable resources for creating the naturalistic effects in sound paintings like "Star Spangled Banner," as recorded by Hendrix at Woodstock. In Hendrix's anthem all manner of flying objects and hurtling projectiles ("rockets" and "bombs bursting in air") are suggested by simulated Doppler effects; the Doppler effect describes the apparent pitch shifts that occur as a sound source of fixed pitch moves closer towards or further away from one's hearing. In "Star Spangled Banner," these simulations involve the use of the vibrato tailpiece in conjunction with either feedback or hammer-on and pull-off fretting techniques: performing these operations simultaneously results in a gradually raising or lowering of the guitar's sounding pitches that emulates the Doppler effect and seemingly "moves" the sound towards or away from the listener's perceived field of hearing. Beyond producing an array of astounding effects, Hendrix uses these extended techniques in "Star Spangled Banner" to create a spectrum of sound that defines large-scale formal divisions in the piece.

Hendrix displays his full range of vibrato techniques on *Band of Gypsys*. Besides their frequent occurrence in his improvised work, these special techniques were essential means to articulate both the pitch language and sonic imagery, as well as the form, of

"Machine Gun." Accordingly, the analysis of that piece will go into significant detail regarding this facet of Hendrix's guitar style and compositional resources.

DISTINCTIVE FORMS: HENDRIX'S SOUND PAINTINGS

One hears virtually all of Hendrix's extended guitar techniques as well as many of his most radical experiments with studio technology in the album tracks that Hendrix referred to as "sound paintings." Hendrix used the term "sound painting" to characterize his programmatic soundscapes—compositions of aural imagery that were shaped around some typically fantastic scene or story. Hendrix thus described the opening cut on *Electric Ladyland*, ". . . And the Gods Made Love," as a "90-second sound painting of the heavens." Hendrix went on to espouse an aesthetic principle that he had professed since his earliest published interviews: " I love different sounds as long as they're related to what we're trying to say . . . I don't like them to be gimmicky or different just for the sake of being different."[65]

One might characterize "1983 . . . (A Merman I Should Turn To Be)" and its adjoining track and "coda" section, "Moon Turn The Tides, gently gently away" (*Electric Ladyland*), as being a multi-sectional piece comprising both an elaborate song structure with extended instrumental passages, and lengthy segments (including the coda) of sound painting. Song lyrics and musical imagery in "1983 . . . (A Merman I Should Turn To Be)" depict an underwater journey to Atlantis; in "futuristic" 1983, the mythical lost civilization will provide a safe haven to the song's protagonist, a refugee fleeing from

earth's land-locked apocalypse ("1983" sounded an ominous, Orwellian tone at the time of Hendrix's composition).

"1983 . . . (A Merman I Should Turn To Be)" ranks as a tour-de-force of songwriting, instrumental virtuosity, and studio synergy. However, one might construe Hendrix's early hit, "Purple Haze," as representing a smaller-scale combination of song and sound painting; in that recording, too, segments of multi-track and electronic processed sounds in the piece's middle and ending sections similarly depict "excursions" into the *inner* world of the song's disturbed protagonist.[66] Additional examples of sound paintings from the first two Experience albums include the studio productions of "3rd Stone from the Sun" (*Are You Experienced*) and "EXP" (*Axis: Bold As Love*).

However, Hendrix did not confine his concept to the studio. The Woodstock performance of "Star Spangled Banner" uses the American national anthem as a cultural artifact and musical "found object" around which Hendrix's solo guitar paints a violent picture of a deeply troubled society. A later chapter on Hendrix's composition "Machine Gun" will discuss how Hendrix and his Band of Gypsys colleagues create a vivid sound painting on the concert stage.

HARMONIC VOCABULARY and INTERVALLIC DESIGNS

Hendrix drew from a fund of characteristic harmonic and intervallic resources: chords, chordal progressions, intervallic structures, and associated playing techniques, that are pervasive in both his songwriting and improvising. In this area one again finds Hendrix re-inventing inherited resources.

THE HENDRIX CHORD

The so-called "augmented ninth" chord, similarly known in the vernacular as the "sharp-nine" or "raised-nine" chord, came to be so closely associated with Hendrix that trade magazines and instruction books for guitarists refer to this harmony as the "Hendrix" or "Purple Haze" chord. Example II-5 shows the Hendrix Chord as it appears in transcriptions of "Purple Haze," where it functions as a tonic harmony formed on E.

However one might label the chord, its history in popular music predates Hendrix. One encounters it, for example, in several songs and orchestral passages in *Porgy and Bess*, George Gershwin's 1935 opera (e.g., the songs "Summertime" and "My Man's Gone Now").[67] During Hendrix's formative years in the latter half of the 1950s and early 1960s, the augmented ninth chord was becoming a staple in both post-bop jazz and rhythm and blues. Representative recordings from the 1950s would include the title track from *Blue Train* (1957), by jazz saxophonist John Coltrane (1926–1967), and "Hold It" (1958), a classic rhythm and blues instrumental by the Bill Doggett Group.[68] On the Doggett recording, the piece's main riff and "head," played by guitarist Billy Butler (1924–1991), comprises a rhythmically animated set of chord changes (more specifically, a harmonic progression based on a variation of standard blues and "rhythm changes") that is both anchored and driven by an augmented ninth chord formed on the tonic.[69]

Soul singer James Brown (1928-) boosted the impact and longevity of Doggett's tune both by recording a cover version of the piece and by playing the main riff of "Hold It" as an up-tempo segue or "chaser" between numbers in his James Brown Revue. A recording of Brown's live show was released on the immensely successful and influential

album, *The James Brown Show Live at the Apollo* (1963).[70] The release of *Live at the Apollo* helped to cement "Hold It" in the play lists of countless dance bands, where the piece might perform duties as either a "set opener" or "break tune," and by the mid-sixties guitarists were learning what some musicians referred to as the "Hold It chord."

In the arrangements of many 1960s rhythm and blues recordings, the augmented ninth chord often occurs as a "punch," a strong, typically syncopated accent, or as a "tag" or dramatic closing gesture. "I'll Go Crazy," from the James Brown album cited above, gives an example of the former application, where the band punches the chord in a stop-time call and response with Brown's vocal part.[71] The closing chord in Ray Charles's arrangement of "Georgia on my Mind" (1960) exemplifies the latter usage.[72] In either context, when it is used as a punch or a tag, one of the most dissonant and complex chords in the rhythm and blues stylistic lexicon functions as a harmonic intensifier at local levels.

Closer in sound and spirit to Hendrix's signature riffs and power chord delivery is the distorted and choppy sounding guitar part that Steve Cropper (1941-) plays in "Sookie Sookie," a 1966 hit record that Cropper co-wrote with soul singer Don Covay (1938-). Example II-6 shows a representative excerpt of the chordally-based, one-measure pattern that Cropper plays as a vamp and as an accompaniment to the song's verse sections. Exemplifying the groove-oriented funk style that would emerge from late 1960s soul music, "Sookie Sookie" is nearly a harmonically static composition, and Cropper relinquishes his augmented ninth chord only for occasional turnaround figures and during Covay's short song-title refrains.

Shortly before Copper and Covay were recording their hit, Hendrix was "punching" the augmented ninth on "Testify" (1964), an up-tempo number he recorded with the Isley Brothers.[73] Beginning with "Stone Free" (1966), the first song that he penned for the Experience, Hendrix employed the chord in several of his compositions—translating, as it were, the stabbing horn parts of "I'll Go Crazy" into fuzztone guitar riffs and power trio arrangements. His signature piece, "Purple Haze" (1967), and many other well-known works Hendrix produced throughout his career, established the "Hendrix Chord" as a trademark sound.

The voicing of the chord shown in Examples II-5 and II-6 is typical: the most distinctive tone (G natural, in this context) is voiced in the top position; the two most dissonant tones (G and D) in the harmony sound as the top pair of voices. The spelling of the critical top voice is somewhat contextual, and, this case, it contradicts the E7 (#9) chord symbol that invariably supplements transcribed notations of the chord. However, the vertical cross relation of "thirds" (the G-sharp and G natural, the compound minor third above the root) in the chordal spelling visually underscores the G natural's sounding as a flatted third, blue note.[74]

Playing over a supporting bass root, Hendrix could also *imply* the chord just by sounding its critical pair of upper voices as a dyad. By thus paring the structure down from four voices to its core interval, a distorted sounding or fuzztone-processed guitar could project the essential quality of the Hendrix Chord with greater clarity. Such intervallic shorthand readily worked in contexts where another instrument or track in a recording could supply the chord's elided components—particularly the major third above the root. In other contexts, Hendrix himself could establish the larger tonal setting

in which the "distilled" interval could be interpreted. Example II-7 shows a transcribed passage from "Foxy Lady" (1967): the basic guitar track alternates between playing the main riff as a double-stop figure, and as a complete chord.[75] For the main theme in "Spanish Castle Magic" (1967), combined electric guitar tracks and acoustic piano sound the chord as a composite sonority. In that recording, Hendrix characteristically rings out the critical dyad on his guitar's open first and second strings, a distinctive sound quality made possible by the choice of key and his guitar's drop tuning (see Ex. II-8).

THE "I DON'T LIVE TODAY" RIFF AND LICK

Hendrix's composition "I Don't Live Today" (1967) showcases another trademark sound that displays links to the Hendrix Chord in terms of its tonal makeup and usage. Hendrix recorded "I Don't Live Today" for his first album, *Are You Experienced*. If pressed to categorize the piece, Hendrix might have described it as representing one of the album's "freak out" numbers, his preferred term for what might otherwise be called "psychedelic" music.[76] Example II-9 shows the memorable guitar riff that accompanies the song's refrain. The figure is formed in a combination of a pair of fretted notes sounded on the guitar's top pair of strings, and a scooping string-bend sounding on the third string. Hendrix superimposes the resultant triadic shape (analogous to a D major triad in first inversion) over a B tonal center, and, in context, over an implied B, flat-seventh chord.

One might conceive of the superimposed shape as representing a triadic expansion of the blue note and minor third scale degree, D natural. Additionally, the same triadic form can also be obtained from the upper voices of a complete augmented ninth/Hendrix Chord: as Example II-10 shows, when the chord includes the fifth above its root, the resultant five-voice harmony comprises two triadic forms linked by a common tone. Hendrix makes the connection between the triadic shape and the chord explicit in the first measures of "Ain't No Tellin" (1967); on that recording the lead guitar track plays the figure in synchronization with a Hendrix Chord played by a rhythm guitar part.

This signature sound and riff, may, however, simply reflect Hendrix adding the minor third scale degree (D) above a stock blues and country guitar lick, a string bending figure which sounds the dominant and flat-seventh scale degrees (F-sharp and A natural, respectively). (Variations of this simpler, stock lick appear many times in Hendrix's performances on *Band of Gypsys*, and will be identified and discussed below as lick JH-1.) Hendrix might also have learned the basic shape and playing technique directly from country guitar playing and adapted it to suit his own expression.

When emulating the smooth sound of a pedal steel guitar, country musicians performing on a standard six-string guitar will play the identical intervallic shape and string bend as described above, but sounding the lick in a different tonal context: that is, rather than occurring as a triadic superimposition, the figure sounds as a major triad in relation to a given bass root (see Ex. II-11). In effect, Hendrix would seem, then, to be transposing the same shape up a minor third from its hypothetical country origins, transforming its consonant sonority into a blues-colored dissonance. (Hendrix also played the "country" style lick in "Night Bird Flying," a posthumous release.)[77]

Hendrix spent a considerable time around Nashville, the capital of country music, in the early half of the 1960s. "I learned to play in Nashville," he is quoted as having said.[78] In context, Hendrix's quote would seem to refer to his apprenticeship in the rhythm and blues scene in the greater Nashville area. But by all accounts he had a voracious curiosity and a wide ranging appreciation for guitar playing, and other writers have heard something of the country influence in Hendrix's style.[79] Chas Chandler, Hendrix's producer/manager and closest working associate in the early days of the Experience, also commented on the often overlooked influence of "Country & Western" in Hendrix recordings like "The Wind Cries Mary."[80]

However he came up with the idea, Hendrix's blasting riff sounds a stylistic world apart from a country musician's supple string bending; the distorted guitar track in "I Don't Live Today" punches the figure in rhythmic unison with drums, bass, and an overdubbed second track of guitar. One can easily imagine the riff being played by a three-piece horn section—notwithstanding the difficulty of one's picturing a contemporary rhythm and blues band performing Hendrix's electronic "freak out."

Some two years after the release of *Are You Experienced*, the "I Don't Live Today" figure re-emerges in "Who Knows," and "Message to Love," two tracks from *Band of Gypsys*. However, in both of those later performances the signature sound takes on a different function and rhythmic guise from the driving riffs heard in "I Don't Live Today" and "Ain't No Tellin.'"

NON-TONAL HARMONIC DEVICES

In addition to developing new applications and contexts for inherited chord forms, Hendrix also cultivated a modest range of non-tonal harmonic devices that were more original to him. As evidenced in several live recordings, Hendrix's explorations of non-tonal harmony employed dissonant, non-diatonic structures, and otherwise involved juxtapositions of familiar triads and extended chords that were disassociated from any key or tonal function. These "dissonant" harmonic elements were most often interpolated within a free-form cadenza, such as the one which closes the performance of "Machine Gun," by Band of Gypsys (discussed below).

Hendrix applied these techniques judiciously, and although they are evident on live recordings dating from the early days of the Jimi Hendrix Experience, they are not found on any of his studio produced, official recordings.[81] Besides the Fillmore performance of "Machine Gun" by Band of Gypsys, dissonant triadic shapes and juxtapositions are also heard in the non-tonal episodes of Hendrix's "Star Spangled Banner." For comparison, Examples II-12a and II-12b show transcribed excerpts from the climactic cadenza of "Machine Gun," and from an episode in "Star Spangled Banner," as performed by Hendrix at Woodstock.[82] Nearly a year after Woodstock, Hendrix used similar techniques (e.g., juxtaposing minor triads by tritone intervals) in another version of the national anthem that was recorded at the Atlanta International Pop Festival.[83] Hendrix's coupling of complex harmonic dissonance with extreme electronic distortion—manifest as far back as "Purple Haze"—was essentially without precedent in popular music.

STYLES AND IDIOMS OF SOUL GUITAR

Besides the more revolutionary aspects of his musical language, it is Hendrix's mastery of soul guitar styles that most distinguishes him from the other rock virtuosi of his generation. One remembers that for nearly half of his professional life, spanning the years from 1963 through the better part of 1966, Hendrix alternately worked as a member of various rhythm and blues bands and as a backing musician for a number of headline acts touring the chitlin circuit. The playing concepts that he honed during this early work experience would continue to develop and to evolve throughout Hendrix's career, and they make up an essential part of both his playing and songwriting. We have already viewed the "augmented ninth" chord (*Hendrix Chord*) as being an important stylistic ingredient that Hendrix brought into his hard rock style from 1950s rhythm and blues and 1960s soul music. We can add to this signature chord a few more licks and a characteristic sound that are part and parcel of a larger playing concept shared by Hendrix and his contemporaries in 1960s soul.

Around the middle 1960s, guitarists working in contemporary rhythm & blues developed a fluid playing style that moved between conventional chordal "comping" and melodic fills. The melodic component encompassed single-note figures as well as two- and three-voice intervallic shapes, typically unfolding as linked ideas in a single phrase or set of phrases. For the free alternation between chordal accompaniment and melodic fills, the approach is often described, in post-Beatles parlance, as combining the roles of both "lead" and "rhythm" guitar. Guitarists whose playing came to exemplify the style include Bobby Womack (1944-) and Cornell Dupree (1942-), both of whom worked

alongside Hendrix in touring bands on the chitlin circuit, Steve Cropper, guitarist for Booker T. and the MGs, and Curtis Mayfield, lead singer and songwriter for the Impressions.

The concept and mixed approach exemplified by the aforementioned players drew upon intertwined traditions of gospel guitar accompaniment, blues, and country. The name of Steve Cropper, member of the top rhythm and blues instrumental group Booker T. and the MGs, and the staff guitarist for Stax Records, has become synonymous with the "Memphis sound" and guitar style, an audible mixture of blues and country guitar styles. Cropper's "sliding sixth" figures and other signature riffs are immortalized in several recordings by Stax artists Sam and Dave and Otis Redding (e.g., Sam and Dave's "Soul Man" [1967], and Redding's "Sittin' on the Dock of the Bay" [1968]). Steve Cropper cites as his own chief inspiration Loman Pauling (1927–1974), songwriter and guitarist for the gospel and rhythm and blues vocal group, The Five Royales.[84] But it also appears that Cropper and Hendrix may have learned a few things from one another in 1964, a few years before Hendrix made his entrance onto the world stage.

In a 1968 interview for *Rolling Stone* magazine, Hendrix spoke approvingly of Steve Cropper's playing (". . . Cropper turned me on a million years ago . . .") and recalled meeting him in Memphis during Hendrix's pre-Experience days. It was in the Stax Records studios in Memphis, Hendrix stated, that the two musicians swapped ideas: "He [Cropper] showed me how to play certain songs and I showed him how I played [soul singer Don Covay's] 'Mercy, Mercy,' or something like that."[85]

Hendrix's casual reference to "Mercy, Mercy" seemed to imply that he had showed Cropper his own *interpretation* of the soul classic by Don Covay, and he seems to have never elaborated further about the matter in any subsequent published statement. However, more than thirty years after Hendrix gave the *Rolling Stone* interview, research by author Steve Roby supports the idea that Hendrix played as a session musician on the original recording of "Mercy, Mercy" in 1964, and on a handful of other recordings by Don Covay.[86] His contributions went uncredited, however, and when Hendrix turned up in Memphis later that same year hoping to record at the Stax studios, he was unknown to Steve Cropper. Nonetheless, Cropper was impressed by Hendrix's claim that he had played on Covay's hit single, one of Cropper's "favorite records." Enthusiastic to learn the song's "funky little intro lick," Cropper remembers inviting Hendrix into the studio to have him demonstrate how he had played it.[87] (We remember, too, from the previous discussion, that Cropper would record "Sookie Sookie" with Don Covay in 1965.)

The "funky lick" that opens "Mercy, Mercy," does, indeed, represent an archetypal soul guitar lick, and it was, perhaps, the model for the series of snappy hammer-on figures that opened Wilson Pickett's anthem of 1960s soul, "Funky Broadway" (1968) (cf. transcriptions in Ex.s II-13a and 13b).[88] In addition to the principal guitar part that performs the introduction and most of the other melodic phrases and fills on Covay's recording, a second accompanying guitar part plays in a scratch/chugging style, another idiom of soul guitar style. It is uncertain as to whether or not Hendrix might have performed this second guitar part, but in any case the scratch guitar technique became a distinguishing feature of his playing style (see *Scratch/Chugging Guitar Style)*. When Steve Cropper recorded "Mercy, Mercy" with

Booker T. and the MGs in 1965, he essentially combined both the lead and chugging rhythm guitars of Covay's original recording into a single part.[89]

Hendrix would tip his hat to Steve Cropper on one track of *Band of Gypsys*: for the introduction to Buddy Miles's piece, "Them Changes," Hendrix paraphrases Cropper's guitar break in Wilson Pickett's "Ninety-Nine and a Half (Won't Do)" (1966), a song that Cropper wrote with Pickett (1941-) and soul singer Eddie Floyd (1935-). However, the player/composer who best embodied the soul guitar concept and whose own archetypal licks worked their way wholesale into Jimi Hendrix's playing was Curtis Mayfield.

THE CURTIS MAYFIELD GUITAR STYLE

> Curtis Mayfield is to soul what Bach was to the classics, and [what] Gershwin and Irving Berlin were to pop music
> —Aretha Franklin[90]

Born in the same year as Hendrix (1942), Mayfield got an earlier start as a professional in the music business, singing gospel in the 1950s before forming the Impressions, a rhythm and blues vocal group whose gospel-based singing and slickly produced recordings were of seminal influence in 1960s soul music. Mayfield's "Gypsy Woman" broke into the pop charts in November 1961, the very month that Hendrix and Billy Cox first met and started playing together.[91] The release of "Gypsy Woman" began a series of hits for the Impressions that featured Mayfield's sweet tenor vocals as well as his distinctly personalized approach to guitar.

On recordings Mayfield's guitar sound is clear and well defined; a "clean sound" that is advantageous for contrapuntal clarity and dynamic shading as well as for projecting many kinds of highly nuanced articulations. In "Gypsy Woman" Mayfield's guitar adds subtle decorations and, in the company of finger cymbals and castanets, furnishes a bit of text painting (a trademark Mayfield trill follows the lyric "She danced around and 'round to a guitar melody"). In subsequent recordings Mayfield and arranger Johnny Pate (1923-) crafted elegantly compact introductory passages and interludes that spotlighted Mayfield's exquisite solo guitar work.

Examples II-14a and II-14b show transcriptions of the first and second guitar breaks, respectively, in "People Get Ready" (1965), Mayfield's gospel inspired classic and a hit single for the Impressions.[92] The transcription of the first guitar break is not able to represent Mayfield's expressive touch or the harp-like quality of the plucked guitar; however, it does clearly show one of Mayfield's signature "sliding fourths," the double-stop glissando that opens the two-bar phrase. The trilling hammer-on and pull-off figure that, in this instance, decorates the first note in the arpeggiated subdominant harmony (beginning on the down beat of the second full measure in Ex. II-14a), shows another Mayfield mannerism. The oblique counterpoint that one sees in Example II-14b is an abiding feature of Mayfield's playing, and is also characteristic of the many country-flavored licks that soul guitarists drew upon. Accompanied solely by the bell-like chimes of a glockenspiel, these quiet phrases in "People Get Ready" reverently echo the song's hymn-like refrain, "—you just thank the Lord."

What might be termed "melodicized fourth intervals" (comprising consecutive perfect fourth dyads moving in parallel motion) represents an approach that Mayfield's

playing shared with that of many other rhythm and blues guitar players.[93] The principal guitar hook in 1963's "I'm The One Who Loves You," shown in Example II-15, exemplifies the basic idea: the several glissandi and the pentatonic scalar makeup of the example are particularly representative features of Curtis Mayfield's personal style.[94]

A self-taught guitarist, Mayfield employed an idiosyncratic open tuning that contributed to his unique sound and to his discovering novel chord voicings.[95] The solo introduction to "I've Been Trying" (1964), transcribed in Example II-16, starts off with an open-voiced "ninth chord," whose core intervallic structure (comprising a double-perfect fifth contained in a major ninth interval, and spelled F-sharp, C-sharp, and G-sharp in the transcription) would become a component part of Hendrix's harmonic vocabulary. (The stemless, miniature notes enclosed by parentheses in the second measure of Ex.II-16 represent very faint sounding tones, and, undoubtedly, the F natural was unintentional).

By mid-decade, Curtis Mayfield's understated but style-defining licks entered the repertoire of session musicians, and "Mayfield-style" trills and sliding double-stops were imported into pop and rock recordings like Billy Joe Royal's ballad "I Knew You When" (1965) and Bob Dylan's "Stuck Inside of Mobile with the Memphis Blues Again," from *Blonde on Blonde* (1966).[96] In the main, however, his influence was most audible in the explosion of 1960s soul releases, including both vocal and instrumental recordings.

In 1965 Hendrix picked up some session work in Los Angeles, where, according to one account, he was hired to play on the basis of his reputation for being able to replicate Curtis Mayfield's elusive guitar style.[97] In developing this special area of expertise, Hendrix may have had the benefit of observing Mayfield close up and in

action; according to some sources, as early as 1962, Hendrix, along with friends Billy Cox and Larry Lee (1943-), worked as part of a backup band on a tour package that included Mayfield and the Impressions.[98] (Reunited in Gypsy Sun and Rainbows, the three friends and veterans of the chitlin circuit performed "Gypsy Woman" at the group's 1969 Woodstock appearance, with Larry Lee singing lead.)

By whatever means he had learned them, Hendrix brought some of Mayfield's licks with him to the Experience's 1967 American debut, inserting Mayfield-patented trills into his Monterey Festival performance of "Like a Rolling Stone." By the time of the Experience's 1968 second album, *Axis: Bold As Love*, however, Hendrix had progressed beyond lick-by-lick borrowings of Mayfield's style. "Little Wing," the album's ethereal ballad, is everywhere bedecked by the signature trills and sliding figures discussed above. Hendrix's masterful introduction epitomizes the style while also enriching Mayfield's solo concept with a complex harmonic scheme that sways between the G major and E minor key centers and whose details include jazz-tinged chromatic passing chords. Underscoring Hendrix's stylistic debt to Mayfield and the Impressions, a glockenspiel joins the guitar in the introduction's second measure.

The transcription in Example II-17 shows the last four measures of Hendrix's introductory solo to "Little Wing." Note that in the first measure of the excerpt, Hendrix casts the "double perfect fifth" intervallic structure that opens Mayfield's "I've Been Trying" as a sliding figure—a logical extension of Mayfield's sliding fourths; following the odd measure of two-four time, the cadential figure which ties off the introduction also shows contrapuntal similarities to Mayfield's phrase ending in "People Get Ready," as shown in Example II-14b. But when the introductory solo ends, Hendrix continues his

invention throughout the song's back-to-back pair of verses, developing a flowing counterpoint that weaves Mayfield-style countermelodies and decorative flourishes around the vocal part. It is amusing and scarcely an exaggeration to think that in the thirty measures that come before the guitar's closing cadenza in "Little Wing," Hendrix may have played more "Curtis Mayfield-style" guitar than Mayfield himself ever had in the span of an entire album by the Impressions.

Hendrix drew on the same resources that he mined in "Little Wing" for "One Rainy Wish" and "Castles Made of Sand," two moderate tempo pieces also appearing on *Axis: Bold As Love*. The introduction to "One Rainy Wish," however, is double-tracked for two complementary guitar parts. Hendrix plays a pentatonic melodic line in one part, running his guitar through the Octavia and studio-produced echo effects to create an intriguing sound that complements the song's gentle and surreal lyrical expression ("Gold and rose, the colour of the dream I had, not too long ago"). To create the crystalline sound quality of the second guitar part, Hendrix uses the special "out-of-phase" pickup setting on his Stratocaster in combination with a clean and bright sounding amplifier. The second guitar plays rippling added-sixth chords and melodic ideas in the Mayfield vein, as shown in Example II-18 (cf. added-sixth chord voicing in "People Get Ready"; second measure in Ex.II-14). Throughout this passage and in the obbligato guitar that continues through the song's verses, one also hears the parallel fourth and oblique figures, as well as the pentatonic melodic makeup that are additional stylistic traits.

One hears the assimilation of Mayfield's guitar style in a variety of recordings by the Experience. Among these various recordings is the cartoonish "Wait Until Tomorrow," Hendrix's version of Dylan's "All Along the Watchtower," and the science

fiction fantasy "1983. . . (A Merman I Should Turn To Be)." Additionally, Hendrix's "Have You Ever Been (To Electric Ladyland)," is a veritable homage to both Curtis Mayfield and the vocal sound of the Impressions. That the style forms a convincing part of the widely disparate range of expressions and forms represented by these works is an indicator of the depth of Hendrix's assimilation.

Band of Gypsys played no ballads, nor did their performances make any direct allusions to Curtis Mayfield and the Impressions. As previously stated, for live performances in general, Hendrix did not play with the bright and clean guitar sound that he dialed in for the Mayfield-influenced tracks that he recorded with the Experience. However, with the exception of the blues-saturated "Machine Gun," nearly all of Hendrix's accompanying guitar work, and a fair proportion of his ad-lib soloing on *Band of Gypsys*, reflect that aspect of 1960s soul guitar style in which Mayfield is a major tributary.

SCRATCH/CHUGGING GUITAR STYLE

Hendrix developed and personalized what is sometimes called "scratch" or "chugging" guitar style, an essentially percussive playing technique associated with sixties soul that also became a critical feature of funk guitar styles. The terms "scratches" and "chugs" describe rhythmical expressions of non-pitched sounds that are produced by simultaneously muting and attacking the guitar's strings. In performing the scratch guitar technique, the player mutes the strings with either the picking hand or the fretting hand, or by carefully coordinating both hands to damp the strings. In his volume of transcriptions and analyses of Hendrix's guitar playing, *In Deep with Jimi Hendrix*, Andy

Aledort describes the sound and basic technique as "dead string chugs." Aledort traces the technique through many Hendrix recordings and mentions its historical connections to "Motown, Nashville, and Muscle Shoals soul/R & B recordings."[99]

By the mid-1960s, the scratch technique and its characteristic use as a rhythmic device was making its way into the lexicon of rhythm and blues/soul guitar style. Steve Cropper showcased the scratch effect on several tracks on *Soul Dressing*, issued by Booker T. and the MGs in 1965, including the aforementioned instrumental cover version of "Mercy, Mercy."[100] Scratch guitar became a mainstay of James Brown's late 1960s recordings; Al "Country" Kellum's contribution to "Cold Sweat" (1967) is exemplary, and his scratch guitar part on the recording has been discussed in a technical study dealing with the music of James Brown.[101] Following the release of Brown's groundbreaking single, producers of multi-track recordings would devote a single track to a scratch guitar part, and one can hear tracks of such percussive guitar parts scratching out four-to-the-bar accompaniment patterns in "(Sweet, Sweet Baby) Since You've Been Gone" (1968) by Aretha Franklin (1942-), and "Slip Away" (1968) by Clarence Carter (1936-).[102] However, even before the release of "Cold Sweat" Hendrix had "psychedelized" the concept in "Are You Experienced?," the title track of his first album for which he recorded a "backwards" or tape-reversed track of chugging guitar sounds.[103]

Hendrix played the scratch style in several of his recordings and incorporated it into his famous solo on "All Along the Watchtower" (1968), the Experience's top-selling single release.[104] With Band of Gypsys, Hendrix uses the technique to mimic the sound of automatic weaponry in "Machine Gun," and, in a manner similar to the backward tracks in "Are You Experienced?," the scratch guitar part also assumes a thematic

function in the composition. As mentioned above, Hendrix's combining of the scratch technique with the wah-wah pedal spawned a style of guitar playing that came to be associated with 1970s funk and disco (see *Wah-Wah Pedal*).

Hendrix's proficiency with and profound understanding of the different idioms of rhythm and blues/soul guitar styles came as a revelation to Chicago bluesman Michael Bloomfield, who first heard Hendrix performing as "Jimmy James" in Greenwich Village shortly before he set out for England. Bloomfield, who was at the time a revered guitarist in his own right and an avid student of blues, folk, and country guitar playing, had little familiarity with or appreciation of this "huge school of black guitar playing" in which Hendrix was so thoroughly versed.[105] In subsequent meetings and conversations with Hendrix, Bloomfield was especially impressed by his extensive knowledge of the more obscure practitioners of the art, the uncredited session guitarists who worked behind the scenes of the contemporary soul hit parade. It seems that Hendrix regarded his own intense commitment to playing rhythm guitar—an approach described here as being rooted in traditions of rhythm and blues and soul music—as making a critical difference between his playing and that of his English counterpart, Eric Clapton. "This is a world of lead guitar players," Hendrix told Bloomfield, "but the most essential thing is to learn the rhythm, the time." Indeed, neither Bloomfield nor Clapton, nor any other of Hendrix's high-profile American and British counterparts, were fluent in the musical language of southern-based soul music, with which Hendrix was intimately familiar.

To be sure, Hendrix's virtuosity departed in significant ways from the more economic playing style of chart-oriented tunesmiths like Steve Cropper and Curtis Mayfield. It is also possible, however, that besides the more obvious impact that

Hendrix's playing had on rock guitar styles, his legacy and influence may also extend to post-Band of Gypsys soul and rhythm and blues. A decade after Hendrix's death, Jeff Baxter (1948-), guitarist in the 1970s and 1980s for Steely Dan and The Doobie Brothers, and who sometimes played with Hendrix in Greenwich Village nightclubs in 1966, reckoned that "[the] whole R & B guitar style that we take for granted grew out of what Jimi was doing . . . in many cases [guitarists] don't even realize how much of it originated with Jimi."[106] In any case, Hendrix's likely participation on Don Covay's recordings, and his exchange with Steve Cropper at Stax in Memphis, give evidence that Hendrix was a significant contributor to the formation of a general style in 1960s soul music even prior to his achieving international fame as a rock virtuoso.

ASPECTS OF HENDRIX'S MELODIC LANGUAGE: SCALAR RESOURCES IN IMPROVISATION

Charles Shaar Murray writes that Hendrix's approach to rhythm (i.e., rhythm guitar playing) "came from soul" while his soloing was "derived from the blues."[107] Murray is speaking in terms of essentials, and in this sense his statement represents a conceptually useful exaggeration. In fact, neither aspect of Hendrix's playing is reducible to one idiomatic source. Mixed in with the core harmonic and rhythmic concepts of contemporary soul in Hendrix's rhythm guitar style are also Chuck Berry-type accompaniments and licks, and "power chords," the hard rock idiom bequeathed to English guitar-based bands from American rhythm and blues musicians and 1950s rockers like Link Wray (1935-).[108] But these staple elements in Hendrix's comping and riffs also come out in his soloing. Moreover, the extended blues-based soloing one hears

on *Band of Gypsys*, and on various recordings by the Experience, can easily glide into raga-like melodies or erupt into the electronic free-form style that was exclusive to Hendrix.

Murray's characterization of Hendrix's solo conception reflects that the fact that, indeed, Hendrix's melodic formulations are primarily based in the blues. Although electronic processing and extended techniques can readily alter the sound and the phrasing of traditional idioms, Hendrix's improvised melodic ideas are most often rooted in the pitch language and scalar resources of the blues. However, it is particularly relevant in dealing with *Band of Gypsys* to explore how Hendrix both enriches and diverges from these basic tonal materials to sustain lengthy spans of improvised melody.

APPLICATIONS OF SCALAR TYPES

Analyses of various Hendrix recordings suggest that his melodic inventions issued from a kind of blues super scalar-set that subsumes several scalar subsets. Example II-19a shows the complete set as scale degrees relative to a hypothetical key center based on C. The lowered submediant and leading tone scale degrees shown in parentheses seldom exist as independent melodic tones but, instead, most often function as decorative grace notes, passing tones, or neighbor notes (the infrequency of the lowered submediant also reflects the relative infrequency of minor mode pieces in the Hendrix oeuvre, "All Along the Watchtower" being a notable exception). The lowered second scale degree (also shown in parentheses) is a special case. It occurs with some frequency at local levels as a dissonant element, "outside" of the prevailing tonal setting or harmony. In this context the lowered second degree is usually produced by "overbending," an extended technique

whereby a string bend is stretched beyond the customary ranges of a half or whole step interval (e.g., the coda and fade-ending "outro" section of "Purple Haze" features a duet of guitar tracks overbending by an interval of three semitones to sound F natural over and against an E-centered ostinato). The lowered second degree also sounds a most exotic element in Hendrix's evocations of "oriental" melodies (see discussion of synthetic modes and scales, below).

From the quasi-chromatic pitch collection shown in Example II-19a, Hendrix most often improvises melodic ideas, including licks, riffs, lengthier phrases, and whole passages, based on various pentatonic, hexatonic, and altered diatonic scalar subsets. In the main, structural permutations of the subset scales center on the inclusions of the augmented second/minor third and augmented fourth/diminished fifth scale degrees (the enharmonic spellings indicate that the altered tones have no obligatory particular voice leading). Thus, in addition to the common minor and major pentatonic scales, melodic ideas frequently comprise the hybrid and altered pentatonic sets shown in Example II-19b. Hexatonic collections reflect a similar mixture of "raised" and "lowered" scale degrees (see Ex. II-19c). In addition, other melodic passages might represent blues inflected modal collections; Example II-19d includes a dorian mode that is supplemented by an augmented fourth/diminished fifth scale degree, and a mixolydian mode that is similarly inflected by the addition of an augmented second/minor third scale degree. For rare and exotic excursions away from blues-based melodic constructions, Hendrix sometimes employed "synthetic" modal melodies derived from hybrid modes and scales (see Ex. II-19e).[109] (In practice any and all of the above scales and modes are susceptible

to highly variable microtonal inflections as well as to having their pitch and intervallic makeups warped either by either feedback or Hendrix's whammy bar.)

It is unlikely that Hendrix would have recognized the names of the scales and modes given above. Nor is there any reason to believe that he thought in any analogous categorical and abstract way about many of the scalar subsets that I have identified. However, it is certain from his playing and improvising that he clearly distinguished, say, the minor pentatonic and blues-inflected collections from the major pentatonic and "majorish" sounding hexatonic scale (see the "gapped" major scale given in Ex. II-19c). As stated above, hybrid scales appear as local and discrete exoticisms.

I liken Hendrix's selective use of specific tones and different tonal collections to a painterly application of "colors"—varying hues of melodic colors—a concept that I shall return to in the concluding remarks of this chapter. This kind of tonal coloring and shading is particularly expressive when Hendrix's guitar parts introduce either tones or scalar types that have been largely excluded from or de-emphasized in a piece's predominant melodies and musical texture as a whole.

In the jazz-flavored instrumental dialogue that opens "Rainy Day, Dream Away" (*Electric Ladyland*), Hendrix's guitar and a tenor sax converse in pentatonic-based melodic ideas (both minor and altered pentatonic scalar sets centered on E-flat) that exclude the major sixth scale degree but that heavily emphasize the minor or flattened third scale degree (the major third degree is only heard as a subtle component in the accompanying organ's augmented-ninth chords). "Brightening" this primary blue and pentatonic color is the soul-style guitar phrase (corresponding to 0:43–0:46), shown in Example II-20, that adds both the major sixth (C natural) and major third (G natural)

scale degrees into the tonal mix. The major third degree occurring in m. 21 concludes a sequence of oblique motions, and punctuates the ongoing guitar and sax exchange as part of a quasi-plagal cadential gesture. But the tonal expansion brought by the importation of the major sixth and major third degrees is transitory: mm. 22 (not shown) marks an immediate return to the darker, blues colored pentatonic sound that was established at the outset of the performance.

"The Wind Cries Mary" (*Are You Experienced*) presents a nearly inverse example from that of "Rainy Day, Dream Away." In the coda to "The Wind Cries Mary" Hendrix's guitar signals the piece's final cadence with a melodic insertion of the lowered seventh scale degree (E-flat in the key of F), a blue note that Hendrix has scrupulously avoided sounding in his major pentatonic melodicizing (see Ex. II-21). Except for a brief modulatory passage in the solo section, and exempting the piece's signature ritornello (a chromatic figure which begins on a major chord formed on the flat-seventh degree), the guitar's melodic phrases adhere to the same major pentatonic scale one hears in the song's melody. In this tonal environment and stylistic context the melodic fall from the tonic to the flat-seventh in m. 63 cues up the concluding melodic gesture of the piece, the Curtis Mayfield-style cadential figure appearing in m. 64. Besides illustrating a selective expansion of basic scalar material, the cadential passage is also revealing of Hendrix's sophisticated and exacting syntactical sense in blues phrasing and melodic construction.

Lengthier and more pervasive shifts between scalar materials characterize the guitar solos on *Band of Gypsys*. Particularly in his extended improvisations, Hendrix will, as it were, brush and daub varying hues of scalar runs and melodic ideas over harmonically static canvases such as bass ostinati. In the open-ended solo passages in

"Machine Gun," for example, one can describe a nearly continuously alternating expansion and contraction of pitch contents. Hendrix's melodic ideas largely comprise permutations of minor and altered pentatonic scales, and various hexatonic collections. Each of these pitch collections is rich in blue notes (flat or flatted third, fifth, and seventh scale degrees) and each omits the major second, major third, and major seventh scale degrees; critical features that they share with the ground bass patterns that are the fundamental structures of the piece. However, the rare melodic passages that introduce these omitted tones stand out as large-scale punctuations in the improvisational flow. Moreover, accompanying changes in melodic contour and articulation, as well as changes in other stylistic and musical parameters typically bolster the contrasting character of these passages. Thus, the raga-like melody that Hendrix quietly expresses in concluding his introductory segment of improvisation in "Machine Gun," brings the first significant tonal expansion in the piece: heightening the passage's exotic scalar color (<$\hat{1}$-$\hat{2}$-$\hat{b3}$-$\hat{4}$-$\hat{b5}$-$\hat{5}$-$\hat{6}$-$\hat{b7}$>, a blues-inflected dorian mode, one might say), is a legato articulation and a graceful stepwise melodic motion that evokes the sound of Indian sarod or sitar. A comparable tonal expansion occurs during the disturbing sound painting that concludes "Machine Gun": in this passage, however, the guitar's dorian "melody" breaks up into a highly disjunct contour before dissolving into quivering feedback.

I want to get color into music.
I'd like to play a note and have it come out a color
—Jimi Hendrix, 1967[110]

In expressing his ideas to working associates and friends, Hendrix imagined particular timbres and sound effects as being analogous to visual colors. Earlier

discussion mentioned that Hendrix would refer to the soundscapes that he created with the Experience as "sound paintings," and, indeed, the electronic timbres in such pieces can evoke pastorale greens as well as flashing gunfire in the mind's eye. Many of the song texts represented in the Experience recordings also express vivid colored imagery; the poetic text of "Bold As Love" yokes personifications of both colors and emotions ("Anger—he smiles, towering in shiny metallic purple armor . . . Red is confident, he flashes trophies of war and ribbons of euphoria").

I have already borrowed Hendrix's color-sound analogy in discussing his use of various scales and melodic ideas. One might also extend the concept to characterize the painterly approach by which he uses all of the elements of both sound and style given in the preceding pages. Thus, in addition to specific scales and melodic ideas, the sonic spectrum of Hendrix's improvisations and compositions draws on a palette of signature chords, rhythmic devices, and extended techniques, as well as a glittering array of timbral effects. These characterizations by no means suggest that Hendrix's "rhythm section"—two-thirds of Band of Gypsys—provides only a "monochromatic" backdrop, devoid of the rhythmic, textural, and timbral dynamism that one hears on the recording. Indeed, the analytical contents of the following chapters will emphasize the interaction of Hendrix, Cox, and Miles in live performance. It is, of course, an interaction to which all of the individual performances are inseparably linked.

> [Hendrix] drags the neck of the guitar sensually across the microphone stand,
> sending streams of ecstasy through the bodies of teens
> . . . his tonal orgasms resist any attempt to be categorized
>
> —*Stuttgarter Zeitung*, 21 January 1969[111]

Musical analysis and transcriptions cannot, of course, represent the "whole picture" of a live performance. To begin with, it is difficult, and sometimes impossible, to draw a clear line separating stagecraft from a "purely" musical expression. This is especially true of Hendrix who— even when he was not being flamboyantly acrobatic—was a virtuoso of visual performance as well as of guitar playing. After seeing film clips of Hendrix scraping a microphone stand down the length of the guitar strings, and melding that theatrical maneuver into a bluesy string bend and/or subsequent plunge of the whammy bar so as to produce one continuous gesture and sound, the spectator may wonder where Hendrix's showmanship ends and his musicianship begins. Transcriptions obviously offer no help in settling this kind of issue—although it gives one pause in analyzing transcribed recordings to consider from what "unseen" impetus it was that a given sound event might have been engendered. Though Hendrix is reputed to have stood stock still in order to concentrate on his musical performance for *Band of Gypsys*, film clips taken at the bands' Fillmore performances record some of the "body English" that went along with highlighted musical expressions. In deflecting criticisms of his visual presentation and of the "wildman" act that garnered so much early publicity for the Experience, Hendrix declared that his stage performance was really "not an act . . . but a state of being . . . My music, my instrument, my soul, my body are all one action with my mind."[112]

The practical exigencies of live performance also present issues for interpretive analysis. For example, in all four of the *Band of Gypsys* performances analyzed here, Hendrix plays the same basic, double-stop lick in the course of several separate solo improvisations. Example II-22 shows the lick in abstract form, labeled as lick JH-1,

comprising a combined string bend (the lower note in the double-stop bends up by the interval of a whole step) and a fixed, fretted note; the sustained target minor third interval sounds the subtonic and the dominant scale degrees (D natural and B natural, respectively, in the example). In "Machine Gun," Hendrix repeatedly plays variations of this stock blues guitar lick, and in several passages he adds and mixes special playing techniques and effects processing to evoke explosive sonic images—a fusion of traditional blues and electronic sound painting that is emblematic for the stylistic synthesis of the composition as a whole. However, comparative analyses will show that variations of this particular lick also occur in other, analogous musical contexts in "Machine Gun" as well as in "Who Knows" and "Message to Love," where JH-1 punctuates the beginnings or endings of phrases, or otherwise marks major sectional divisions. Analytical discussions of the aforementioned pieces will identify variations of this basic lick, where they occur, as JH-1.

The frequent employment of lick JH-1 suggests some ways that Hendrix the improviser might have operated in live concert. For rather than representing, say, a unifying thematic element, one suspects that the repeated lick/sound often serves a practical value. When combined with fuzztone distortion and loud volume, the stock blues lick yields a powerful sound that can be sustained and modified by either one or both hands while pausing to think, change settings, step on effects pedals, or otherwise prepare for any upcoming events. In addition, the sustained sound precludes any errant feedback that might accidentally crop up while preoccupied with making any such adjustments or preparations. Where it is not functioning as a thematic or motivic element, then, the lick can be a ready-made and reliable device in the context of a live

performance. Film clips of Hendrix performing "Machine Gun" and "Who Knows" supports these conjectures, as they show him gripping the guitar neck to sustain this sound while he is activating or switching between his foot-controlled stomp boxes.[113] Example II-23 (a—c) gives transcriptions of three excerpted passages that correspond to the aforementioned film footage. Note that Hendrix plays variations of lick JH-1 when he is both shifting into and out of his lengthy guitar solo in "Machine Gun" (cf. mm. 65–66 and mm.130–132, shown in Ex.s II-23a and II-23b, respectively), as well as when he is preparing to launch into his second guitar solo in "Who Knows" (m. 58.5, Ex. II-23c).

In addition to acknowledging some of the issues confronting the analytically based criticism to follow, in closing this chapter the author also admits to some of the limitations reflected in the preceding pages: a discussion of Hendrix's vocal style is an obvious omission, and his guitar playing on *Band of Gypsys* is often intimately connected to his vocal phrasing as well as to the song's lyrical content. Nor did this chapter touch on any of the techniques, equipment, or personal playing and singing styles of Hendrix's colleagues in Band of Gypsys. Some of this information will appear in the chapters to follow. However, a more deservedly thorough treatment of Billy Cox and Buddy Miles is beyond the scope of this paper.

Notes to Chapter II

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[1] Albert Goldman is quoted in Chris Potash, *The Jimi Hendrix Companion: Three Decades of Commentary* (New York: Schirmer; London: Prentice Hall International, 1996), 57. Goldman's interview with Hendrix and accompanying reviews of Hendrix in performance and of *Electric Ladyland*, were written in 1968 and first published in *Freakshow* (New York: Atheneum, 1971), 85–91.

[2] Shapiro and Glebbeek, *Electric Gypsy*, 673.

[3] For a history of the Fender Stratocaster and the development of its innovative design, consult the following works: Andre Duchossoir, *The Fender Stratocaster*, rev. ed. (Milwaukee, WI: Hal Leonard, 1994); and Tom Wheeler, *American Guitars: An Illustrated History* (New York: Harper and Row, 1982).

[4] Guitarist Buddy Guy featured the "out-of-phase" Stratocaster sound on "When My Left Eye Jumps," a Willie Dixon tune that was recorded and released by Chess Records in 1964 (Chess Records single #1899, 1964).

The two possible "out-of-phase" pickup settings described above, alternatively matching either the bridge or the neck pickups with the middle pickup, do not actually result in making an out-of-phase circuit connection. By the 1970s, Fender guitars came stock with five-position switches that eliminated the awkward maneuvering required by the original pickup selector switches with which Hendrix and Buddy Guy had to contend.

[5] Shapiro and Glebbeek, *Electric Gypsy*, 673.

[6] Rothschild and Gruber, *Live at the Fillmore*, 50–55.

[7] For the story of Marshall amplifiers see Michael Doyle, *The History of Marshall: The Illustrated Story of 'The Sound of Rock,'* ed. Jon Eiche (Milwaukee, WI: Hal Leonard, 1993).

[8] According to Aspen Pittman, an expert on guitar amplifiers, the Marshall bass cabinets that Hendrix reportedly favored used Celestian 30 H series speakers. Rated at thirty-watts peak power capacity per speaker, these speaker models had a modestly higher capacity than the other models of Celestians that were used in Marshall guitar cabinets. See Aspen Pittman, *The Tube Amp Book* (Sylmar, CA: Groove Tubes/GT Electronics, 19995), 83.

[9] Kees de Lange, "Mr. Satire and Mr. Phenomenon," *UniVibes International Jimi Hendrix Magazine*, December 1997, 28.

[10] Billy Cox states that the Band of Gypsys concerts at the Fillmore marked the first occasion where Hendrix combined all of the different kinds of signal processors that he

had previously used in various combinations during his time with the original Experience and Gypsy Sun and Rainbows (Cox quoted in John McDermott's CD liner notes to *Hendrix: Live at the Fillmore East*). The types of processors that were used and their probable order of interface is reported in Laurence Juber's *Univibe and Octavia* (Laurence Juber, *Univibe and Octavia* [Milwaukee, WI: Hal Leonard, 1992], 3), an instruction book on Hendrix's playing style and equipment.

[11] Clyde McCoy recorded "Sugar Blues" a number of times for different record labels. McCoy's first release and version of the tune scored a hit for Columbia Records in 1931.

[12] Chet Atkins, "Boo Boo Stick Beat" (RCA Victor 47-7589, 1959).

[13] As a session guitarist, Vinnie Bell used wah-wah type effects on "Jersey Bounce" by the Spacemen (Felton Records, 1959). However, Bell reports that he built and began using a wah-wah pedal on nightclub gigs as early as 1951. Vinnie Bell, telephone interview by author, 29 November 2003.

[14] Some have alleged that Earl Hooker actually "invented the wah-wah pedal," so impressed were they by the extended techniques that Hooker had developed before the advent of commercially available effects pedals. See Sebastian Danchin, *Earl Hooker: Blues Master* (Jackson, MS: University Press of Mississippi, 2001), xii, 250–251. Reportedly, Hooker's 1969 release of "Wah-Wah Blues" (Arhoolie 45-521, recorded 14 November 1968) was well received by his Chicago blues audience, but British critics viewed his use of the wah-wah—an effects pedal that at that time was more closely associated with rock and with the already passé "psychedelic" movement—as representing an unwelcome incursion of commercialism into an otherwise "authentic" blues performance (ibid., 264, 289, and 360).

[15] In an interview Hendrix stated that his first encounter with a wah-wah pedal used on a recording was hearing Eric Clapton's performance on "Tales of Brave Ulysses," an album track on Cream's *Disraeli Gears* (Atco, SD 33-232, 1967) (Shapiro and Glebbeek, *Electric Gypsy*, 687). In the same interview Hendrix also mentioned that for "I Don't Live Today," on *Are You Experienced,* he had produced the effect by means of his hands. In context it seems that Hendrix is referring to using the tone controls on his guitar. However, it is possible that in recording "I Don't Live Today," he might have also used a prototype wah-wah unit that was hand operated.

[16] Marvin Gaye (1939–1984), *Trouble Man* (Tamla 322, 1972); Isaac Hayes (1938-), *Shaft* (Enterprise 5002, 1971); Curtis Mayfield, *Superfly* (Curtom LP 8014, 1972).

[17] Davis and Troupe, *Miles*, 319.

[18] Stevie Wonder, "Higher Ground" (Tamla 54235, 1973); Billy Preston, "Outa-Space" (A&M 1320, 1972).

[19] Marty Robbins's "Don't Worry" (Columbia 41922, 1961) went to the number three position on the Billboard Pop Singles charts. Reportedly, the raucous "fuzztone" guitar part, played by session guitarist Grady Martin (1929–2001) in the middle and ending segments of an otherwise conventional countrypolitan-style recording, was produced by running a baritone guitar's signal through a faulty channel in a Nashville recording console. See Rusty Russell, "Nashville Then & Now," *Guitar Player*, February 1999, 81.

[20] The Ventures, "The 2,000 Pound Bee," Parts One and Two (Dolton DO-733 and DO-734, 1962). Both sides of the Ventures' single (Part One and Part Two, respectively) featured fuzztone guitar.

[21] The Rolling Stones, "(I Can't Get No) Satisfaction" (London 9766, 1965). Guitarist Keith Richards has stated in several interviews that in using the fuzztone for "Satisfaction" he was attempting to emulate the sound of a horn section. Advertising brochures and owners manuals accompanying the early model Maestro Fuzztone (marketed by the Gibson guitar company in the 1960s) touted the effect's ability to approximate the sounds of brass and of other types of instruments. The Beatles used "fuzz guitar" on various recordings, and also employed a "fuzz bass" on "Think For Yourself," a track included on *Rubber Soul* (Capitol 2442, 1965).

[22] Jeff Beck reportedly used a fuzz box custom built by Roger Mayer on the Yardbirds' "Heart Full of Soul" (Epic 9823, 1965). Mayer's design originated in his attempt to improve upon the guitar sounds that he had heard on "The 2,000 Pound Bee" by the Ventures. See Michael Hicks, *Sixties Rock: Garage, Psychedelic, and Other Satisfactions* (Chicago: University of Illinois Press, 1999), 18–19.

[23] The Yardbirds: "Shapes of Things" (Epic 5-10006, 1966); "I Can't Make Your Way," from *Over Under Sideways Down* (Epic BN 26210, 1966); "I'm a Man" (Epic 9857, 1965); "Over Under Sideways Down" (Epic 10035, 1966).

Fuzztone evocations of Eastern exoticism and "mysticism" became clichés of 1966—1969 psychedelic music. Representative riffs and guitar solos may be heard in recordings by the Beatles, the Byrds, Iron Butterfly, Fever Tree, Strawberry Alarm Clock, Vanilla Fudge, and those by several San Francisco based groups. But according to Jeff Beck, "The Yardbirds were the first psychedelic band." See Alan Clayson, *The Yardbirds* (San Francisco: Backbeat Books, 2002), 104.

[24] Jeff Beck feels that his work with the Yardbirds was a direct influence on Hendrix:" . . . there was a lot of stuff [Hendrix] actually got from me—which he [Hendrix] admitted. Some of the little licks he did came from Yardbirds records" (ibid., 106).

[25] Both Jeff Beck and fellow Yardbirds guitarist Jimmy Page played on "Happenings Ten Years Time Ago" (Epic 10094, 1966). Beck recollected speaking with Hendrix about his own performance on the Yardbirds recording in an interview for *Rock & Roll*, a PBS/BBC television documentary series (*Rock & Roll*, a ten-hour series jointly produced by PBS-affiliate WGBH Boston and the BBC, that aired on PBS in September 1995).

The present author has compared stylistic and formal features of the Yardbirds' "Happenings Ten Years Time Ago" with those of Jimi Hendrix's "Purple Haze," in John Hanford, "Realities Altered and Redefined: Sound, Style and Meaning in Jimi Hendrix's 'Purple Haze' and 'The Star Spangled Banner'" (M.A. thesis, University of Washington, 1997).

[26] Guitar Slim (Eddie Jones, 1926–1959) has risen to a mythical status among guitarists not only for his playing but also for his outrageous stage performances, for which on at least one occasion Slim dyed his hair blue to match his blue colored clothes, shoes, and guitar. Unfortunately, the recording technology and philosophy of 1950s audio engineering were not equal to capturing Slim's live guitar sound, which by all accounts could be deafening (see Jerry Wexler and Charles Ritz, *Rhythm and the Blues: A Life in American Music* [New York: St. Martin's Press, 1993], 96—97). Hence, it seems that there is no surviving audio record of the squealing feedback and blistering guitar tone that Slim—playing through a powerful P.A system instead of a guitar amplifier—reportedly unleashed on his audiences. However, his greatest hit, "The Things That I Used To Do" (Specialty SP 482, 1953), a million-selling single that was arranged by Ray Charles (1930-), features plenty of Guitar Slim's aggressive guitar work. Slim's signature piece would become a part of Jimi Hendrix's repertoire, Hendrix being a guitarist with whom the colorful and innovative Guitar Slim is now frequently compared.

Little Walter (Marion Walter Jacobs, 1930–1968) changed the sound and style of amplified blues harmonica while playing with the Muddy Waters band in the early 1950s. Little Walter's innovations were rooted in his running the harmonica's microphone directly into a guitar amplifier rather than into the customary P.A. system—a reversal of Guitar Slim's strategy. The resultant sound quality, thick and distorted, transformed the harmonica, in the words of one writer, " . . . from a vest pocket 'mouth organ' to a blaring 'Mississippi saxophone'" (Billy Altman, liner notes to: *Little Walter: His Best* [MCA Records, CHD-9384, 1997]).

[27] Friends and musicians from Hendrix's early days in Seattle recall him being influenced by both Bo Diddley and Duane Eddy, but that Hendrix was particularly intrigued by Eddy's sound. See Mary Willix, *Voices From Home* (San Diego: Creative Forces, 1995), 59–60, 67, 74, 84–85). Luther Rabb, a friend from Seattle whose band Ballin' Jack opened for a number of the Experience's "Cry of Love" tour concert dates in 1970, states that when he and Hendrix were young musicians "[Hendrix's] idol was Duane Eddy" (ibid., 67).

[28] "Driftwood," appeared on *The Fabulous Wailers* LP (Golden Crest, CR 3075, 1959). A composition in the Phrygian mode, the piece is an early example of the cross-talk between Northwest rock and jazz that formed a part of the musical milieu in Hendrix's Seattle. Guitarist and composer Rich Dangel's use of electronic tremolo heightens the piece's "watery" evocation.

[29] The Chantay's (sic) released the surf instrumental "Pipeline" (Dot 164400) in 1963). On the recording, the lead guitar uses the effect only for the last "crash" of surf guitar to end the recording (electronic tremolo is used on the Wurlitzer electronic piano throughout the recording). The Viscounts' reworking of the Johnny Otis hit "Harlem Nocturne" was first released in 1959 and later reissued in 1966 (Amy 940, 1966).

Proto-psychedelic works would include "7 And 7 Is" (Elektra 45605, 1966), by Love, and "I Had Too Much To Dream (Last Night)" (Reprise 0532, 1967), by the Electric Prunes.

[30] Larry Nager, *Memphis Beat: The Lives and Times of American's Musical Crossroads* (New York: St. Martin's Press, 1998), 196.

[31] "I've Been Trying" first appeared as a track on the Impressions' *Keep On Pushin'* album (ABC-Paramount 493, 1964). Mayfield's tune was later issued as a 45 r.p.m. single (ABC-Paramount 10622, 1965)

[32] Lonnie Mack's "Wham!" (Fraternity 912) rose to number twenty-six on the Billboard Pop Charts in 1963. "I Found a Love" (Lu Pine, 1003), by the Falcons, scored a number six position on the Rhythm and Blues charts in 1962.

Before recording with the Falcons, Robert Ward was a founder member of the rhythm and blues group, the Ohio Untouchables. Later he became a session guitarist working for Motown Records. Ward developed his signature sound by using a Magnatone model amplifier. As distinct from the tremolo effects available on Fender and other major brands of guitar amplifiers in the 1950s and 1960s, Magnatone amps featured a special circuit design that could produce "true vibrato" effects," i.e., frequency modulation or cyclic pitch shifting. The tremolo effects of other amplifier makes and models represent a product of amplitude modulation, or cyclic changes in volume (http://www.vibroworld.com/magnatone/vibrato.htm, accessed on 23 March 2002). (The distinction between "vibrato" and "tremolo" in psycho-acoustical terms is somewhat cloudy, but this issue lies outside the scope of this paper.)

Reportedly, Lonnie Mack followed Ward's example in employing a Magnatone amplifier. In addition to using the Magnatone's vibrato effect, for the unusual sound on "Wham!" Mack also ran his guitar signal through a Leslie speaker cabinet. See CD liner notes by Bill Millar to *Memphis Wham!* (ACE Records, CD CHD 713, 1999). Years after Ward's and Mack's seminal recordings, Jimi Hendrix would be able to obtain electronic vibrato effects from settings on the Univibe.

[33] Authors Shapiro and Glebbeek credit Hendrix with playing the tremolo-treated guitar parts on: "Looking For A Love," by the Isley Brothers (Atlantic 45-2263, 1964); and "I Don't Know What You've Got But It's Got Me," Parts One and Two, by Little Richard (Vee Jay, VJ-698, 1965). See Shapiro and Glebbeek *Electric Gypsy*, 572–573.

[34] For a discussion of the workings and the development of the Leslie speaker see Mark Vail, *The Hammond Organ: Beauty in the B* (San Francisco: Miller Freeman Books, 1997), 12–13.

[35] For a history of Hendrix's production of "Little Wing," and his use of phase shifting and the related process of "flanging," see McDermott and Kramer, *Setting the Record Straight*, 92—95.

[36] Versions of "Hey Baby (The Land of the New Rising Sun)" appear on the posthumous releases *Rainbow Bridge* (Reprise MS 2040, 1971), and the CD box set *The Jimi Hendrix Experience* (MCA 088 112 317-2, 2000).

[37] Shapiro and Glebbeek, *Electric Gypsy*, 688.

[38] "That Lady (Part 1)" (T-Neck 2251, 1973) scored a hit single for Hendrix's former employers, the Isley Brothers. Robin Trower's *Bridge of Sighs* (1974) reached number seven on the album charts. Before becoming a solo artist, Robin Trower (1945-) was a member of the British band Procol Harum, and he dedicated "Song for a Dreamer," released on the group's *Broken Barricades* (1971), to the memory of Jimi Hendrix.

[39] *UniVibes International Jimi Hendrix Magazine* (Coppeen, Enniskeane, County Cork, Republic of Ireland) is published by chief editor Caesar Glebbeek, who is also the co-author of several books on Hendrix, including the standard biography, *Jimi Hendrix: Electric Gypsy* (1991).

[40] Michael Fairchild quotes Roger Mayer in his liner notes to CD reissue of *Are You Experienced?* (MCA MCAD-10893, 1993), 10.

[41] Ibid.

[42] Lawrence Juber reports that Roger Mayer had supplied Hendrix with new Axis Fuzz and Octavia units just prior to the Band of Gypsys' debut (Juber, *Univibe and Octavia*, 3).

[43] Ring Modulation is defined by Paul Griffiths as: "the electronic combination of two signals to produce an output containing only sum and difference frequencies. For example, if the [input] signals are sine waves of 200 c.p.s. and 300 c.p.s., the output will contain frequencies of 100 c.p.s. and 500 c.p.s. The process often results in a harshening of sound due to the inharmonicity of the product (Paul Griffiths, *A Guide To Electronic*

Music [New York: Thames and Hudson, 1980], 120). Griffiths uses the term "inharmonic" to describe " . . . frequency components which are not harmonics of the fundamental. The greater the inharmonicity, the greater the clangorousness of the sound" (Ibid., 119).

The Octavia is not a true ring modulator, but the setting that Hendrix dials up for "Who Knows" mixes analogous effects of ring modulation together with the guitar's unprocessed signal. However, because of the idiosyncratic characteristics of the Octavia's signal processing, both the degree and quality of the electronic effect are highly variable. In addition, the effect of ring modulation and of the analogous processing of the Octavia does not always produce a clangorous sound quality; a "consonant" input can result in a "consonant" output of mixed sum and difference frequencies. This mode of processing, too, can produce striking musical effects. Thus, during the Octavia-processed solo in "Who Knows," when Hendrix frets a perfect fifth dyad in the guitar's lower register, he creates a resonant subharmonic sounding an octave below the lower member of the dyad and well below the acoustic range of the instrument.

[44] During the1980s the Eventide Harmonizer became a mainstay of professional recording studios. Guitarists like Robert Fripp (1946-), Allan Holdsworth (1946-), and Trevor Rabin (1954-), also fully integrated "harmonizers" into their playing and song compositions. Harmonizer-treated guitar tracks became a prominent feature of recordings by Prince (Prince Rogers Nelson, 1958-) in the 1980s and 1990s.

[45] *Don Ellis At The Fillmore* (Columbia CG 30243, 1970), a live recording displaying Don Ellis's improvisations with an amplified trumpet fed through an Oberheim ring modulator, is currently out of print. Jan Hammer plays a ring-modulated Fender Rhodes electric piano on "The Noonward Race," "Vital Transformation," and "Awakening," three tracks included on *The Inner Mounting Flame* (Columbia KC 31067, 1972), the Mahavishnu Orchestra's debut album and a seminal jazz-fusion recording.

[46] McDermott, Cox, and Kramer, *Sessions,* 103.

[47] Hendrix reportedly met Albert King in 1964. The older musician would later recall his having met Hendrix again when King played in support of the Experience at San Francisco's Fillmore and Winterland auditoriums in February1968. See Shapiro and Glebbeek, *Electric Gypsy,* 83–84; 249–250.

[48] Various musicians have been nominated for having inspired Hendrix's drop tunings, including Albert King and the Chicago guitarist and Miles Davis sideman, Pete Cosey. However, as shown above, the practice is commonplace in a variety of popular musical traditions. Furthermore, Hendrix was apparently acquainted with the basic concept of variable tunings early on in his musical career. Hendrix's Seattle friend and fellow guitarist Pernell Alexander (1942-) recalls that he and "Jimmy" would tune their guitars down "to low C " in order to cover bass parts in their band the Velvetones (Willix, *Voices*, 59).

[49] See *Jimi Hendrix: Woodstock* (Hegedus, Chris and Erez Laufer: MCA Music Video MCAL-11107, 1994).

[50] The Beatles, "I Feel Fine" (Capitol 5327, 1964).

[51] The Who, "Anyway, Anyhow, Anywhere" (Brunswick 05935, 1965). Pete Townshend discusses his guitar and performing style, and his development of feedback techniques, in Steve Clarke, comp., *The Who In Their Own Words* (London; Omnibus Press, 1979).

Radio broadcasts that were produced and recorded by the BBC in 1965 document Pete Townshend's use of microphonic feedback to evoke what might be described as "audio anarchy" (tracks issued on the 1998 CD: *The Who: BBC Sessions*; MCA 1999088 111 960-2). The BBC recordings of "Anyway, Anyhow, Anywhere" and "My Generation" display Townshend's improvising and incorporating feedback with other trademark sound techniques—scraping the guitar strings with the edge of his pick, rapidly toggling the guitar's pickup selection switch to emit piercing "beeps" of microphonic feedback, etc. The overall effect strikes one as a welter of guitar-generated electronic noise, and, at this stage of development in his playing, Townshend in no instance attempts to meld feedback into any real melodic shape.

[52] John Mayall, *Blues Breakers: John Mayall with Eric Clapton* (London, Mono LL 3492 and Stereo PS 492, 1966); and Cream, *Fresh Cream* (Atco SD 33-206, 1967).

[53] For information about Syd Barrett's exploration of feedback and possible influence on Hendrix see James Rotundi "Sunshine Supermen: Britain's Psychedelic Guitar Wizards," *Guitar Player*, February 1997, 86–102.

Guitarist Mike Bloomfield (1944–1981) stated that when he saw Hendrix performing in Greenwich Village sometime prior to Hendrix's leaving for London and forming the Experience, Hendrix was already in full command of feedback and other extended techniques (Shapiro and Glebbeek, *Electric Gypsy*, 104; Bloomfield's statement is excerpted from "Jimi Hendrix: A GP Special Edition," *Guitar Player*, September 1975). Hendrix did in fact express admiration for Pink Floyd, and perhaps their experimentation encouraged his own, but if Bloomfield is correct then Hendrix had started serious work with feedback before having had the opportunity to see Syd Barrett perform in England.

[54] See *Jimi Hendrix: Live At Monterey* (Pennebaker, D.A., and Chris Hegedus. HBO Video 0251, 1986).

[55] The guitarist's technique of quickly alternating between sounding the same pitch on two different strings produces an effect similar to that produced by a saxophonist's "vent-fingering" or "false finger" technique. Tenor saxophonist Lester Young is most identified with using this technique, whereby he used alternate fingerings to sound the same pitch in improvising single-note phrases: See Jerry Coker, *Listening to Jazz*

(Englewood Cliffs, NJ: Prentice-Hall, 1978), 102. In the 1950s and 1960s, John Coltrane worked on expanding this basic technique, which he described as producing "freak notes": See Lewis Porter, *John Coltrane: His Life and Music* (Ann Arbor, MI: University of Michigan Press, 2001), 120.

[56] The tale of manager Chas Chandler's promise to introduce Hendrix to Eric Clapton has become a part of rock mythology. According to Chandler, the prospect of meeting Clapton helped entice Hendrix into agreeing to come to England under Chandler's management. One is curious to know, however, what Hendrix's admiration for Clapton was based upon, since the English guitarist was still little known in America at this time.

Sources vary regarding the date of Chandler's and Hendrix's first meeting and their making an informal managerial agreement. Most writers place the first meeting as having occurred on 5 July 1966; author Steven Roby, asserts that they first met nearly a month later, on 3 August (Roby, *Black Gold*, 56–57). At the time of the first date, only a handful of Clapton's recordings would have been available in the United States: these few sides comprised early uncredited recordings with the Yardbirds (including "For Your Love" [Epic 9790, 1965], and a few tracks by Eric Clapton and the Powerhouse that were included on *What's Shakin'* (Elektra EKL-4002, released in May 1966), a compilation album headlining the Paul Butterfield Blues Band and the Lovin' Spoonful. Presumably, these were the only Clapton recordings that Hendrix would have had access to prior to his meeting Chandler. (Hendrix, however, had already made contact with Linda Keith, an English model who was connected to guitarist Keith Richards and to the Rolling Stones. Keith was responsible for first bringing Chas Chandler to see Hendrix perform. It is possible, then, that Linda Keith, who shared Hendrix's interest in the blues, might have introduced him to recordings by Clapton that were not yet issued in the United States, and she may also have told Hendrix about Clapton's rising celebrity—as a blues guitarist—in England.) By the time of the alternative date, set by Roby at 3 August, the groundbreaking "Blues Breakers" album had just come out. Mayall's album never charted on Billboard Magazine's Top 200 Albums listing, but in England it became a top seller (liner notes to CD reissue, *Blues Breakers: John Mayall with Eric Clapton*, [Deram, UDCD 616, 1986]).

Blues Breakers: John Mayall with Eric Clapton (Decca LK 4804, in the U.K.; London LL 3492 and PS 492 in the U.S.A.) was issued in Britain on 22 July 1966; "Key to Love," written by John Mayall (1933-), was released as a single on 9 September 1966, some few weeks before Hendrix arrived in England (24 September 1966). The album comprises Mayall's original blues-based songs in addition to blues and rhythm and blues standards by Robert Johnson, Freddy King, and Ray Charles. Though inspired by post-war electric blues styles, Clapton's playing on the album became a seminal influence on rock guitar styles. Chandler did, indeed, introduce Hendrix to Clapton when he arranged for Hendrix to jam on stage with Cream in London on 1 October 1966 (Egan, *The Making of Are You Experienced*, 44–45).

[57] "Monterey" (MGM 13868, 1967), recorded by the Animals, conveys a musical characterization of Hendrix's performance at the Monterey Pops Festival by a guitar track's parodying the unison technique that one hears in "Manic Depression."

[58] "I Can't Be Satisfied" (Aristocrat 1302, 1947) and "Rollin' and Tumblin', Part 1" (Aristocrat 412, 1950), were both songs written and recorded by Muddy Waters.

[59] The Fender Musical Instrument Company advertised the Stratocaster as featuring a "synchronized tremolo system," and described the guitar's bridge and tailpiece assembly as its "tremolo unit." (Conversely, the company labeled the electronic tremolo function in Fender amplifiers as "vibrato.") For a history of the Stratocaster's innovative "tremolo system," see Duchossoir, *The Fender Stratocaster*, 8–9.

[60] Leo Fender (1909–1991), founder of the Fender Musical Instrument Company and a co-designer of the Stratocaster, stated that the Stratocaster's tailpiece was designed to compete with another vibrato or "vibrola" system that was currently being used and popularized by country artist, Merle Travis (1917–1983) (ibid., 2; and Tom Wheeler, *American Guitars*, 63). In the early 1950s and for decades to follow, Fender guitars enjoyed a wide popularity among Southern California country guitarists, and Leo Fender solicited input from country musicians in designing the Stratocaster.

[61] Travis Wammack's "Scratchy" was released nationally in 1964 (ARA 204; reissued on *Travis Wammack: That Scratchy Guitar From Memphis* [Bear Family Records, LC 5197, 1987]). However, Wammack actually made the recording in 1961—a remarkably early date given his precocious pairing of a distorted guitar sound with whammy bar produced vibrato effects. Recorded in a Memphis studio, "Scratchy" may have briefly garnered some local radio play before the time of its national release and during the years when Hendrix was living and working in and around Kentucky and Tennessee.

Representative recordings by Buddy Guy and Lonnie Mack, include: "My Time After While," by Buddy Guy (Chess 1899, 1964); and "Memphis," by Lonnie Mack (Fraternity 906, 1963).

[62] Ike Turner and His Kings of Rhythm recorded "The New Breed, PT.2" (Sue 138, 1965) in August of 1965 (see CD liner notes by Bill Greensmith to *The Best of Ike Turner* [Rhino R2 71819, 1994]). "Ho-Ho" (Stephens #107, 1959), an earlier recording Turner issued under the pseudonym, Icky Renrut, also displays an impressive performance with the whammy bar. More generally, the mix of vibrato-bar scoops and shakes, string-bending, and vocal-sounding glissandi that one hears in Turner's performances, strongly suggests his possible influence, either directly or indirectly, on Hendrix's style. Ike Turner's guitar playing on Otis Rush's "Double Trouble" (Cobra 5030, 1958) will be referenced in discussion of "Machine Gun" to follow.

For an excellent history of Ike Turner and other early pioneers of electric guitar techniques, see Robert Palmer, "The Church of the Sonic Guitar," *South Atlantic Quarterly*, Fall 1991, 649–673.

[63] In his memoirs, Ike Turner gives a sketchy account of his having employed Hendrix ("a guitar player named Jimmy"). Without specifying when or where he hired him, Turner recalls firing Hendrix for his failure to effectively manage his effects pedals (which, *pace* Ike Turner, could not have included a wah-wah pedal in any time frame that Hendrix might have been employed in Turner's band) and his inability to control his guitar's feedback. See Ike Turner and Nigel Cawthorne, *Takin' Back My Name: The Confessions of Ike Turner* (London: Virgin Books, 1999), 67.

A chronology by biographers Shapiro and Glebbeek shows Hendrix auditioning and subsequently playing with the Ike & Tina Turner Review in Amarillo, Texas during February 1965 (*Electric Gypsy*, 698). Other accounts also state that Hendrix played as a backup musician for the Turners (McDermott and Kramer, *Setting the Record*, 34). Author Charles Shaar Murray states that Hendrix auditioned for Ike Turner in St. Louis, Missouri, but that Turner refused to hire him. Murray also states that Hendrix's claim to have worked with Ike and Tina is disputed by Tina Turner. See Charles Shaar Murray, *Crosstown Traffic: Jimi Hendrix and the Rock & Roll Revolution* (New York: St. Martin's Press, 1989), 38 and 162. Singer Rosa Lee Brooks, with whom Hendrix recorded in 1964 (see below), recalls first meeting Hendrix at a Los Angeles nightclub where the Ike & Tina Turner Revue were performing (Black, *The Ultimate Experience*, 30). Angel Balesteir, recording engineer at TTG Studios in Los Angeles, remembers Hendrix greeting Ike Turner as an old acquaintance when Turner showed up at an Experience recording session in October 1968 (McDermott, Cox, and Kramer, *Sessions*, 75–76).

[64] For a discussion of the assembled tracks of "Purple Haze," see Hanford, "Realities Altered and Redefined," 1997. To more clearly hear the assembled montage of noises in "Purple Haze," one may listen to an out-take of an overdub session that has been issued on the CD box set *The Jimi Hendrix Experience* (MCA 088 112 317-2, 2000).

[65] Hendrix quoted in Michael Fairchild's notes to *Electric Ladyland*, 8. In addition to ". . . And the Gods Made Love," other examples of sound paintings include the studio productions of "3rd Stone From the Sun" (*AYE*) and "EXP" (*Axis: Bold As Love* [Reprise RS 6281-2, 1967]), the live recording of "Star Spangled Banner" (*Woodstock* [Cotillion SD 3500,1970]), and segments of "Machine Gun" (*Band of Gypsys* [Capitol STAO-472, 1970]).

[66] See Hanford, "Realities Altered and Redefined."

[67] See vocal score for Gershwin's opera in George Gershwin, *Porgy and Bess: An American Folk Opera* (New York: Gershwin Publishing Company, Chapell Music, 1935).

[68] Pianist Kenny Drew (1928–1993) plays the augmented ninth chord in his part on "Blue Train," a blues written and recorded by John Coltrane: *Blue Train* (Blue Note B21K 46095, 1957). "Hold It" (King 5149, 1958) was issued under keyboardist Bill Doggett's name on the rhythm and blues label, King Records.

[69] Organist and band leader Bill Doggett (1916–1996) and guitarist Billy Butler co-wrote a number of dance oriented instrumentals, including "Honky Tonk (Parts 1 & 2)" (King 4950, 1956), another R & B classic and a smash hit, and "Backwoods" (a.k.a., "Backwards," King LP 1101, 1959), which also displays the augmented ninth/"Hold It" chord.

[70] *The James Brown Show Live at the Apollo* (King 826, 1963) became a highly successful album, lasting 66 weeks and peaking at the number two position on Billboard's Pop LP Chart.

[71] A studio version of the James Brown original, "I'll Go Crazy" previously appeared on Brown's third album, *Think*, released by the King Record label in 1960 (King 12-683, 1960). In addition to including "I'll Go Crazy" as an album track on *The James Brown Show Live at the Apollo*, King Records also issued the same live version from the Apollo date as a single in 1966 (King 6020, 1966).

[72] Ray Charles's rendition of Hoagy Carmichael's standard, "Georgia on my Mind" (ABC-Paramount 10135), scored a crossover hit in 1960, simultaneously reaching the top of the pop singles charts and the third position in the rhythm and blues category. See liner notes by David Ritz to *Ray Charles: Ultimate Hits Collection* (Rhino R2 75644, 1999), 28, 40.

[73] " Testify (Part 1)" b/w "Testify (Part 2)," (T-Neck 45-501, 1964) (reissued as "Testify, parts one and two," on *The Isley Brothers Story, vol. 1, Rockin' Soul, 1959–1968* [Rhino R2 70908, 1991]).

"Testify (Part 1)" features the Isley Brothers doing impersonations of other popular soul singers, including James Brown, over an up-tempo backing track. As part of the accompanying ensemble, Hendrix is heard playing the "sharp nine" chord on both the tonic and dominant harmonies.

[74] When the "augmented ninth" chord appears in sheet music or in score, it is represented in either of two alternate spellings. For example, if one constructs the chord as a tonic harmony based on C, it will be spelled as follows: C - E natural - B-flat - and either E-flat or D-sharp. In practice, the spelling of the critical top voice of the chord is arbitrary, and neither of the alternate spellings mandates any particular voice leading. In

any case, conventional notation and nomenclature is of limited value in representing musical structures whose origins lie outside the European-based, literate musical tradition.

Whichever way the chord is spelled, players will typically comment that the chord seems to have a pair of "contradictory" tones within its makeup; i.e., it appears to contain both a major and a minor third interval (or a compound minor third) above its root. (The E natural and the E-flat in the first spelling given above, correspond to the major and minor thirds above the root of the chord, respectively.) This kind of mixture of major and minor color is a well known characteristic of the blues: it is an abiding feature of blues idioms that melodic ideas using the minor third scale degree will be superimposed over an accompanying chord sounding a major third scale degree.

Blues traditions are rooted in vocal performance practices, and early blues singers would typically sing minor-sounding or flattened "blue notes" over major-quality tonic chords played by an accompanying guitar or piano. Likewise, blues musicians will sing or play the minor or "flattened" seventh scale degree—another characteristic blue note—over major quality chords. It is likely, then, that the chord under discussion originated in a verticalization of the aforementioned melodic tones combined with either a conventional major triad or a seventh chord.

[75] There are at least two guitar tracks in the multi-track recording of "Foxy Lady." Complete chords are rarely sounded, but both tracks of guitar accompaniment periodically sound the major third scale degree in single-note licks and intervallic ideas.

[76] In a British interview for the release of *Are You Experienced,* Hendrix described the album as being a mix of "rock 'n' roll . . . blues . . and it has a few freak-out tunes" (liner notes by Michael Fairchild to CD *Are You Experienced?,* 5). While he was still writing "I Don't Live Today," however, and before the recording came together in the studio, Hendrix described the song as the Experience's "own kind of blues" (ibid., 18).

In the liner notes to *Freak Out!*(MGM Verve V6/5005-2, 1966), the debut album release of the Mothers of Invention, Frank Zappa offers the following definition: "Freaking out is a process whereby an individual casts off outmoded and restricting standards of thinking, dress, and social etiquette in order to express CREATIVELY his relationship to his immediate environment and the [sic] social structures as a whole." During the fade-out ending on an out-take of "Purple Haze," Hendrix tremulously intones the lyrics "Freak out," in obvious irony (*The Jimi Hendrix Experience*, MCA 088 112 317-2, 2000).

Hendrix sat in with Zappa's Mothers of Invention in July of 1967, shortly after the Experience made their American debut at Monterey, and the two musicians subsequently crossed paths in various recording sessions and concert performances. See Kees de Lange, "Hendrix and Zappa," *UniVibes*, 27–31.

[77] Hendrix recorded "Night Bird Calling" in June 1970; the recording was first released on the posthumous *Cry of Love* album (Reprise MS 2034) in 1971. On the 1997

CD, *Jimi Hendrix: First Rays of the New Rising Sun* (MCA MCAD 11599), Hendrix plays the "country" lick in "Night Bird Calling," at 2:46–2:54 on the digital clock.

[78] Shapiro and Glebbeek, *Electric Gypsy*, 69. Another source records a quote that reflects Hendrix's exposure to Southern blues: "I was largely influenced by blues artists when I first started," Hendrix stated in an interview, "but I was way up in the Northwest in Seattle, and they don't have too many of the real blues singers up there. Where I really learned to play was down South" (see Michael Fairchild's liner notes to CD reissue of *Are You Experienced?*, 15).

[79] Guitarist Andy Aledort's global analysis of Hendrix's playing draws comparisons between particular melodic elements of his guitar style and those of country pianist Floyd Cramer (1933–1997). See Andy Aledort, *In Deep with Jimi Hendrix: A Complete Explanation of his Innovative Guitar Style* (Milwaukee, WI: Hal Leonard, 1995), 57 and 107. Reflecting the never-ending exchanges between different American musical idioms, Cramer's "slip note" piano style may have originated in attempts to mimic the sounds and stylizations of country steel guitar, fiddle, and autoharp players.

[80] Experience manager Chas Chandler stated: "One thing about songs like 'The Wind Cries Mary' that people often miss out, and that's how much Country there is in them. I mean Country & Western. Listen to his [Hendrix's] little two note runs, and the way he uses chords. It's Country" (Black, *The Ultimate Experience*, 72).

[81] A bootleg recording made of an Experience concert that purportedly took place in Germany on 5 May 1967 reveals Hendrix playing a closing cadenza to "Purple Haze" that includes an episode of non-tonal, dissonant verticalities. See *The Jimi Hendrix Experience Volume 1: The Wild Man of Pop Plays* (Pyramid RFT 003, 1988).

[82] The transcribed excerpt from "Star Spangled Banner" is published in *Jimi Hendrix: Woodstock Recorded Versions; Music Transcriptions by Andy Aledort and Jesse Gress* (Milwaukee, WI: Bella Godiva Music, 1995).

[83] Hendrix performed "Star Spangled Banner" at the Second Atlanta International Pop Festival, on 4 July 1970. A recording of the performance was released on *Jimi Hendrix Stages* (Reprise CD 9-26732-2, 1991).

[84] Rob Bowman, *Soulsville U.S.A.: The Story of Stax Records* (New York: Schirmer, Simon & Schuster Macmillan, Prentice Hall International, 1997), 22.

[85] *Rolling Stone* magazine interview, 9 March 1968; excerpt reprinted in Tony Brown, *Jimi Hendrix: Concert Files* (London: Omnibus Press, 1999), 20. Roland Robinson, one-time bassist for the Buddy Miles Express, remembers Hendrix showing up at the Stax recording studio "wanting to play with Steve Cropper and the guys at the studio" (McDermott, Cox, and Kramer, *Sessions*, 6). Robinson recalls that Hendrix was

still playing with the Isley Brothers at the time, which would mean that the visit to Memphis and the Stax studios took place in 1964.

[86] Don Covay and the Goodtimers, "Mercy, Mercy" (Rosemart 801, 1964).

According to researcher Steven Roby, Hendrix is also reputed to have played on several tracks included on Covay's album, *Mercy!* (Atlantic S103, 1964): "I'll Be Satisfied," "Take the Hurt off Me," "Please Don't Let Me Down," and "My, My." See Roby, *Black Gold*, 32–34.

[87] Ibid., 35–36.

[88] Wilson Pickett, "Funky Broadway" (Atlantic 2430, 1976). Picket recorded his hit at Fame Studios in Muscle Shoals, AL, using the studio's renowned session musicians (CD liner notes by Leo Sacks; *A Man And A Half: The Best Of Wilson Pickett* [Rhino/Atlantic R2 70287, 1992]). The song was written by Arlester "Dyke" Christian (1943—1971), singer for Dyke and the Blazers, who released the original version of "Funky Broadway" in early 1967 (1967 singles Artco 101 and Original Sound 64; and LP *The Funky Broadway*, Original Sound 8876). The guitar part on the original recording does not perform the figures or licks that one hears in the Pickett recording.

[89] Booker T. and the MGs, *Soul Dressing* (Stax 705, 1965).

[90] Aretha Franklin is quoted by Jas Obrecht in his website article, "Curtis Mayfield: The Spirit of Soul" (http://www.guitar.com/), accessed on 9 April 2003.

[91] The Impressions, "Gypsy Woman" (ABC-Paramount 10241, 1961).

[92] The Impressions, "People Get Ready" (ABC-Paramount 10622, 1965).

[93] The layout of the guitar's fingerboard lends itself to both playing parallel intervals (particularly perfect fourth intervals when the instrument is in standard tuning) and symmetric chord progressions. Given the guitar's inherent design, it would seem inevitable that these kinds of melodic and harmonic ideas would arise. (Indeed, given the prevalence of symmetric chord progressions and chromatic planing that is evident in rock music, one suspects that the guitar's "anatomy" significantly shaped rock's harmonic "destiny.") In any case, the predilection for playing parallel fourth intervals was not exclusive to Curtis Mayfield; jazz guitarists Kenny Burrell (1931-) and Wes Montgomery (1923–1968) frequently employed parallel perfect fourth and fourth stacks in their improvisations. However, Mayfield's clean sound, delicate articulation, and especially his characteristic glissandi, clearly distinguished his usage.

Contrasting with Mayfield's subtle and decorative style, Johnny Heartsman (1937–1996) composed full-bodied and rhythmically driving guitar riffs from patterns of parallel fourths; the rolling, main riff in Heartsman's recording of "Sizzling" (Big J 101, 1962) exemplifies his approach and this aspect of his playing style. (Recordings by

Johnny Heartsman provided to author by blues record producer and historian, Richard Shurman.)

Hendrix's appropriation of Mayfield's style and usage is unmistakable. In his improvisations and for his riffs, Hendrix would also play ideas that are more akin to the style represented by Johnny Heartsman. In the Band of Gypsys' piece "Power to Love," for example, Hendrix recasts a melodic figure borrowed from a Ray Charles piece as series of parallel fourth intervals. Moreover in live performances, Hendrix would fatten up what were originally single note melodic parts by coupling perfect fourth intervals either above or below the original notes, using, in effect, a kind of instrumental fauxbourdon technique.

[94] The Impressions, "I'm the One Who Loves You" (ABC-Paramount 10431, 1963).

[95] Mayfield tuned his guitar to an open F-sharp major chord, spelled (from the lowest to the highest string): F-sharp, A-sharp, C-sharp, F-sharp, A-sharp, F-sharp. See, Joe Gore, "Curtis Mayfield: 1942–1999," in *Guitar Player* April 2000, 36.

[96] "I Knew You When" (Columbia 43390, 1965), recorded by Billy Joe Royal, was written by Joe South (1940-), who also played guitar on Bob Dylan's "Stuck Inside Of Mobile With The Memphis Blues Again," and on other tracks included on *Blonde on Blonde* (Columbia, 41-841, 1966).

[97] In 1965, Hendrix was hired by Arthur Lee (1945-), the future leader of the group Love, to play on a song Lee had written for singer Rosa Lee Brooks. In producing Brooks's record, "My Diary," Lee states that " . . [I] wanted this Curtis Mayfield thing . . . like he does in 'People Get Ready.'" Hendrix had gained a reputation for being able to play "that trip," as Lee expresses it, and that was the basis for Lee drafting Hendrix for the session (Shapiro and Glebbeek, *Electric Gypsy*, 86–87). "My Diary" (backed by "Utee") was released on Revis Records (Revis Records 1013) in 1965. Rosa Lee Brooks, however, flatly contradicts Lee's story, and states that it was she and Hendrix who wrote the song and that they, in fact, hired Arthur Lee, who sang and arranged background vocals for the recording (Black, *The Ultimate Experience*, 30–31).

[98] As members of Bob Fisher and the Barnesvilles, Hendrix, Cox, and Lee worked together as a backing band for the Marvelettes, who were sharing the bill on a tour of chitlin circuit venues with the Impressions. Larry Lee is the source for a reported anecdote that tells of Hendrix's accidentally damaging Mayfield's guitar amplifier at some point during that tour (Shapiro and Glebbeek, *Electric Gypsy*, 67—68, and 696).

[99] Aledort, *In Deep With Jimi Hendrix,* 66.

[100] In addition to "Mercy, Mercy," the *Soul Dressing* album tracks "Tic-Tac-Toe" and "Chinese Checkers" also display Cropper's scratch guitar technique. The latter pair

of recordings were also issued as single releases in 1963 (Stax 142) and 1965 (Stax 137), respectively.

[101] James Brown, "Cold Sweat (Part 1)" (King Records 6110, 1967). Alphonso "Country" Kellum (1943–2000) played in James Brown's band from 1964 to 1970. Authors Allan Slutsky and Chuck Silverman discuss the scratch guitar part in "Cold Sweat," in *The Funkmasters: The Great James Brown Rhythm Sections, 1960–1973* (Miami, FLA: Warner Brothers. Pub., 1997), 45.

[102] Aretha Franklin, "(Sweet, Sweet Baby) Since You've Been Gone" (Atlantic 2486, 1968); Clarence Carter, "Slip Away" (Atlantic 2569, 1968).

[103] For an account of Hendrix recording the backwards guitar tracks for "Are You Experienced?" see McDermott, Cox, and Kramer, *Sessions*, 33. The backwards tracks function as a ritornello and main thematic element in the song's recorded composition.

[104] Hendrix's cover version of Bob Dylan's "All Along the Watchtower" (Reprise 0767) entered the Billboard Top 40 Singles Chart on 28 September 1968. The record peaked at number 20 and stayed on the survey for eight weeks.

[105] Murray, *Crosstown Traffic*, 168.

[106] Roby, *Black Gold*, 54. Jeff "Skunk" Baxter occasionally played bass with Hendrix's group, Jimmy James and the Blues Flames. Baxter incorporated elements of Hendrix's "R & B guitar style" in his solo to "Rikki Don't Lose that Number" (ABC 11439, 1974), a pop single by the group Steely Dan.

[107] Murray, *Crosstown Traffic*, 170.

[108] In 1958 Link Wray & His Raymen reached the top-forty with the instrumental hit "Rumble" (Cadence 1347). The piece's brooding intensity (the title alluded to a gang fight) was conveyed by a main riff principally made up of distorted and heavily accented guitar chords sullenly borne along by a bolero-like accompaniment.

Wray's song and his chordal playing style provided a stylistic model for British bands in the 1960s: foremost of these were the Kinks and the Who, whose early compositions were based around power chord riffs. Pete Townshend of the Who has acknowledged Wray's influence, stating: "If it hadn't been for Link Wray and 'Rumble,' I would have never picked up a guitar" (Townshend quoted in CD liner notes by Cub Koda to *Rumble! The Best of Link Wray* [Rhino R2 71222, 1993], 3). Moreover, the stop-time power chords in "Wild Thing" (Fontana 1548, 1966), the Troggs' tune that Hendrix frequently played in concert (including the Band of Gypsys' concerts at the Fillmore), would seem to owe a conceptual debt to "Rumble."

Besides Link Wray and "Rumble," another influence on British bands came from Hendrix's Northwest area. The Tacoma-based group the Wailers (mentioned previously

in another context) turned out instrumental pieces that featured prototypical power chord riffs and figures (some such power "chords" actually comprised open triads and perfect fifth intervals voiced in the guitar's lower registers). Examples by the Wailers would include: "Tall Cool One" (Golden Crest 518, 1959); and "Beat Guitar," an album track on *The Fabulous Wailers* (Golden Crest, CR 3075, 1959). The Wailers' recordings are reputed to have made impressions on English musicians including Eric Clapton, the Kinks, as well as Beatle George Harrison (1943–2001). See Pat O'Day and Jim Ojala, *It Was All Just Rock 'n' Roll: A Journey to the Center of the Radio & Concert Universe* (Seattle, WA: R-'n'-R Press), 76.

Robert Palmer traces the power chord concept to pioneering electric blues guitarists "Memphis" Willie Johnson (1923–1995) and Auburn "Pat" Hare (1930–1980): See Palmer, "The Church of the Sonic Guitar," 660-663. More recently, Pete Townshend has attributed the "creation" of the power chord to bluesman John Lee Hooker (1917?–2001). See Charles Shaar Murray, *Boogie Man: The Adventures of John Lee Hooker in the American Twentieth Century* (New York: St. Martin's Press, 2000), 275–276.

[109] Hendrix undoubtedly constructed such melodies by empirical means, rather than conceiving their scalar content as representing synthetic or hybrid modes and scales, per se. Vincent Persichetti discusses the formulation of synthetic modes and scales in *Twentieth Century Harmony: Creative Aspects and Practice* (New York: Norton, 1961), 43–49.

The scalar set shown in Example II-19e, "altered diatonic." is based on a cadential melodic line that Hendrix played in a version of "Message to Love," as performed by Gypsy Sun and Rainbows in the Hit Factory Studios (*Jimi Hendrix: South Saturn Delta* [MCA MCAD-11684], 1997).

[110] Roby, *Black Gold*, 128. The Hendrix quote is taken from an interview published in the English magazine, *Disc and Music Echo*, 22 April 1967.

[111] Roby, *Black Gold*, 114. The excerpted quote is taken from a review of an Experience concert that was held on 17 January 1969 in Frankfurt, Germany.

[112] Roby, *Black Gold*, 65.

[113] See Hendrix: *Band of Gypsys Live at the Fillmore East*, video MCAV-11931, Universal City, CA: Experience Hendrix and MCA, 1999.

CHAPTER III: WHO KNOWS

"The Fillmore is proud to welcome back
some old friends with a brand new name
— A Band of Gypsys!"

Bill Graham introducing the Band of Gypsys
to the Fillmore East audience (1 January 1970)

As Bill Graham spoke the words to the brief introduction given above, Band of Gypsys began the second night of their Fillmore engagement by playing "Who Knows," a composition by Jimi Hendrix. Hendrix would select the recording of "Who Knows" to be the opening track on the *Band of Gypsys* album.

Notwithstanding its pride of place on that debut recording, the piece has generated little critical attention, and where it has, opinions have been sharply divided. On the one hand "Who Knows" has been deprecated as representing "the most glaring flaw" on *Band of Gypsys*, and has otherwise been dismissed as being merely a "jam" punctuated by some embarrassing attempts at scat singing and "unremarkable wah-wah licks." On the other hand Hendrix's song, largely by virtue of its relaxed but intensely driven rhythmic energy, has also been credited for being an important forerunner of 1970s funk.[1]

In fact, for all the piece's structural simplicity, the recording showcases some extraordinary guitar playing; Hendrix's soloing on "Who Knows" ranks among his finest for its sustained inventiveness and cohesiveness in an extended improvisation—despite the disruption of his breaking a string in mid-performance. Moreover, Hendrix's improvisation not only unfolds in an ongoing development of melodic and rhythmic ideas but also concentrates on shaping the singular timbral characteristics of his heavily

electronically processed guitar signal. In the last segment of improvisation, Hendrix exuberantly plays off of his instrument's peculiar sound qualities, exploring a range of timbral effects unlike any heard in his previous recordings or concerts.

Beyond showing off Hendrix's formidable "chops," "Who Knows" also served notice to fans and critics alike that Band of Gypsys would be bringing some fundamental changes from the Jimi Hendrix Experience; from the start of the song it is clear that the band will feature two main vocalists and musical personalities, Buddy Miles as well as Jimi Hendrix. Although Hendrix's performances are consistently the outstanding ones on *Band of Gypsys*, on "Who Knows" the musical chores are more equally shared between the band's members than on any other individual track on the album—one possible reason for the song's positioning as a set opener and, hence, in the album's song order. The diagram in Example III-1 (Chapter III examples appear in Appendix B) shows the formal design of "Who Knows," and also reflects Hendrix's and Miles's sharing of the vocal spotlight; as discussed below, Billy Cox's bass part will be fundamental to the piece, and his playing will also come to the fore when Cox provides the sole accompaniment for a segment of vocal improvisation.

Like the other pieces that made up the core of Band of Gypsys' repertoire, "Who Knows" is a riff driven song. Unlike the group's other core pieces, however, a *single* riff and ground bass pattern—a bass ostinato with only subtle variations—forms the song's structural basis. Example III-2 shows the piece's principal ostinato in its prime form, labeled here as WK-1. As will be seen, the melodic design of the one-measure ostinato in "Who Knows" shows similarities to those of other prominent ground bass patterns that one hears on *Band of Gypsys*. What most distinguishes the ostinato in "Who Knows"

from the similarly blues-based ground bass patterns heard in "Machine Gun" and "Power to Love," however, is its rhythmic character; a swinging rhythmic feel animates the melodic pattern, imbuing the line's melodic skip, and its repeated- and neighbor-note figure, with a distinctive jauntiness (see octave leap starting on the second beat, and the combined repeated note and lower neighbor note figure centered on the tonic, D, beginning on the third beat, in Example III-2).

No doubt, the elements of swing in Band of Gypsys' performance ultimately owe a historical debt to jazz and to boogie woogie. However, these rhythmic elements are also connected to earlier types of R & B and rock 'n' roll. Early records by Ray Charles, James Brown, and Elvis Presley, for example, show varying degrees of swing that filtered into their grooves via the musicians and arrangers with backgrounds in jazz and country swing who participated on their recording sessions. James Brown's arrangement of "Think" [1960] was renowned among contemporary R & B musicians for its loose mixture of both "swung" and "straight" eighth-note time divisions.[2]

The swing in "Who Knows" is most audible in the sixteenth-note rhythmic subdivisions of the tune's instrumental parts (in the published transcription of the piece, what are written as straight sixteenth-notes are normally to be played as swung rhythms, as per standard practice in reading "jazz notation" from score or lead sheets). This subtle but distinct rhythmic shading is combined, however, with a solid "fatback" emphasis on beats two and four (in common time) by the snare drum and hi-hat cymbal parts. Outside of some select pieces from Hendrix's own work with the Experience, including the Buddy Miles-powered shuffle of "Rainy Day, Dream Away" and "Still Raining, Still Dreaming" (*Electric Ladyland*, 1968), a swing rhythmic approach is rarely heard in

1960s guitar-based rock.[3] Certainly no power trio nor hard rock outfit had integrated the concept into a "funk groove" so impressively as Band of Gypsys does on this track.

It is hard to overstate the importance of the groove, the synergy of the combined instrumental patterns with all of their rhythmic nuances, in appreciating a song whose strong visceral impact is so thoroughly bound up in this elusive attribute. In "Who Knows" not only is the ground bass/main riff the signature melodic element of the song as well as the structural basis for the piece, but Hendrix's remarkable soloing is very much grounded in the song's core bass and drum patterns. In particular, many of his most compelling ideas amplify the swing of his supporting rhythm section.

Introduction

(mm. 1–18 [0:00–0:54])

A crucial factor in determining the intensity of a groove is tempo. The moderately slow tempo of "Who Knows" (approximately 82 b.p.m.) ideally suits and helps to produce the loping swing of the interlocking guitar, bass, and drum parts. It is apparently Hendrix who sets the piece's tempo in his introductory solo passage: "Who Knows" begins with the guitar quietly playing the main riff and theme (WK-1) as Bill Graham delivers his greeting announcement. When Graham finishes, Hendrix begins to adjust his tone settings and dials up his volume before the rest of the band joins him in the seventh measure [0:20].

The ensemble sound is strikingly "heavy" because of the trio's tightly synchronized layering of rhythms, and as a result of the deeply resonant unison texture of

the guitar and bass. At Hendrix's behest both the guitar and the bass are tuned nearly a whole step below the standard concert E tuning. The resultant lower range gives Billy Cox's low register bass part (sounding two octaves below Hendrix's part) an even greater depth of sonority. Throughout the piece Cox will keep to this same low register and, furthermore, will also stick to playing either his basic part or its rhythmic variation, thus providing both a steady backdrop for the soloists and a more open tonal space in which Hendrix, particularly, can operate.

The drums will be equally committed to keeping the groove. In addition to energizing the track, Buddy Miles's basic but adroitly nuanced parts complement the ground bass part to compelling effect. A key component in the makeup of the collective rhythm of the piece is the layer of steady eighth-note rhythms that Miles plays on his hi-hat and, for louder passages, on the ride cymbals. The crisp accents on the closed hi-hat fit neatly with the non-legato articulations of the guitar and bass line; as inflected by Miles's subtle accents and ghost notes played on the snare drum, it is the hi-hat part that puts an enlivening "strut" into the piece's relaxed stride.

Along with solidifying the groove the arrival of the drums also brings a surprising point of rhythmical clarification. From the piece's beginning there has been some ambiguity as to where the measure downbeats fall, and on which note it is that the main riff actually begins. The listener is likely to have interpreted the opening notes in the guitar introduction, a combined repeated and neighbor note figure centered on the tonic (D), as defining both the measure's downbeat and the head motive of the main riff, WK-1. However, the guitar's "gulping" first note reflects a tape edit that deleted the head of the riff as Hendrix played it in live performance.[4] Moreover, the drum patterns and the

starting points of all subsequent sectional divisions in the piece affirm that the aforementioned figure is actually sounding on the third beat rather than on the downbeat of the measure. Example III-3 shows a transcription of Hendrix's introduction as he played it and indicates the notes that were deleted by edits made to the recording. (To compound matters, one must also note that, inexplicably, the published transcription of "Who Knows" omits showing the complete figure as it sounds on the recording.)

The metric disposition of WK-1 seems quirky; the subdominant note (G) in the melody strikes one more as being part of a gesture leading "back" to the tonic rather than marking the downbeat and the beginning of the melodic cycle. Given Hendrix's reported bent for rhythmically reconfiguring the melodic designs that he would come up with in songwriting sessions with bassist Billy Cox, and, again, because of certain similarities to other melodies and rhythmical "twists" evident on *Band of Gypsys*, the main riff in "Who Knows" may reflect a kind of rhythmical "transposition" or displacement. That is, Hendrix may have created the riff as the hypothetical version shown in Example III-4, and later changed the starting point of the phrase.

Once the rhythm section falls in behind him, Hendrix begins steering the piece in a trajectory directed towards the start of the song's first verse. Sounding over the ground bass, it is Hendrix's set of melodic ideas that will shape the twelve-measure passage into three consecutive four-measure units. In the first four measures, Hendrix, as indicated above, continues playing the main riff in a nearly complete octave unison with the bass part. After making one full statement of the riff, however, he begins improvising a set of variations (m. 7), changing the line's rhythmic values and substituting rests and staccato "scratches" or "chugs"—rhythmical expressions of non-pitched sounds produced by

simultaneously muting and attacking the guitar's strings—for segments of the melody. In the last measure of the group of varied phrases (m. 10) Hendrix pares the line down to its barest outline, its tonal content now merely comprised of both the first and highest notes of the melody (G and F, respectively) and a triplet variation of the riff's prominent neighbor note motive (see beat three, m. 10).

For the remaining eight measures of the passage Hendrix's ideas unfold in matched pairs of two-measure phrases (mm. 11–18). Thus, the guitar's first ad-lib phrase in mm. 11–12 engenders a second answering phrase and variation in the two measures following.[5] It is the closing gesture of the second phrase—a cascade of smeary string bends—that will jump-start the section's forceful climax (m. 14 [0:41–0:43]); the smeary quality of Hendrix's double-stop bends is reminiscent of the sounds and techniques identified with blues guitarists like Albert King, Buddy Guy, and Albert Collins (1932–1993), all of whom are reported to have been influential on Hendrix's guitar playing.[6] Hendrix's lunging figure also anticipates rhythmic constructs of both the upcoming vocal parts and of important variations in the bass line that will occur later in the piece.[7]

Hendrix's sudden shift in register, texture, and rhythm rouses Buddy Miles to play a complementary—and rare—drum fill: responding to the guitar's figure, Miles breaks away from his established rhythmic patterns and accelerates into a stream of sixteenth-note triplets that he circles around from the snare drum to the overhead and floor toms (m. 14). Coming out of this fill and turnaround figure, Miles now switches from playing his steady eighth-note pattern on the closed hi-hat to the ride cymbal, thereby expanding

both the sustain of his ringing cymbal sound and, in effect, the overall dynamic level of the band (see m. 15).

Hendrix smoothly segues out of the plunging melodic line of m. 14 into the beginning of another set of varied repetitions of the main riff (mm. 15–18 [0:44–0:54]). For this second set of variations Hendrix adheres more closely to the melody of the riff, though he subtly varies its rhythmic character by playing straight rather than swung sixteenth-note values (the bass continues to play its ostinato in swing rhythm). Hendrix also expands the texture by playing resonant dyads and triadic shapes on the head of each repeated riff—verticalities that also imply an underlying harmonic progression; IV - bIII - (I).[8] Finally, in the four measures of "riffing" just described, Hendrix again manages to imply a 2 + 2 phrasing by transposing the riff down an octave for the second half of the variations (mm. 17–18 [0:49–0:54]).

On one level, there is the implication of a small-scale rounded form in the shape of the entire twelve-measure passage that precedes the verse; an implied form that Hendrix has superimposed over the static bass part by dint of the temporal organization and phrase construction of his melodic ideas. Thus, he began by playing variations of the main riff or theme; subsequently moved into a contrasting pair of varied phrases; and finally "returned' to a climatic set of variations on the main theme. On another more immediate level, however, one experiences the section as a three-tiered intensification of the ground bass and groove that coalesced out of Hendrix's solo introduction—an intensification culminating, for the moment, in the burly power trio sound of the climatic variations just described. Along with the guitar parts, the drums have also played a key role in creating this impression of building intensity: in addition to the dynamic change

produced by the shift to the ride cymbal, Miles increases the rhythmic activity by playing extra syncopations on both snare and bass drums in the four measures immediately preceding the verse. But in a departure from usual performance practice, the band will maintain their high volume and driving intensity rather than reduce their dynamic level while accompanying the singers in the upcoming section.

First Verse: Jimi Hendrix and Buddy Miles

(mm. 19–34 [0:55–1:40])

The first verse spotlights the singing of both Hendrix and Buddy Miles; theirs is a call and response exchange rooted in the traditions of gospel-blues and in contemporary soul music. The text and pattern of the set of vocal exchanges might be transcribed as follows, with Hendrix's lead phrases showing in the left column of text, a line above and to the left of Miles's responses shown in the right column:

Hendrix	Buddy Miles
They don't know, . . .	
	Uh, they don't know, . . .
Like I know.	
	Like I know.
Do you know?—	
	They don't know—
I don't know—	
	I don't know—
What my baby . . .	
	About my baby . . .
puttin' down—	

What my baby . . .

. . . puttin' down, babe.

I just came back from . . .

Mexicali.

'Just came back in town . . .

Lookin' for my Sally.

Uh, have you seen her?

Oh, have you seen her?

. . . Talkin' 'bout my baby—

Talkin' 'bout my baby.

puttin' down—

What my baby . . .

. . . a-do in town, now.

—I don't know

—I been down there [?]

—They don't know—

Lookin' for my baby. [?]

Oh, I be free, yeah

Ooh, hoo (vocable)

—Goin' down. . .

(Miles lays out)

Although the transcription shows the above set of lyrics as being parsed into four irregular stanzas, the actual exchange between the two singers unfolds in an unbroken succession of traded phrases. Further details of punctuation are intended to fit more closely with the flow of the lyrical ideas in the text, and to reflect a syntax that is sometimes obscured in the singers' scrambled exchange of phrases.[9] In terms of the sound and rhythm of the text, the identical rhyme scheme of the first stanza (all lines

ending in "know") as well as the repetitive rhythms of the short-phrased verse as a whole make an audible poetic "counterpoint" to the song's ostinato accompaniment.

What gradually emerges from Hendrix's and Miles's word play and oblique "narrative" is a nearly stock scenario: the song's protagonist has returned from an adventure "south of the border" and is asking after the whereabouts of his "Sally," concerned for her fidelity in his absence. A later portion of this chapter will point out similarities and possible historical connections between particular lines of the song's text and the lyric contents of a body of traditional works.

As one hears Miles's interjections as being both complements and heightened extensions of Hendrix's phrases—the two voices declaiming as one "character," as it were—one may also hear the echoes as expressing a confusedly "anxious" state of mind in the protagonist. In terms of the vocal performance itself, nothing like the kind of give and take, and spirited call and response singing, of "Who Knows" had ever occurred in Hendrix's recordings with the Experience. Although the guitarist had similarly traded phrases in instrumental passages on *Electric Ladyland*, the animated passage of duet singing in the song's first verse, an energetic style rooted in both sacred and secular African-American traditions, would be a singular moment in the oeuvre.[10] Of the two lead vocalists, Buddy Miles clearly exhibits the more flamboyant style of singing. In matching the rising intensity of Miles's "sanctified" melismas and falsetto vocables, Hendrix will employ a blues musician's technique, doubling his own improvised vocal lines at the unison on the guitar. Moreover, in the last four measures of the verse the unison guitar parts support and give greater force to Hendrix's own pair of high-register, half-shouted phrases (see mm. 32 and 34).

Guitar Solo I

(mm. 35–46 [1:41–2:15])

Between the first verse and a second section of singing to follow, Hendrix plays a twelve-measure, improvised solo. Though of a modest scale and a relatively low-key expression, Hendrix's short solo is again revealing of his keen sense of melodic development and structural proportion. For his guitar sound, Hendrix retains the relatively "natural" tone that he has employed since the opening of the piece: in both the introductory and first solo statements Hendrix elects to bypass the several electronic effects that he will employ to such striking effect later on in his performance. For now, he produces the guitar's full-bodied sound and rich sustain by simply routing his signal directly into his Marshall amplifier and turning up. In supporting Hendrix's improvisation, Buddy Miles "tightens up" the groove and sound of the rhythm section by changing back from playing the ride cymbal—with its sustained wash of sound—to again playing on the more focused-sounding hi-hat. To enliven the rhythm, the drummer will also supplement his basic set of patterns with additional grace notes as well as syncopated accents on cymbal, snare, and bass drum as the solo unfolds (see mm. 37–38 and 43–46.)

The unprocessed and somewhat more traditional sound of the guitar is stylistically in line with the solo's opening salvo; a stock blues lick that is also reminiscent of the beginning of Hendrix's ad-lib statement in m. 11 (cf. mm. 35 and 11). (Another recording shows that Hendrix also began his guitar solo taped on the previous night's performance of "Who Knows" with this same lick.)[11] In the lengthier stretch of improvisation to follow, however, Hendrix will break away from the clear, balanced 2 +

2 phrasing that has thus far obtained equally for both the instrumental and vocal passages in the introductory and verse sections. Instead, the phrasing in the first guitar solo is irregular and the melodic ideas flow and develop more continuously throughout the passage.

Beginning with the opening blues lick in m. 35, Hendrix varies and expands a few basic melodic and rhythmic ideas through the course of the solo. Thus, the opening lick, executed by a rearticulated unison bend sounded on the dominant scale degree joined to an ascending leap to the tonic, is varied in the subsequent measure before Hendrix further reconfigures its pair of principal tones (dominant A and tonic D) as a sustained dyad—flexing the sustained notes of the interval in and out of temperament by means of a double-string bend (see m. 38; a video clip of Hendrix performing this passage shows him rising up on his toes as the "floating" interval hovers in and out of tune).[12] In its turn, the quivery-sounding dyad dissolves into an expanded segment of melodicized dyadic shapes (mm. 39 and 40 [1:53–1:57]). That segment, as well, has links to the wave-shaped melodic figures of the preceding measures. Moreover, the improvised figures in mm. 39–40 anticipate upcoming developments: the segment's tonal material, primarily composed of a set of dyads built on the tonic, mediant, and subdominant scale degrees—the roots of the underlying harmonic progression implied by the ostinato—will reappear in the form of a new riff that emerges in the solo section's final stage.

The linchpin of the solo section is the two-measure guitar phrase linking the section's first six measures of free improvisation to its four concluding measures of collective riffing. Starting with a syncopated punch on the solo's peak note (a high G sounding on the sixteenth-note after beat four in m. 40), the melodic line of the phrase

winds downwards to gracefully finish in an embellished arpeggio and a cadential gesture [1:58–2:04: see Ex. III-5]. Along its melodic route the two-measure phrase develops main melodic features of the preceding measures, including the neighbor note figures centered on the tonic heard in the solo's opening measures (mm. 35–36) and the various embellished 4-3 melodic motions of m. 35, and mm. 37–40.[13] Both of these motivic elements are compressed into the line's final four notes. The summary gesture of the phrase also represents an idiomatic "punctuation mark," as the final melodic motion from the tonic to the lowered seventh degree is a familiar cadential gesture in the blues. In the present context, the phrase ending in "Who Knows" marks a brief pause and a pivotal moment before Hendrix's riffing cues up the solo's concluding measures. Hendrix's work abounds with similar nuances, and one can cite the memorable final cadential figure in "The Wind Cries Mary" as a comparable instance of his inventive use of what in the hands of others often amounts to simply a blues cliché looking for a place to happen. (See discussion of "The Wind Cries Mary" in Chapter II, under *Aspects of Hendrix's Language: Scalar Resources.*)

In bringing the solo section to a close and to set the stage for the arrival of the second verse, Hendrix shifts from freely melodicizing to building up momentum with a new riff (mm. 43–46 [2:05–2:15]). His colleagues immediately apprehend the change in direction and emphasis, and all three musicians concentrate on "deepening the groove"; that is, they begin to tailor their individual parts to best fit within a new web of interlocking rhythmic and melodic patterns. In the foreground is Hendrix's riff comprised of a varied, single-measure pattern whose crux is a repeated melodic figure: a diminuted echo of the implied IV - bIII progression outlined in the bass, and whose

alternating third intervals and triads also harmonize the pervasive 4-3 motive of the previous measures.

Hendrix's combined riffing and rhythmic chugging adds a strong counterpoint to the bass line and also amplifies the swing of the rhythm section. Buddy Miles adjusts his hi-hat cymbals to their extreme closed-position, further tightening their sound and making a closer match for Hendrix's choppy-sounding scratch guitar parts. Likewise, Miles also enhances the sense of swing with his added embellishments on hi-hat and snare drum (see mm. 44–46). In the last half of the riff passage (mm. 45–46), Billy Cox substantially alters his bass part for the first time since the piece began; the melodic content of the bass ostinato remains intact but Cox changes the rhythmic values of its head motive. The bass's new rhythmic figure echoes the rhythmic patterns of the vocal parts in the first verse (e.g., "They don't know") while also anticipating Hendrix's vocal entrance in the second verse of singing to immediately follow (see Ex. IV-6, showing both the bass variation WK-2a, as it is heard in m. 46, and the vocal phrase in m. 47).

Second Verse: Jimi Hendrix

(mm. 47–58.5) [2:16–2:48]

The second verse is for Hendrix alone to sing. Though the lyrical content in this section is even more sketchy than that of the first verse, the listener gleans a bit more insight into the protagonist's sexual dilemma.

Hendrix begins by repeatedly intoning a short set of lyrics; "'just came in" (mm. 47–50; his varied phrases are similar in rhythm and melodic shape to those in the opening

of the first verse). The lyrical core of the second verse, amounting to a single couplet sung in the central four-measures of the twelve-measure section, revisits a familiar pair of associated themes in Hendrix's songwriting: a magically-charged eroticism and the threat of sexual entrapment.[14]

> Spreadin' magic honey all in my bed
> She got chains, attached to my head.

In the closing set of phrases (mm. 55–58) Hendrix reprises lyrical fragments from the end of the first verse ("talkin' about . . . ") before drawling a final line: "talkin' about my baby—Uh, I don't know about it" ([2:47–2:48] (at this moment his uncertain vocal performance may reflect a distraction caused by the ringing feedback in the PA system evident on the recording, or perhaps by his preparing for the upcoming guitar solo).

Throughout the first two-thirds of the second verse section (eight measures, mm. 47–54) Hendrix works up another set of accompaniment patterns, this time echoing the repeated and neighbor note figures of the bass ostinato (Hendrix's new part essentially rhythmicizes a whole step alternation between the tonic and subtonic scale degrees). As in the first verse, he again builds intensity within the latter part of the section by coupling his voice and guitar parts. In between the unison vocal and guitar lines the guitar also answers with riffs and fills that are linked to the bass part. The guitar's explosive "answer" to the last phrase of singing—a sustained and howling double-stop, labeled in the preceding chapter on Hendrix's musical style and language as lick JH-1—is also the first thrust of the second guitar solo (m. 58.5 [2:49]).

Guitar Solo II

(mm. 58.5–86) [2:49–4:07]

Hendrix launches into his second, lengthier solo with a blues lick and an initial melodic idea very similar to those which began his earlier stretches of improvisation (cf. m. 59 with mm. 11–12, and m. 35). But Hendrix literally "kicks off" this decidedly more aggressive solo with a marked shift in timbre, stepping on his wah-wah pedal, and additionally boosting his guitar signal to yield a higher degree of distortion and sustaining quality to his sound. Finishing his initial melodic gesture, Hendrix excitedly bounds upwards into his higher register, vigorously attacking each note in his triplet-rhythm ascent with a full sweep of the wah-pedal (m. 60 [2:50–2:55]).

The intensity of the performance continues to rise as Hendrix accelerates into a roulade of sixteenth-note triplets (mm. 62–63 [3:00–3:03]); a rapidly spiraling melodic line that terminates on the same sustained JH-1 lick and double-stop figure that initiated the solo (cf. mm. 63.5 and 58.5). Now, however, this repeated intervallic punctuation expands into a triadic shape that the soloist begins freely and aggressively rhythmizing: in stark contrast with the preceding measures of accelerating linear development, Hendrix effectively freezes the pitch content and begins repeatedly punching a thickly distorted-sounding verticality—a triadic shape analogous to an inverted F major chord—in an irregular pattern of syncopated accents (mm. 64–65 [3:04–3:08]).

The sound and style of the guitar playing in the episode just described is emblematic for Hendrix, and taken as a whole represents one of many "soundprints" that give his work such immediate distinctiveness. The superimposition of the F major triadic

shape over the fundamental D tonality is representative of one of Hendrix's several characteristic harmonic approaches and techniques; as was discussed above, the same chord voicing and playing technique make up the emphatic-sounding riffs in the refrain and the verse sections, respectively, of "I Don't Live Today" and "Ain't No Tellin'," well-known album cuts from two of Hendrix's earlier Experience recordings (see discussion in previous chapter of the "I Don't Live Today" riff and lick, under *Harmonic Vocabulary and Intervallic Designs*). In more general terms, too, the segment shows a trademark feature of the artist's improvisational style: on *Band of Gypsys* and in other live recordings, one repeatedly hears the accumulating force of Hendrix's speediest runs and passages culminate in a complex rhythmizing, either being a free rhythmic expression or a polyrhythmic superimposition, that is focused on a single note or intervallic structure.

The tempestuous solo reaches its peak intensity in a crescendo of consecutive sixteenth-notes, with Hendrix hammering out rapid-fire downstrokes on the same triadic shape that is described above (mm. 65.5–66 [3:09–3:11]). The energetic crescendo climaxes on a single-note and sustained high-A, Hendrix bending up on his top treble string to reach this, the apex of his solo. From this high position he begins improvising a stream of blues licks whose high register is accentuated by the shrillest sounding timbre, a result of Hendrix flooring his wah-pedal to its full treble position (mm. 67–69 [3:12–3:18]). The excitement of the moment proves contagious to the rhythm section: Buddy Miles responds to the guitar's razor-sharp intensity with extra snare and bass drum activity, and Billy Cox adds more syncopation to the lunging bass-line variation that he

first played in the concluding measures of the first solo section (see Ex. III-7, showing bass ostinato, WK-2b; cf. bass patterns in mm. 45–46 and mm. 59–78).

Hendrix's searing guitar work abruptly cools off when he stretches his top string past its breaking point (m. 69.5 [3:19]). The string-break will, for more reasons than one, affect the subsequent development of the guitar solo, but Hendrix's handling of this unexpected turn brings another dimension to an appreciation of his performance skills. Owing to the design of the Fender Stratocaster's bridge and spring-loaded tailpiece assembly, the loss of tension caused by a single broken string can significantly detune the instrument's remaining strings, increasing their tension and causing them to play sharp. Knocked down from six to only five strings in mid-flight, so to speak, Hendrix responds to the predicament in an instant; after swiping down the guitar's neck to sound a clipped glissando, he immediately begins to assess the damage done to his instrument's intonation. Thus, he starts discreetly poking around at the key note, bending up a full whole-step into the pitch so as to be able to compensate with his fretting hand for whatever tuning problems lay in store. By this and other practiced maneuvers, including some careful tonal shading provided by the wah-pedal, and by filling in between sparse melodic ideas with non-pitched, rhythmical chugging, Hendrix deftly negotiates the tuning problems. He eventually locks into an extended segment of combined riffing and melodic fills—a likely formal development and outcome for the improvisation in any case—and is able to maneuver the solo to its relatively subdued conclusion, some seventeen-and-a-half measures after the string break occurs (mm. 69.5–86). After finishing the solo, Hendrix lays out in order to re-string and tune his guitar. (One can hear faint sounds of Hendrix tuning up on the recording; after he subsequently reenters

the piece and renews soloing, he will also keep retuning the newly installed string as he is playing.)

Third Verse: Buddy Miles

(mm. 87–135) [4:08–6:26]

With Hendrix momentarily sidelined, Buddy Miles comes to the fore to vocalize an extended and final section of singing (mm. 87–135). Supported only by his own drum accompaniment and Billy Cox's deeply resonant bass lines, Miles begins improvising a set of four-line stanzas, the first of which is closely modeled on the melody, phrasing, and lyrical contents of the song's first verse:

> They don't know,
> What I know.
> Uh, they don't know,
> Uh, like I know.

In the subsequent pair of stanzas Miles is apparently extemporizing his lyrical ideas, introducing a few new lyrical images and rounding off the passage with a "snapshot" extrapolated from the song's unfolding "story":

> All the time, uh
> I been hangin' around.
> All the time,
> I been hangin' around.
>
> She didn't know Ah—
> She didn't care.

She didn't know Ah—
She didn't care.

An' she go walkin' down the street sayin' [singin'?] "yeah'—Everybody . . .
[Miles begins singing vocables to the main riff of the song]

As in his earlier vocal exchanges with Hendrix, in his solo vocal performance Miles's singing becomes progressively more animated as he varies each repeated line of his text with fluid melismas, a range of rhythmic and timbral effects, and sweeping glides into his falsetto range. Breaking away from the constraints of lyrical content altogether, Miles improvises an extended passage of scat singing.

Miles starts by simply singing the song's main riff (mm. 101–106 [4:47–4:58]), shifting the melody up an octave from his opening phrases of riffing before launching into a passage of freely improvised melodicizing (beginning at m. 107 [4:59]). In his "solo" Miles not only emulates an instrumental model in terms of his singing long-breathed and speedy phrases of riffs and licks, but also simulates an instrumental *sound*; as the scat solo winds down to a veritable whisper, Miles switches from singing vocables to mimicking the sound of a guitar playing the main riff through a wah-wah pedal—simulating the sound of the wah-wah to the extent of imitating the characteristic "quack" and intermittent white noise of the effect [6:19–6:26]. (In an amusing circularity of imitation, then, Miles's vocal is simulating an instrumental and electronic effect which itself simulates vocal sounds.)[15] In the course of the unfolding improvised "arrangement"—and owing to the vagaries of the live performance—Buddy Miles has effectively "stood in" for Hendrix's interrupted guitar solo. Now, as Miles's vocals trail

off, Hendrix, having restored his guitar to its full capacity, resumes soloing and will bring the piece to its conclusion.

Guitar Solo III

(mm. 136–199) [6:27–9:29]

As Hendrix is poised to retake the spotlight, the stripped-down texture comprises only two parts: Buddy Miles's whispering "wah-wah" and the bass's ostinato. For the moment, the drums are hushed to the point of inaudibility. The need for Hendrix to literally rebuild and to reinvigorate the piece—as well as the hushed anticipation that attends his reemergence—will inspire a dynamic and memorable climax. The final guitar solo and the closing segment that concludes the piece will comprise the largest single passage of the performance, amounting to nearly a third of the piece's entire length (the solo spans sixty-four measures, and lasts three minutes in duration), and Hendrix's improvisation is exceptional for its continuity of melodic invention, breadth of expression, and for its interplay of rhythmic ideas and extraordinary timbral effects.

Hendrix launches his lengthy improvisation from a sturdy platform of motivic development. Thus, in the first twelve-and-a-half measures, he develops variations of basic rhythmic and melodic ideas that are grounded in the most familiar thematic elements of the piece (mm. 136–148.5 [6:27–7:01]).

In the opening area of the solo, Hendrix groups his first set of motivic variations into customary 2 + 2, four-bar phrase structures. Besides the familiar phrasing, the

predominant alternating ascending and descending melodic design of the guitar's two-bar subphrases also recalls similar melodic shapes of the song's vocal melodies. In addition, the consistent pattern of long-held notes and rests in the guitar part reflect other established melodic patterns of the piece. Example III-7 shows a transcription of the first four measures of Guitar Solo III, and, for comparison, similarly transcribed excerpts of important bass and vocal parts in the piece. One can readily identify melodic and rhythmic features that Hendrix's improvised ideas share with the composed elements of the piece.[16] Example III-8 represents excerpts from the guitar openings of the first and second solos (mm. 35 and 59, respectively); in these two phrases, too, one can see obvious similarities to an idea that Hendrix plays in m. 140 during the third guitar solo (also shown in Ex. III-8).

Both the guitar's taut-sounding motives and its repeated pauses invite the increased activity and development that is sure to ensue, and the sense of "available space" in the opening measures of the solo bolsters the sense of expectancy already engendered by the band's radically reduced volume level and texture. Within seconds after the guitar enters, the drums also begin filtering back into the texture, Miles at first playing subtle accents on the floor tom (sounding, for a moment, a faint stylistic echo of swing-era drumming) before quietly reestablishing his basic accompaniment pattern and groove (m. 141).

Whether or not Miles Davis's direct influence on Hendrix bore fruit in these measures, one can find parallels in Hendrix's improvisational approach with one taken by Davis in "So What."[17] "So What" appeared on *Kind of Blue* (1959), one of the most

influential works in post-War jazz, and, according to Miles Davis, an album that Hendrix revered.[18] Davis's famous trumpet solo, recorded a decade before Band of Gypsys' debut, is a model for the kind of economy, motivic variation technique, and the dramatic use of space that one also hears—rather uncharacteristically—in Hendrix's opening phrases. Furthermore, one can describe a similar stylistic syntax in the Davis and Hendrix solos that integrates the development of comparably short and angular motivic ideas with interjected phrases of blues melodic content and expressive devices.

Listening to the recorded performances of Davis and Hendrix, one hears striking differences in rhythmic character and phrasing—Davis's swinging and vocal-like phrasing is rich in rhythmic and dynamic subtlety. To be sure, the "grains" of the respective instrumental voices contrast sharply: Davis's warm trumpet sound complements his relaxed and lyrical expression; as Hendrix's solo becomes more rhythmically animated, his guitar will grow progressively more strident and "electronic" sounding—exhibiting an unusually distorted timbre whose ramifications will receive considerable attention below.

Yet, despite the plainly audible differences, a comparative analysis of the transcribed solos helps to identify a fundamentally similar type of structural thinking that the two very different sounding improvisers share. Example III-10 shows a transcribed excerpt from Hendrix's solo, and Example III-11 gives a complete transcription of Miles Davis's trumpet solo in "So What."

Like Davis, Hendrix uses short, angular motives as growth points for melodic development. However, as the transcriptions show, Davis will return to cultivate his opening ideas more pervasively during the course of his some sixty-four measure

improvisation than will Hendrix in his comparably long guitar solo. Both solos show a selective and sparing use of "bent notes," Hendrix employing string bending and Davis using half-valve techniques on the trumpet to similarly heighten the expression of particular blue notes and phrases. Moreover, as Davis's modally-based melodies gradually grow out of the restricted pitch class sets of his motivic starting points, so will Hendrix's motivic variations likewise expand from a basic pentatonic collection (D, F natural, G, A, and C natural, in mm. 136–138), to a melodic development which reintroduces the chromatically rich scalar material of his preceding blues-based solos.[19] However, assigning pitch class values in realistic reflection of the tonal contents of Hendrix's solo becomes increasingly problematical, for reasons given below.

The Strange Sound of the Guitar Solo: Rhythmizing Timbre

Besides a rising sense of expectancy, the guitar's re-entrance also brings in an element of mystery: one hears an odd, metallic-sounding distortion that envelops the salient tones of the melody. The curious sound is at first muted—a fuzzy noise that is somehow attached to Hendrix's quiet introductory notes. However, as the guitar's volume increases during the course of the solo, and as Hendrix shifts from playing single notes to double stops, the noisy component develops into a harsh and exceedingly complex distortion that sometimes overwhelms a clear apprehension of tonal identity.

Although it is unfamiliar and unlike anything heard on previously released Hendrix recordings, the strange sound quality is produced by the Octavia, Roger Mayer's electronic invention that Hendrix had, in fact, employed in several earlier studio

productions. The setting Hendrix used on "Who Knows" simulates the characteristics of a ring-modulated signal, a sound quality typically described as being "gong-like" and "clangorous." As much as his improvisation will be concerned with fashioning new melodic ideas and riffs, Hendrix will focus on improvising with the *sound* of the Octavia—as the solo unfolds, one can hear him explore sonic possibilities as they spring up. His most intriguing discoveries are three-fold: first, he uses the Octavia to take his melodic ideas a shade "outside" of tonal boundaries; second, he effectively expands the guitar's range, an effect Hendrix uses most dramatically at the conclusion of the solo when he exploits the sub-octave tones produced by the device's special signal processing; and third, Hendrix realizes rhythmic possibilities for the Octavia's abrasive sound quality and capacity for generating "industrial strength" distortion.

The Octavia really begins to bark and growl when, as the piece is regaining its rhythmic drive, Hendrix simultaneously increases the strength of his pick attack and expands the texture of his motivic inventions from single-notes to dyadic couplings (mm. 143–147 [6:46–7:01]). (At this point, the transcribed scores are useful more for analyzing the rhythmic features of Hendrix's improvisation, as conventional notation cannot begin to show the changing harmonic complexity of the Octavia's sound.) The electronic effect also imparts a sputtering quality to the series of freely-improvised lines that proceed from Hendrix's set of variations (mm. 149–153.5). Capping off this second set of phrases with a somersaulting cadential figure (m. 152.5–153.5 [7:15–7:17]), Hendrix then hunkers down into a tightly-focused and swinging new riff (mm. 154.5–159 [7:21–7:35]; as seen in score, the riff varies a bit in terms of exact pitch content and rhythmic nuance).

Buddy Miles responds to Hendrix's playful scooping and skipping figures by playing a pair of energizing fills and by locking into a driving eighth-note rhythm on the bell of his ride cymbal. The propulsive accents on the cymbal bell reinforce the eighth-note accentual pattern of Hendrix's riff (every other sixteenth-note in Hendrix's pattern receiving a downstroke accent) and the combined rhythmic force of the drum and guitar parts produces a strong "double-time" subdivision of the fundamental time line. Reacting to his colleagues' escalating intensity, Billy Cox switches to his more syncopated, alternate bass pattern (mm. 160–164). As Cox alters his pattern, however, Hendrix abandons his riff and begins pursuing new ideas, commencing a stretch of improvisation sounded in an extreme high tessitura and formed around a bizarre timbral effect (mm. 160–168).

Having activated the wah-wah pedal during the preceding riff section, Hendrix now employs that device to further nuance the guitar's Octavia-processed signal. The wah-wah pedal's treble position brightens the Octavia's squealing octave doubling and also accentuates a characteristic "chiff" that the latter processor emits with the attack of each note. In addition, the interface of the two processors produces a shifting region of peak resonant frequencies—"hot spots" in the bandwidth that Hendrix will repeatedly probe in a series of whistling string-bends and shakes. But the most intriguing aspect of the guitar sound issues, again, from the Octavia's peculiar "dissonance." As Hendrix's improvised design of ringing, sustained notes and short phrases unfolds, one has the curious impression of the melodic events sounding simultaneously both "inside" and "outside" the larger tonal context [7:38–8:01]—an impression bolstered by Hendrix's (new) high "e" string intermittingly slipping a bit out of tune in succeeding passages.

Emerging out of the strange timbral zone, a short and well-defined motivic phrase takes shape. At one point in the course of this development it is apparent that Hendrix is mentally auditioning the new phrase—taking a moment to formulate the melodic idea clearly in his imagination before casting it in a culminating series of varied repetitions (mm. 163–167 [7:46–7:56]).[20] As distinct from earlier constructions, the new phrasing runs across the barline; rather than beginning on the downbeat, the phrases in this segment begin either on or around the third beat of the measure and extend over the following downbeat and into the next measure.

In the passage described above, Hendrix's sound and phrasing, in combination with the varied rhythmic counterpoint of the bass and a galloping drum part, have sounded an exhilarating departure from prevailing conditions in the piece. Upon concluding his *altissimo* excursion, however, Hendrix returns to playing with the swing of the reestablished groove, though he continues exploring another equally novel range of timbres.

The riff figure which Hendrix now conjures up shows affinities with the driving riff heard earlier in the solo (compare mm. 171–175 with mm. 154.5–158) in terms of its motivic structure and patterning, and for its hard-swinging rhythmic character; for comparison, Example III-10 shows transcriptions of the two guitar riffs.[21] However, in developing the present riff Hendrix realizes new rhythmic implications that he hears in the Octavia's gritty distortion—figuratively rubbing the Octavia's most abrasive timbral quality against a suitably scratchy-sounding rhythmic pattern (mm. 169–175 [8:02–8:16]). As he bears down on the repeated figures, Hendrix rocks his wah-wah pedal from its full treble to its full bass positions, alternating positions for every other riff

that he plays and thereby creating a kind of timbral dialogue—a "call and response" between the figures (mm. 171–173 [8:06–8:13]). Coupled with the wah-pedal's treble boost, the Octavia's biting and noisy distortion obliterates perceptible pitch content in the intervallic components of the riff, and, in effect, transforms Hendrix's guitar into an electronic percussion instrument. (One might also hear in the guitar part's clenched sound and hopping rhythms a foreshadowing of the turntable scratching techniques of hip-hop music.) Similarly to previous, analogous passages, the series of figures culminates in an accelerated drive to a sustained double-stop, the riff's straight sixteenth-note figures changing to sixteenth-note triplets before tumbling into the concluding JH-1 lick (cf. m. 175 and, in Guitar Solo II, m. 63).

For the remainder of this amazing solo Hendrix continues alternating between passages of free extemporizing and short segments of solid riffing. He also persists in exploring the Octavia's clangorous and metallic coloration; a short stretch of dancing, repeated-note figures suggests the unlikely sound image of a fuzztone-processed steel drum or of some other such imaginary electrified metallophone (mm. 181–183 [8:35–8:41]).

Ending Segment of Solo and End of "Who Knows"
(mm. 190–199 [8:59–9:29])

After concluding its solo flight with a final riff (mm. 185–188 [8:45–8:58]), the guitar links up with the ground bass for the first time since the piece's introduction and opening verse. However, in the coda section that now follows, Hendrix's paraphrases

and variations based on the main theme drop down into a rumbling low tessitura: whereas in previous sections Hendrix's signal processing extended the guitar's compass high above its normal acoustical range, now the Octavia produces a hoarse-sounding sub-octave interval affixed to the guitar's runs.

The piece ends abruptly and in an understated manner. Presumably at Hendrix's cue, the band joins together in a final, stop-time paraphrase of the main theme's head motive [9:19–9:22]. In a closing gesture it is Hendrix who "finishes" the truncated theme by playing a variation of its blues-based subphrase—a final tag that is at once both a blues lick and a major thematic element of "Who Knows" [9:22–9:27].[22]

Possible Historical Influences in "Who Knows"

According to Billy Cox, "Who Knows" evolved from a single melodic idea. Cox remembers that the composition started out as "just a pattern" that Hendrix had brought into the Band of Gypsys pre-concert rehearsal sessions.[23] The pattern to which Cox refers is assuredly the song's main riff and ostinato. The bassist also states that drummer Buddy Miles made contributions to the arrangement of the piece as it took shape in rehearsal, though it is unclear as to what those contributions were.[24]

Whereas the fundamental riff and principal melodic ideas in "Who Knows" would seem to have originated with Hendrix, the song's lyrical content and imagery reflect the influence of songwriting traditions rooted in pre-War and post-War blues and rhythm and blues. The inspiration for individual lyrical phrases in Hendrix's text might even have

come from a particular lineage of song compositions. Consider the first verse and refrain of an early R & B recording by singer, pianist, and songwriter Willie Mabon (1915–1985), titled "I Don't Know':

> I'm gettin' sick and tired of the way you do,
> Good kind papa gotta poison you
> Sprinkle goofer dusts all around your bed,
> Wake up one of these mornings, find your own self dead
>
> She said, 'You shouldn't say that'
> I said, 'What should I say this time baby?'
> She says, 'Mmmm, I don't know'
> My oh, my oh, my—I don't know what my baby puttin' down'

Mabon's 1953 release of "I Don't Know" was one of the most popular and influential records to appear on the Chess Record label prior to Chuck Berry's breakout hit, "Maybellene" (1955). The commercial success of "I Don't Know" launched Mabon as a major recording and performing artist in the burgeoning post-War rhythm and blues scene.[25]

Besides the more obvious similarities evident in the respective song titles and refrain lyrics of the Hendrix and Mabon songs, one also spies the same ancillary phrase, "I don't' know what my baby puttin' down" (cf. the first verses of "Who Knows" and "I Don't Know"). In addition, the image of the "magic honey" spreading around Hendrix's bed in the second verse of "Who Knows," alludes to the fabled charms, magic spells, and conjure "remedies" of southern voodoo culture that Mabon's malevolent "goofer dusts" explicitly evokes.[26] The voodoo spells and trickster figures of post-War Chicago blues and rhythm and blues provided crucial images and archetypes for Hendrix's songwriting,

and in addition to "I Don't Know," Willie Mabon's early recording of Willie Dixon's "Seventh Son" made another important contribution to the tradition.

"I Don't Know" enjoyed its run on the R & B charts in the early 1950s, when Hendrix was around twelve or thirteen years of age and was still living in his Seattle hometown. If he had never heard the tune while growing up in Seattle, Hendrix might well have learned it later, while he was playing the chitlin circuit during the first half of the 1960s. In fact, by the time Hendrix was stationed in the South and beginning to work dance and nightclub gigs, Mabon's song had already become an R & B "standard," an achievement attested to by the several cover versions and "answer records" that "I Don't Know" had engendered.[27]

However, Willie Mabon's popular R & B single represented a rewriting of an earlier recording by Cripple Clarence Lofton (1887–1957), whose own composition, "I Don't Know," appeared in 1939.[28] The lyrics of Lofton's song contain the following lines:

> Gettin' sick and tired of the way you do,
> Kind mama, gonna poison you
> Sprinkle goofer dust around your bed,
> Wake some mornin' find you own self dead,
>
> 'Cause you shouldn't of—'shouldn't have what darling?'
> I don't know, I never know, I don't know, I don't know,
> I'm tellin' you now, have to be struttin' that thing night and day

Lofton's song text also echoes earlier recordings. Blues historian Paul Oliver notes that in 1930, a black musician from rural Georgia named Charlie Spand had sung the following stanza in "Big Fat Mama Blues":

> I'm gonna sprinkle a little goofer dust all around your nappy head
> I'm gonna sprinkle a little goofer dust all around your nappy head
> You'll wake up some of these mornings and find your own self dead[29]

It is conceivable for Hendrix to either have appropriated or to have otherwise reworked key lyrical ideas from any of the recorded sources discussed above. Mabon's hit single and the various spin-off recordings it generated were more contemporaneous and therefore more likely possible influences, but it is also feasible that Hendrix was familiar with the songs that were recorded during the 1930s. The possibility that he was acquainted with any or all of the family of aforementioned songs is bolstered by a live recording made in 1968; during a jam session in a New York nightclub, Hendrix ad-libbed the same venomous threat that Charlie Spand had sung in 1930. A posthumously issued bootleg of the nightclub session sardonically paraphrased Hendrix's grisly ad lib in its title, *Woke Up This Mornin' and Found My Own Self Dead.*[30]

As one discovers identical and similar key lyrical phrases circulating among several sources, perhaps Hendrix recognized that in "Who Knows" he was re-inscribing textual materials that existed in a "public domain" of blues lyrics.[31] Assuredly, several lines in his piece belong to the oral traditions and lyrical repositories shared by rural blues musicians as well as by post-War, pop oriented singers and tunesmiths.

Comparisons with an Alternate Take of "Who Knows"

Whatever lyrical traditions Hendrix might have drawn upon for "Who Knows," there seems to be little available evidence for how the piece's musical composition developed in Band of Gypsys' rehearsal sessions. Unlike Hendrix's other Band of Gypsys compositions, the piece is conspicuously absent from published accounts of Hendrix's taped studio and rehearsal sessions. Nor is the song included on a published recording of the band's pre-concert sessions at Baggy's Studios.[32] Hendrix archivist and researcher John McDermott reports that the band gave little attention to the piece in their rehearsals. In McDermott's view, the apparent lack of preparation on "Who Knows" compromised the group's performance of a work that remained "underdeveloped."[33]

Although Hendrix would work on alternative studio productions and arrangements of "Power to Love," "Message to Love," and on other representative pieces from the Band of Gypsys repertoire, he apparently made no such effort for "Who Knows." Consequently, there is no studio version of the piece with which one can compare the version recorded on 1 January 1970 and issued on *Band of Gypsys*.

Band of Gypsys did record, however, at least one "alternate," live version of "Who Knows." The 1999 CD release, *Hendrix Live at the Fillmore East*, records the band playing the piece on their New Year's Eve 1969—1970 program, the first night of their debut engagement. The band launches into the tune shortly after midnight, segueing into the song's opening riff following a tongue in cheek, power trio arrangement of "Auld Lang Syne."[34] The song begins amidst the New Year's revelry and in an ironic vein, with

Hendrix extending best wishes to the police department ("Don't forget the fuzz") as well as to the enthusiastic Fillmore audience.

The alternate rendition of "Who Knows" primarily uses the song's main riff as a framework for a loose set of guitar improvisations. The comic spirit that animates the beginning of the piece extends into Hendrix ensuing parlando-style wah-wah guitar breaks and is further expressed in a verse of ribald lyrics. Over the sound of the unison bass and guitar riff, Hendrix bade farewell to the sixties with the following jest:

> Happy New Year,
> Goodbye Sixty-nine
> What 'cha can do for me,
> Is scratch my behind—
> Sixty-nine, Sixty-nine—

No other verses are sung, and along with scuttling the lyrics heard on the *Band of Gypsys* version, the New Year's Eve performance of "Who Knows" also sets aside any call and response vocalizing between Hendrix and Miles. Neither is there any of the high-octane soloing nor the adventurous improvising with the Octavia that would highlight the next evening's performance. Instead, Hendrix improvises a series of playful phrases on top of the rhythm section's groove, his guitar accompanied at times by Buddy Miles's humming a muted obbligato. Towards the end of the relatively brief performance, Hendrix offers a mock apology to the Fillmore audience: "Hope you don't mind us jamming . . ." [3:30].

Hendrix's seemingly cavalier attitude towards "Who Knows" might indeed bespeak a composer's casual regard for an "underdeveloped" work. Nonetheless,

following the Fillmore dates, Hendrix again chose the piece to be the set opener for the Band of Gypsys' performance at Madison Square Garden, the band's final concert appearance held on 28 January 1970.

To be sure, the song's form, based on a single principal riff, is simpler than the multi-sectional works with more elaborate forms that Hendrix and Band of Gypsys struggled to realize in both studio sessions and on stage, and whose more complex structures will be analyzed in following chapters. However, comparative analyses to follow will show that a surprising degree of spontaneous formal arrangement also obtained in the other works that Hendrix recorded with Band of Gypsys. The next chapter will show that "Machine Gun," whose compelling dramatic shape impresses one as reflecting a tightly arranged formal design, actually came together in a spontaneously realized formal structure. Finally, where one can speculate about the audibility of historical influences in "Who Knows," a later chapter on Hendrix's "Power to Love" will show a more certain instance of musical borrowing.

Notes to Chapter III

[1] Hendrix scholar John McDermott regrets the inclusion of "Who Knows" on *Band of Gypsys* in lieu of what he regards as much stronger material that Band of Gypsys recorded during the Fillmore performances:

> *Band of Gypsys'* most glaring flaw is "Who Knows," especially considering the wealth of exciting new material available to Hendrix . . . It remains puzzling that he would choose to fill half of one side [of the album] with a song that, despite its potential . . . is obviously underdeveloped. The decision to include "Who Knows"—as well as the other tracks—says Eddie Kramer [the post-production sound engineer for *Band of Gypsys*], was entirely Hendrix's. (McDermott and Kramer, *Setting the Record*, 256)

In a similar vein, Hendrix biographers Harry Shapiro and Caesar Glebbeek state: "'Who Knows' was essentially a jam featuring the mundane soul/R & B voice of Buddy Miles punctuated by some desperate 'strangled parrot' scat vocalizing. Jimi seemed content to fall back on . . some unremarkable wah-wah licks" (Shapiro and Glebbeek, *Electric Gypsy*, 409). However, Charles Shaar Murray thinks that with the rhythm section of Miles and Cox, Hendrix created a "new kind of funk" in "Who Knows" that would echo through the music of Curtis Mayfield, one of Hendrix's major influences, in the decade to follow (Murray, *Crosstown Traffic*, 177–178).

[2] In their instruction book and study on the music of James Brown, Allan Slutsky and Chuck Silverman give considerable attention to "Think" (Federal 12370), Brown's cover version of a 1957 hit by the Five Royales. Their analysis of the song focuses on its "schizophrenic," "half-swung/half-straight eighth-note feel," a highly nuanced rhythmic character that has continued to interest musicians since Brown released his hit single in 1960: See Allen Slutsky and Chuck Silverman, *The Funkmasters: The Great James Brown Rhythm Sections, 1960–1973* (Miami, FLA: Warner Brothers, 1997), 11–15.

James Brown regards "Think" as a turning point in his transformation from rhythm and blues artist to soul singer: See James Brown and Bruce Tucker, *James Brown: The Godfather of Soul* (New York: Macmillan, 1986; reprint, New York: Thunder's Mouth Press, 1986), 149.

[3] The Jimi Hendrix Experience integrated the sound and style of jazz-influenced swing in "3rd Stone From the Sun" (*Are You Experienced?*, 1967), and in "Up From the Skies" (*Axis: Bold As Love*, 1968). In the former recording, it is drummer Mitch Mitchell who establishes the swing character; in the latter work, the vocal as well as the guitar part participate in the subtle swing rhythm. For information on the rhythmic innovations and features that distinguished early rock 'n' roll from jazz-influenced rhythm and blues see Tony Scherman, *Backbeat: Earl Palmer's Story* (New York: Da Capo Press, 2000), 85.

[4] The reason for the tape edit is not apparent. The unedited recording of the concert documents that after Bill Graham introduces the individual members of the band

(Graham's introductions are also excised from the published recording), Hendrix begins playing the riff (source: unpublished recording of "Who Knows," first Fillmore show, 1 January 1970, from Experience Music Project Permanent Collection, artifact number 1998.192.2). The audience applause, following Graham's announcing Hendrix's name, somewhat obscures the guitar's first notes, but really no more than the applause does for the rest of the introduction as one hears it on the album. As the deletion shaves off only a few seconds from the length of the track, it is unlikely that the edit was made in the interest of reducing the length of the recording.

[5] The two phrases (in mm. 11–12, and mm. 13–14) share similar head motives; a rising string bend reaching from the subtonic (C natural) to the tonic, D, followed by a leap, ascending in the first phrase and descending for the second, to the flat-mediant scale degree (F natural).

[6] The series of plunging notes in m. 14 is produced by a "pre-bending" technique whereby Hendrix releases pre-positioned string bends, i.e., sounding the notes before releasing tension on the bending strings instead of striking a note or interval and then bending up into the target pitch or pitches. In this passage, the strong attack on the syncopated notes, and a relaxed rate of release and attendant "floating" quality of the unfixed temperament is an arresting combination. Furthermore, note that Hendrix's line and "sequence" begins on his high G, two octaves above the starting note of the riff which Hendrix reengages in the following measure (m. 15), thus making a smoothly effective join between the improvised segment and the targeted first note of the reengaged ostinato.

[7] The jerky syncopations of the guitar part in m. 14 also anticipate similar rhythmic features of the vocal parts in the verses of the song and of rhythmic variations of the bass ostinato (see below; discussion of bass parts WK-2a and WK-2b, as they occur in mm. 45–46 and 59–78).

[8] As shown in published transcriptions, the open perfect fifths, major tenths, and triads built on the subdominant and flat-mediant degrees have harmonic implications. In conjunction with the bass part Hendrix's ad-lib guitar parts imply an harmonic progression: | IV – bIII - I - I |. This implied root progression is indicated by the parenthetical symbols (G5) (F5) and (D5) that appear above the top stave in the published transcription. However, unlike the other scale degrees, the tonic degree rarely receives "harmonic support" in the form of either an added fifth above or fourth below its tone. Such rare instances, in fact, mainly occur towards the conclusion of the piece and in the context of Hendrix's playing a parallel coupling of perfect fourths and fifths based on variations of the piece's main riff. Additionally, Hendrix plays that concluding passage with a severe harmonic distortion that nearly obliterates the perception of a relatively pure interval. In sum, Hendrix basically reserves his resonant open fifths and triadic shapes for the subdominant and flat-mediant scale degrees as they occur in the melodic

line of the main riff: in "Who Knows" the tonic receives no explicit harmonic support—and, in this context, it does not need it.

The implied progression in "Who Knows," has familiar components, and in terms of its blues-based root movement, it roughly represents a retrograde of the implied progression of roots in Hendrix's first hit single, "Purple Haze": |I - - - |bIII - IV - |.

[9] This kind of enjambment and "syntactic blend" may reflect an origin in the blues. For a fuller treatment of blues poetic structures, see Paul Oliver, *Blues Fell This Morning: Meaning in the Blues*, Canto edition (Cambridge: Cambridge University Press, 1994). Paul Oliver states:

> Much of the obscuration of meaning in the blues arises through the peculiarities of phrasing . . . the qualities of timing and enunciation in which lie a great deal of the unique beauty and fascination of the music. But they do not assist in the clarification of the content. Enjambments [and] elisions . . are features common in the blues which add greatly to the dramatic intensity of the verses though they sometimes cloud the meaning (Oliver, *Blues Fell This Morning*, 266).

[10] The arrangements of background vocals in the Experience recordings were generally simple and most often represented chorus refrains of a fixed nature; there was neither real interaction nor spontaneous exchange of ideas between Hendrix's lead vocal parts and his backing vocal ensembles. Examples from the original Experience albums would include: "Stone Free," "Fire," "Wait Until Tomorrow," and "Crosstown Traffic." The most elaborate of the Experience vocal arrangements occurs in "Have You Ever Been to Electric Ladyland?" (*Electric Ladyland*, 1968), where Hendrix harmonizes and sings in call and response exchanges with several overdubbed tracks of his own vocal parts.

In the instrumental performances mentioned in the above text, Hendrix's guitar trades licks and short phrases with guest artist Freddie Smith's tenor saxophone on "Rainy Day, Dream Away," and with Stevie Winwood's Hammond organ on "Voodoo Chile." Both songs appeared on the *Electric Ladyland*, and their basic tracks were built out of extended jam sessions that were performed live in the studio under Hendrix's direction.

[11] The alternate version of "Who Knows" was recorded at the Fillmore East, second show on 31 December 1969. The recording was released on the 1999 CD *Band of Gypsys: Live at the Fillmore East* (the lick occurs at 0:48).

[12] *Hendrix: Band of Gypsys* (MCAV-11931, 1999). According to Michael Fairchild, Jan Blom, a member of the Fillmore staff, made the video tape of the early concert on New Year's Day 1970, excerpts of which appear in the aforementioned published video: See Michael Fairchild, "About the Band of Gypsys," *Goldmine*, 12 September, 36.

[13] The 4-3 melodic motions in mm. 35—40, involve varying qualities of third scale degrees, ranging from both major and minor to flatted or "neutral" thirds whose intonation lies or shifts somewhere between major and minor qualities. In mm. 39 and 40, the repeated melodic movements from the fourth scale degree (G) to the major and minor third degrees (F-sharp and F natural, respectively), occur in the lower voice of the frequently two-voice guitar part.

[14] In the introduction to his biography and cultural study of Hendrix, *Crosstown Traffic*, Charles Shaar Murray states:

> If there is an experiential core to [Hendrix's] music, it is about the interlocking terrors of rootlessness and of feeling trapped. "There must be some kind of way out here," he sang in Bob Dylan's "All Along the Watchtower," and it requires no great powers of empathy to sense the intensity of his identification with that line (Murray, *Crosstown Traffic*, 4).

[15] Buddy Miles practiced his imitating the sound of a wah-wah guitar sound during sessions at Baggy's studios while the band was rehearsing Miles's tune, "Them Changes" (*Jimi Hendrix: The Baggy's Rehearsal Sessions* [Dagger, 088 112 956-2, 2002]). A multi-instrumentalist as well as vocalist, Buddy Miles could also play guitar.

[16] Ex. III-10 shows excerpts taken from the openings of guitar solo sections I and II; in these instances, too, one can see similarities to an idea/lick that Hendrix plays in m. 140 of Guitar Solo III.

[17] "So What"; *Kind of Blue* (Columbia CL1355, 1959). Readers wishing to learn about the creation of *Kind of Blue* and the album's seminal influence on the development of "modal jazz" may consult Ashley Kahn, *Kind of Blue: The Making of the Miles Davis Masterpiece* (New York: Da Capo, 2000).

[18] Davis and Troupe, *Miles: The Autobiography*, 292.

[19] Davis's melodic inventions gradually build out from motivic ideas comprising only three and four pitches (see the first four measures of his solo), to incorporating a scalar set based on a blues- and chromatically-inflected dorian mode (that is, dorian "scales" formed on both D and E-flat tonal centers). (One also notices that with the shift in tonal center, from D to E-flat, Davis helps to quickly solidify the new key center and tonal canvas by immediately playing a scalar idea that incorporates all the tones of the new mode. John Coltrane's saxophone solo on "So What" exemplifies a strategy similar to Davis's in this regard.) Hendrix's larger pitch class set includes the following collection: D, E, F, F-sharp, G, G-sharp/A-flat, A, B, C, and C-sharp. In idiomatic terms, the foregoing pitch collection comprises one variety of "blues scale." (With respect to Hendrix's usage, C-sharp might be considered a "non-scalar" tone, as it occurs exclusively as a "passing tone" between the tonic D and subtonic C natural, and as a

neighbor note to the tonic. Additionally, where it occurs, the C-sharp, representing the leading tone, has a somewhat tentative melodic character, as Hendrix never actually frets the sounded tone but, rather, sounds it as a subtle inflection in string bends.)

[20] Hendrix's "pause" lasts from the last beat of m. 163 through the first two beats of m. 164 [7:46–7:48], while he is formulating a continuation of the melodic idea that he struck upon in mm. 162.5 and 163. However, he is not silent while he is pausing to think; through these few seconds Hendrix keeps chugging on the guitar strings at the same time he is rocking the wah-wah pedal, quietly scratching out a set of rhythmic chugs.

In addition to pausing in order to formulate his melodic ideas, Hendrix may also have been pausing to tune his instrument. The faint sounding chugs might have been produced by Hendrix having used only the heel of his picking hand to mute the strings at the bridge, a maneuver that would have allowed him to reach up and adjust his tuners with his other, free hand. During the course of the solo the guitar's high 'e' string, probably having been hastily installed after the string break, keeps stretching out of tune, and a video clip shows Hendrix briefly stopping to tune up during a later passage (in m. 178-179, at [8:27–8:28]) (see "Who Knows" excerpt on: *Hendrix: Band of Gypsys*, MCAV-11931, 1999). The published video excerpts do not show, however, footage corresponding with mm. 163–164.

[21] Example III-10 shows transcriptions of the guitar riffs as they develop in mm. 155–158, and in mm. 171–175. Comparing the two transcribed excerpts shows that the basic motivic units of both passages share the same duration (comprising one quarter note value), as well as the same kind of motivic density and thrust, that is, three and four consecutive riffs are packed into one measure. Both riffs also emphasize the underlying quarter note pulse; the second riff, however, represents an anacrusis figure, commencing on the sixteenth-note after the metric beats. What is not shown in the transcription, but is plainly audible, is the sharply articulated, swinging rhythmic character of the guitar parts in both passages.

[22] Note that in the final tag (mm. 198–199) in effect, Hendrix has rhythmically displaced the subphrase to begin on a downbeat—a rhythmic alteration that is similar to the hypothetical version of the main theme as depicted in Ex. III-4.

[23] McDermott, Cox, and Kramer, *Sessions*, 137.

[24] Cox, who remembers "Who Knows" as being "something [that] Jimi started," states that "Buddy thought up the stops" in the song (ibid., 137). It is unclear exactly what the "stops" Cox ascribes to Miles constitute; only the punched accents that close the piece, in mm. 197 and 198, resemble anything like a stop-time phrase or passage in this particular performance. The previous evening's performance, played after the band's rendition of "Auld Lang Syne," ends somewhat similarly, with, however, a single punched accent being performed by Miles and Cox ("Who Knows," *Hendrix: Live At The Fillmore* [3:41–3:44).

[25] "I Don't Know" by Willie Mabon (Chess 1531, U-4815, 1953). Memphis born Mabon recorded jump-band style rhythm and blues for the Apollo and Aristocrat (later Chess) labels before making a series of hit records for Chicago's Chess Records. See: "Think Chess Records and You Don't Think Piano," and essay written by Don Snowden, included in the CD liner notes to: *Chess Blues Piano Greats: Eddie Boyd, LaFayette Leake, Willie Mabon, Otis Spann* (CHD2-9385, MCA Records, 1997).

[26] The "goofer" and "goober" dusts that appear in many blues lyrics reflect folk beliefs and magical practices in Southern American culture. Initiates into the mysteries of southern hoodoo and conjuring would use magic powders to cast spells—sometimes in order to gain sexual control over a spouse or lover—and to poison or jinx targeted victims. See Harry Middleton Hyatt, *Hoodoo—Conjuration—Witchcraft—Rootwork* (Hannibal, MO: Western Publishing, 1970), 221–227. Although Mabon's tune and jump band-style arrangement convey a humorous mood, the lyrics of "I Don't Know" link it to a family of "poison songs" in the blues tradition (e.g., "Black Dust Blues," written by Selma Davis and recorded by Gertrude "Ma" Rainey in 1928 for Paramount Records).

Kathy Etchingham has stated that Hendrix was conversant with voodoo beliefs and practices (Etchingham and Crofts, *Through Gypsy Eyes*, 68). One of Hendrix's early recordings makes an allusion to magical practice—an allusion read at the time as a metaphor for psychedelic experience; "whatever it is, that girl put a spell on me," Hendrix sang in his signature piece,"Purple Haze."

[27] Writing in 1963, Amiri (Leroi Jones) Baraka mentions a "[recent] rhythm and blues song that talks of spreading goober dust all around your bed/When you wake up you find your own self dead." See Leroi (Amiri Baraka) Jones, *Blues People: Negro Music in White America*, first Quill edition (New York: Quill, William Morrow, 1963), 35.

By the early sixties, Mabon's tune had been covered by other rhythm and blues singers, as well as by white popular recording artists, including Tennessee Ernie Ford (1919-1991). In addition, Mabon's record begat a series of "answer records," the first one issued in 1953 by singer Linda Hayes (singer for the Platters), titled "Yes I Know (What You're Puttin' Down)," (RIH #244)" (source: "The One Hit Superstar—Willie Mabon," an article posted on the on-line publication, JammUpp: http://home.earthlink.net/™jammupTP.html/), accessed on 1 June 2003).

[28] For Lofton's dates and a short biography see Donald Clarke, ed., *The Penguin Encyclopedia of Popular Music*, second edition (London: Penguin Books., 1998), 768.

Cripple Clarence Lofton's recording of "I Don't Know" is an uptempo, piano-driven boogie woogie. (A copy of the recording was provided to the author, courtesy of Richard Shurman).

[29] Oliver, *Blues Fell*, 125.

[30] *Woke Up This Morning and Found My Own Self Dead*, (Red Lightin', RL0015) was a 1980 bootleg album released in Great Britain.

[31] Similar lyrics turn up in a number of blues songs, including "Vietcong Blues" (on *Chicago/The Blues/Today! Vol.1*,Vanguard VSD 79216, 1966), a recording by Junior Wells (1934–1998) that receives some attention in the following chapter on "Machine Gun" (see note 4 in Chapter IV). The last stanza of "Vietcong Blues" begins with the line, "One of these mornings your gonna look up and find yourself gone."

[32] *Jimi Hendrix: The Baggy's Rehearsal Sessions*, (Dagger, 088 112 956-2, 2002).

[33] McDermott, Cox, and Kramer, *Sessions*, 137.

[34] *Hendrix Live at the Fillmore East (*MCAD2-11931).

CHAPTER IV: MACHINE GUN

Band of Gypsys produced one acclaimed masterpiece. "Machine Gun," the lengthy second track and centerpiece of the *Band of Gypsys* album, has consistently garnered the highest praise from critics, biographers, and musicians alike. The focus of approbation is, deservedly, Hendrix's performance. However, commentaries also acknowledge that the strength of the piece is found in an emotionally compelling symbiosis of sound, lyrical imagery, and subject matter. One can hear the rich interconnection of textual themes and musical ideas found in earlier works by Hendrix, but writers and artists consistently ascribe a special transcendence to "Machine Gun." Nearly thirty years after Band of Gypsys recorded the piece, one musician stated that in listening to Hendrix's performance one is " . . . hearing a man's soul—period—not even attached to an instrument."[1] Indeed, the piece strives for transcendence on several levels, and, as the preceding quotation suggests, Hendrix's playing surpasses a merely virtuosic exhibitionism. In "Machine Gun" the virtuoso guitar is essential to revealing the frightening beauty of the piece. Furthermore, though it is thoroughly grounded in the blues, "Machine Gun" essentially represents a novel form: a contemporary blues, connected to some of the oldest idioms in the tradition, that also reaches into the modernist realms of electronic chamber music.

"Machine Gun" and "Star Spangled Banner": Precedents and Critical Differences in Hendrix's Anthem

For its graphic portrayal of war and bloody mayhem, "Machine Gun" draws comparisons with Hendrix's most celebrated "antiwar statement" and sound painting: his version of "Star Spangled Banner," as performed at Woodstock. Both pieces have been critically received as iconoclastic works that are rooted in the cultural milieu of the era of the Vietnam War. Indeed, it is impossible to imagine these works having such resonance—or their music even having been created—in any period before America's agonized involvement in the war that began in the 1960s.

Hendrix's "Star Spangled Banner" has become an icon of 1960s rock, and one hears clear precedents for "Machine Gun" in the anthem Hendrix recorded some four months before Band of Gypsys' debut. But while it will be useful to note some basic similarities, one might also pay attention to significant differences between these two pieces, and distinguish the different ways that "Machine Gun" and "Star Spangled Banner" spoke to their times.

In comparing the works, one immediately recognizes in passages of "Machine Gun" some of the same sonic vocabulary and "ordinance"—Hendrix's store of explosive sound images—that characterized the terrors of modern warfare in the anthem. In addition, the frameworks of both "Machine Gun" and "Star Spangled Banner" are similar to the extent that their forms unfold in a series of essentially composed sections juxtaposed with segments of open-ended improvisation and extra-tonal sound painting.

The differences between the two works are, perhaps, more telling than their similarities. To begin with, the dialectic of the Woodstock "Banner" depends, of course, on the "found" musical material as well as on the extra-musical symbolism of the national anthem. The violent episodes of feedback and discordant sounds that repeatedly harass the anthem's melody are triggered by the lines of text that one associates with the melody itself, as one hears it performed by Hendrix's solo guitar. The radical juxtapositions of style set up a tense relationship between two diametrically opposed musical worlds, those of the diatonic anthem and its extra-tonal nemesis. The boundaries between these antithetical but curiously co-dependent worlds remain sharply defined until the final moments of the piece, when the anthem's melody itself ignites into electronic feedback.

In contrast with the anthem's radical juxtapositions of style, "Machine Gun" smoothly integrates its blues-based melodies and rhythmic grooves with extra-tonal events and electronic sound painting. Except for the free-form cadenza which closes the piece, the blues foundation is always audible in "Machine Gun." Moreover, the musical characterization of modern weaponry and destructive force is not limited to electronic effects and special techniques: Hendrix's blazing scalar runs are, in context, strikingly bellicose, and a primary thematic element, the motto of the piece's main musical theme, is expressive of the central "machine gun" poetic image. In addition, the extra-tonal sounds of "Machine Gun" will explore a broader spectrum of moods and tone colors than do the consistently abrasive timbres and furious rhythms of the anthems' episodes. Finally, as "Machine Gun" is an ensemble piece, Band of Gypsys will literally construct layers of tonal and non-tonal materials, and of deviating fields of rhythmic activity, such

as an essentially solo performance of Hendrix's "Star Spangled Banner" can only suggest by means of stylistic juxtaposition.

Though routinely read by critics as a deconstruction of "Star Spangled Banner" and, by extension, of the national ideals of democratic liberty symbolized by the American anthem, Hendrix's larger audience has heard various meanings in his rendition of the anthem. Reactions have ranged from hearing the Woodstock "Banner" as a radical manifesto of the counterculture to simply responding to it as a rock version of the nation's anthem. Hendrix, perhaps in order to distance himself from controversy, or possibly to add another level of irony to his "performance," described his piece as representing a kind of sonic reportage rather than as articulating an explicit political stance: "We play ['Star Spangled Banner'] the way the air is in America today, and that air is [full of] static," Hendrix stated at a post-Woodstock press conference.[2]

Whatever implications one hears in its radical musical construction, to listen critically to Hendrix's anthem surely is to be confronted by a most basic question: what does it mean? What do the violent episodes represent: are they protests aimed at a specific political target, or does one hear Hendrix hurling them as indictments against a centuries-old history of national hypocrisy and wrongdoing? Many in Hendrix's 1960s audience heard the unresolved clash of musical styles in the anthem and wondered: what is to be done in a community that is so thoroughly polarized over the most pressing political and moral issues?

If one is witnessing a catastrophe on a national scale in "Star Spangled Banner," "Machine Gun" approaches heroic tragedy. In the piece's tragic plot, Hendrix will wear the persona of a soldier, a warrior and archetypal heroic figure who defies and is then

destroyed by terrifying forces. His struggle and dramatic crisis are embodied in both the sound and structure of the music, as the analysis to follow will show. Hendrix's anthem had also, in fact, paid tribute to a fallen soldier—calling a momentary "cease fire" to sound an epigrammatic quote of "Funeral Taps" or "The Last Post" (a symbolic quote that Hendrix also worked into alternate recorded performances of "Machine Gun"[3]). One might view "Machine Gun," then, as giving one of the anthem's "victims"—perhaps the representative *first* victim of war as well as its agent—a dramatic voice.

In "Machine Gun" there is no question of the piece's larger meaning or of Hendrix's artistic intention. The song's protagonist clearly states his understanding that war is essentially large-scale fratricide, and that its wages are "mutually assured destruction" and annihilation. That the unknown soldier's fate is universal, is impressed upon the listener by the scale and crushing intensity of the music. But Hendrix's soldier is also a troubling figure: though aware of the immorality of war, his tortures transform him into a frightening figure—one who transcends not in a state of grace, but of vengeance. His death brings no resolution but instead sinks the piece into a haunted and scary ethereality—a dimension that Hendrix's anthem never entered. As the anguished and violent sounds continue after the soldier's fall, one is again left wondering: what can be done to stop the cycle of violence that "Machine Gun" represents? The song will point an accusatory figure towards "evil men," but that somewhat facile reproach will not settle the moral problems posed by the protagonist's circumstance and fate.

Hendrix's Personal History, and Cultural Issues: Background to "Machine Gun"

Though a deep-rooted archetype in American vernacular music, the warrior/soldier was a subject and character who infrequently appeared in contemporary rock of the late 1960s.[4] Hendrix, however, was connected to soldiering as few, if any, other rock stars were. His background and familiarity with the military no doubt informed the songwriting in "Machine Gun" and other related pieces, as well as the interpretation of "Star Spangled Banner."

Hendrix served in the armed forces, as had some of his closest relatives and friends. Hendrix's father, James "Al" Hendrix (1919–2002), was a World War II veteran, and his years of service away from home caused considerable hardship to Hendrix's family.[5] Some twenty years after Al Hendrix was conscripted, his son was a gung-ho recruit in basic training, writing to his father of his fierce determination to become a paratrooper: ". . . for the sake of our name . . I'll fix it so the whole family of Hendrix will have the right to wear the Screamin' Eagle patch of the U.S. Army Airborne . . . the patch of proudness . . . "[6] While serving with Billy Cox in the 101st Airborne Division, Hendrix and Cox formed a rhythm and blues band made up of fellow GIs, to play local clubs in and around their base camp at Fort Campbell, Kentucky.[7] Including Hendrix and Cox, half the members of Gypsy Sun and Rainbows were former servicemen; Hendrix's old friend, second guitarist Larry Lee had, in fact, only recently arrived from serving in Vietnam when he accompanied Hendrix to Woodstock.[8] As Hendrix was playing the Fillmore with Band of Gypsys, two of his closest childhood

friends were serving extended tours of duty overseas, one of them in the process of becoming a career officer.[9]

Hendrix would eventually sour on his experience in the military, and was discharged from the service a few years before U.S. paratroopers began to be sent to Vietnam. Whatever ambivalence Hendrix may have felt towards the military and the war on the basis of his own experience (there is some evidence that he did have conflicting feelings about U.S. involvement in Vietnam), he was also undoubtedly aware of compounded issues for black servicemen and servicewomen at large.[10]

By the 1960s, increasing numbers of black Americans were attracted to military service as an arena for opportunity; as federal employees in the armed services, those Americans who were disadvantaged by racial prejudice and unequal opportunities in the civilian sector might hope for advancement, benefits provided by the GI Bill, and the possibility of achieving a professional career. However, by 1967, Martin Luther King and other civil rights leaders were protesting the disproportionate percentages of black draftees and the similarly disproportionate casualties sustained by black military personnel serving in Vietnam.[11]

Hendrix, as a black American and ex-serviceman, with friends and former army colleagues who had recently served, and some of whom were possibly still serving in Vietnam, assuredly would have had a complex view of "the war." In this context, British author Charles Shaar Murray offers the following insight as to how Hendrix's background and experience shaped aspects of his composition and performance:

> When he dedicated "Machine Gun" to 'All the soldiers fighting in Vietnam'. . Hendrix knew exactly who was paying the price of the politicians' games, and when he used the uncanny onomatopoeic power of his guitar to evoke the sounds of urban riots and jungle fire-fights—as he did in "Machine Gun' and "The Star Spangled Banner'—he used every atom of that knowledge.[12]

"Machine Gun" and "Star Spangled Banner" would not be the only Hendrix compositions to reflect the impact of the Vietnam War, or to express empathy with the plight of the soldier. Rather, these pieces belong to a constellation of ideas on these and other related themes that found expression in different contexts of song compositions and stage performances.

"Izabella," for example, looks at the soldier's experience from a different perspective, and, as the song's title would suggest, in more personal terms than does "Machine Gun." Though of a dramatically different musical character from "Machine Gun," "Izabella" shares thematic connections with Hendrix's better-known piece, as well as a common provenance: it was during early taping sessions for "Izabella" that Hendrix first auditioned an embryonic version of "Machine Gun."[13]

Hendrix labored on "Izabella" for nearly two years, developing the song in rehearsals and recording sessions with three different groups of musicians. Performing with Gypsy Sun and Rainbows at Woodstock, Hendrix introduced "Izabella," as ". . . a song dedicated to . . . a soldier in the army, singin' about his old lady that he dreams about, and huggin' a machine gun instead."[14] Hendrix's soldier hopes that his "Izabella" will remain faithful to him until he can return home from fighting a war "for the children and you," a romantic scenario that echoes circumstances in Hendrix's early personal

history.[15] In a later recorded version, left nearly completed when Hendrix died, the soldier sends a telepathic message to Izabella while he is "under fire" on the battlefield:

> Hey Izabella! Look at the rays of the rising sun—here they come
> Well I gotta go out there and fight now, baby,
> I can't quit 'til the Devil's on the run—on the run, baby
> So keep those dreams comin' in strong,
> Soon I'll be holdin' you instead of this machine gun

After Gypsy Sun and Rainbows folded, Hendrix brought "Izabella" into the Band of Gypsys' repertoire, and the group played the song at the Fillmore, although its recorded performance did not appear on their debut album. During the first show of their engagement, Hendrix spoke the following introduction to the song:

> 'Like to do a song dedicated to the same old draggy thing that's goin' on—the soldiers in Vietnam, and so forth. A thing called "Izabella" . . .

With some modification, these introductory words to "Izabella" would become a standard preamble to future performances of "Machine Gun"—a development which began with the following evening's recorded performance (see transcribed introduction to "Machine Gun," from *Band of Gypsys*, as given below).[16] In fact, Hendrix had been delivering variations of this announcement since his days with the Experience. In 1968, he introduced "I Don't Live Today," a song he recorded for his first album, as follows:

> Dig. . .this next song is dedicated to all the soldiers that are fighting in Detroit, and Seattle, and Washington. Oh yeah, and the soldiers fighting in Vietnam, too. . . . In other words . . . to minority groups . . . [and] to another minority group . . . the American Indians

Hendrix routinely dedicated "I Don't Live Today" to "the American Indian," and it was in live performances of the piece that "Star Spangled Banner" took root; in his improvised solos and cadenzas, Hendrix would quote the anthem's melody, using the stylistic "dissonance" of the anthem in a blues-based rock composition, to signify the tragic "alienation" of America's native peoples.[17] But in addition to indicating another conceptual link in a chain of thematic and compositional ideas, the spoken introduction to "I Don't Live Today" also shows an underlying association of the soldier's status with that of other dispossessed peoples. Moreover, Hendrix is already envisioning fighting men—whether serving in uniform, or as street fighters—as sharing a commonality that transcends their particular allegiances, a theme to which "Machine Gun" will give full expression.

One imagines "Machine Gun," then, as having been spun out of a web of compositional ideas. The larger cultural contexts and the personal influences mentioned above would also have had bearing on its composition, and on the other works that show thematic kinship with "Machine Gun." Hendrix's masterpiece, however, also came together in a single, live performance: "Machine Gun," although representing a recorded event mediated by studio post-production, is a piece that was fundamentally shaped by Hendrix's improvised singing and playing, as well as by the spontaneous interplay of the musicians under his leadership. Accordingly, the following musical analysis will explore

ways in which Band of Gypsys collectively interacted within the composed framework of the piece.

The analysis to follow discusses "Machine Gun" as comprising two large formal divisions, labeled Sections I and II. Example IV-1 in Appendix C will be useful a guide for understanding the overall form of the piece.

"MACHINE GUN": CRITICAL ANALYSIS OF ITS COMPOSITION AND PERFORMANCE

> We'd like to dedicate this one to, uh, sort [of] a draggy scene that's goin' on, [to] all the soldiers that are fightin' in Chicago and Milwaukee and New York—oh yes, and all the soldiers fighting in Vietnam. 'Like to do a thing called"Machine Gun."
>
> —Jimi Hendrix's introduction to "Machine Gun" 1 January 1970

SECTION I

(mm. 1–132 [0:22–7:31])

A moment after Hendrix concludes his pensive words of introduction, "Machine Gun" begins its ominous opening; a solo guitar quietly plays a series of vibrant drones and a plaintive melody, each phrase eerily shimmering before fading away on a lingering blue note ([0:22–0:33]; see mm. 1–4). Hendrix colors his evocative opening with the

sound of the Univibe, the electronic processor that he uses throughout the piece to create a pulsating and sometimes shivering quality for the guitar.

A burst of thirty-second-note "gunfire" from the guitar disturbs the spooky quiet of the introduction, the imagery conveyed by vigorous up-and-down strokes raked across the instrument's muted strings (m. 5 [0:36]).. That sudden burst also cues the entry of the bass guitar. Playing in counterpoint with Hendrix's subsequent salvos and a more decorative melodic part, Cox's bass sounds the piece's main theme, hereafter indicated as MG-1: it is an impressive ostinato whose martial sounding head motive ("rat-a-tat-a-tat") is conjoined with a kind of blues lament bass line (see Ex. IV-2a, MG-1). The theme, seemingly having evolved out of Hendrix's embryonic opening figures, is progenitor to several other bass patterns that Cox will alternate playing during the course of the piece (see Appendix C, Examples IV-2, a–e: corresponding to patterns MG-1 through MG-5). But the primary pattern, the most sharply defined and memorable melodic component, is also the one most closely associated with Hendrix's emblematic "machine gun" rhythmic motive, and furthermore embodies the fusion of naturalistic expression and the blues that is fundamental to the piece.

Following the successive entries of the guitar and bass, the drums also make their own staggered entry (starting at m. 9 [0:50]). Instead of playing the entire drum set at once, Miles, in effect, divides his kit into treble and bass parts; the "snare gun" joins Hendrix's percussive, thirty-second-note blasting, and, coincident with the second half of the ostinato figure, Miles's bass drum treads along with the bass guitar part's steady descent.

Four measures after the drums enter, the ballistic mimicry ends and the piece starts coming together in the groove of a slow blues (m. 13 [1:04]). The sound and style of the guitar are familiar as another of Hendrix's high-wattage readings of blues guitarists like John Lee Hooker, and of Muddy Waters, whose recordings used to "scare" a young Jimi Hendrix to death.[18] In fact, the guitar's drop tuning and the key of "Machine Gun" (nearly concert D) stir recollections of "Voodoo Chile," Hendrix's formidable reworking of a Muddy Waters song [1:04–1:10].[19] But after implicitly acknowledging ties to traditional influences in a prefatory set of idiomatic trills and string bends, Hendrix pushes off into an "exposition" of blues-based melodic lines whose intricacies were never approached by his musical forebearers (mm. 15–24 [1:11–1:44]). Indeed, the segment of quiet and fluid virtuosity that will lead up to the song's first verse also evokes the flavor of an extemporized preface to a piece of East Indian classical music, reflecting, perhaps, the indirect influence of that tradition.[20] However, the guitar's stream of "modal," minor sounding melody carries ripples of major-quality tonic harmonies; subtle harmonic punctuations that Hendrix inserts at the beginning and end of the short segment of guitar improvisation. Complete harmonic structures will rarely occur in "Machine Gun," and until the latter part of the piece only major, root position chords based on the tonic will be heard. Like the musicians rooted in the rural blues traditions who inspired him, Hendrix will anchor the blues-based melodies in the song, nearly all of them sounding the flatted third scale degree, to the most primary of harmonic colors. Furthermore, the absence of any harmonic progression, either real or implied, is another feature linking Hendrix's composition to traditional blues.

Verse I

(mm. 25–44; [1:45–2:50])

With his rhythm section slowly grinding out a steady accompaniment, Hendrix begins intoning the song's first set of lyrics—and a harrowing, explicitly gory vision:

> Machine gun—tearin' my body all apart
> Machine gun, yeah—tearin' my body all apart.

The vocal part and guitar carry the melody as one "voice," the guitar both doubling Hendrix's vocals at the unison and sometimes "completing" and embellishing the endings of the sung phrases. The guitar's added supportive strength enables Hendrix, never a confident vocalist, to improvise a highly disjunct and melismatic melody of considerable range (the first phrase spanning a major tenth; mm. 25–27). The straining leaps into the top of the singer's vocal range as well as the blues-inflected pentatonic cast of the melody seem to tap into old sources; again, one hears the echo of rural traditions of the blues and even the wail of the field holler.[21] In addition, the bits of jagged melody and the asymmetrical and "fractured" phrasing suggest that Hendrix is text-painting the mangled imagery of the lyrics—an implication that will be more audible when he revisits these opening lines later in the piece.

The guitar lets out a pair of high-pitched "screams" before Hendrix begins singing the next series of phrases that will complete the verse (mm. 33 and 34 [2:12 and 2:16]). The text is transcribed as follows:

Evil man make me kill you—
Evil man make you kill me—
Evil man make me kill you—
Even though we're only families apart.

It is an odd text to read. One is struck by the blunt and seemingly primitive manner of the lyrics—redundant and decidedly ungrammatical—also conveying the sense of a transcendent and even sympathetic understanding. The listener might hear, in fact, several different implications in Hendrix's words. The curious style of the text might simply represent an evocation of a country blues singer's drawl. Or, is one hearing some shell-shocked soliloquy, or, alternatively, the pidgin dialect of a third world "soldier"? For this listener, the stripped-down poetic style flattens Hendrix's protagonist into a more archetypal figure, one who speaks fatalistically of a primal human condition. In any case, it is clear that Hendrix's "universal soldier" sees both himself and his adversary as sharing a common humanity and inexorable fate—as being forced participants in a cycle of reciprocal fratricide.[22]

To deliver his protagonist's brutally plain-spoken lines, Hendrix shifts from the melismatic wailing of the opening phrases ("Machine gun . . . ") to a more declamatory style of blues singing. The highly repetitive structure of text is mirrored by a nearly equally repetitive set of melodic figures, and Hendrix's recitation focuses on the same pair of primary tones (tonic and subtonic) sounding in the supporting bass ostinato (mm. 37–41 [2:24–2:37]). Musically, however, the passage is most remarkable for Hendrix's fluid and mercurial guitar style. After "pre-echoing" the opening notes of the vocal part (m. 35 [2:18–2:23]), the guitar enters into a brief dialogue with the vocal melody (m. 37), and subsequently alternates between playing in unison with Hendrix's voice, providing

chordal accompaniment, and filling in between phrases of singing (see mm. 35–44). Hendrix's live playing abounds with this kind of restless agility, and in a later passage of "Machine Gun" his guitar will move so seamlessly between different roles as to create the illusion of his playing separate layers of sound simultaneously.

Verse II

(mm. 45–65 [2:51–3:58])

The second verse is full of fighting imagery, and Hendrix's protagonist, brandishing a makeshift weapon (and contemporary listeners may have imagined, standing in a rice paddy), has grown defiant and vengeful:

> Well, I pick up my axe an' fight like a farmer—[spoken: you know what I mean?]
> Well—hey—an' your bullets keep knockin' me down. [3 mm.]
>
> [guitar; 3 mm.]
>
> Hey, I pick up my axe an' fight like a farmer now,
> Yeah, but you still blast me down to the ground. [3 mm.]
>
> [guitar episode; 5 mm.]
>
> The same way you shoot me down, baby,
> You'll be goin' just the same!—three times the pain—'an your own self to blame—
> 'way baby—machine gun! [6 mm.]
>
> [guitar fill; 1 m.]

Hendrix sings the lines in a kind of "blues arioso," his recitative-like phrases and spoken asides being appended by more lyrical, melismatic phrases of pentatonic and blues-based melodies (see mm. 45–64). The poetic form clearly resembles the familiar AA'B lyric structure of the blues: here, however, the expanded "B" section of lyrics (corresponding to lines 5–7, in the transcribed text) does not conform to the rhyme scheme of a traditional blues stanza.

The musical form of the twenty-one measure passage is similarly irregular owing to the irregular phrase lengths of the vocal and guitar exchanges (see outline above). Though the customary harmonic landmarks are absent, one might view the musical structure as representing an expansion of a basic twelve-bar blues form, each four-bar phrase of that template being expanded by guitar and vocal phrases of variable lengths.[23] In the open-ended designs of the guitar interpolations and vocal interjections, one can make an additional historical connection to the more flexible approach to form taken by the solo-performing blues artist. However, a proportionately lengthy episode of guitar improvisation somewhat obscures the shape and continuity of the verse structure (mm. 54–58 [3:18–3:36]): triggered by the reprise of Miles's "snare gun"—a motive that would seem to herald the arrival of a new musical section[24]—Hendrix fires off a mini-guitar solo whose condensed form is capped by a quote from the piece's introduction (compare guitar figures in mm. 58 and 8). Having thus reined in the guitar solo, Hendrix finishes the verse, singing the third and final section, which almost seems to have been preempted by the instrumental passage. Yet, the listener anticipates that an inevitable resumption of the solo's intensity is imminent, and the eagerness of the band to "stretch out" in an extended instrumental jam is palpable.

Guitar Solo

(mm. 66–132 [3:59–7:28])

No less than in the composed introductions of his songs, Hendrix strove for creating a striking effect with which to open up an improvised solo. The stratospheric howl he now unleashes makes a spectacular opening, indeed, to this heaven-storming passage. The opening measures to the guitar solo also reveal Hendrix's intuitive skill in constructing large-scale improvisations. But first, it is the sound of the guitar itself that grabs our attention: given the added boost of a fuzztone, Hendrix's bursting high note is held aloft by an instrument suddenly capable of generating a powerful, potentially unlimited sustain of sound. The guitar's boosted and feedback-sustained note soars for a duration of nearly four measures, only briefly pausing to "catch its breath" after Hendrix slowly releases tension on the sounding string to evoke a crying effect (mm. 66–69 [3:59–4:11]). It is, however, a strangely "cybernetic" cry, evoking something both human and machine-like, because of the automated oscillations produced by the Univibe. Hendrix could set the rate of the Univibe's modulation on the fly by means of a foot controller, and the effect of the device's automated "rhythm" is felt most at this moment. As the guitar's loud, soaring note has effectively left both time and melodic motion behind, the Univibe's racing pulsations (coming at approximately seven "beats" per measure) amplify the sense of an idling, accumulating energy that will find release in the rampage to follow.

The soloist's momentary suspension of melodic and rhythmic activity is particularly dynamic given the speedy guitar playing of preceding measures. In the wake

of that kind of virtuosity Hendrix will now begin his lengthy improvisation by dramatically "slowing down" in order to rebuild to an even greater level of accelerated intensity. But in addition to the more local effect of releasing the stored-up energy of an arrested activity, the slowing down in these measures also marks a shift in the wave length of Hendrix's improvised ideas.

Running for nearly three-and-a-half minutes' duration (and sixty-eight measures in length), the solo to "Machine Gun" rivals in sheer length any guitar solo that Hendrix's audience had heard on record up to that time.[25] However, such an open-ended improvisation, with no fixed temporal boundaries, is only a potential space; the relatively larger scale of the solo will be realized by the soloist as the improvisation unfolds. With no harmonic changes or any set formal divisions to negotiate, Hendrix is freer still to give his ideas wider scope. He is able to expand, then, what might amount to a "lick" or a brief flurry of notes in the smaller framework of, say, a three-minute song, to a far greater dimension and substantial source for development (for example, the soaring beginning to the solo, described above, lasts half the length of the entire eight-measure guitar solo in "Purple Haze").

A representative and most striking passage occurs nearly a minute into the solo where the intervallic patterns that Hendrix has explored in previous measures break down into a wildly erratic workout with the whammy bar (mm. 83.75–89 [4:56–5:14]).[26] The tailpiece vibrato system of the Stratocaster guitar enabled Hendrix to gradually lower or raise pitch levels while simultaneously producing a continuous output of sound; while he was either pulling down or pushing up on the vibrato bar with one hand, his other hand would be left free to sound the elasticized guitar strings. Hendrix pioneered and

developed this extended technique, one with which he is immediately associated.[27] Its application here is distinguished from the similarly produced effects and licks heard in earlier Experience recordings by its prolonged intensity: for some six measures, with the rhythm section thundering behind him, Hendrix lets loose a whirlwind of thirty-second notes, continually driving the pitch level of a single hammer-on and pull-off figure up and down by means of the vibrato bar.[28] The dizzying flow of fluctuating pitches repeatedly dives down and then snaps back up to a main focal pitch on the dominant scale degree (B, in the transcription), climaxing—as so many of Hendrix's flourishes do, in this piece and elsewhere—in the drone of a JH-1, double-stop interval (mm. 90–92 [5:15–5:22]).

Hendrix hurls similarly expanded licks and scalar patterns at breakneck speeds throughout the solo. Flashes of blues- and pentatonic-based runs, sometimes accelerated past the point of recognition, highlight an explosive solo whose outstanding critical feature is its overwhelming velocity. However, the guitar's speediest run is a darker-hued passage that, winding out of the solo's peak climatic measures, will lead into the section's conclusion.

Following his playing of a climactic statement of the piece's main theme, Hendrix burrows into a furiously rapid melodic pattern whose swirling figures steadily spiral down the span of an octave. This pentatonic swirl, evocative of the "sheets of sound" technique of saxophonist John Coltrane, is fused with a subtle blend of timbres (mm. 122–123.5 [6:58–7:09]).[29] For this passage only, Hendrix rolls off the treble output of his guitar signal to produce an extremely dark timbre [starting at 7:00], thus enhancing the impression of the melodic line as sinking into a swift and threatening undercurrent. The

muddy tone color also cloaks both the articulation and, particularly as the line falls into its lower reaches, the specific pitch values of individual notes, thereby lending a more fluid expression to the amorphous rush of sound. Furthermore, mixed in with a thick fuzztone distortion is the sound of the Octavia; in contrast with the acerbic "funk" of "Who Knows," here, the Octavia contributes only a hollow sounding whistle. When the melodic line reverses its direction to ascend from its lowest note back up into the high register of the guitar, Hendrix restores a brighter tone quality, "lightening," as it were, the shade of timbre along with raising the tessitura of the melody (mm. 125–128 [7:07–7:18]).[30]

As support for Hendrix's frenetic and lengthy improvisation, the rhythm section provides a steady canvas: Cox and Miles give the solid, uncluttered backdrop upon which the soloist's ideas can freely play out. However, the background is not without dimension itself, and the interplay of Hendrix and his rhythm section will give a sense of form to the solo section.

Cox, with a steadfastness that becomes his supportive role, confines his bass part in the main body of the solo to alternating between the pair of principal ostinati that have underpinned the piece thus far (MG-1 and MG-3). Cox, in fact, only improvises new bass lines only towards the beginning of the solo, where he is caught up in the undertow of Hendrix's gathering momentum (mm. 72–75 [4:18–4:30]), and in the concluding measures of the section, where he is, perhaps, momentarily meandering before an impending major formal division takes place (mm. 129–132 [7:19–7:31). Otherwise, the bass part juxtaposes blocks of four-measure restatements of the main theme (MG-1) with proportionately lengthier cycles of a contrasting accompaniment pattern (MG-3; cycles of

the one-measure pattern extending as far as twelve measures in length). Although the two ostinati remain fixed on the same tonal center, their exchanges, acting in concert with Miles's drum parts, bring an enlivening contrast of rhythm, phrasing, register, and texture. The combined bass and drum parts also exert a large influence in shaping the formal structure of the section: most significantly, their statements of the main theme frame the solo's climactic passage and, as will be shown below, provide a culminating point of interaction between the soloist and the rhythm section.

In a solo exhibiting many moments of brilliant guitar virtuosity, the highest intensity of the section is reached when the power of all of the players converges in a kind of climactic plateau, spanning some sixteen measures (mm. 107–122 [6:08–7:00]). That climactic height is scaled in an intricate chain of collective interactions, as discussed below.

At around the solo section's midpoint, and coming at the conclusion of Hendrix's frenzied demonstration of vibrato bar technique (see previous discussion of mm. 84–92), Cox begins sounding the main theme (mm. 92–95 [5:20–5:33]). Miles, in turn, breaks off from playing the double-time patterns that were incited by Hendrix's roiling improvisation, to reprise the "explosive" drum patterns associated earlier on with Cox's theme (starting at m. 94 [5:28]); though the bass will continue alternating its patterns, Miles will clobber these parts, with little variation, for twenty-nine consecutive measures during the solo section. Over the top of Miles's persistent battering and a rhythmically propulsive bass line (Cox now having returned to MG-3), Hendrix reaches up in a series of successively higher sounding string bends to perform a squealing apex to his solo (m. 102 [5:53–5:54]). Seconds after making this skyrocketing gesture, however, Hendrix

starts incorporating similarly produced sounds in a complex call and response with the rhythm section.

In the passage of instrumental call and response, the guitar's high pitched wailing, formed of single-note string bends that evoke a human cry and/or the sound of a falling missile, are "answered" by explosions of more massive guitar distortion (JH-1, double-stop figures, sent plunging by Hendrix's whammy bar; mm. 108, 110, and 111). To achieve the maximum effect in the exchange, Hendrix adjusts the speed of the Univibe: increasing its speed of modulation to produce a tremulous quality for the shrill screams; slowing the speed down to produce a phase-shifted smear of sound and searing quality for the vibrato bar detonations. In counterpoint to the guitar's cannonade, one also hears the steady tread of Cox's returning theme and Miles's continuing volleys of snare drum and cymbal crashes.

In concluding the segment of call and response, Hendrix punches a final, JH-1 double-stop figure [6:22–6:24], driving it into feedback before reeling off a series of rocketing pentatonic runs (mm. 113–114). But a blast from the rhythm section—Buddy Miles quite literally pummeling his snare and toms now in exact synchronization with Cox's bass (mm. 115–116 [6:34 and 6:38])—summons Hendrix to join them in making a series of climactic statements of the main theme (mm. 115–121 [6:34–6:57]).[31] Thus, Hendrix responds to Miles and Cox's most adamant thematic statement by playing variations of the guitar's introductory melody (that is, the melodic figures that assumed a contrapuntal role when the bass first entered in the piece's introduction; cf. mm. 2 and 4, with mm. 116–119, 121). The culminating moment comes in Hendrix's final pair of transposed variations, for which he vaults up into his highest register. In order to project

the melody more clearly Hendrix switches to his treble pickup and turns off the Univibe's phase shifting effect: for the last phrase he activates the Octavia, carrying the melody up into an even higher spectrum of sound (m. 121 [6:55–6:57]).

With the completion of the last phrase of the theme, Miles finally muzzles his mimetic snare drum and settles back into a fatback accompaniment (beginning at m. 123 [7:00]). Hendrix's sheets of sound swirl as in a vortex, draining off the residual energy of the preceding measures (mm. 123—125). The guitar itself is still smoldering, and subsequently delivers a few angry phrases of blues. But the solo has peaked and is clearly in its closing stage, as the settled rhythm section and his own sense of proportion surely inform the soloist. As Cox's established bass part breaks apart into a new varied pattern, Hendrix ends his three-and-a-half minute barrage in a whistle of feedback, finally crashing down on the fluttering blues lick that will fade into the dirge-like groove of the next section.

Remarkable for Hendrix's unrelenting intensity as well as for its flowing integration of blues licks and evocative imagery, the solo also plays an integral role in the piece's larger form and meaning. In contradistinction to a pro forma "rock guitar solo," the passage forms a crucial expressive link between the composition's two halves and large formal divisions. As shown in diagram, Example IV-1, the guitar solo section straddles the first and second halves of the piece by measure count: "Machine Gun" amounts to 215 measures in total length (roughly speaking, given the free-form closing cadenza); the solo section encompasses mm. 66–132. The exact midpoint of the entire piece, incidentally, comes at the second half of m. 107 (m. 107.5), and the beginning of the call and response segment that I have identified as the solo's culminating peak. In its

ferocity and expansive scale the solo section not only magnifies the foregoing lyrical content and imagery—the fearsome image of the "machine gun" that is never far from mind—but will also give greater context and weight to what is to follow.

SECTION II

(mm. 133–215 [7:32–12:16])

In the aftermath of the solo section's violence comes a transformation; a major formal division marks a distinct and dramatic shift in the mood, sound, and perspective of the piece. In addition to the introduction of new material, familiar thematic elements of both music and text will reemerge and take on a new set of associations and meanings in an even darker and more disturbing setting. And, within the grimly surreal landscape that now unfolds, the combined elements will share in expressing a strange sense of joyless transcendence.

The second large formal division of the piece comprises a pair of verse structures and an extended sound painting directed by Hendrix's evocative guitar improvisations. The section takes shape around a new ground bass figure and second principal theme that will recast the foundation as well as initiate the changing character of the piece. As distinct from previous bass patterns, the contour of the new ostinato, MG-4 (see Ex. IV-2d), is radically disjunct and represents a quasi-compound melodic line: the lower "voice" of the part sounds a tonic pedal point squarely on the downbeats, one and three; syncopated neighbor-note figures belong to the upper part of the melody. In contrast with the front-loaded rhythmic activity of the other bass patterns, the "slower" ostinato

sounds its sixteenth-note figure only within the last two beats of its two-measure phrase length. Yet, besides these contrasting features, significant similarities with previous patterns and with an important motive are also audible. In addition to the part's familiar pentatonic scalar content, the wide leaps in the bass line represent octave displacements, spread over a three-octave compass, of similar neighbor-note melodic motions of the pervasive "Machine Gun" motto and related motives (e.g., compare the melodic motion from subtonic to tonic scale degrees represented in MG-4 that is also prominent in the vocal phrases in mm. 25–26). Additionally, the intervallically expanded figures show a corresponding rhythmic augmentation in relation to the foregoing ostinati (cf. MG-4 with ostinati, MG-1–3).[32] An analytical listening suggests, then, that the fourth ostinato encompasses a permutation—an expansion of both tonal space and of time—of the established primary motivic element of the piece.

In beginning the section, all three musicians lock into the ostinato and start churning out a heavy, ominous-sounding groove. To reinforce Cox's pedal point, Buddy Miles simplifies his bass drum part, playing only on beats one and three. Hendrix's guitar similarly joins the bass line, doubling the ostinato at the octave unison and adding only a few embellishments. The sound of the unison bass and guitar is imposing. Since both instruments are tuned nearly a whole step below standard "E tuning," the combined sonority of their respective open-string low notes is massive (for a moment, and until Hendrix adjusts the tuning of his lowest string, the guitar sounds sharp in relation to the bass, a discrepancy—and happy accident—that actually enhances the knell-like quality of the ostinato). Billy Cox has, in fact, withheld playing in his lowest register for the whole of the first section of the piece: the sudden drop to his lowest note gives the bass's slow

moving, resonant pedal points a jarring impact, and their great mass seems to weigh down the entire texture. The overall drop in tessitura, the reduction in rhythmic speed and activity, the thickened texture, and the redoubtable ostinato, produce a dark, disquieting setting for the upcoming verse.

Verse III:

(mm. 133–152 [7:32–8:37])

Hendrix gives the groove four measures to establish itself, then begins singing his last verse. The text shows a reconfiguration of lyrical phrases taken from both the first and second verses:

> I ain't afraid of your bullets no more, baby—ain't afraid no more
> After a while, your—your cheap talk won't even cause me pain—so let your bullets fly like rain
>
> 'Cause I know all the time, you're wrong, baby—and you'll be going just the same.
>
> Machine gun—tearin'—my family—apart—
> Hey yeah—alright—tearin' my family apart.

In the funereal atmosphere that has settled over the piece Hendrix's words now come as the defiant taunts of a doomed protagonist—or perhaps those of a wraith or ghost. A moment before Hendrix enters singing we hear a mournful wailing start up: Miles and Cox begin intoning a pair of high, falsetto parts ("Ooh—") whose parallel third intervals slowly glide down over the course of a four-measure phrase (mm. 137–140, and continuing until m. 156). In making their descent the voices hover over Hendrix, floating

also, one imagines, above the carnage wrought by preceding passages. The voices' ethereal layer of sound, soft-hued and rhythmically lifeless, will continue through the entire verse and into the instrumental passage to follow.

Hendrix's guitar highlights the third verse, and his playing style moves from twangy-sounding interjections of blues (m. 140 [7:56–7:58]) to a highly-charged text painting. In the latter instance, the sound image begins to "fade-in" *before* the associated lyric is actually sung; Hendrix's "rain of bullets" wells up in a rapid tremolo before he unleashes a hail of triple-stop glissandi at the end of the punch line—". . . so let your bullets *fly like rain*" (mm. 143–144 [8:06–8:11]).[33]

Another kind of text painting occurs in the last measures of the verse, a passage marked by a return to the text of the first verse (mm. 148–152; see above, the concluding pair of lines). Now, however, the "machine gun" is, presumably, tearing the protagonist's "extended" human family apart rather than just the protagonist himself; the implication of the tragedy's wider scope being given greater weight by the magnitude and scale of the foregoing battle scene. As in the first verse, the vocal and guitar synchronize in unison as one voice. But compressed into the shorter span of four measures' length (the corresponding passage in the first verse amounted to eight measures, including a two measure rest for the vocalist), Hendrix's agitated leaps, disjunct melismas, and choppy phrasing seem more expressive of the violent imagery as well as of the tormented emotion of the lyrics.

The combined vocal and guitar parts also add another level of contrapuntal complexity to the texture. Their fragmented melody repeatedly imitates the prominent neighbor-note motive sounding in the ground bass (an ascending whole step motion from

subtonic to tonic scale degrees; ". . . tear-in . . . a-part . . . al-right"). Moreover, one hears in a subphrase of the melody a subtle echo of the first thematic area of the piece, a motivic allusion that is particularly audible in the short guitar phrase that precedes the verse (i.e., principally, a melodic motive based on the subdominant and flat-mediant scale degrees).[34] Besides doubling the vocal melody, the guitar also maintains its low pedal point on the tonic, and contributes a few string-bending fills and embellishments. There are, then, multiple thematic reflections, both textual and musical, bouncing off one another in this heightened segment which closes the verse and marks Hendrix's vocal exit from the piece.

Sound Painting

(mm. 153–172 [8:38–12:16])

Taking Hendrix's protagonist along with it, the third verse "dissolves" and fades away in a sustained round of guitar "gunfire." One is increasingly compelled to describe the music in visual and cinematic terms as Hendrix now ventures into a more naturalistic mode of expression, and as the recording begins to show a discreet application of special post-production studio techniques. The guitar's barrage, now formed of whiplashed tremolos performed on the instrument's low string and expanding into tonic-based chords and intervals [8:41–8:52], will also mark a jumping-off point from which Hendrix will leave tonal boundaries.[35] The guitar improvisation will move into a soundscape of electronic sounds and noises that is barely tethered to a tonal context by the supporting bass ostinato. Whereas the guitar solo continually reaffirmed its ties to the blues and to

melodic structures specific to the piece, Hendrix's first segment of sound painting will fundamentally be an improvisation of extra-tonal materials in which tonal "inflections" will nearly become incidental.

Growing out of the guitar's machine gun rhythms comes a roar of feedback that is immediately shaped by a vibrato bar plunge into the image of a hurtling projectile [8:52]. As Hendrix subsequently releases pressure on the bar, the shape careens around and ramps back as a sonic pile of wreckage—a metallic image conveyed by the steely sound of the guitar's slackened strings scraping over fretwire, and by shards of microphonic feedback (m. 157–158 [8:53]). Immediately, another thickly distorted sound similarly plunges and upon resurfacing emerges in a gathering windstorm of feedback: Hendrix's "sirocco" effect builds in a crescendo of pulsating electronic feedback, driven by energetic manipulations of the vibrato bar to burst out in a rapidly oscillating drone—a signature sound and an evocation of the science-fiction movie soundtrack that had played sinister "roles" in the sci-fi scenarios and dystopias of several Experience recordings (mm. 159–164 [8:59–9:13]).[36]

The mercurial flow of sound images, to whatever extent one may visualize them as specific images, impresses one as unfolding in a three-dimensional panorama. Besides the simulated Doppler effects of Hendrix's "dive-bombs," the fluid but radical shifts in volume, timbre, tessitura, and other sonic characteristics, suggest concomitant changes of perspective within the soundscape. Increasingly, one senses the dimensions of a sonic foreground and background coming into place. Thus, following another attack of Hendrix's "machine gun" motive, the guitar sound trails off and up into a "distant" whistle of feedback. Accentuating the sense of motion in the passage, the guitar track is

panned around in the stereo image, circling from left to right positions in the sound field, a studio technique employed extensively in earlier Hendrix sound paintings.[37] Swelling from a single strand into a fabric made up of multiple frequencies of feedback, the panned image flutters and descends over the quieted rhythm section as a diaphanous shroud (mm. 165.5–175 [9:17–9:50]).

Hendrix is constructing a complex field of sound through whose spaces he moves varying densities of randomly generated but *controlled* feedback. He controls and shapes sound events by subtle applications of the guitar's vibrato bar. In addition to producing vibrato and portamento effects, Hendrix's vibrato bar technique enables him to bend the sympathetically vibrating strings of the guitar in and out of their resonating frequencies by fine degrees. Bending the vibrating open strings alternately closer towards and further away from their changing resonant frequencies produces an attendant rise and fall, respectively, in the volume as well as the pitch level of any electronic feedback generated by those resonances. Hendrix can, then, shade both the volume and the color of these sounds by the combined means of his vibrato bar and the volume and tone controls of his instrument—shaping, and often muting the sustained feedback *before* it reaches its peak volume level. What is more, because the guitar's boosted amplification generates feedback without Hendrix having to actually pluck the strings, the variegated daubs and arabesques of electronic sounds eerily swell up and fade away in the texture's quiet spaces, their shapes undefined by perceivable points of articulation. The passage represents, then, an altogether different kind of playing style from that of the incendiary guitar solo, and one that serves a dramatically different expression.

Verse IV (Buddy Miles) and Sound Painting

(mm. 173–183 [9:42–10:28])

The guitar has carried the piece irrevocably into a nightmarish soundscape and world that was barely forecast by the portentous introduction to "Machine Gun." The piece will, in fact, play itself out illuminated by sudden flashes of "gunfire" and haunted by other more mysterious and bizarre electronic sounds. It is Hendrix's riveting performance that we focus on, but the rhythm section's style of playing is, again, crucial: the sparse drum and bass parts leave a dynamic and textural space in which every nuance of the guitar's wide dynamic range of sounds, ranging from the faintest wisps of feedback to sudden cannonades, can be "felt" as well as heard. Moreover, Miles and Cox will relinquish their vocal lamentations when the guitar's similarly plaintive wailing sweeps up into the same register as the singers' parts (m. 173 [9:23]). However, when the tapering swirl of feedback drops into a heaving cluster of tones, it is Miles's snare drum that shatters the momentary calm by touching off a series of "machine gun" volleys in exchange with Hendrix's guitar (m. 173 [9:42]). In turn, the call-and-response skirmish incites Miles himself, in the persona of an unidentified witness to events, to try to intercede in the fate of the song's imperiled soldier. His interjection will, in effect, constitute a fourth singing verse, marbled within Hendrix's sound painting. Addressed to whatever enemy or malevolent force is at work (the Fates, Bob Dylan's "masters of war"?), Miles delivers a strenuous and gutbucket style remonstration:

> Don't you shoot him down!—he's not to leave here
> Don't you shoot him down!—he's got to stay here

He ain't goin' nowhere . . .
He's been shot down to the ground!—Oh where he can't survive!
—no, no—

So certain is the protagonist's doom that, from the start, the singer's apostrophe strikes one as a protest that is being delivered after the fact. In any case, the desperate entreaty is futile, and it is the music that tells us so: the fusillades of drum and guitar continue unabated, the two instruments now answering Miles's agitated phrases with their combined and synchronized fire power. More unsettling is the protean layer of mysterious sounds that has been shifting in the stereo image between bursts of gunfire and is now swarming around the vocalist. As the passage unfolds, the listener hears a montage of several sound images, and one will also be struck by an impressive feat of musical legerdemain; within the sonic montage, Hendrix's guitar will create the impression of simultaneously generating interactive, but distinctly different, layers of sound and activity.

Sounding loud and distinct, and menacing the vocal part in the center foreground of the recording's stereo image, are the guitar's percussive "machine gun" motives. Occupying the same sonic layer and region are other "scattered fire" and blues-affiliated licks that Hendrix plays as text-painting responses to particular phrases of singing. Thus, Hendrix answers Miles's first, excited phrase, "Don't you shoot him down!," with a loud, nose-diving octave interval (m. 125 [9:51–9:52]); similarly, the guitar performs a suitably suspenseful trill in response to the anxious, last phrase, "He's been shot down to the ground!—" (mm. 181.5–182 [10:10 and 10:14])[38]

A distinctly different stylistic layer and texture of sounds—a shifting complex of cloudy tone clusters and coiling strands of feedback—moves in and out of the range of hearing, looming in the background, as it were. In many ways, the polymorphic layer represents a continuing development of the feedback- and vibrato bar-produced sounds of preceding measures. Nonetheless, a fuller appreciation of Hendrix's artful managing of several combined techniques in the sculpting and layering of sound requires a deeper descriptive analysis.

As in previous passages, Hendrix is shaping electronic feedback that originates in the acoustic vibrations of his open guitar strings. In addition to his vibrato bar maneuvers, however, he exercises another degree of influence on the sound output by tapping on the back of the guitar's headstock with his free, fretting hand. The taps resonate through the neck and body of the instrument and thus vibrate its strings without sounding the characteristic articulation that would be made by the direct attack of a plectrum.[39] (In terms of a similar kind of acoustical response and "volatility," one might make a useful analogy with the familiar extended technique of knocking on the body of a piano whose damper pedal is depressed.) Hendrix's tapping also will more audibly sound the fundamentals and first overtones of the middle and lower pairs of strings (string numbers 3 and 4; 5 and 6). However, because he continuously varies pressure on the vibrato bar while sustaining these tones, keeping the bar depressed before tapping, as well as altering pressure on it afterwards, the tones sound as a collection neither of stable pitch values nor of discrete intervals. Rather, one hears an undulating web of intervallically indeterminate "electronic sounds." Because of inherent factors in the design of the Stratocaster's tailpiece mechanism, Hendrix's more radical de-tuning by

means of the vibrato bar also destabilizes tuning ratios between the strings: as increasing pressure is applied to the bar and as both string tension and resultant pitch levels are lowered, intervallic relationships become increasingly elastic and "warped." When the bar is released and the guitar's strings return to their original tension and tuning, "tempered" pitches and intervals come back into focus. Hence, upon releasing the vibrato bar Hendrix can instantly duck back into the "foreground" and tempered pitch space to play his fills and blues licks.

Weaving through the sliding mass of tones is also a brighter strand of feedback that blooms in the guitar's higher-harmonics.[40] The sharper-etched and sinuous "portamento," however, rings out and sustains itself independently of the tones produced by Hendrix's tapping, so that one may hear it as a component part in a "contrapuntal" relationship—between two differentiated fields of electronic feedback! So continuously does the higher spectrum of feedback seem to ebb and flow, that one imagines that it, along with the spongy cluster of tones undulating beneath it, keeps on sounding "behind" the foreground events and other guitar parts.

That one can envision the different sound events and images as happening in a multi-dimensional soundscape is attributable to combined features of musical form and style, sound engineering, and the acoustical conditions extant at the time of recording. A specific musical detail in the rhythm section's performance is a key element that ties into all the aforementioned features. From the onset of the passage Miles restyles the "machine gun" snare drum motive as a stop-time riff: after the snare strikes the second beat of the measure to complete the riff/motive, the drums fall silent, Miles now paring away the stomping bass drum parts and cymbal crashes of previous, corresponding

passages (mm. 173–180). With the rapid decay of the snare drum, Hendrix's layer of electronic sounds expand and contract in an acoustical space shared only by the vocals and a subdued bass part.[41] Through this more transparent texture one hears a more ambient sound quality—a bit more of the room acoustics of the Fillmore stage and auditorium—in the imagined deeper space of Hendrix's looming backdrop. But apart from the panning technique that first projected the changing electronic texture, spatial effects per se, both acoustic and electronically simulated, are subtle. More critical to the perception of spatial layering is the stylistic "distance" that separates the loud, rhythmically intense layer of blues singing and guitar playing from the floating complex of sounds that is undefined by normative reference points of tonality, metered time, and idiom. In the final phase of the piece, the balance between traditional and novel elements of style in Hendrix's sound painting will more radically shift.

Denouement

(mm. 184–215 [10:18–12:16])

As Buddy Miles sings his final notes, a wreath of feedback circles up and quietly lingers about him before fading away. Hendrix's wispy decrescendo will carry the piece into its concluding passage; an instrumental epilogue whose grotesque and moribund character underscores the tragic finality of Miles's lyrics. The passage represents a full ripening of Hendrix's darkest and most bizarre tone painting, and the guitar's weird electronic images will now dominate the scene. The darkening mood of the music will,

in fact, entail changes in the collective sound and style of the entire ensemble, and the passage will evince even more radical techniques of guitar playing.

With the conclusion of the final verse the ensemble sound sinks into a condition of muted dynamics, diluted texture, and depleted rhythmic energy. One immediately has the impression that the piece is beginning to shut itself down. The changing role of the drums is most responsible for the attenuation of the powerful rhythmic drive that characterized the piece up until the fourth verse. Following the rhythmic disruption of the stop-time verse, Miles gives up on renewing a solid accompaniment, turning, instead, to explore coloristic effects that are sympathetic to Hendrix's sonic improvisations. As only the bass will closely adhere to a set part, the texture of the concluding passage becomes a consequence of coincidental timbral combinations and tone-painting imagery rather than a product of coordinated parts or interlocking patterns.

By default, time-keeping responsibilities devolve on the bass, whose constant ostinati will provide a meager thread of rhythmic continuity throughout the passage. The bass also reprises primary material from the first section of the composition: the main theme and ostinato has insinuated itself back into the piece, Cox having gradually reintroduced the part to accompany the last phrase of the verse (mm. 181–182; bass starts playing MG-1 at [10:09]).[42] The bass's reprise will effect, however, only a partial sense of thematic restoration, as the ostinato is sounding within in a radically transformed stylistic framework. No longer being integrated with a strong drum part—the drums now giving only sporadic and tenuous reinforcement of the bass line—the ground bass will keep a sense of basic pulse and of meter alive, but it cannot rhythmically animate Hendrix's incorporeal texture of sounds. Moreover, as the guitar's sound shaping

represents an essentially free-form approach, the theme will serve neither as a focal point of growth nor as one of culminating intensity in the improvised passage. But if the ostinato is bereft of its former vitality and structural significance, the symbolism of the theme remains potent; in the waning moments of the piece the repeating motto and theme echo as a haunting "refrain" of the machine gun image.

Hendrix's elegaic performance unfolds in a succession of peculiar sounds and noises, the guitar's sounds melting from one into another where they are not separated by a sepulchral silence. Thus, the swirl of feedback that ushers in the passage transmutes into a slithering pentatonic melody, Hendrix neatly dovetailing the fading, last pitch of feedback into the first, fretted note of his melodic idea (mm. 187–188 [10:31–10:33]). As in a similarly flowing segment from the introduction (see above discussion of blue "exposition," and mm. 15–24), Hendrix smoothly articulates the melodic line by playing a series of consecutive hammer-ons and pull-offs (mm. 188–192 [10:33–10:47]). Notwithstanding the aforementioned similarity and a familiar pentatonic makeup, the melody sounds like nothing else in the piece, so strange is its altered sound quality: as the line unfolds, the notes become increasingly tremulous and "wobbly" sounding, the effect of an unusually wide and fast vibrato that is produced by a combination of vibrato bar technique and special signal processing.[43] Magnifying the bizarre effect that is so audible in its individual notes, the melody develops a markedly angular contour, projecting its trembling tones in a quasi-pointillistic manner (mm. 193–196 [10:48–11:00]). Accompanied by a skeletal rattling of rim shots, the Theremin-like, quivering sound of the guitar also conjures up the spookier traditions of blues guitar styles—a stylistic

lineage stretching back through the electrified wailings of pre-rock era Ike Turner to the acoustic slide guitar players like Blind Willie Johnson and Robert Johnson.[44]

As the guitar's design of sounds continues to change shape and color, so will the percussion parts change in color and texture, as well as in rhythmic patterns. During the concluding segment, Miles will focus on one particular sound and color for periods ranging from four to six measures in length. Thus, he roams from playing a sustained wash of cymbal followed by a space of silence, to performing different effects and evocative rhythmic patterns concentrated on the snare drum.

The shifting guitar and percussion sounds run loosely parallel with one another, though there is little sense of dialogue existing between the respective parts. However, Miles's muted parody of the "machine gun" motto—the rustling and rattling rimshots noted above—and subsequent fuller evocation of a military snare and bass drum march, evidently coaxes one final response from Hendrix: the guitar scratches out a fidgety and similarly muted version of the formerly powerful rhythmic motive (m. 201 [11:14]). In turn, a yelping string bend and glissando answers the guitar's "machine gun" figure; Hendrix uses the wah-wah pedal to produce a more vocal-like quality for the sound, whose sudden cry one distinctly hears ringing throughout the Fillmore auditorium (m.202 [11:19]). A plunging vibrato bar throttles a second simulated cry, and drives the passage back down into the murky mass of clusters from which it grew (mm. 203–205 [11:21–11:29]).

For the reprise of the dark and amorphous sounds, Hendrix will employ another extended technique to produce an added element of mechanically produced noise. Hendrix discovered that plucking the set of steel tension springs attached to the

Stratocaster's bridge and tailpiece assembly produces a resonating clang that will be amplified by the instrument's electronic pickups. As Hendrix alternately taps the guitar's headstock and plucks the coiled springs, while simultaneously raising and lowering the tension of both the strings and springs by means of the vibrato bar, the tapped-produced sounds mesh with those produced by the jangling springs. Within the wavering mass of tones, then, one periodically hears a metallic "sprong"—the sound of Hendrix's plucking—followed by the groans and creaks of the flexing and loosening coils (mm. 205–208 [11:27–11:40]).

Accompanying Hendrix's mix of buckling metal and atonal malaise is a martial snare drum; Miles quietly plays a traditional press roll—a ready evocation of the military firing squad—for four complete measures (mm. 205–208 [11:27–11:40]). Cox, too, has altered his part, reverting, for no apparent reason, to a bass pattern that briefly first appeared in the introduction to the piece (MG-2).[45] However, the soft drum roll abruptly crescendos to a hammerstroke accent from Miles that ruptures the anxious quiet of the passage: the loud report of the snare and bass drum immediately dispatches the bass guitar from the piece, and triggers an explosive solo cadenza from the guitar.

Solo Cadenza and Coda

(mm. 209–215 [11:41–12:27])

Hendrix's closing cadenza reignites the bombs and missiles of previous measures, and, indeed, the sudden attack is so ferocious that for a moment it seems that Hendrix will "blow up" his entire arsenal of sounds. But there will be no protracted display of

pyrotechnics; the climatic cadenza will signify the piece in its death throes, and it will be appropriately succinct. Moreover, the solo guitar cadenza will register more as an angry voice of protest than as another passage of mimetic sound imagery.

In contrast with the scalar blitzkrieg of the guitar solo section, the cadenza delivers a payload of harmonic dissonance: Hendrix juxtaposes bursts of four- and five-note chordal structures and other discordant intervallic shapes that are tonally disassociated from the governing key center of the piece as well as from one another.[46] The severe electronic distortion of the fuzztone bolsters the strident quality of the dissonant structures, and the sheer force of Hendrix's aggressive tremolo articulation conveys an angrier expression than has been heard before.

Hendrix's angry strumming melds into an equally frenzied tremolo of feedback. The rush of energy will be the last, as the raging guitar suddenly collapses, broken under the strength of its own violent exertions, and falls into the sagging mass of clusters that will finally bring the piece down [12:00]. The piece draws its last breaths as the guitar's sounds slowly heave to a standstill, and a sudden flare-up from the drums is quickly extinguished. At the end, Buddy Miles is left hissing an imitation of his clattering hi-hat cymbal into the microphone: it is a tense and gnashing vocal effect that in closing assumes the character of a rattlesnake's menace, though perhaps it represents a final evocation of chattering gun fire.

Improvised Form and Musical Drama in "Machine Gun"

It is surprising to discover the extent to which "Machine Gun" represents a loosely organized composition whose realization fundamentally depends on extemporized musical choices. This pertains not only in terms of the obviously improvised soloing and the spontaneous interaction of Band of Gypsys, as analyzed above, but also in terms of the piece's most basic form.

Comparing the New Year's Day early show performance included on *Band of Gypsys* with two other Fillmore performances by the group offers insights into the flexible nature of Hendrix's composition. The alternate performances took place both before and after the one included on the debut album: the earlier performance was staged on New Year's Eve; Band of Gypsys played the later one during their second New Year's Day concert.[47]

No less than the original release on *Band of Gypsys*, the alternate performances display some amazing guitar work. The New Year's Eve rendition features an Octavia-distorted passage and the same abrasive and novel sound quality that Hendrix unleashed for "Who Knows." Both of the alternate performances of "Machine Gun" show off striking effects produced by the Univibe, the sound processor that Hendrix would habitually employ for "Machine Gun" throughout the remainder of his concert career. As he does in the recording analyzed above, Hendrix develops improvisational ideas at length, exploring a wide range of timbral effects and levels of intensity in the piece's open-ended sections.

The settings for Hendrix's various guitar solos in the alternate recordings, however, show a significant variant; the lengthier guitar solos sections sound over what was previously discussed as the second principal theme (bass ostinato MG-4, as given above), part and parcel of a larger formal issue to be discussed below. Moreover, the interaction of the players, particularly between Hendrix and Miles, varies considerably in scale and intensity in all three versions of the piece. For the second show on 1 January, Hendrix and Miles lock into a lengthy exchange of "gun fire" when Billy Cox returns to the main theme at the conclusion of the song's final verse. Whereas the closing cadenza on *Band of Gypsys* is short and unaccompanied, the other performances have extended codas; the final cadenzas in both renditions culminate in Hendrix's playing of "Taps"—a quotation that he superimposes over Miles's "machine gun" snare drum and Cox's dogged bass part.

Although the three recorded versions share the same basic first verse, the number of additional verses, the proportion of interpolated guitar soloing and lyrical tropes, and the melodic content and style of Hendrix's singing (sometimes featuring extended melismas), varies considerably. The 1 January second show rendition has just three verses: the final verse represents a conflation of the third and fourth verses as recorded on *Band of Gypsys*; in the second show, Miles's foreshortened pleas ("Don't you shoot him down") occur as subtle background vocal parts in response to Hendrix's lead vocal. Except for background vocal parts, the 31 December performance excludes Miles from singing altogether, but includes four verses by Hendrix; the lengthy third verse presents a substantial amount of lyric material not represented in the other performances.[48]

The more significant differences existing between the *Band of Gypsys* version and the alternate performances, however, issue from the varying formal proportions and the distribution of principal themes. The dramatic development that I have ascribed to the *Band of Gypsys* rendition of "Machine Gun" hinges on a particular large-scale structural design. The crux of the unfolding "drama" is the thematic transformation occurring roughly two-thirds of the way through the piece (see "Section II," above and the introduction of MG-4), and the piece's ensuing transition from text-painted song to electronic sound painting. On *Band of Gypsys*, the third and final verses and the spooky atmospherics follow and appear to be in consequence of the preceding violent imagery and soundscapes. No such form or expressive transformation obtains in the other performances. In the second New Year's Eve performance, Hendrix jumps to the second principal theme (MG-4) at the outset of the second verse, and the bass maintains that pattern through subsequent verses and a lengthy guitar solo; after the fourth, final verse, Cox returns to the main theme (MG-1) and its derivative ostinati for the remainder of the piece, supporting Hendrix's and Miles's exchanges as well as accompanying Hendrix's fulminating cadenza. The next night's second performance shows Hendrix radically changing the brooding character of the second thematic area; immediately following the song's second verse he turns his volume full up and delivers a searing, distorted statement of the theme to launch into a highly aggressive sounding solo.

During the months in which "Machine Gun" was composed and recorded, reports of atrocities being perpetrated by American forces in Vietnam were gaining increasing attention in the media. In November 1969, while Band of Gypsys was in rehearsals, American military authorities undertook investigations into the My Lai Massacre.

During the subsequent trial of Lt. William Calley, Jr. (1943-), the American public, both supporters of and those in opposition to the war, was sickened to learn of American servicemen having slaughtered more than 400 Vietnamese civilians during a raid in 1968.

Before the official enquiries into My Lai had begun, however, opposition to the war was swelling. A series of nationwide protests was launched in October 1969; on 15 November, the largest moratorium in the nation's history took place. That same fall, US combat soldiers in Vietnam displayed black colored armbands to show support for the anti-war movement and the demonstrations at home. Band of Gypsys—including the band's pair of ex-paratroopers—effectively joined the anti-war movement in January 1970 when for their second and final concert appearance they performed at a fundraiser for the Vietnam Moratorium Committee that was held in Madison Square Garden.

Notes to Chapter IV

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[1] The quote is taken from an interview with pop star Lenny Kravitz (1964-) included on the video *Hendrix: Band of Gypsys* (MCAV-11931, 1999).

[2] McDermott and Kramer, *Setting the Record*, 222.

[3] Quotations of "Funeral Taps" or "The Last Post" turn up in the concluding sections and cadenzas to alternate performances of "Machine Gun" recorded by Band of Gypsys on 31 December 1969 (2nd show) and 1 January 1970 (2nd show) at the Fillmore (both performances included on the CD issue: *Hendrix: Live at the Fillmore*, MCAD2-11931, 1999). During his years with the Experience, Hendrix would also insert the symbolic "bugler's call" into live performances of "I Don't Live Today" (Murray, *Crosstown Traffic*, 193–194).

[4] Empathetic views of American soldiers either serving or having served in Vietnam were not unknown in Top 40 AM radio during the late 1960s; "Ruby, Don't Take Your Love to Town" (Reprise 0829, 1969), by Kenny Rogers and the First Edition, and "Galveston" (Capitol 2428, 1969), by Glen Campbell (1936-), offer examples.

In FM-oriented rock, the Doors' "The Unknown Soldier" (Elektra 45628, 1968) dealt with war and soldiering in more abstract terms. "Salt of the Earth," included on *Beggar's Banquet* (London PS 539, 1968), exhorted the Rolling Stones' audience to "raise a glass to the common foot soldier."

Two Chicago bluesmen and songwriters, J. B. Lenoir (1934–1967) and Junior Wells, took a hard look at the lot of the American serviceman being sent over to Southeast Asia. On his way overseas, the protagonist-recruit in Lenoir's "Vietnam" foresees himself being shot down over Vietnam—"Lord you'll find my body there somewhere" (*Alabama Blues* [German CBS 62593, and Amiga 8-50176, 1965]). A year after Lenoir's record was released, Junior Wells put out "Vietcong Blues." Wells's slow blues makes no mention of the Vietcong but expresses a man's anguish for his brother who is serving in Vietnam. Speaking over an impassioned guitar solo performed by Buddy Guy, Wells delivers a solemn dedication to "the mothers, all the wives, all the fathers that have sons in Vietnam." "Vietcong Blues," performed by The Junior Wells Chicago Blues Band, was issued on *Chicago/The Blues/Today!, Vol. 1* (Vanguard VSD 79216, 1966), a copy of which has been catalogued among Jimi Hendrix's personal record collection. (The Hendrix record collection is on display in the Hendrix Gallery exhibit at the Experience Music Project in Seattle; the album artifact number in the EMP permanent collection is 199.2.16. Also see James Rotondi, "Listening Experience: Jimi Hendrix's Personal Record Collection," *Guitar Player*, April 1966, 37–42.)

Hendrix's spoken dedication to "all the soldiers," by way of introducing "Machine Gun," as well as the lyrical contents of the song, indicates that Hendrix's soldier does not represent any specific army or nationality.

[5] In his published memoirs, Al Hendrix relates how his prolonged absence while serving in the armed forces contributed to the breakup of his marriage and the resultant upset to young Jimi Hendrix's family life. See James Allen Hendrix, *My Son Jimi* (Seattle: AlJas Enterprises, 1999), 39–52.

[6] Ibid., 32.

[7] Shapiro and Glebbeek, *Electric Gypsy*, 60.

[8] Ibid., 376.

[9] Willix, *Voices From Home*, 24–25, 27, and 42.

[10] Reportedly, Hendrix made the following statement in a 1967 interview for a British magazine: "After China takes over the whole world, then the whole world will know why America's trying so hard in Vietnam" (*Melody Maker* 28 January1967). Later, he was quoted in a Dutch magazine as having said: "Did you send the Americans away when they landed in Normandy? . . . The Americans are fighting in Vietnam for a completely free world. As soon as they move out, they [the Vietnamese] will be at the mercy of the communists . . . Of course, war is horrible, but at present it's still the only guarantee of peace." (*Aftonbladet* 9 January 1968) (Both quotes appear in Shapiro and Glebbeek, *Electric Gypsy*, 387)

These are surprising statements coming from a counterculture hero. However, Hendrix also reportedly made concert dedications to American draft-resisters and military deserters who were living in exile in Scandinavia (Shapiro and Glebbeek, *Electric Gypsy*, 387-388). Band of Gypsys, moreover, played a benefit concert for the Vietnam Moratorium Committee (28 January 1970).

[11] *Historical Dictionary of the 1960s*, s.v. "Black Soldiers."

[12] Murray, *Crosstown Traffic*, 23.

[13] Although the two works would emerge as having decidedly different characters, a first sketch of "Machine Gun" was recorded as it "evolved" out of an extended jam and recording session of "Izabella" by Gypsy Sun and Rainbows (McDermott, Cox, and Kramer, *Sessions,* 117–118).

On 8 September 1969, Hendrix, accompanied by Gypsy Sun and Rainbows members Billy Cox, drummer Mitch Mitchell, and percussionist Juma Sultan (1942-), performed a medley comprising "Izabella" and a truncated version of "Machine Gun" on the Dick Cavett Show television program (Roby, *Black Gold*, 246; excerpts from the broadcast available on: *Jimi Hendrix: The Dick Cavett Show*. MCA-DVD Experience Hendrix).

[14] Transcribed from Hendrix's spoken introduction to "Izabella," as performed by Gypsy Sun and Rainbows at Woodstock, and included on the CD, *Jimi Hendrix: Live at Woodstock* (MCA Records MCAD 2-11987, 1999).

[15] Besides having experienced the family problems occasioned by his father's military service, Pvt. James Marshall Hendrix seems also to have had a budding romance undone by his own induction into the army (Hendrix, *My Son Jimi*, 132–136).

[16] The above quotation of Hendrix's spoken introduction to "Izabella," is transcribed from a recording made on 31 December, 1969, that is included on CD *Hendrix:Live at the Fillmore* (MCAD-211931, 1999).

[17] Murray, *Crosstown Traffic*, 193–194. Hendrix, whose mixed ancestry included Cherokee forebearers (Hendrix, *My Son Jimi*, 12, 88–89), expressed concerns for the condition of Native Americans, and repeatedly dedicated songs to the "American Indian" in concerts (including a Seattle concert that the author attended on 12 February 1968).

[18] In an interview given to *Rolling Stone* magazine in 1968, Hendrix stated: "The first guitarist I was aware of was Muddy Waters. I heard one of his old records when I was a little boy and it scared me to death." (Excerpt from *Rolling Stone* interview, 9 March 1968, reprinted in Shapiro and Glebbeek, *Electric Gypsy*, 41)

In a spoken introduction to a live recording of "Catfish Blues," Hendrix explicitly evokes the sound of both Waters and John Lee Hooker, demonstrating on the guitar their connection to the hammer-on trills and open string licks that he would also play in "Machine Gun" a little over two years later. After invoking the names of two of the blues tradition's greatest musicians, Hendrix would play a representative lick for his listeners (transcribed introduction taken from a recording of "Catfish Blues" recorded at the Olympia Theater, Paris 9 October 1967, and released on the CD box set: *The Jimi Hendrix Experience* [MCA 088 112 318-2, 2000]):

> [Hendrix, to the audience] Have you heard of Mississippi? [Hendrix strikes a drop-tuned, first position "E" chord]. . . Have you heard of Muddy Waters? [lick and trill]. . . How 'bout John Lee Hooker? . . . [Hendrix plays another, similar lick)

[19] "Voodoo Chile" evolved from Hendrix's "Catfish Blues," a reworking of Muddy Waters's "Still A Fool" (Chess 1480, 1951). Waters's song (sometimes bearing the alternate title, "Two Trains Runnin'") shared melodic features with Waters's 1950 recording, "Rolling Stone" (Chess 1426, 1950), another favorite of Hendrix's. Reportedly, "Still A Fool" was rooted in two earlier blues: "Deep Sea Blues," by Tommy McLennan; and "Catfish Blues," by Robert Petway. For the song lineage to which "Voodoo Chile" traces its origins, see Murray, *Crosstown Traffic*, 145–146; and Shapiro and Glebbeek, *Electric Gypsy*, 243.

Hendrix performed "Catfish Blues" with the original Jimi Hendrix Experience on 6 October 1967 for the BBC, *Top Gear* radio program. A recording of the performance was issued on *Jimi Hendrix Experience Radio One* (Ryko, RCD 20078 1988). Within the Experience's arrangement of "Catfish Blues" as performed at the BBC, Hendrix folds in a lyrical segment from "Rollin' and Tumblin'," another song popularized by Muddy Waters. Hendrix's performance spotlights his unison guitar and vocal phrasing, a blues style and technique clearly inspired by Waters.

Like the aforementioned songs by Muddy Waters, Hendrix's "Catfish Blues" has no chord changes, a feature also shared by "Machine Gun." In the 1967 Experience performance, Hendrix stretches the length of verses and guitar breaks at will, the other band members responding to his cues in the studio. As will be more thoroughly discussed here, "Machine Gun" also unfolds in an elastic and flexible form.

[20] A somewhat analogous introductory segment in East Indian music is called an *alap*. Hendrix reportedly witnessed Ravi Shankar's performance at the 1967 Monterey Pop Festival (Shapiro and Glebbeek, *Electric Gypsy*, 112), and once impressed his father with the fact that he had met the preeminent East Indian musician (Hendrix, *My Son Jimi*, 166). As discussed in chapter II, during the latter 1960s, evocations of the sitar and Indian classical music found their way into the playing of Jeff Beck, George Harrison, and countless "psychedelic" guitarists (see Ch. II Hendrix's Sound; *Fuzztone*).

[21] In his seminal work on the blues, Paul Oliver discusses the multiple roots of the music, including work songs and improvised "field hollers" (alternately spelled "hollars," or rendered as "arhoolies"). See Oliver, *Blues Fell This Morning*, 4–5, and 274.

[22] The allusion is to "The Universal Soldier," an anti-war and early "protest" song written by Buffy Sainte-Marie (1941-), and popularized by recording artists Donovan (1946-) and Glen Campbell.

[23] The "standard" twelve-bar blues form typically comprises three four-measure phrases, each phrase subdivided into a 2 + 2 construction (2 + 2, 2 + 2, 2 + 2). However, blues also occur in sixteen-bar forms and in other configurations of irregular phrase lengths (e.g., "Mannish Boy," by Muddy Waters; "Highway 61 Revisited," by Bob Dylan). Many performances by Sam "Lightin'" Hopkins (1912–1982) and John Lee Hooker, as soloists as well as with accompanying ensembles, also exhibit the irregular phrasing and metrical asymmetries that are associated with rural blues.

[24] The return of Miles's snare drum part seems to be prompted by text painting; the part begins immediately following the lyrics, ". . . blast me down to the ground" (mm. 53–54). Miles plays this snare drum rhythm and motive for the entire five measures of guitar soloing that intervenes between the second and third formal divisions of the verse.

[25] The extended jams recorded on the *Electric Ladyland* tracks, "Voodoo Chile" and "Rainy Day, Dream Away," feature lengthy solo passages by Hendrix. However, in the extended improvisations on *Electric Ladyland*, Hendrix plays in dialogue with other instrumentalists, and in "Rainy Day, Dream Away," his soloing actually reflects a composite of different overdubs superimposed over the basic tracks cut at a jam session. The solo passages in "Machine Gun," as well as other guitar solos heard on *Band of Gypsys*, more immediately reflect Hendrix's thinking on his feet in constructing a lengthy and sustained improvisation.

[26] Compare mm. 81–83, with mm. 84–92, in the transcription. In the first set of measures, Hendrix's melodic ideas emphasize the subtonic (D), dominant (B), and both the major and minor third scale degrees (G-sharp, and G natural). That melodic emphasis is compressed down to a rapid alternation between the subtonic and dominant degrees in m. 83, before Hendrix shifts into the "whammy bar workout" that is focused on the dominant degree (see description of mm. 84–88, below).

[27] Hendrix produced comparable vibrato bar effects on: "Voodoo Chile" [8:41–8:59]; "Voodoo Child (Slight Return)" [5:02–5:04]; and "Moon, Turn the Tides . . . gently gently away" [2:24–2:34] (*Electric Ladyland*, 1968).

Note: the tablature shown in the score reflects Hendrix both pushing down and pulling up on the vibrato bar to raise and lower pitch levels; see plus and minus values given in the tablature, indicating the raising and lowering, respectively, of pitch levels by approximate intervals (e.g., +1/2, -1/2).

[28] Although the transcription does not show it in detail, the stream of notes (mm. 84–89) is generated by a repeated combination of hammering-on, pulling-off, and bending a single string while simultaneously varying pressure on the vibrato bar. Hendrix repeatedly sets the guitar's second string in motion with his fretting hand, sounding the fretted note at the twelfth position on the neck, as well as intermittent "ghost" tones of the open string, sounding an octave below. While he is performing the trill-like articulation with his fretting hand, Hendrix periodically releases pressure on the vibrato bar, thus letting the string snap back to its regular tension to sound the dominant scale degree, the principal note and tonal point of departure for the flurry of notes.

[29] Jazz critic Ira Gitler coined the phrase "sheets of sound" to characterize the phenomenally rapid passages that John Coltrane would improvise on the saxophone. Besides many commentators on Hendrix, trumpeter Miles Davis reported that he heard a resemblance in Hendrix's similarly frenetic bursts of single-note soloing to Coltrane's sheets of sound, and, as mentioned previously, that Hendrix himself was impressed with that aspect of Coltrane's playing. See Davis and Troupe, *Miles: The Autobiography*, 292.

However, Coltrane biographer Lewis Porter argues that Coltrane's technique originated in revolutionary harmonic concepts. According to Porter, the sheets of sound approach evolved from Coltrane's superimposing linear patterns derived from chord

forms over a single sounding chord or bass reference. Thus, what is frequently perceived as a linear construction is actually produced from Coltrane's polychordal conception. Coltrane himself distinguished this concept of "playing chordally" from "playing melodically." See Lewis Porter, *John Coltrane: His Life and Music* (Ann Arbor, MI: The University of Michigan Press, 1998), 111, 131–132, 161.

In contrast to Coltrane's polychordal-based patterns, Hendrix's note flurries are either intervallic in origin (oftentimes a single lick or interval shape is permutated by manipulations of the whammy bar) or are fundamentally linear and scalar.

Since the days of Coltrane's discoveries, the meaning of "sheets of sound" has been expanded—and, in Lewis Porter's view, "over applied"—to indicate any exceptionally rapid and relatively sustained passage of notes, as executed by an improvising soloist.

[30] The swirling melody described above concludes in the same double-stop interval that punctuated the end of the "whammy bar passage"—lick JH-1 (cf., mm. 90—91, and 130). Variations of lick JH-1 punctuates several other phrases and significant formal divisions in the performance, including the guitar solo's climatic passage, as discussed below (cf., guitar parts in mm. 15, 54, 58, 65, 108, 110, 130–131).

[31] Whether following his own musical instincts or acting in response to some cue from Buddy Miles, Billy Cox reengages the theme just as Miles begins his two-fisted delivery (see m. 115; Cox had been playing MG-3 during the four previous measures).

Miles switches from playing his customary single-stroke, thirty-second note snare drum part, to playing a sixteenth-note figure performed first on combined snare and overhead tom (m. 115), and subsequently played on the snare and floor tom (m. 116). Thus, on repeating the figure, Miles expands the range and sonic impact of its sound.

[32] The expanded neighbor-note figures of MG-4 trudge along in a pattern of quarter-note and eighth-note values. Furthermore, the figures extend for the first measure-and-a-half of the two-measure pattern. The corresponding "Machine Gun" motives of patterns MG-1–3, comprise a rhythmic pattern of four sixteenth-notes and a concluding eighth-note, and thus encompass the shorter span of a beat-and-a-half.

[33] Hendrix's text-painting tremolo builds from a rapid strumming on an incomplete seventh chord (a dissonant triadic shape that Hendrix similarly energized in "Still Raining, Still Dreaming" [2:36–2:52] and elsewhere) to a smear of disassociated triadic shapes—the rapidity of Hendrix's glissandi obscuring their tonal contents and shifting intervallic makeup.

As the score shows, the snare drum also joins in the barrage in m. 144, Miles having been alerted to the impending text-painting effect by the anticipatory tremolo that Hendrix began in the previous measure.

[34] Compare the guitar and combined guitar and vocal parts from mm. 147, 150.5 and 152, with guitar parts from the first thematic area in mm. 1–2, 9–12.

[35] Beginning in m. 154, Hendrix sustains a rapid tremolo while shifting between his open low "E" string and minor triads and intervallic shapes. The attack is forceful, Hendrix's picking motion evidently originating in a strong wrist and forearm motion, so that one hears the pick "colliding" with the dampened low string—a percussive sound that strikes one as being highly aggressive.

[36] The "sirocco" metaphor represents a borrowing from guitarist Mike Bloomfield (1944-1981), who remembered Hendrix creating such an effect in a 1968 performance. See Shapiro and Glebbeek, *Electric Gypsy*, 253.

The oscillating drone/tremolo effect represented in mm. 159–164, also appeared in the Experience recordings, "3rd Stone From the Sun" (whose extra-terrestrial being intends to destroy the earth—and possibly does so in the explosive guitar cadenza which ends the recording), and "I Don't Live Today," as well as in "Star Spangled Banner," as performed by Hendrix at Woodstock.

[37] Producer Hendrix and engineer Eddie Kramer are applying a studio technique they first explored in "Purple Haze," where a double-speed guitar track was panned around in the stereo field moments before the fade-out ending [2:37–2:50]. Hendrix and Kramer cultivated the technique in subsequent extensive sound paintings like "1983. . . a Merman I Should Turn to Be," and "Moon Turn the Tides, gently, gently." Where radical panning effects were exceptional on the first two Experience albums, they are pervasive in *Electric Ladyland.* Besides the aforementioned sound paintings, panning effects occur most memorably on "Still Raining, Still Dreaming," beginning with the "gossiping" wah-wah guitar that opens the track (0:00–0:12), and throughout "Voodoo Child (Slight Return)."

[38] The sound of the guitar's "nose dive" (9:51–9:52) is much different from the familiar octave styles of guitarists Wes Montgomery or Django Reinhardt (1910–1953). Because Hendrix uses the vibrato bar to bend the strings, the octave interval sounds a bit "warped" and out of tune, and the "distorted" intonation enhances the smeary quality of the speeding portamento. Later on in the passage, the guitar performs a suitably suspenseful trill in reaction to Miles's declaiming: "He's been shot down to the ground!" (mm. 181–182). The rapid trill figure is also immediately recognizable as another ornamentation rooted in the guitar styles of Muddy Waters and John Lee Hooker, as previously discussed.

[39] In specifying that Hendrix is tapping on the guitar's headstock, the author is relying on annotations appearing in the published transcription, whose author had access to a video recording of the performance of "Machine Gun" (Andy Aledort, *Jimi Hendrix: Band of Gypsys, Transcribed Scores* [Milwaukee, WI; Hal Leonard, 1995], 3). In other films of his live performances, one sees Hendrix tapping on the guitar's horn, pickguard,

and on the back of the neck—almost anywhere on the instrument's body—to generate sound. When the guitar signal is so heavily amplified and boosted, the instrument is extremely "live," its pickups capable of hearing almost any vibration that resonates through the Stratocaster's lightweight, wood body.

[40] These higher feedback frequencies shift kaleidoscopically between the resonating overtones of different strings, as one can see graphically represented in the guitar transcription and the tablature given in the published scores (corresponding to mm. 171–180; the tablature notation representing the strings and fretboard of the guitar appear directly below the second stave in the system). However, as the tablature notation also shows, the first overtone of the open third string is particularly "hot" and generates much of the brighter strand of feedback in this passage.

[41] In mm. 175–180, Cox changes his bass part from MG-4 to MG-5, nearly a walking bass line of consecutive eighth-notes.

[42] Cox reintroduces the main theme and ostinato, MG-1, by gradual means, deploying, in effect, an intermediate and transitional pattern, MG-5, to fit between patterns MG-4 and MG-1. Note that MG-5 combines melodic and rhythmic elements of both the latter patterns.

[43] As previously mentioned, Hendrix adjusted his tailpiece assembly so that he could bend notes sharp as well as flat with the vibrato bar. When combining both a pushing and pulling of the bar as in one motion, he could effect a wide vibrato that moved both sharp and flat to a given pitch, to an extent unavailable by traditional means and guitar techniques. Furthermore, it is likely that for the passage under discussion, Hendrix activated the Univibe's vibrato setting, or in any case used the unit to create an even more dramatic vibrato effect. A still more radical effect of the Univibe is heard in a similar and corresponding segment of another version of "Machine Gun" that was recorded at the previous day's Band of Gypsys' concert (second show, 31 December 1969; *Hendrix: Band of Gypsys at the Fillmore* [9:45 ff.]).

[44] Guitarist Ike Turner's vibrato bar imparts a bone-chilling sound to Otis Rush's "Double-Trouble" (Cobra 5030, 1958), a classic, minor key blues that was recorded in the late 1950s.

One might also hear in Hendrix's spooky vibrato an electronic echo of Blind Willie Johnson's acoustic slide playing, as represented in Johnson's hauntingly beautiful "Dark was the Night—Cold was the Ground" (recorded in 1927; reissued on *Dark Was the Night*, Indigo Recordings Ltd., J60CD 2024, 1995). In addition, a hallmark of Robert Johnson's guitar style is his stinging, rapidly quivering single note punctuations that complement his similarly quaking vocal style; representative examples are found in "Crossroad Blues" and "Terraplane Blues," both recorded in 1936 (*Robert Johnson: King of the Delta Blues Singers* reissued in the 1990s, on Columbia CK 52944).

[45] MG-2 (a permutation of MG-1), first occurred in mm. 13–16, in the introductory section of the piece; this first appearance was in the context of a four-measure pad and preface to Hendrix's "blues exposition" (see previous discussion).

[46] Some of the chords in mm. 209–210 are analogous to conventional chord structures. However, Hendrix is clearly striving for a discordant effect, probably without much specificity regarding the exact tonal contents of the chords beyond their being distinctly "outside" of the established key center. Likewise, the chord symbols given in the published transcription notwithstanding, Hendrix probably understood the intervallic shapes that he formed in m. 212 in terms of their dissonant qualities rather than as their representing "altered" or partial chordal structures with any particular name or spelling. (See Chapter II Hendrix's Sound: *Harmonic Vocabulary and Intervallic Designs: Non-tonal Harmonic Devices*).

[47] *Hendrix: Live at the Fillmore East* (MCA MCAD2-11931, 1999).

[48] A manuscript, authenticated to have been written in the composer's hand, indicates that Hendrix conceived the lyrical composition of "Machine Gun," as having three distinctly-numbered verses. See Janie Hendrix, comp., *Jimi Hendrix: The Lyrics*, Milwaukee, WI: Hal Leonard, 2003), 102—103. (At the time of this writing, the manuscript is on display at the Jimi Hendrix Gallery exhibit in the Experience Music Project, Seattle, on loan from Experience Hendrix L.L.C. [E.M.P. artifact numbers L2003. 12.42a, and L2003.1242b].)

However, the Hendrix's lyric sheet is not dated, and it is uncertain as to when he may have written the lyrics down—before or after having made the Fillmore recordings. It should also be noted that this manuscript does not represent one of Hendrix's personalized "scores"—the kind of lyric sheet with annotated performance notes and indications for arrangements that Hendrix would often make for his compositions and song ideas.

CHAPTER V: POWER TO LOVE

A critical analysis, as informed by the published accounts of Jimi Hendrix's friend and Band of Gypsys bass player Billy Cox, points to possible compositional approaches taken in "Power to Love." Additionally, Cox's recollections of Hendrix's working methods in songwriting establish an historical link, albeit an indirect one, between this Hendrix piece and an earlier R & B recording.

As in other Hendrix *Band of Gypsys* compositions, the guitar and bass carry the main melodic features of "Power to Love," and their ostinati also define the piece's structure. "Power to Love" distinguishes itself from his other compositions, however, by the greater number, as well as the function, of its ostinati, for the ostinati work as the basis for a set of variations in a repeated modulatory scheme. (See Appendix D, Ex. V-1 for a formal outline of "Power to Love" showing modulatory sections comprising ostinati PTL-1–4.)

Origins of "Power to Love": Insights into Hendrix's Compositional Approach

Billy Cox has stated that he and Hendrix would collaborate in searching for melodic patterns that would serve as starting points for song composition. Such patterns formed both the beginning stages and the bases for several songs recorded during Cox's tenure with Hendrix in 1969 and 1970. Typically, the two collaborators would trade ideas while working in apartments or hotel rooms as well as in studio rehearsals, tape

recording their sessions for later review and development. In Cox's telling, his role was often to act as catalyst to Hendrix's musical imagination:

> Jimi needed the bass to work off of. He would take something I played and improve on it. We were always trying to top each other, and by then I gave up—because he was just too good—he had created a song . . . We made tape after tape of these informal sessions and would listen to them for ideas. Jimi would take the patterns we played and create songs for them.[1]

Hendrix seems to have been remarkably responsive to Billy Cox's influence, and even the simplest and most prosaic of Cox's ideas could spark a sustained creative effort. Cox recounts how "Dolly Dagger," a posthumous single release, evolved out of Hendrix's overhearing him casually experimenting on his bass guitar; Cox's musical doodling—an imitation of the chimes of London's Big Ben—engendered the unison fuzz bass and guitar lines that open the piece. Though Cox's published anecdote about "Dolly Dagger" is sketchy in musical detail and comes without the specialized assistance of musical transcription, the resemblance between the song's introductory riff and Big Ben's familiar sound—the Mi - Do - Re - Sol motto—is easily recognizable.[2] So too, is the musical resemblance between "Power to Love" and the source that according to Cox, triggered its composition:

> "Power of Soul" [sic], came together when Jimi heard me playing a riff from "Mary Ann," an old song Ray Charles used to do. I hadn't meant anything by playing it—I was just goofing around. But that was all [Hendrix] needed to get started.[3]

In an interview, Hendrix mentioned in passing that Ray Charles was a part of his early musical environment; Charles's records were something the "grownups" would be

listening to on social gatherings in Hendrix's Seattle home.[4] However, some contemporary reviews of the Jimi Hendrix Experience notwithstanding, it is difficult to hear any direct influence that one of R & B's premier vocal stylists, and the acknowledged *paterfamilias* of soul music, had on either Hendrix's songwriting or his performing style.[5] Certainly there is nothing of Charles's influence in Hendrix to compare with that of, say, Curtis Mayfield and the Impressions, Muddy Waters, or Bob Dylan. Moreover, one might also admit that Charles's impact on popular music as a whole, and on the sound of 1960s R & B in particular, is really too profound to measure. Yet, before we excuse ourselves from questions of influence altogether—and get down to cases with "Power to Love" and "Mary Ann"—let us consider a few historical and cultural connections between what is, perhaps, an unlikely pair of artists.

Ray Charles and Hendrix's Seattle

A powerful assimilator, Ray Charles has been an instinctual stylistic synthesizer, finding reciprocal interactions among different musical idioms. Drawing on a wide spectrum of American vernacular styles, Charles's success has repeatedly confounded those who would caution him to keep to a predictable stylistic formula and consistent slot in the marketplace. In fact, Ray Charles gave the lie to the legitimacy of commercial and stylistic barriers a decade before a disgruntled Jimi Hendrix would reject the too-limiting characterization of his own music as "psychedelic."[6]

Issues of stylistic promiscuity first beleaguered Charles in 1955 at the time of his breakout hit, "I Got a Woman," a side that generated controversy for its secular

reworking of the gospel idiom.[7] Charles himself regarded the mix of styles as a natural consequence of his musical background:

> Now I'd been singing spirituals since I was three and I'd been hearing the blues for just as long. These were my two main musical currents. So what could be more natural than to combine them? . . .This new combination of blues and gospel was [effortless]. It required nothing of me but being true to my very first music.[8]

Despite Charles's well known skepticism about the usefulness of musical labeling, the release of "I Got a Woman" is regarded as the moment when R & B made the critical transition to a more gospel-inflected style and the new category of soul. The success of that record both established the new genre and began the elevation of "Brother Ray" to the iconographic status of the "Right Reverend" and "High Priest of Soul" in the black community.

But Charles's influence would not be limited to that community, nor to soul and R & B. Though Charles himself seems to have regarded rock 'n' roll as a guitar-driven idiom for teenagers and distinctly different from R & B, rockers like Elvis Presley and later the Beatles either covered or performed hits like "I Got a Woman" and the classic "What'd I Say."[9] A crossover hit in 1959, "What'd I Say," along with other Charles material, was taken up by dance bands—rock, R & B, and even Country and Western—in both America and the British Isles. Even before these smash singles had come out, though, Charles was a legend back in Jimi Hendrix's hometown.

Irrespective of Ray Charles's Southern origins, Seattle fans have tended to regard him as one of their own. The claim is based on Charles's starting his professional career singing and playing piano in Seattle nightclubs in the late 1940s. It is true enough that

those gigs occasioned a seventeen-year old Ray Charles Robinson to drop his surname and become—in his own words—"*the* Ray Charles."[10] Reportedly, the Seattle years also saw his first TV and radio appearances and recording sessions. In terms of both his personal and professional life Charles declares that Seattle was his "barmitzvah . . . all of a sudden I had to become a man."[11]

Quincy Jones (1933-) and other Seattle musicians who knew Charles (Jones also came to know Hendrix, after both musicians had left the region) passed their esteem for his talent along to the younger set of local players coming up in the 1950s. These were Hendrix's Seattle contemporaries and bandmates who were mixing rock 'n' roll, R & B, and "soul jazz," into their dance band repertoires. Terry Johnson (1944-), one of Hendrix's fellow musicians and closest friends, remembers that although Hendrix "identified with rhythm and blues guitar players, especially Albert King, Freddie King, B. B. King, and Bobby Blue Bland [sic],"[12] he and Hendrix particularly liked playing one of Ray Charles's greatest signature tunes. Some forty years later, one can still sense Johnson's enthusiasm for "What'd I Say" and the excitement he once felt recreating the then-novel sound of Charles's electric piano:

> One of the songs we'd play back in those days was "What'd I Say," by Ray Charles. That was a big one. I had an electric piano then, a pink and white Wurlitzer, so we were really hot on that one. Ray Charles was one of our idols. In fact of all the songs Jimmy [Hendrix] and I played, that was one of our favorites.[13]

Some years later, Hendrix would be performing "What'd I Say" as one of his featured vocal spots during his 1965 stint with Curtis Knight and the Squires.[14]

Besides Ray Charles and a host of other figures of pop, Hendrix's Seattle circle of musician-friends also revered local as well as nationally known jazz musicians.[15] The songlists and scattered recordings by Northwest bands of Hendrix's generation attest to the influence on regional musicians of the funkier late 1950s and early 1960s hard bop and soul jazz styles.[16]

For his part, Charles shared Northwest musicians' affinity for bands like those of Horace Silver (1928-) and Art Blakey (a.k.a., Abdullah Ibn Buhaina, 1919–1990) —outfits that brought jazz chops and improvisational skills to R & B-flavored instrumentals. Over the cool approach that had been heard since the early 1950s, Charles preferred representative hard boppers Silver and Blakey, whom he characterized as " . . . harder cats [who] had a grittier sound. . . there was more blues in their playing, the approach was tougher, and my own band, when we did jazz, played more in that mold."[17]

Charles and his stellar band "did jazz" on over half of his Atlantic Records album material, and his recordings on that label with vibraphonist Milt Jackson (1923-) were definitive works in soul jazz. Indeed, Atlantic Records executive and producer Jerry Wexler (1917-) views Charles as the "initiator of the back-to-the-roots jazz/soul movement."[18] By the early 1960s Charles had become the preeminent figure to blur distinctions between "R & B" and "jazz" musicians.[19]

By the time Hendrix and Band of Gypsys were ushering in New Year's 1970, Ray Charles was long established as soul's elder statesman and patriarch—an authority Aretha Franklin would acknowledge the following year on "Spirit In The Dark," the show-stopping duet Franklin performed with Charles on *Aretha Live at Fillmore West.*[20] Hendrix, however, paid no such tribute to Charles as Franklin's, and, as will be shown,

Hendrix's borrowing from "Mary Ann"—though fundamental to the composition of "Power to Love"—was subtle in its realization: the Charles piece was the creative germ rather than an aesthetic or compositional model. Yet one can easily imagine that Hendrix enjoyed Charles's symbolic and "material" presence in his tune and, given Band of Gypsys' historical context, a further significance is suggested. For in Band of Gypsys Hendrix was renewing and discovering new connections and possibilities for R & B, and reportedly was hopeful of widening his appeal and "crossing over" to a wider black audience. Assuredly, there was no greater model to inspire Hendrix's artistic and commercial efforts than Ray Charles, the consummate crossover and "fusion" artist. And it seems unlikely that the poetry of the moment would have been lost on Hendrix in his drawing on the "High Priest" of soul power for his own "power of soul."

"Mary Ann"

"Mary Ann," Charles's tune and Hendrix's source material for "Power to Love," was released as a 'B' flipside to another one of Ray Charles's classic singles: "Drown In My Own Tears."[21] On the strength of its A-side the single reached number one on the R & B charts in early 1956. Charles's record never even registered on the pop charts; its release came some three years before "What'd I Say" broke Charles into the top-ten region of pop. Nevertheless, "Mary Ann" gained added exposure when Atlantic Records issued it on several albums and extended-play releases (EPs) over the course of the next few years.[22] By the time Hendrix was leaving Seattle for the military in 1961, the song was becoming a staple of local rock 'n' roll bands. In that same year, the Wailers, the

greater Seattle area's most popular dance band, recorded a version of Charles's tune that would be included on their LP release, *The Wailers: Live At The Castle* (the album's title refers to the Spanish Castle teen nightclub that Hendrix is alleged to have frequented as a young man and that he would later immortalize in "Spanish Castle Magic," from *Axis: Bold As Love*).[23]

Charles reportedly wrote the piece as a tribute to vocalist Mary Ann Fisher, the first of Charles's featured singers and a founder member of his backup vocal group, the Raelettes.[24] However, Charles's is the only voice that is heard singing in the arrangement of "Mary Ann," an arrangement that is by turns both a Latin-flavored and a jump band-style blues.

All sections in the song's form are based on typical twelve-bar blues models. The verses of "Mary Ann" represent traditional blues in terms of their melodic, harmonic, and lyrical structures; the performance also features a call and response between Charles's voice and the horn section that is idiomatic to gospel-influenced R & B. The song's second area shifts from the verses' Latin rhythmic character to a hard-swinging setting wherein Charles ad libs both melodic and spoken phrases in dialogue with a propelling riff in the brass. It is, however, the piece's introductory and closing material—its bookend "intro" and "outro" riff—that we are most concerned with in our present context.

The rhythm section, comprised of Charles's piano, an upright bass, and drums, opens "Mary Ann" with a twelve-bar blues progression. On the recording Charles's right hand part clearly states the introduction's principal riff in the first two measures: a

syncopated pickup figure and a downbeat-weighted pattern of parallel thirds (repeated notes falling on beats one and three) characterize this initial and main thematic element.

As seen in the transcribed excerpt in Example V-2, Charles transposes the two-bar riff up a perfect fourth from its tonic harmonic context to "make the IV change"—that is to say, he transposes the two-bar phrase of mm. 1–2 (that is also repeated in mm. 3-4) up a fourth to fit the harmonic change to the subdominant in mm. 5–6.[25] This kind of tonal juxtaposition is idiomatic to blues and related styles; riffs typically performed on piano or guitar are symmetrically transposed from one harmonic area to another. A significant detail is noted in the pickup notes and chords that preface such harmonic changes "Mary Ann"; in the last beats of mm. 4, 6, and 9, for example, Charles's intervals and chords anticipate the actual downbeat arrivals of the harmonic progressions. These characteristic melodic and chordal anticipations of functional harmonic and root movement will leave their imprints on Hendrix's "Power to Love."

After a stop-time break in m. 12 and the start of the introduction's second twelve-bar blues progression, a pair of saxophones takes over the piano riff discussed above; a tenor and baritone sax invert the piano's mainly parallel thirds to mainly parallel sixths, with the baritone dropping the piano's upper voice down an octave as well as realizing a complete melodic line in harmony with the tenor part. Sounding a sixth above its harmonizing line, the tenor sax now projects the fundamental line of the riff.

"Mary Ann" and "Power to Love": Musical Connections

As with his recollections of "Dolly Dagger," Billy Cox's published accounts of "Power to Love" give little detailed musical information; he neither specifies from which "riff" of "Mary Ann" it is that Hendrix and he built their new composition nor what exact use they made of it. But if Cox's revelations fall short of a "full disclosure," when they are taken together with his filmed demonstration of bass and guitar patterns in "Power to Love," we gain a good idea of compositional processes that produced and shaped the piece's structure.

In a 1999 video release, Cox reenacts how he and Hendrix came up with the piece's ostinato patterns by their swapping variations on a basic theme.[26] The initial pattern and point of departure was, not surprisingly, also the first bass line and ostinato in Band of Gypsys' arrangement of "Power to Love," and it bears an audible resemblance to thematic material in "Mary Ann." Cox's portrayal presents the creative process and the collaborators' dialogue in a stylized and suitably abbreviated fashion: his reenactment suggests that the players came up with the *completed* ideas rather spontaneously in an improvised exchange of variations. Cox even plays the patterns on his bass through their series of modulations—a scheme that likely involved revision and planning.[27]

Finally—and one acknowledges the risk of putting too fine a point upon the matter—Billy Cox also indicates which lines originated with whom; Cox contributed the initial pattern and then Hendrix and he alternated on the subsequent variations. No mention is made of either "Mary Ann" or Ray Charles in the video interviews. In light of the film's context, the omission is reasonable, as Cox's edited presentation is framed

within a discussion of the tight integration of bass and guitar in Band of Gypsys and of his working and personal relationship with Hendrix. As we have seen, however, the written account quoted above tells us enough about the source of Cox's original bass part that we can now turn to a comparison of relevant material from "Mary Ann" with that of "Power to Love."

Example V-3 (a–g), shows melodic materials from both "Mary Ann" and "Power to Love." For ease of comparison, all parts from both pieces are transposed to the same register and to the same key of concert C. I have also reduced all harmonized lines and double stops to single note lines. Thus, the tenor sax part from "Mary Ann" appears in isolation from its baritone sax complement, and Hendrix's guitar parts show up without their parallel fourth counterpoint. The rhythmic values, however, remain unaltered; that is, the transcription does not "transpose" the different songs' rhythms to a common metric subdivision.

It is easy to see the melodic and rhythmic similarities between Charles's riff and Hendrix's melodic structures. Most obvious are the resemblances between the introductory riff from "Mary Ann" and the pattern that Cox says he first contributed, labeled in the transcription as Example V-3c, PTL-1 (the four principal bass ostinati in "Power to Love" will be indicated by labels PTL, numbers 1–4). Granting a rhythmic equivalence between their different eighth- and sixteenth-note basic subdivisions, the two patterns are nearly identical. It is of further interest that Cox's other stated contribution, PTL-3 (V-3e), its different intervallic and tonal makeup notwithstanding, represents a variation of the stated initial pattern, PTL-1: the rhythmic contents of the two patterns

are identical and their melodic contours similar (the tonal idiosyncrasies of PTL-3 will be discussed below).

Patterns PTL-2 and PTL-4 show greater melodic and rhythmic variance from all the aforementioned structures. Thus, while it shares the same basic pickup figure common to all the patterns, the overall rhythmic character of PTL-2 is distinctly different, having agogic accents on its first two beats (a single eighth-note value replacing the sixteenth-notes placed on the downbeats as found in the other patterns) and a marked syncopation punctuating the second half of beat three. Likewise, the melodic shape of PTL-2 also makes a strong departure from those patterns which seem directly modeled on "Mary Ann"; the melody arches up from and returns back down to its starting note before making consecutive leaps spanning a minor seventh. The rhythms of PTL-4 are nearly the same as those found in PTL-1 and PTL-3, but both the melodic contour and disposition—by turns both disjunct and chromatic—are markedly different.

One also notes that PTL-2 and PTL-4—those patterns identified by Cox as originating with Hendrix—bring an expansion of tonal material and a "bluer" scale color; the tonal content of PTL-2 comprises a familiar blues pentatonic set (including the flat-third degree, shown as E-flat); PTL-4 introduces a seven-tone blues scale (adding scale degrees two and flat-five to the pentatonic set) as well as an idiomatic descending "run" extending from beat two to the second half of beat three. In actual performance the greater complexity and sweeping character of this last pattern will energize stretches of solo improvisation as well as modulation.

Hendrix and Cox took the four patterns given above and made them essential structural components in "Power to Love." I will discuss their various functions when treating the piece more fully in terms of its style, form, and performance. But while we are considering aspects of its structural foundation, we might make some further comparative notes and pose some final questions.

For reasons given below, I show the main theme of "Power to Love" as given in Example V-3g. Its metrical asymmetry notwithstanding, this thematic material could represent yet another permutation of the basic material given by Cox.[28] The theme is, however, more immediately related to the "Hendrix" patterns: in both its rhythmic design and pentatonic tonality, the main theme relates to PTL-2; in terms of its descending profile and in some motivic details (for example, the consecutive skips between scale degrees five and flat-three), the theme relates to PTL-4.

A question now presents itself: if one can ascribe the melodic kinships posited above, can one conclude that "Mary Ann" engendered all these materials—or, more precisely, did its introductory riff become the first "variation" in a set of variations which in turn became the piece's structural basis?

There is, in fact, no reason to doubt that "Mary Ann" provided the starting point around which the other parts in "Power to Love" came together. Yet there are reasonable alternatives to believing that *all* of the thematic material necessarily issued either directly or indirectly from Ray Charles's piece. It is quite possible, for instance, for Hendrix to have pulled some of his material from a fund of melodic patterns he already had created. Reportedly, Hendrix drew on a stockpile of melodic and lyrical ideas that he would try out in different compositional contexts. In addition to the melodic patterns that he and

Billy Cox came up with—and assuredly, an abundance of guitar licks—Hendrix also cultivated riffs and grooves that came out of his bands' rehearsals and jam sessions. In *Jimi Hendrix Sessions*, John McDermott documents Hendrix's mixing and matching bits of such musical materials in attempting to construct new song forms. Billy Cox also reports that in these efforts Hendrix would habitually combine, link, and reconfigure melodic patterns and even fragments of melodic patterns to make song structures.[29]

It is conceivable, then, for Hendrix to have either fused, grafted, or matched bits of material in producing the multi-sectional and multi-thematic "Power to Love." This possibility might, in part, explain resemblances of melodic structures in that piece with structures found in other songs. For instance, the main theme and PTL-4 of "Power to Love" invite comparisons to themes found in two other song on *Band of Gypsys*, "Machine Gun" and "Who Knows" (cf. Ex.s V-3f and V-3g, with Ex.s V-4a and V-4b; both sets of examples have been transposed to concert C and represented in the treble clef): do the themes owe their melodic similarities to any special reasons? For instance, might all the melodies have owed their origins to some larger set of variations, or have come from the same batch of Hendrix's raw materials? More specifically, could Hendrix have extracted any parts in "Power to Love" from another context and matched them to the core of patterns spun from "Mary Ann"? On a larger scale, one can also ask whether both the Hendrix and Charles materials can be traced to a widely shared repertoire of blues-related figures.[30]

The questions just posed have no definitive answers but do alert us to complexities and nuances in Hendrix's compositional techniques. Moreover, the critical glance we have just taken—considering these melodic structures in the abstract—will

prepare our looking at both the high level of thematic integration as well as some formal issues we encounter in "Power to Love."

Primary Source Materials

Hendrix authorized only one version of "Power to Love" to be released; the recorded performance made by Band of Gypsys during their second show at the Fillmore East on 1 January 1970. That is the performance issued on Band of Gypsys' debut album and the version we shall focus on. For the sake of making some instructive comparisons, my discussion will also draw on three other recorded performances and versions of the piece by Band of Gypsys. Two versions are found on CD releases published in the late 1990s: *South Saturn Delta* (1997) and *Hendrix Live at the Fillmore East* (1999). A third version, originally made as a demo recording, came out in 2002 on *Jimi Hendrix: The Baggy's Rehearsal Sessions*.[31] To ascertain changes that were made to the piece's recorded form in studio post-production, I have also studied an unpublished copy of the master tapes of the performance represented on *Band of Gypsys*.[32]

The recorded history of "Power to Love," as it survives in unreleased demo recordings, predates Band of Gypsys' short official life span. The three members of Band of Gypsys rehearsed Hendrix's composition in the studio as early as May 1969—several months before they came together as an official band. At the time of this informal session, the original Jimi Hendrix Experience, while still in existence, was rapidly approaching its demise and Hendrix was already searching for new musical directions and partnerships. To that effect, Hendrix had been talking to Billy Cox about

"wanting to experiment with having two or three horns." [33] Cox worried the suggested change would bring Hendrix's music "too far back to R & B"—too radical a shift from the power trio-based Experience. Cox's concerns notwithstanding, the instrumentation on the early demo for "With the Power of God," one of several working titles Hendrix would give the piece, reportedly augmented the trio of Hendrix, Cox, and Miles with an unspecified "horn" as well as piano, tambourine, and second guitar.[34] If that instrumentation suggests a closer affiliation with rhythm and blues, Hendrix did not hold to it; when the newly formed and official Band of Gypsys began work in earnest on the piece (now known as "Paper Airplanes") in November of that same year, the basic trio format was restored.

In those November sessions (made under Alan Douglas's nominal production) and then again in the December rehearsals for their impending premiere, Band of Gypsys' efforts were focused on getting the song's complex formal arrangement together.[35] They never really did; the New Year's performances of "Power to Love" at the Fillmore display trouble spots that are essentially formal difficulties—in terms of conception as well as plain execution. Yet, the song's formal structuring gives the piece much of its character and therein lies both strength and weakness.

Formal Components

The piece's large-scale structure breaks down into seven component sections (see Ex. V-1). While the basic framework of "Power to Love" was assuredly predetermined and fixed, several sections in the song's arrangement were designed to be indeterminate

in length. That is, although the order of sections and certain musical events was prearranged, Hendrix could control the duration of particular events on stage by delivering musical and visual cues to his band members.[36] Obviously, this kind of control would be especially valuable to the featured soloist whose improvisational flights are crucial for the piece's successful performance. Evidently Hendrix also used this open-ended performance strategy to spontaneously shape and balance the piece's formal components. Additionally, Hendrix shaped the piece's *recorded* form in post-production editing.

"Power to Love": Style, Structure, and Performance

Introduction

(mm. 1–7)

Though it does not perpetrate as radical a stylistic shift as do the openings of "Purple Haze" and Hendrix's "Star-Spangled Banner," the introduction to "Power to Love" presents its own set of striking juxtapositions. The first four measures would make a convincing introduction or stop-time cadenza in a straight-ahead blues; after the first hammerstroke chord Hendrix executes a series of single-note and double-stop string bends and in the third measure throws in a lick that might have been played by blues guitarist Albert King (see m. 3, corresponding to [0:06]).[37] But instead of a harmonic change or, say, a shuffle rhythm idiomatic to the blues, m. 5 brings a momentary pause in the bass and drums parts as Hendrix plays an uptempo paraphrase of the familiar riff from "Mary Ann." Voiced in parallel fourths and performed in a basic sixteenth-note

division—and utterly removed from the Latin-like rhythmic setting in "Mary Ann"—this oblique quote is the closest Hendrix will come to making an overt allusion to the Charles piece (see mm. 5–6).

Like the initial four measures of blues, Hendrix's paraphrase is similarly "interrupted"; metrically foreshortened in m. 6 (a measure of three beats inserted into the prevailing common time meter), the riff is furthermore frozen in mid-air before it can complete its phrase by an intrusive chromatic chord—an incomplete seventh chord based on the flat-second scale degree (m. 7).[38]

After another moment's pause, Buddy Miles literally slams the piece into its next section; Miles dispatches the hanging chromatic harmony with a wallop on the snare and bass drums in tandem with a rousing yell. Buddy Miles's cue aptly jump-starts a sudden and dramatic change in the rhythmic, timbral, and dynamic character of the piece as the drums lock into a solid, fatback rhythmic pattern and Billy Cox's bass begins its rolling, sixteenth-note ostinato (see score, mm. 7–8). Hendrix now stomps on his fuzz and wah-wah pedals, cranks up the volume, and begins an extended and supercharged cadenza.

A study of the introductory passage, mm. 1–7, discloses several significant points in terms of the piece's compositional makeup. The first point concerns the discovery that what might sound like a series of ad-lib licks strung together in the first four measures of the guitar's introduction, in fact, represents an essentially composed melodic structure: comparing this passage with the corresponding ones heard in three other versions of the piece by Band of Gypsys (concordances found on the three CD recordings, previously cited), will show all versions of "Power to Love" to have nearly identical melodic constructions. Similar comparisons will disclose that other of Hendrix's melodic ideas

that might seem to be improvised are likewise composed or fundamentally represent prepared materials.

The second point that merits attention is the extent to which the introduction makes conceptual and material links to the larger body of the composition. Beyond debuting the thematic kernel which, in its various guises, permeates the entire form, these first seven measures either forecast or implicate the rhythmic complexity, the tonal juxtapositions, and the marked sectional divisions that obtain throughout the piece. Furthermore, the explosive segue from the introduction into the cadenza exhibits the piece's characteristic and dramatic contrasts in texture, timbre, and dynamics.

However, a comparison with the unedited master recording reveals that the introduction is also the product of careful post-production editing. A nearly imperceptible tape edit, corresponding to the middle of m. 7 of the recorded form, effectively excised a thirty-measure section from the piece as it was originally performed at the Fillmore. The excised section comprised an exposition of principal instrumental themes that was also the first cycle of a repeated sequence of modulating key centers.[39] The edited passage evinces none of the serious playing mistakes that invited the editor's razor blade in other passages, so that one suspects that the deletion of an entire section was made in consideration of overall form. Perhaps in auditioning the tracks for *Band of Gypsys*, Hendrix felt the exposition to be superfluous, given the immediate, varied repetition of the modulating thematic sequence in the subsequent section. Alternatively, perhaps the edit was simply done to shorten the duration of the track in view of constraints imposed by the album's format. In any case, the "second" sequence of the

modulating cycle survives on the final recording, where, as discussed below, it serves as a platform for an exciting guitar solo.

The Modulating Thematic Sequence: Platform for Hendrix's Improvisation (mm. 8–30)

Billy Cox's series of ostinati (PTL, numbers 1–4) and the modulatory scheme they convey give the foundation for Hendrix's soaring improvisation. Example V-5 shows transcriptions of the bass patterns' two-measure melodic units in their actual key centers. If one conceives the modulation chain as extending to the main theme, arguably the last variation, then the series can be seen as a progression beginning and ending in the tonic B natural key center. The root movement progresses, then, from B to C-sharp, E to A natural, and returns to B for the main thematic area. The A natural key center, sounding as a tonicized sub-tonic, will readily progress back to the tonic, as is standard contrapuntal and harmonic practice in rock. The alternate recordings of the piece, wherein back-to-back repetitions of the sequence occur, as well as the evidence of the unedited recording of the Fillmore performance, indicate that Hendrix originally conceived of the modulating sequence as a repeating cycle.

The above progression comes with little or no explicit harmonic content. More often, the counterpoint of bass and improvised guitar lines implies the respective tonalities. However, in the E key area a more loosely implied tonality makes for an enjoyable degree of ambiguity. Here, the bass line (PTL-3) emphasizes pitches D natural, the flat-seven scale degree in the key of the moment, and C-sharp, the sixth

degree. Significantly, the bass never sounds the keynote, E natural—an unusual kind of bass pattern, especially given a rock trio context. It is Hendrix's guitar part that superimposes the E key center over the bass line (particularly in the reprise of this section where Hendrix sounds an E pedal point in the guitar's treble register). However, the implication is tenuous; the D natural in the bass vies with E for being the key center. In either case, the momentary ambivalence makes the climatic ostinato to follow (in A) seem that much more resolute.[40]

However much the bass line variations diverge from their parent riff, "Mary Ann" keeps a stubborn if subtle presence. Thus, just as Ray Charles's piano part anticipated the harmonic changes in his tune's introduction (see previous discussion and Ex. V-2), so do Billy Cox's pickup figures anticipate the thematic changes and key shifts in "Power to Love" (see Ex. V-5, PTL numbers 1–4). Hendrix's piece transforms Charles's riff, of course, into a running bass line, and Cox's anticipations impart a greater sense of momentum and of jumping ahead into the ascending modulations.

As stated, the bass lines are the structural framework for the section. They are also audible melodies and hold contrapuntal interest during Hendrix's improvised solo. Indeed, Hendrix repeatedly weaves in and out of the ostinati, periodically synchronizing with the bass line as well as decidedly cutting loose from it.

The First Guitar Solo: Hendrix and Improvisation

(mm. 8–30 [0:19–1:21])

Hendrix solos for twenty-three measures (mm. 8–30). The initial thrust is a pair of two-measure phrases; four measures of blues-based improvisation.[41] Owing to his outboard electronic effects, however, Hendrix's guitar sound is vastly different from that heard in the introduction's blues-based passage; from a relatively "clean," more traditionally-affiliated blues guitar quality, Hendrix's timbre mushrooms into the extreme distortion and rich sustain that is immediately identifiable as "the sound of rock."

Having explored one tonal setting for the solo's first segment (mm. 8–11), Hendrix begins modifying the guitar's sound. He punctuates the first key change (from B to C-sharp in m. 12) by expanding the texture, changing from the single-note melodic line of the preceding measures to sound a particularly expressive vertical sonority; it is a dyad, a perfect fourth comprised of the flat-third and flat-seventh scale degrees (in the key of C-sharp, E natural and B natural, spelled top to bottom). This is a planned event in an otherwise largely improvised setting and the interval will appear again in a corresponding section of the second guitar solo. However, taken together with its specific timbral and drone-like quality, this intervallic structure is more than just a part; it is also a sonic trademark. The sound is not only familiar as the critical upper interval of the "Hendrix" or "augmented ninth" chord, but is also recognizable as the open-string voicing heard in the main riffs of "Spanish Castle Magic," "Ain't No Tellin'," and "Crosstown Traffic."[42] Furthermore, with the addition of the Univibe to his sonic palette, Hendrix can more readily approximate the phasing effects that were formerly limited to

his studio treatments of the guitar. All these associations converge on this one moment as Hendrix strikes the interval and then repeatedly either flutters his wah-wah pedal (most likely) or toggles between his guitar's different pickup settings. In either case, the effect is of a timbral "flickering" on this dramatically stark and drone-like sound.[43]

The larger point to be made here is that in his solo work Hendrix characteristically searches for timbral expressions to fit tonal and rhythmic ideas, and to highlight formal divisions. (To be sure, a reverse set of relationships can also obtain; Hendrix will just as readily explore, say, the rhythmic implications of a given timbre—"Machine Gun" and "Who Knows" offer brilliant examples.) That the event just described is a very brief one not only underscores Hendrix's fluidity in making multiple kinds of improvisational choices but also attests to a sonic vocabulary so personal as to be recognizably "Hendrix" in an instant.

The Solo Continues

After rhythmically re-synchronizing with the bass in the solo's E key area (mm. 14–16), Hendrix stretches out for an additional fifteen measures' worth of improvising in A (mm. 16–30). The odd number of measures is indicative of both the open-ended design of the section and of Hendrix's abandonment of symmetrical phrasing in the heat of a spirited improvisation.

As was previously mentioned, PTL-4, the bass pattern centered on A, is the most energetic ostinato in the piece. Its energizing character will both fuel the solo and hurl the section to its climatic conclusion. Launching into the new key, Hendrix ratchets up the excitement level further by aggressively contradicting his rhythm section. To begin with, he counters the sweeping linearity of the bass part by rhythmizing a tightly restricted set of pitches. Thus, in m. 16 and the beginning of the A key area, Hendrix begins a series of "scooping" gestures—repeatedly bending up a major second from the flat-seventh to the tonic degrees (i.e., in relation to the key of the moment, scooping up from pitches G natural to A). By the next measure he is shifting this two-note figure's rhythmic values from sixteenth-notes to eighth-note triplet divisions, while simultaneously expanding his bends to extend up from G natural, to B-flat (or A-sharp)—a pitch which "contradicts" both the A natural and the B natural scalar contents of the bass.[44] In the measures immediately following, the solo goes even further outside the prevailing tonal as well as rhythmic conditions of the piece.

Beginning with the whammy-bar effect that "whinnies" across from m. 17 to m. 18, the guitar increasingly breaks loose from fixed temperament. Hendrix's string bends now stretch up in a series of *approximate* intervals gradually increasing and then decreasing in size, making a "melodic" arch of electronic howls (mm. 18–20).[45] This disturbance to tonal equilibrium comes with its analogous rhythmic counterpart: over the governing four-four meter and rhythmic framework, Hendrix superimposes a groove-defying accentual pattern based on units of three-sixteenth notes' duration.

The foregoing critique and technical description of characteristic "Hendrix moment" shows how such a feral sounding passage also represents a sophisticated and deftly executed bit of musicianship. It should also be emphasized that without the fixed tonal and steady rhythmic backdrop provided by the rhythm section—and their commitment to maintain the groove—this kind of microtonal and polyrhythmic play would lack the necessary context to create such exhilarating tension and urgency.[46]

Having figuratively ventured so far away from his ensemble during the above episode, Hendrix returns to the groove by re-engaging the PTL-4 ostinato, though at first only by fits and starts, through mm. 21–22. In the next four measures (mm. 23–26) he exits his unison line with the bass altogether and plays a new melodic idea. The new four-measure phrase may sound improvised but it actually represents another composed melody, conceived as a counterpoint to the bass line (and a countermelody that plays an expanded role in the arrangement of "Power to Love" that Band of Gypsys later recorded in the studio).[47] Evidently, Hendrix senses that this melodic insertion and symmetrically balanced phrase helps in the larger scale to balance the previous episodes of free and outside improvisation, for now he will cap the section and signal the solo's end.[48]

To cue the end of the solo section the guitar joins the bass part again for a climatic set of repeated patterns, the fourth and last pattern abruptly cutting off before the beginning of the next thematic area (see mm. 27–30). The ending measures illustrate yet another abiding feature of Hendrix's guitar playing in that he supplies both a "call" and a "response" within his own part. The response to the call of the ostinato is an appoggiatura figure voiced initially in parallel thirds and then in full triads. This simple

appoggiatura also prefigures motivic factors in both the song's accompaniment and vocal parts.

The Stylistic Shape of Guitar Solo I

In analyzing the solo's design one can describe a kind of stylistic progression: Hendrix begins improvising in his familiar blues-based style; then grounds himself to the bass line before moving into an area of freer invention and greater complexity; after briefly blending back into the bass line he inserts a new melodic idea; and then finishes with an emphatic repetition of the A ostinato figure. The diagram given below shows in schematic form the stylistic dynamics of the solo: one can see that the area of greatest tonal and rhythmic complexity is flanked on either side by eight measures of relatively greater stylistic homogeneity.

Stylistic shape of Guitar Solo I in "Power to Love"

Blues-based melodic ideas (mm. 8–15)	Free rhythm and Polyrhythms; "outside" tonality (mm. 16–22)	Contrapuntal melodic figure; unison with bass pattern PTL-4 (mm. 23–30)

The Main Thematic Area

Following the vigorous and modulatory solo section, we are grateful for a return to the tonic key area (B) and the arrival of a new thematic focus beginning in m. 31. At this

point the guitar plays the piece's main theme in its prime configuration (see mm. 31–34). The kinship of the new thematic material itself with the set of ostinati has been noted and its audible similarities to the other patterns are recognizable. However, along with mixed feelings of continuity and restoration, the initial presentation of this important thematic material brings a curious eccentricity and element of instability.

In addition to restoring the tonic key of B, the new theme also returns to the solo guitar texture heard in the introduction. The guitar sound is once again relatively clean; the electronic effects are switched off and the distortion level dramatically reduced. The dynamic level is hushed, and for a moment the guitar speaks with a new intimacy; an attentive ear can make out the sound of Hendrix's fingers bumping along the instrument's frets in a meter-stretching glissando (see m. 31).

If the sensual appeal of that lazy glissando was worth adding an extra eighth-note to the theme's first measure, it is compensated by the subtraction of an equal value from the next measure. Thus, Hendrix subdivides the space of two measures of four-four time into two asymmetrical measures of 9/8 and 7/8 time, respectively (see measure pairs 31 and 32; 33 and 34). By that subdivision Hendrix constructs what is, in effect, a two-measure unit out of a single-measure melodic idea, for, in essence, the second measure is a reiteration of the first.[49] On one level this is another rhythmic shenanigan: the listener experiences the asymmetrical echo between the two measures as a playful elongation and contraction of the same thematic element as well as a kind of metrical "syncopation." On another level the listener hears this formulation as a series of thematic starts, stops, and restarts—a set of competing signals whose meaning will have to be worked out over the course of the piece.

There is, then, a condition of rhythmic quirkiness here that frustrates any anticipation that the guitar's figure represents a thematic culmination—a feeling that this particular theme (and variation) is the "apotheosis" of the bass's previous variations. In any case, one rightly anticipates that the figure is cueing up an area of needed stability and that it will factor into some emerging formal scheme. That impression begins to be confirmed when—in a reversal of the solo section's arrangement—the bass falls in playing in octave unison with the guitar line, and then all the parts settle into a welcome groove and vamp pattern. Through the preceding introduction and solo sections the guitar has held the spotlight; now, with all the instruments laying down a solid and harmonically supported accompaniment, the stage is set for Hendrix's vocal entrance and the beginning of the song proper.

Verse and Chorus: Form and Style

(mm. 35–56)

After a relatively subdued two-bar vamp, the guiding guitar part leisurely alternating between flat-seventh and "sus-four" chords on the tonic (mm. 35–36), Hendrix begins the song's first vocal section[50]; a verse and chorus structure that presents an exceptional kind of stylistic mixture and formal construction. In both sound and form the verse is rooted in the blues, a connection clearly seen in its lyrical structure:

> Shoot down some of those airplanes you been drivin',
> 'specially the ones that'll fly you too low.

Shoot down some of those airplanes,
'specially the ones that'll fly you too low.

C'mon back down to earth my friend,—come back up with me,
We all been-a-through the night time, baby, darling, sweet caress of reality.

One can ascribe an AA'B form to the above text—a most typical stanzaic structure for blues. Moreover, in terms of style, function, and form, the first pair of phrases corresponds nicely to the poetic designs of archetypal blues. The first phrase introduces a principal conceit—the "airplanes . . . that'll fly you too low." (At one time the song had the working title of "Paper Airplanes," and one is reminded of Hendrix's arrest at Toronto International Airport, an event that occurred only days before Hendrix and Cox made the first demo recording of the piece in the studio.)[51] The second phrase of the verse, in keeping with traditional blues lyrical form, is a varied repetition of the first lyrical phrase. In the third phrase, however, we find a modification of customary blues form.

In a conventional blues, one would expect a third and "consequent" phrase of text to provide the stanza's end and either to complete or to amplify the meaning of the antecedent phrases. For example, in "That Black Snake Moan," Blind Lemon Jefferson sings:

Hmmm, black snake crawlin' in my room,

Hmmm, black snake crawlin' in my room,

Some pretty mama had better come in and get this black snake soon.[52]

Thus, Jefferson's third phrase completes the stanza's rhyme and extends the implications of the black snake's sexual metaphor—some "pretty mama" will have to come "get" it. But while the corresponding section in "Power to Love" likewise builds on the "flying" imagery of the song's first two phrases ("C'mon back down to earth . . . "), its rhyme scheme and internal form are unusual, for Hendrix has, seemingly, expanded the third phrase of text into its own free-standing, closed couplet ("C'mon . . back up with me, . . sweet caress of reality"). This expansion of textual structure also has its parallel in the song's musical structure, and here one discovers further flexibility in Hendrix's approach to inherited song forms.

In this section of "Power to Love" one hears the familiar four-bar phrasing of the blues, with each phrase divided into two-bar exchanges between the vocal part and an instrumental response. Such phrasing obtains for the first two phrases and lines of verse as given above (mm. 37–44). In both of these segments, Hendrix sings a loosely defined, blues-based melody, and is answered by a two-bar instrumental riff. That blues-flavored riff is also the main theme, now in its common time version (see mm. 39–40; the bass and guitar play the riff in octave unison for two measures in 4/4 time). Apart from these formal and melodic connections with blues, Hendrix's performance also expands on traditions he inherited from that idiom.

In the second four-bar phrase of the verse, Hendrix switches from playing a chordal accompaniment on his guitar (the same vamp figure that prefaced the beginning of the verse) to performing a single-string melody in unison with his own vocal line. As previously stated, this technique was inherited from blues artists like Muddy Waters and Lightin' Hopkins, and later in the song Hendrix demonstrates his preeminent ability to

improvise combined vocal-guitar lines. In the first verse of "Power to Love," however, adding the guitar's sound to the voice helps to shore up a strained and sometimes tentative sounding vocal performance—Hendrix seemingly unsure of his both his rhythmic delivery and intonation when singing the song's opening phrases.[53]

In connecting the song's second and third four-bar sections, Hendrix brings a bit of 1960s soul music into the mix. Towards the end of the song's second section (at m. 44.5) the bass and guitar break off from sounding the main theme to play a pair of ascending lines that together evoke an unmistakable cliché from 1960s R & B, due to the composite melodic and rhythmic character (especially the consecutive off-beat punched accents).[54] In what is conventionally described as Southern-style soul, variations of such syncopated figures sometimes appear as part of a main riff or theme: operating at more local levels, they also function as turnarounds, and as contrapuntal links between harmonic changes. It is in the latter context that Hendrix employs what was both a ready-made lick and contrapuntal device for "Power to Love." Whether or not he also intended it to communicate any particular allusion, Hendrix was surely aware of revisiting an older stylistic element, for he had used a similar bass and guitar lick in "Stone Free," the B side of the Experience's 1966 debut single and the first song Hendrix penned for the band.[55]

Knowing Hendrix's reputed care for the integration of music and text, one wonders whether the composer might have wittingly matched root elements of style to specific lyric content in "Power to Love."[56] Thus, when in the second half of the first verse Hendrix asks some friend or lover that they "come on back down to earth," so the song's harmony "grounds" itself to a blues-affiliated change to the subdominant and the guitar accompaniment shifts to a suitably "mundane" pattern (mm. 45–47). In fact, the

guitar's rocking figure—alternating between the open intervals of a major fifth and a major sixth—is arguably *the* most archetypal of riff and accompaniment patterns in blues and rock 'n' roll: the sound of that basic pattern is pervasive in the guitar playing of Robert Johnson, and resounds through seminal works for rock guitar like "Honky Tonk" (Bill Doggett) and "Memphis" (Chuck Berry).[57] The brevity of Hendrix's three-measure "insertion" heightens the sense of the pattern's being a discrete stylistic parody and evocation.

The guitar pattern discussed above is so strikingly basic that one might ask whether its insertion simply represents a lick that found its way into Hendrix's hands in a kind of guitarist's reflex. Though unanswerable, the question brings up an interesting paradox, for given the historical moment—coming on the crest of some three years of his most sweeping innovations in guitar style and songwriting—such a traditional element in Hendrix's playing sounded even more retrospective in 1970 than it might strike one some thirty years later.[58]

One hears no parody in the closing segment of the verse, a single measure which comprises at once both the last vocal phrase ("darling, sweet caress of reality") and a "retransition" that returns the song back to its main theme and to an implied tonic harmony (mm. 48–49). Their different characters notwithstanding, the closing segment smoothly builds and leads out of the riff-based accompaniment which precedes it; the more concentrated sixteenth-note rhythms and repeated note figures in the segment's parts, seem to grow out of the foregoing guitar pattern and bass lines. And if those same repeated notes no longer evoke Chuck Berry-style roots, they make a subtle connection with the ostinati that are based on "Mary Ann." Beyond these connections the

retransition also relates to other structures in the piece and, by extension, represents a further, albeit small-scale, reworking of inherited forms.

In terms of style, form, and function, the retransition corresponds most immediately with the series of syncopated punches which launched the subdominant area—described above as an evocation of 1960s soul (m. 44). Now, in moving back from the subdominant to the tonic, the guitar and bass play a similarly syncopated but expanded series of punches, with the pattern of accents coming on every third sixteenth-note (rather than on every second sixteenth-note, as at m. 44.5), and the series extending over the span of an entire measure. In its combined rhythmic and melodic character, too, the surging sequence in the retransition parallels the more solidly accented but similarly ascending and chromatic lines of its counterpart (compare guitar and bass lines in mm. 44 and 48).[59]

As stated above, the retransition propels the piece into a restatement of the main theme. But while the two juxtaposed passages are contrasting in terms of rhythmic and melodic makeup, they are nonetheless also complementary structures—linked together, moreover, by a common tone: the rising sequence of the retransition climaxes on the same unison B natural that also begins the main theme's falling melodic line (i.e., the tonic B sounding on the downbeat of m. 49 is simultaneously a tonal arrival and a melodic point of departure). The two passages are rhythmically reciprocal as well: the initial motive of the main theme is the rhythmic retrograde of the final thrust of the sequence (); and the rapid and syncopated activity of the retransition enriches the return of the halting, downbeat-weighted theme. The main theme itself, having already served in two other roles, initially as the preface to the verse and subsequently (in

a modified version) as a riff, now functions as a ritornello marking the beginning of a new section: the song's chorus.

The chorus in "Power to Love" is compelling enough that its lyrics have often usurped the role of the piece's actual title. Indeed, given the strength and memorability of the chant-like refrain—not to mention the standard practice of titling a pop song by its chorus lyrics—one wonders why the piece was not, in fact, titled "Power *of Soul*."[60] The chorus lyrics comprise one, repeated line, as follows:

> With the power of soul, anything is possible.

It may *read* like a bumper sticker or a fortune cookie aphorism (and the expression strikes one as being similarly platitudinal). However, the text's simple and direct manner exemplifies the kind of writing that Hendrix was adding to his more "poetic," Dylanesque modes of expression. That same kind of directness characterizes other pieces Hendrix was producing around this same time, some of which found their way on to *Band of Gypsys* (e.g., "Message to Love"); others appeared on the posthumous release, *Cry of Love* (e.g., "Freedom"). Several of these songs make explicit calls for both social empowerment and individual liberation. On *Cry of Love*, for example, "Straight Ahead" exhorts:

> Power to the people—freedom of the soul,
> Pass it on, pass it on, to the young and old.

"Power to Love" delivers a similarly positive exhortation, though in more oblique terms than the piece just quoted. As will be seen in the complete text, the song's more metaphorical verses, in particular, run to the obscure. But in its affirmation of the unlimited possibilities of soul, Hendrix's chorus tapped into a rich cultural vein of meaning. Besides standing for contemporary rhythm and blues, "soul" was also a signifier and rallying cry for a new assertion of African-American cultural pride and political solidarity. That Band of Gypsys was a black band was a fact, apparently, lost on no one, and few of their generation would have missed the social resonance of Hendrix's chorus and "article of faith" in "Power to Love." However, spiritual transformation and/or reality-altering experience were, so to speak, Hendrix's counterculture stock and trade: Band of Gypsys' larger rock audience could also hear the soulful refrain as a kind of post-psychedelic mantra.

The chorus melody also brings the closest thing to resemble a conventional hook that one hears in the piece. While pop recordings customarily introduce such tuneful and catchy phrases as early as possible in their arrangements, Hendrix's chorus arrives rather late—some two-and-a-half minutes into the track. However, the delayed arrival enhances an attendant change of mood and character; in contrast with preceding instrumental and vocal passages, the chorus presents a regular and more relaxed phrasing and shifts the focus to the group's alternate lead singer, Buddy Miles, whose well-known voice stands out in the melody he sings in unison with Billy Cox. As we have seen before, what is new in the piece is also rooted in what is most basic to it; thus, the repeated-note figures of the chorus vocal line ("With the...," and "an-y-[thing]...") are a familiar motive from the piece's ostinati (cf., PTL-1 and PTL-3). Likewise, the contiguous pairs of sixteenth-

and eighth-notes sounding at the head of chorus subphrases ("*with the* pow-er" and "*an-y* thing is...") recall rhythmic elements heard in the main thematic statements that immediately preceded this section (rhythmic permutations involving these figures are discussed below). Example V-6 highlights rhythmic elements that are shared by the main theme and chorus melody (compare the last four note values of the main theme, as represented by the bass part, with the first four notes of the chorus vocal part).

Two other figures in the vocal line also echo instrumental parts. The upbeat syncopation that ends the first subphrase in the chorus ("*of* so-ul," mm. 53 and 55) corresponds rhythmically to the "answer" in Hendrix's auto-call and response in his first extended solo (see annotations in mm. 27–29, guitar part). Similarly, the closing figure for the larger two-bar phrase of the chorus melody ("pos-si-ble," mm. 54 and 56) recalls the 4-3 melodic motion of the vamp figure which prefaced the first verse of the song (see m. 35, guitar part); that same vocal part is also analogous, in both rhythmic and melodic terms, to a guitar figure in Hendrix's introductory quotation of "Mary Ann" (m. 5, beat three, the ending of the first phrase). Moreover, the melodic shapes of both the aforementioned vocal parts sound similar to signal features of the bass ostinati.[61] It is, however, the rhythmic recasting of several of these elements of continuity that contributes to an impressive change in rhythmic focus and intensity in the chorus section.

This new intensity is largely attributable to a new pattern of accentuation in the vocal part as it is layered over a ground rhythm. The bass plays a subtle but crucial part here by dropping its melodic and contrapuntal role to rhythmize what is, in effect, a pedal point on the tonic. Melodic and rhythmic interest is now invested in the new vocal part and in Hendrix's guitar obbligati. By virtue of this new texture, as well as a general

relaxation of rhythmic activity and the piece's moderate tempo, the chorus digs deeper into a more "laid-back" groove. More particularly, the vocal line reconfigures important motives, relocating them from their previous placement on downbeats to new rhythmic slots that stress the backbeats, two and four. For example, with respect to its wonted position on the first beat of the measure (as occurs in the instrumental passages), the repeated-note motive shifts its position to the second eighth-note slot after the barline (i.e., it is displaced by the value of one eighth-note). The motive becomes, then, an anacrusis to beat two. The second beat, in turn, becomes the site for a pair of eighth-notes that, as stated above, recall the strongly accented—and downbeat-weighted—tag to the main theme.[62] Further, the fourth beat in the phrase's first measure receives the added emphasis of an eighth-note pickup (e.g., m. 53, "*of* so-ul"). Finally, in completing its full two-measure phrase, the chorus melody restores the principal motive to a downbeat ("pos-si-ble") as per phrase endings based on the "Mary Ann" model.

Undergirding these syncopated and backbeat-oriented vocal phrases are the bass and drums: the simplified bass guitar and bass drum parts stress the downbeats, one and three, sounding the rhythmic "phase" opposite that of the chorus vocal parts. The rhythmic push and pull between the vocals and the lower end of the rhythm section generates a leisurely but emphatic—and more *soul*ful—groove. It is owing to the groove's deeper rhythmic "respiration," as well as to the long-vowel sounds of the vocalists' refrain, that the piece seems to breathe more freely in its chorus—figuratively catching its breath before the instrumental fireworks start up again.

Although Hendrix lays out vocally in the chorus, the guitar "sings" his obbligato responses to Miles and Cox. Again, the guitar fills are familiar blues licks, centered

around string bends to target tones on both the dominant and tonic scale degrees. But Hendrix structures these bends in a set of matched pairs, twice alternating a bend up to the fifth degree with a higher stretch up to the tonic, B. Hendrix further intensifies the higher note by executing a wide and rapid vibrato, and the leap up to the tonic makes a dramatic counterpoint to the vocalists' descending phrase ("of so-ul"). Another blues guitar fill embellishes and "completes" the end of the first vocal phrase (see second half of m. 54).[63] In between making these melodic interjections, Hendrix intermittently plucks his guitar's bottom strings, sounding successive pedal points—single note, open fifth, and octave unison—based on the guitar's low B tonic: the effect is primarily rhythmic and textural, with the sparse and freely improvised parts adding a little background rhythm and filling in the sound of the rhythm section.[64]

The Second Guitar Solo: Exposition and Improvisation (mm. 57–82)

Throughout the verse and chorus sections the guitar acts as the principal interlocutor with both Hendrix's lead vocal and the chorus refrain. The guitar will regain the spotlight in the upcoming section, a second lengthy solo and improvisation based on a varied repetition of the piece's modulatory scheme. Apart from the specific improvisational content the second solo section differs from the first solo largely in terms of form. A further distinction is seen in stylistic shape; rather than starting with blues-based phrases, in his second solo Hendrix immediately stresses thematic material, mostly doubling and otherwise embellishing the familiar bass ostinati. Only after making an "expository" statement of these themes does Hendrix delve into free improvisation.

However, this "second" exposition comes in an abridged form; the first ostinato (PTL-1) and key area of the original scheme is skipped. That is, instead of starting in the tonic key of B, the solo section begins in C-sharp—on the second rung of the modulatory ladder—and with the corresponding ostinato (PTL-2).[65] This variation in form and sudden change of key produces more than just a surprising effect; it strikes one as a heightened, yet natural response to the spirit and message of the chorus. When the guitar and bass rear up and launch into their own unison figure one infers it is in consequence of Band of Gypsys' uplifting exhortation.

Trace effects of the chorus continue through Hendrix's exposition, an impression brought about by motivic echoes of the chorus melody heard in the guitar work. These motivic elements were introduced earlier in this discussion because their first appearance actually *preceded* that of the chorus. However, upon their reappearance these elements gain new meaning by reason of a fresh association with the memorable melody and lyric of the chorus refrain. Thus, the varied repetition of the dyad lick (mm. 57–58), discussed previously as a trademark Hendrix sound, now additionally recalls both the melodic and the specific pitch content of the refrain vocal part; the octave leap up to the E natural (the highest pitch of the dyad, as well as of the analogous triad in m. 58) parallels the melodic skips and a high note of the chorus vocal parts ("*of* soul"). Hendrix carries over the same open-string E natural in the succeeding pair of measures, using it as a pedal point soprano part sounding over the next pattern (PTL-3) and key change (mm. 59–60).

Four varied repetitions of the ostinato in A (PTL-4) end Hendrix's expository statement (mm. 61–64). The same basic guitar part functioned earlier as the climax to the first solo before the entry of the main theme (mm. 27–30; discussed earlier in this

chapter). The figure embellishing the line, described above as participating in a kind of auto-call and response, combines rhythmic and melodic highlights of the chorus: accenting the up- and downbeats of beats three and four, respectively, the guitar's figure echoes the rhythm of the first subphrase in the refrain and, to begin with, the blues-based melody as well (the end of the phrase ". . . of soul"). On subsequent entries, the embellishment returns to its original melodic design based on a 4-3 appoggiatura figure, a melodic motion that recalls the end phrase of the chorus (". . . pos-si-ble").[66] From these repeated guitar and bass patterns Hendrix lifts off into improvisational flight—once again, in the tonal area of A—and after fifteen measures of extemporizing, he will touch down on the same basic guitar pattern.

As is typical of his approach to soloing, Hendrix's first creative decision is to change tone color: he takes a moment to activate the Octavia, and then begins improvising. Earlier in the same evening's performance, Hendrix had used the Octavia to spectacular effect on "Who Knows." For "Power to Love," he dials in a subtler setting, the Octavia most noticeably adding an upper octave as well as a gauzy harmonic distortion to the guitar's already thickly distorted and overdriven sound.

Hendrix's improvisation unfolds in a series of several seamlessly connected melodic ideas, one idea flowing into the next (mm. 65–78). The phrasing in this improvisational stream of notes is irregular but consistently askew with reference to the bar line: Hendrix repeatedly initiates his phrase ideas on or near the midpoint of a given measure (i.e., beat 3), and each phrase ending dovetails with the beginning of the next consecutive phrase.[67] Phrasing across the barline in this way builds up a sense of forward momentum, as the listener anticipates an impending metrical realignment of the soloist

with the ground bass. But periodically Hendrix also enjoys resisting his own momentum, figuratively breaking stride with the pace of ideas he has set up. Thus, in the middle phrase of the passage (mm. 72.5–74.5) he breaks off from the rapid pentatonic patterns of the previous measures, to improvise a narrow configuration of pitches in a simple, repeated rhythmic figure (the syncopated and repeated note figures in the phrase are also redolent of earlier motives). Similarly, in heading into the solo's ending measures, Hendrix slows down—or one could say diverts—the melodic flow to improvise essentially in terms of pure sound, energizing a single string bend with rapid and violent articulations of the guitar's vibrato tailpiece (mm. 76–78).

In finishing the solo, Hendrix switches off the Octavia and melds back into the bass line. To mark the beginning of a new formal division, he then begins to sketch out a new accompaniment pattern in support of the upcoming section of verse. At this point, however, it is another bit of post-production editing—directed by "producer" Hendrix—that determines the piece's recorded form. A tape splice chops off the first measure of Hendrix's tentative guitar pattern (at the half-measure in m. 83) and joins it directly to the moment the lead vocal enters, the resultant graft making a single composite measure and excising nine measures of the stagnant sounding vamp that one hears on the unedited recording. In the verse section the bass continues to play the same ostinato that supported the preceding solo, thus providing an element of continuity for a smoother edit.

The Second Section of Verse

Rather than adhering to a conventional, strophic form—as is most usual and expected for most any popular song idiom—none of the second set of verses in "Power to Love" repeats the music of the song's first verse. (Lyrically as well as musically, both the first verse and each of the subsequent set of verses occurs only one time in the piece.) The second section, instead, presents Hendrix singing and sometimes half-speaking a loosely integrated set of lines over the bass's A ostinato—there is no return to the tonic key in the section, as one would expect—and a varied guitar accompaniment. The new set of lyrics does, however, perpetuate the "flying" imagery of the first verse and extends the conceit:

Flyin' so much with one toy, babe—
it's an escape to a far away land.

(A) It's so groovy to float around sometimes,
even a jelly fish will tell you that.

(A') I said flotation is groovy—heh,heh,heh—and easy—
even a jelly fish will agree to that.

(B) Yeah, but old jellyfish been floatin' so long and so slack,
Lord, ain't (don't) got a bone in his jelly back.

Floatin' ev'ry day and ev'ry night, ridin' high, even if there's a risk.
Sometimes the wind ain't right.

Besides the more obvious connections between these lines and the earlier verse in terms of lyrical content there is also a conceptual parallel in terms of form. Where the first

verse shows a modification of a typical blues stanza (having an expanded third phrase of text, as discussed above), in the text quoted above, Hendrix has nested such a stanza within the entire set of five lines. Thus, the second, third, and fourth lines, when taken as a separate poetic unit, show the customary AA'B lyrical structure and rhyme scheme of the blues. Additionally, one notes the internal rhyme in the "third phrase" of the nested stanza (". . . so *slack* . . . jelly *back*"), a stylistic detail which draws comparison with the independent couplet and expanded closing phrase of the first section of verse.

Beyond the lyrical structure itself and excluding a few melodic details in the lead vocal part, there is little in the musical setting that distinguishes the posited stanza of blues from the larger section of which it is part. There are no characteristic harmonic changes, for example, that might frame the shape of a typical verse of blues.[68] Furthermore, the section of verses strikes one more as a series of lines unfolding on a line-by-line basis, as one encounters, in fact, in the improvised and unabashedly "irregular" stanzas of bluesmen Lightin' Hopkins and John Lee Hooker.[69] Each line and vocal phrase is set apart by Hendrix's ad-lib guitar phrases (including figures incorporating lick JH-1, in mm. 96 and 99), the guitar phrases being of irregular and of sometimes greater length than the vocal phrases they follow. Given this context, when the "closing" phrase and rhyme of the embedded AA'B lyric is sounded, the listener recognizes only in retrospect that a familiar lyrical pattern has just transpired.

The End of the Second Section of Verse and Retransition

(mm. 106–116)

Rather than coming to a clearly defined conclusion, the loose-knit section of verse dissipates in a passage of subdued and uncertain jamming (mm. 106–114). In fact, the band is regrouping after making a bungled first attempt to segue from the end of the verse and into a restatement of the main theme. The bungled measures (some six of them) were edited out of the final recording, but the subsequent passage of "recovery"—holding some musical interest in its own right—was retained.

While the band is readying itself for a second attempt to execute the tricky segue to the main theme, Billy Cox drops his ostinato part and begins hammering out a pedal point on A natural. Likewise, Buddy Miles simplifies his drum parts, and tightens up his sound by switching from an open to a closed hi-hat position. Hendrix plays a brief "hovering" passage (mm. 108–110), comprising a series of figures carved out of the same ostinato that bassist Cox has just relinquished. Based on the descending line and second half of ostinato PTL-4, Hendrix plays an initial statement spanning the duration of two beats; subsequently, he contracts that melodic fragment to a beat and a half, the new figure comprising six tones in as many sixteenth-notes. Hendrix then cycles the six-note figure (with a few melodic permutations) over the next two and a half measures, engaging in the kind of polyrhythmic play that has characterized earlier passages of improvisation. Here, though, the jagged repetition of a familiar melodic structure—the melodic fragment repeatedly starting from the flat seventh scale degree and descending down the blues scale to the tonic (A, in the key of the moment)—combined with an

overall reduction in texture as well as rhythmic and melodic activity engenders a sense that the section is winding down to its conclusion.

The passage winds further down as Hendrix quits his repeated figure and begins a muted but agitated sounding pedal point.[70] The band's dynamic level drops and Buddy Miles gears down, playing a pattern of snare drum rudiments—a marked departure from the fatback emphasis that he has thus far maintained throughout the piece. Miles's rudiments add interest, but the larger impression here is that the band is idling—marking time until Hendrix will lead them into the next segment of the piece's arrangement. Hendrix waits, in fact, for four measures and then signals the passage that will take the piece back to its main theme and the B key area.

The transitional and modulatory passage that Hendrix cues represents another motivic derivation from the A ostinato. A moment earlier, when signaling the close of the verse section (mm. 108–110), Hendrix's improvised figures drew on the second half of the ostinato, a descending scalar run. In the transitional passage it is the first half of PTL-4, its "bugle call" head motive, that is systematically modulated in a chromatic sequence (moving up from the established key of A, through an implied key center on A-sharp, and finishing in B natural). The ascending sequence is played by both the guitar and bass, the drums reinforcing their octave unison line with synchronized attacks on cymbal and snare drum.[71]

Like its parent ostinato, the sequence starts on the sixteenth-note after the fourth beat in the measure (m. 114), and its initial three notes are heard as an anacrusis to the upcoming downbeat. The sequential motive spans the duration of two full beats, so that on its immediate repetition (in a measure of common time) the pattern begins as an

anacrusis to beat three. Thus, the chromatic first note in each notch of the sequential modulation anticipates the measure downbeats—alternately, beats one and three—imparting a hastiness to the figure's climbing ascent. The final repetition restores the motive to its rhythmic point of origin. Having regained its rhythmic equilibrium, the concluding motivic cell expands to make a complete restatement of the original ostinato. For the first time, however, the PTL-4 ostinato is sounding in the key of B, and smoothly segues into a restatement of the piece's main theme.

The modulatory passage in mm. 114–116 shows another instance of the pervasive integration and diverse deployment of basic thematic materials in "Power to Love." In the transition, Hendrix uses the repeated fragment of PTL-4, previously characterized as being the piece's most energetic ostinato, to generate momentum in getting back to the main thematic area. Comparative analyses with other Hendrix pieces also suggest that Hendrix is using a compositional technique that he has employed before.

Combined melodic fragmentation and repetition also occurs in "Purple Haze." In that early recording the opening guitar melody is similarly reduced to its head motive and used as both a transitional and turnaround figure between sections.[72] In the transitional passage and approach to the guitar solo in "Purple Haze" the guitar lick appears in a rising sequence, expanding its component intervals over an ascending bass line. (Climatic tension engendered by varied repetition is also used in: "Love or Confusion"; "Manic Depression"; "The Wind Cries Mary"; and "Freedom.")

Closing Thematic Statements and Final Chorus

(mm. 117–120)

Beginning with the reiteration of the main thematic area, the concluding sections in "Power to Love" show rich variations in both improvised detail and form. In place of the plunging glissando with which he has steadily punctuated the first phrase ending of the theme, Hendrix instead anticipates the first note of the pickup figure to the second phrase (m. 117). Continuing after a moment's hesitation—the space of a sixteenth-note rest—he then plays the pickup figure according to Hoyle. But Hendrix's syncopated "false start" and rhythmic stammering apparently throws off the drummer's sense of meter, or possibly his formal orientation: Buddy Miles continues to play in common time, as he would in sections where the main theme functioned as a riff (see, e.g., mm. 39–40). Thus, Miles accents the last eighth-note value in the 9/8 measure, evidently mistaking it for the next measure's downbeat.[73] Showing the finesse of the seasoned performer, however, Miles is able to turn an awkward moment to some advantage. He recovers by playing an extended fill—lasting a full measure—on snare drum with accompanying cymbal splashes (m. 118): as he is reorienting himself and reconnecting with the unfazed guitar and bass lines, Miles's pounding drum part makes an effective pickup to the start of the next two-bar phrase. Miles further underscores his "re-entrance" and the arrival of the new phrase by singing along with the bass and guitar parts (Buddy Miles sings vocables in m. 119: "Da da-da, Da da-da, Dah-Dah"). On the heels of Miles's spontaneous interjection, Hendrix coaxes a little more humor out of the theme's quirky asymmetry by linking its next pair of two-bar phrases with a rhythmical

"hiccup," expressed by inflecting the previous pickup figure with a pair of jerky sounding glissandi (m. 119).

Final Chorus Section

(mm. 121–136)

At sixteen measures' length (mm. 121–136), the final chorus section represents an expansion of both the form and the lyric content of its earlier version. The most striking passage occurs in a climactic set of varied call and response exchanges; a segment of vocal antiphony that builds out of the chorus refrain and is rooted in traditional African-American musical practice. The passage is most remarkable, however, for the subtle virtuosity of Hendrix's performance.

The stylistic and, of course, the formal changes in the new chorus unfold gradually. The first four measures of the section closely parallel the previous chorus: Buddy Miles and Billy Cox reprise their same chorus vocal and instrumental parts, and only the gathering momentum of Hendrix's more energetic counterpoint hints at the formal expansion to follow (mm. 121–124).[74] The second four-measure set of phrases (mm. 125–128) already begin to realize the expanded form of the chorus, and Hendrix shifts his focus from playing supportive counterpoint to responding more directly to the vocal refrain, as he did in the first chorus.

The guitar's exchanges grow into a *literal* call and response dialogue in the next pair of four-measure phrases. Sounding together as one voice, Hendrix and his unison guitar lines take a soloist's role in trading phrases with the refrain sung by Miles and Cox. As one might hear in the call and response passage of a gospel-inflected R & B

performance, Hendrix's complementary phrases become increasingly variable and then freely inventive in relation to the stable chorus refrain.

Hendrix's dialogue with the chorus also develops as a musical as well as lyrical set of tropes. His first set of phrases, interjected between and sometimes overlapping the subphrases of the refrain, are varied imitations and permutations of the chorus melody. Likewise, the lyrical contents of these interjections both echo the text as well as nuance the message of the refrain. Hendrix's interpolated lyrics are shown below, italicized and enclosed in parentheses, along with the refrain text they complement:

> With the power (*With the power*) of soul (*of you*),
> Anything is possible (*anything you wanna do*).
>
> (The last phrase shown in the above transcription of lyrics, Hendrix's "anything you wanna do," actually overlaps its antecedent phrase, "Anything is possible," sung by Miles and Cox.)

As the parenthetical insets shown above depict, the syntactical sense of the troping is dependent on the structure of the refrain as it unfolds through time. By the same token, the transcribed text also shows that Hendrix's lines bring a fuller meaning to the refrain and make its exhortation more particular and explicitly personal. In illuminating and personalizing the song's message, one might draw another parallel between Hendrix's role and that of a traditional soul or gospel soloist and chorus "leader."

Possessing neither a fluid vocal style nor a "church wrecking" singer's prowess, Hendrix asserts his leadership largely by the strength of his musical inventiveness, and, in due course, the chorus singers will affirm that leadership by responding to his "call." His part begins in a nearly canonic imitation of the first subphrase in the chorus refrain (m. 129): following at a time lag of one beat, his opening gambit echoes the rhythm of the chorus; melodically, he slightly alters the first motive ("with the power") and effectively transposes the second motive up a minor third (cf. "of soul" and "of you").

Hendrix's next response (m. 130) veers away from a relatively strict imitation. Perhaps to afford a clearer presentation of its antecedent phrase and the lyrical idea which it appends ("anything is possible"), Hendrix's phrase delays its start by an additional eighth-note value ("anything you wanna do," starting on beat three of the measure and lagging a beat-and-a-half behind the start of its antecedent). But before the chorus singers have a chance to complete their part—and, apparently, in a burst to finish before the start of a new cycle of chorus—Hendrix's phrase comes as an accelerated response; beginning in a stream of sixteenth-notes, the phrase sounds like a sped-up and rhythmically compressed version of its longer antecedent.[75] The net effect of the gesture is twofold. The hurried response, with Hendrix declaiming his text in a rapid-fire, syllabic delivery, makes a fervid punctuation to the chorus and its message of personal empowerment. In addition, the local effect of varied repetition combined with rhythmic compression—that is to say, of a musical statement immediately followed by its foreshortened reiteration (though in the present instance the melody is permutated)—is also audible on a larger scale; Hendrix's troping is reminiscent of earlier events and

larger structures in the piece, in particular, the asymmetrical phrase structure of the main thematic areas.[76]

In the subsequent two-measure cycle, Hendrix varies the rhythmic and melodic shapes of his preceding ideas. Beginning his new pair of phrases with an evocative leap into his high vocal register (hitting a full-voice, A natural), Hendrix sounds a blues-based, melismatic figure. This blues cliché also represents an intervallic expansion of the song's familiar head motive: in place of the consecutive repeated note figure and subsequent neighbor note figure that begins the chorus melody, the expanded figure alternates its principal tones by the interval of a minor third (m. 131). Hendrix's enlivened response is, in turn, "answered" by the chorus singers; though their melodic line remains unaffected, Miles and Cox now echo the soloist's lyrics.

A word of clarification: the tandem vocal and guitar parts in the measures just described are neither wholly improvised nor strictly preset. While Hendrix can extemporize and tailor the exact melodic shape and rhythmic expression of his ideas, these ideas take place in a preconceived formal pattern. Moreover, as variations—to whatever extent they are improvised—these melodic inventions refer to composed structures, and, in this case, are also impinged by constraints of lyric content. In the remaining measures of the section, however, Hendrix sings and plays a concluding set of freely improvised ideas.

The improvisation unfolds in a series of reiterative gestures, Hendrix repeatedly singing the song's core lyric, "soul" (mm. 133–135). The "text" of this brief incantation—the opening elision reflecting Hendrix's breaking off from his imitative response to the refrain—might be transcribed as follows:

With the'—*Soul*, soul, soul-soul.
—*Soul*, soul-soul.

The repeated intonations are melodically focused on the flatted third scale degree (D natural), though Hendrix effectively inflects the actual pitch level of his blues "reciting tone" by idiomatic pitch bends and glides. In form, the incantation takes shape in two short subphrases, each subphrase characterized by a rhythmic pattern of consecutive offbeat syncopations. Sung in a free counterpoint against the sturdy chorus melody and refrain (Miles and Cox having now returned to its original line of text), one can hear in Hendrix's liberated-sounding improvisations the semblance of an archetypal "ecstatic" gospel-blues performance.[77] However, the passage also invites analogies with musical events and structures more specific to the piece itself. The peak episode in the first guitar solo, one remembers, also displayed a "polyrhythmizing" of a similarly restricted but more radically destabilized set of pitches (see above discussion of mm. 18–20).

The phrasing of Hendrix's improvisation prompts a further analogy. Particularly in their rhythmic relationship, Hendrix's two subphrases resemble several other structural asymmetries in the piece, as noted above; operating on the smallest scale, and in an improvised moment, one hears the same formal pattern of a musical statement—now with a vocal and textual component—followed by its varied and abbreviated repetition.[78]

Finally, the more arresting feature of the climactic passage is simply Hendrix's performance. It displays none of the flamboyance that one hears—and may even "visualize"—in one of his blistering guitar solos or "atonal" cadenzas, but the performance is no less revealing of his extraordinary abilities in extemporizing. For his

improvisation begins to unfold as two related but distinguishable parts simultaneously: the supportive guitar part becomes a more independent voice in the texture, harmonizing Hendrix's own improvised vocal melody as well as providing embellishment and additional counterpoint.[79] Hendrix then, in the concluding measures of the chorus section, effectively "improvises" an expansion in contrapuntal texture, supplying two melodic parts in addition to the chorus melody and the bass line. As previously stated, in his guitar-vocal "morphing" Hendrix cultivated an inherited resource from the blues. Possibly he had even seen the technique demonstrated by other guitarists when he was coming up. Certainly, no figure in rock could match either his technical skill or the diversity of expression that he found for the approach in both his compositions as well as his improvisations.

Restatement of Main Theme and Coda

(mm. 137–143)

After that encomium, I hope that the reader thinks it no great irony for me to note that Hendrix—the master improviser—neglects to cue his bandmates for the close of the chorus section. In those closing measures (mm. 135–136), Hendrix stops singing to turn his attention back to his guitar, and, for whatever reasons, in finishing his improvisation gives insufficient indication that a new section is to begin. This time, both Cox and Miles are caught off guard, as they continue playing and singing their chorus parts as Hendrix alone begins the main theme (m. 137).[80] By the third phrase of the theme, a more deliberate sounding but still faltering rhythm section has rejoined Hendrix.[81] Together,

the band begins playing the several thematic repetitions that form the piece's coda (the coda section comprises mm. 137–143). Hendrix, after playing five slightly varied repetitions, evidently signals the end of the piece, and, evoking a greater sense of finality, plays his concluding thematic statement in its prime form.

The final notes of both the guitar and bass plummet and dissolve in a pair of glissandi; with this last gesture the theme's curious caesura becomes the piece's closing punctuation mark—a role for which the dramatic sounding glissando was certainly well suited and, indeed, was anticipated to play. The track holds one further curiosity: seconds after the performance has concluded, and as the Fillmore audience's applause is fading, Hendrix's guitar amplifier barks out a couple of stray, raspy sounding coughs—a peculiar sound that apparently fascinated Hendrix enough to impel him to include it as a sonic addendum to "Power to Love."

Aspects of Large-Scale Formal and Tonal Designs in "Power to Love"

The foregoing analysis has highlighted Band of Gypsys' synthesis of traditional and novel stylistic elements in "Power to Love." However, while the piece is literally rooted in traditions of rhythm and blues and soul, the most innovative aspects of Hendrix's composition and performance originate in its most basic structure and tonal design.

From the outset of his songwriting career, Hendrix employed tonal juxtapositions to heighten formal and thematic changes and to engender musical drama. The verse and

chorus sections of "Stone Free," the first song Hendrix penned for the Experience, bounce between key centers E and D, respectively, before the piece lurches into F for the coda and fadeout ending. In "Up From the Skies," the song's second verse modulates "up" a whole step from the tonic key of F-sharp; subsequent refrain and verse sections return to the tonic key, but a passage for guitar in the piece's bridge section tonicizes the key of the dominant.

Unlike "Up From the Skies," many of Hendrix's strophic song forms do not include a bridge section per se, in the conventional sense of a set of new lyrics, melody, and harmonic structures that contrast with a song's strophes. More frequently, an instrumental passage spotlighting a guitar solo introduces new melodic ideas and harmonic progressions—typically cyclic chord progressions and often a change in key. The solo sections in "Love or Confusion" and "Fire," for instance, leap into new key centers, in both cases modulating up by a whole step from the tonic key area in which the songs' strophes remain anchored. Performing an arrangement of "Fire" with Band of Gypsys at the Fillmore, Hendrix expanded the idea by twice modulating in a sequence of ascending whole step tonal juxtapositions.[82]

As Hendrix's harmonic inventiveness ripened in *Axis: Bold As Love* and *Electric Ladyland*, he also began writing instrumental compositions whose jazz- and funk-inspired riffs were enlivened by sudden changes in key and idiosyncratic chord progressions. In the spring of 1968, between sessions for *Electric Ladyland*, Hendrix experimented with one such composition, "South Saturn Delta," for whose demo recording Hendrix drafted a jazz arranger and a complement of brass and reed players. Hendrix evidently scrapped work on "South Saturn Delta," but picked up the conceptual

thread with "Jam Back at the House," a piece performed by Gypsy Sun and Rainbows at Woodstock. "Jam Back at the House" is an intricate, multi-thematic composition whose formal divisions are defined by racing guitar and bass ostinato figures, highlighted by sudden and repeated shifts in key, texture, meter, and rhythmic activity. The nearly eight-minute instrumental shows closer stylistic and conceptual affinities with contemporaneous work by Miles Davis than it does to anything being produced by Hendrix's rock contemporaries.[83]

In "Power to Love," Hendrix fuses his concepts of instrumental composition and songwriting. As discussed above, the piece's instrumental passages present primary thematic materials and serve as frameworks for improvisation; they unfold in a simple but dramatically effective sequence of key changes. The song's verse and refrain format substantially reflects mixed traditions of blues and pop songwriting. The composition's integration of these musical forms, however, produces a novel set of tonal relationships. Largely owing to the relatively high proportion of instrumental passages and guitar improvisations, better than half of the piece's 143 measures occurs outside of the tonic key area, and largely in the domain of another key. The adjoining sections of the second guitar solo and second verse tonicize the A key center for fifty-four consecutive measures. That relatively lengthy tonicization, in addition to the formal anomaly of the expanded verse having modulated, diminishes expectations of the subsequent return to the established tonic key, B, that comes with the song's final chorus and ending. The piece unfolds, one can say, in two nearly equally weighted key centers. (In the version of "Power to Love" that was recorded during pre-concert rehearsals at Baggy's studios, the

band launches another modulatory sequence after the final chorus, and the piece ends in the key of A, with Hendrix soloing over PTL-4.)

Improvising Through Chord Changes and Modulating Key Centers

The virtuosic soloing in "Machine Gun" and that of several other of Hendrix's most celebrated performances (e.g., "Voodoo Chile" and "Voodoo Child [Slight Return]") take place in static harmonic environments. Similar to the guitar solos on earlier Hendrix recordings like "Hey Joe" and "Purple Haze," the lengthier improvisations of *Band of Gypsys* are linear in conception and are little shaped, if at all, by underlying chord progressions, either implied or realized. In "Power to Love," however, Hendrix improvises, albeit to a limited extent, over a sequence of modulating tonal centers. The concept was unusual in rock, but "Power to Love" shows a dimension in Hendrix's playing and composing that he had been cultivating in earlier works.

The ability to "play changes" or to improvise in relation to typically complex harmonic progressions is the traditional bailiwick of jazz musicians. From the time of Louis Armstrong's groundbreaking recordings in the 1920s, musicians in the jazz tradition developed the skill and a set of special techniques that enabled them to improvise within the harmonic frameworks of Tin Pan Alley standards and popular songs. With the arrival of bebop in the 1940s, the expertise to handle challenging modulatory harmonic schemes and increasingly complex kinds of chords became a requisite skill for the jazz virtuoso.

In contrast with mainstream jazz practice, rock guitarists in the 1960s generally confined themselves to either soloing over archetypal blues progressions (contexts wherein one could confidently improvise melodic ideas and licks in reference to one basic scale) or improvising over a single chord or harmonically static ground bass. Additional possibilities were realized in superimposing blues-based and modally derived melodic ideas over a harmonic progression or a chordal ostinato—a cycle comprised of, say, two to four chords—that one could treat as remaining in a fixed key center.

By the time of his first album release, Hendrix was constructing solo passages that ventured beyond rock's common practice. The solo section in "The Wind Cries Mary," for example, introduces a new harmonic cycle to contrast with the repeated chord progression of the song's strophes. Over this new cycle of chords (I-bVII-IV-bIII, in F), Hendrix plays a lyrical pentatonic melody; an F major pentatonic construction that flows along unperturbed by the accompanying bass and rhythm guitar's progressions to implied harmonies on E-flat and A-flat. However, for the harmonic sequence that caps the solo section the guitar's phrases align themselves with the individual chord of the moment. At the beginning of the rising sequence, Hendrix carries forward his developing melodic ideas, transposing motives taken from the first part of his solo to fit the new set of chords (specifically, to conform with the first pair of chords in a sequence of major chords ascending by consecutive minor third intervals: G major, B-flat major, and D-flat major). Reaching the peak of the ascending sequence, a major triad formed on the flat-sixth degree, D-flat, the guitar makes a bold shift in style and pitch content; treating the D-flat harmony as a tonic chord, Hendrix digs into a phrase of bluesy string bends whose pitch

contents (D-flat, F-flat, G-flat, G natural, A-flat, and C-flat) are nearly as remote as is possible from the piece's F major pentatonic melodies.

As both composer and soloist, Hendrix continued exercising his melodic ingenuity in dealing with intricate chord progressions, harmonic sequences, and tonal juxtapositions in Experience recordings like "Little Wing," and "1983 . . . A Merman I Should Turn To Be." He may well have achieved an apogee, however, in "Bold As Love," the closing track to *Axis: Bold As Love*.

The solo and coda sections of "Bold As Love" are linked instrumental segments that share thematic elements and the same basic harmonic framework. In the solo sections proper, the guitar plays a majestic theme that for its unusual breadth and lyricism, along with a careful "orchestration" of backing tracks, represents the "classical" leanings that Hendrix more fully expressed in "1983 . . . A Merman I Should Turn To Be." The theme's soaring lyricism, however, remains grounded to a repeating sequence of supporting harmonies; except in a very few instances, the melody's principal tones are chord tones of the changing harmonies. Following an extemporized cadenza of blues guitar, the coda begins: a rousing finale that hoists variations of the solo section's theme up by a modulation of a major third. As the coda builds in intensity, the guitar's thematic variations give way to a passage of speedy arpeggios outlining the underlying chord sequence (a stylistic approach to playing through chord changes that became a staple of 1980s heavy metal). Before the recording's fadeout begins, Hendrix returns to the blues and to a linear mode of improvising, superimposing a fiery series of licks and scalar runs over the cycling chord sequence.

The large-scale sequence of tonal juxtapositions that distinguishes "Power to Love" also serves as a vehicle for extended improvisation. However, rather than being largely defined by changing harmonic structures, it is changing ground bass patterns and contrapuntal relationships between the guitar and bass parts that determine the key shifts in the Band of Gypsys piece. As a compositional technique, the concept finds parallels in both modal jazz and contemporary fusion. The improvisational approach that Hendrix takes in the piece also draws comparison with the linear conception that exemplifies modal jazz performance. For each key center in the modulating sequence, Hendrix forms his melodic ideas from transpositions of the same blues-based pentatonic and hexatonic scalar sets; only while "stretching out" in the A key area—the "highest" key in the solo sections—will his improvisation expand into a nearly chromatic range of pitches.

Resemblances to modal jazz notwithstanding, in the urgent sounding series of modulations one hears in "Power to Love," Hendrix's playing shows little of the smooth sophistication that characterizes archetypal solos in the idiom by players like Miles Davis and John Coltrane. In more technical terms, one can observe that where a jazz soloist might search for ways to create continuity by carrying motivic elements across changes in key centers or by finding common tones to link modulations, or conversely, to create a jarring effect by sounding discordant anticipations of upcoming changes (all hallmarks of Miles Davis's style), Hendrix' ideas are framed and delimited by a given key area. In Hendrix's handling, each change of key inaugurates a new melodic idea.

However, given the new directions that Hendrix was exploring in "Power to Love," and the rich harmonic/melodic invention already realized in pieces like "Bold As Love," and, indeed, the possible collaborations with both Miles Davis and arranger

Gil Evans that were pending at the time of Hendrix's death, one can scarcely resist speculating about the possibilities that future compositions and improvisations might have realized.

Notes to Chapter V

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[1] McDermott, Cox, and Kramer, *Sessions*, 104.

[2] For Cox's account of the origins of "Dolly Dagger" see McDermott, Cox, and Kramer, *Sessions*, 113.

"Dolly Dagger" was recorded and mixed in July and August 1970. Reportedly, Hendrix intended the recording to be issued both as a single release and as a track on a projected double album, to be titled *The First Rays of the New Rising Sun.* His death in September 1970 preempted the realization of either intention. Instead, the tune first appeared in a tandem release as both a single (Reprise 1044) and as an album cut on *Rainbow Bridge* (Reprise MS 2040) in October 1971. The lyrics of "Dolly Dagger" are generally acknowledged to have been inspired by Hendrix's tempestuous relationship with ladyfriend Devon Wilson (Shapiro and Glebbeek, *Electric Gypsy*, 540; and McDermott and Kramer, *Setting the Record,* 199–201).

[3] McDermott, Cox, and Kramer, *Sessions*, 108. Cox is not simply misspeaking when he refers to the piece by the title of "Power of Soul," nor is it by any means an uncommon reference. Indeed, "Power to Love" is known by many names, though more often by either one of the two alternatives given above.

On the original album release, the piece is given on both the jacket cover and the record's label as "Power to Love." However, on the 1997 reissue of *Band of Gypsys*, while both the program listed on the CD's jewel box and the face page of liner notes show "Power to Love" the accompanying essay by John McDermott refers to the composition as "Power of Soul." On the 1997 release *South Saturn Delta*, the studio version of the piece is shown as "Power of Soul"; likewise, *Band of Gypsys: Live at the Fillmore East*, a 1999 release of a set of alternative performances from the band's live sets at the Fillmore, also lists the piece under that title. To further add to the confusion, Hendrix's composition has also been rendered as "Crash Landing," and "With the Power," in addition to his own working titles of "Jimi's Tune," "Paper Airplanes," and "With the Power of God." Additional remarks concerning the song's title will appear in the discussion to follow; for now, it is necessary to address a potential source of confusion at the levels of both primary and secondary source material.

[4] Shapiro and Glebbeek, *Electric Gypsy*, 365.

[5] An English review of Hendrix's third UK single release describes "The Wind Cries Mary," as: ". . . the best showcase yet for Jimi's inherent feeling for the blues. Shades of Ray Charles, Percy Sledge and the singer's own distinctive quality . . ." (Shapiro and Glebbeek, *Electric Gypsy*, 157). The quote is excerpted from London's *New Musical Express* (15 May 1967). Such "criticism" might also be read as representing a bit of promotional copy. The reviewer's name is not given, but Hendrix's management had taken pains to develop a close relationship with one of the pop weekly's

principal contributors, Keith Altham. Indeed, it was Altham who instigated Hendrix's first guitar burning as a publicity stunt (McDermott and Kramer, *Keeping the Record*, 55, 88, and Shapiro and Glebbeek, *Electric Gypsy*, 127–128).

[6] Hendrix firmly rejected the "psychedelic" label that was attached to the music of the Experience. Moreover, he seems to have regarded the term as a Band of Gypsysus musical categorization. "We had guys ten years ago in the States playing what groups are playing here now," he stated in an early interview in England, "now they call it psychedelic" (Richard Green, "Sex, Gimmicks, and Jimi," *Record Mirror*, 14 January 1967, 9).

[7] "I Got a Woman" (Atlantic 1050) entered Billboard's R & B singles charts on 22 January 1955. The single earned Charles his first number one in the R & B singles category and stayed on the charts a total of twenty weeks. Charles states: "'I Got a Woman' was my first real smash. . . . This spiritual-and-blues combination of mine was starting to hit. . . [but] not everyone approved . . . Many folks saw my music as sacrilegious. They said I was taking church songs and making people dance to 'em in bars and nightclubs" (Ray Charles and David Ritz, *Brother Ray: Ray Charles' Own Story* [New York: Dial Press, 1978], 150–151).

[8] Charles and Ritz, *Brother Ray*, 149.

[9] Charles states: "I never considered myself part of rock 'n' roll . . . my stuff was more adult [than music by Chuck Berry, Little Richard, and Bo Diddley] and filled with more despair than anything you'd associate with rock 'n' roll." Concerning the Beatles, Charles says: "I've heard the Beatles say they listened to me when they were coming up. I believe them, but I also think that my influence on them wasn't nearly as great as [the above mentioned] artists" (Peter Guralnick, *Sweet Soul Music: Rhythm and Blues and the Southern Dream of Freedom*, first Back Bay Books edition [Boston: Back Bay Books, Little, Brown and Company, 1999], 54).

Elvis Presley covered "I Got a Woman" on his first album (*Elvis Presley* RCA LPM-1254) and performed Charles's song on the Ed Sullivan Show. Nearly a decade later, in the wake of the first wave of American Beatlemania, Presley issued a version of "What'd I Say" (RCA 47-8360, 1964); it marked Presley's sixty-first single to score a top 40 hit.

[10] Ibid., 54.

[11] Paul De Barros, *Jackson Street after Hours* (Seattle: Sasquatch Books, 1993), 159.

[12] Terry Johnson recalls that he and Hendrix mistakenly attributed the guitar playing on Bobby Blue Bland's recordings to the singer himself. Johnson states: "We thought Bobby Blue Bland was the greatest. He didn't play guitar, but we didn't know that then"

(Willix, *Voices from Home*, 16). Johnson and Hendrix were most likely impressed by the playing of Wayne Bennett (1934–1992), Bland's celebrated guitarist.

[13] Ibid., 16. Information confirmed by Terry Johnson in interview with author, 25 November 2000, Seattle, Washington.

Portable, affordable, and capable of increased volume by means of auxiliary amplification, the Wurlitzer electric piano was used by many Seattle and Northwest dance bands in the 1950s and 1960s.

Though Ray Charles first used the electric piano during his salad days in Seattle, it did not turn up on a Charles recording until 1959's "What'd I Say" (De Barros, *Jackson Stree after Hours*, 155). That auspicious debut introduced what would become an important sound to later R & B, soul, and jazz recordings.

[14] Hendrix sang "What'd I Say" as one of his featured vocal spots when he worked with Curtis Knight and the Squires in the mid-1960s. A recording of Hendrix performing the tune in a 1965 New Jersey nightclub has appeared on several unofficial record releases (Shapiro and Glebbeek, *Electric Gypsy*, 574–581), including one album titled *What'd I Say* (MFP 5278, released in 1973) (McDermott and Kramer, *Setting the Record*, 347).

[15] Quincy Jones was one of several influential figures in the post-War scene in Seattle. As stated above, Jones was a mutual friend of both Ray Charles and Jimi Hendrix. Jones first befriended Ray Charles during the latter's stay in Seattle. Through succeeding years their professional association deepened and Jones was involved in making several recordings in the Charles catalogue.

Jones and Hendrix came to know one another after both had left Seattle and had established their respective careers in jazz and rock. A short time after the Band of Gypsys folded, Jones made plans to have Hendrix perform on Jones's 1970 album, *Gula Matari* (A&M Records, SPTL-3030, 1970). According to Quincy Jones, Hendrix agreed to solo over an arrangement of Nat Adderley's "Hummin'," but the guitarist failed to show up for the recording date (Roby, *Black Gold*, 165–166).

For a comprehensive treatment of Hendrix's early friends and musical associates, and their relationship to Seattle's jazz and R & B communities, see Willix, *Voices From Home*. For an excellent history of the local jazz scene, and its relationship with Seattle R & B and early rock 'n' roll see Paul De Barros, *Jackson Street after Hours*.

[16] Northwest bands commonly included soul-jazz stylings in their repertoires: tunes like Horace Silver's "Song For My Father," Cannonball Adderley's "Sack O' Woe," Jimmy Smith's "Chicken Shack," and Kenny Burrell's "Chitlins con Carne," helped fill the "instrumental" quotas of several local groups.

Original compositions to come out of the area also reflected the influence; organist Dave Lewis's instrumental recordings "Little Green Things" and "Lip Service," seem no less a part of the trend than, say, Ray Charles's "One Mint Julep" (*Genius + Soul = Jazz* [Impulse!, #2, 1961]). The Dave Lewis Combo's records garnered regional

radio exposure and were also covered by other Northwest bands like the Kingsmen and the Dynamics ("J.A.J."), and the Viceroys ("David's Mood"). Additionally, in an interview with the author, Hendrix's friend and fellow guitarist Pernell Alexander (1942-) has commented on the importance and influence of Lewis's guitar players, Bud Brown, Lee Parker, and Jo Johansen, in the Seattle musical community (Pernell Alexander, interviews by author, 29 January 1996 and 25 November 2000, Seattle, Washington).

By all accounts, Dave Lewis (1938–1998) was a major influence on Seattle's post-War generation of musicians, including Hendrix's most intimate friends and musical associates (see Willix, *Voices From Home*, passim). For a compilation of Lewis's work see *Deep Roots: The Best of Dave Lewis, Seattle's R & B King* (Jerden Records, 2001).

[17] Charles and Ritz, *Brother Ray*, 76.

[18] Wexler and Ritz, *Rhythm and the Blues*, 112.

[19] In addition to "The Genius" himself, the Ray Charles band was a seminal influence on R & B and soul to come. David Ritz, co-writer for Charles's memoirs, has likened the influence of that band on soul to that of Louis Armstrong's Hot Five on jazz. Ritz states: "Like Louis's band Ray's was immediately popular and permanently influential. It became the model of all the great rhythm-and-blues bands to follow—James Brown, The Muscle Shoals groups, [The] Memphis [Horns], Tower of Power" (Charles and Ritz, *Brother Ray*, 322).

[20] Introduced to the San Francisco Fillmore audience by Franklin as "the right Reverend," Charles made a cameo appearance on Franklin's "Spirit in the Dark," recorded on 7 Feb 1971 (released on the album *Aretha Live at Fillmore West* (Atlantic 7205 [1971]).

The all-star backup band for Franklin's concert was led by sax player King Curtis (Curtis Ousley, 1934–1971). The full ensemble included King Curtis's regular band The Kingpins, augmented by an expanded version of Stax Records recording artists The Memphis Horns, and featured guest and former organist for Ray Charles, Billy Preston.

Jimi Hendrix was a former member of the Kingpins, having played under King Curtis's leadership back in 1966. Besides King Curtis, guitarist Cornell Dupree and drummer Bernard Purdie were two other band members supporting Aretha at the Fillmore who had worked alongside Hendrix during his tenure as a Kingpin some five years earlier. Cornell Dupree also reports that Billy Preston, too, had played with Hendrix around the same mid-1960s time frame (Shapiro and Glebbeek, *Electric Gypsy*, 96–98).

[21] "Mary Ann" (Atlantic 1085) was recorded 30 November 1955 on the same session as the single's A-side, "Drown in My Own Tears," and another classic track, "Hallelujah I Just Love Her So." See Robert Palmer's notes to CD *Ray Charles: The Birth of Soul* (Atlantic 7 82310-2), no page numbers given.

[22] "Mary Ann" appears as a cut on the album release, *Ray Charles* (Atlantic LP8006, 1958). For a complete list of the compilation albums and EP releases also including the original recording, see Michael Ruppli, comp., *Atlantic Records: A Discography* (Westport, CT and London: Greenwood Press, 1979).

[23] *The Wailers: Live at the Castle* (Etiquette ETALB 1, 1962) was recorded in the fall of 1961 by the Wailers, and released in early 1962. For further information on the Spanish Castle, see Clark Humphrey, *Loser: The Real Seattle Music Story* (Portland: Feral House, 1995).

The Statics, one of Seattle's most dance popular bands, regularly performed "Mary Ann" as early as 1960. Pat O'Day, the Seattle area's preeminent disc jockey during the 1960s, recalls Hendrix sitting in with Tiny Tony and the Statics at the Spanish Castle: See O'Day and Ojala, *It Was All Just Rock 'n' Roll*, 16—19. The Static's vocalist Tiny Tony (née Anthony Wayne Smith) also sang "Mary Ann" with another group, the El Caminos, around the same time (interviews by author with Dave Erickson, founder member of the Statics, and Gary Snyder, bass player for the El Caminos, 23 July 2000 and 24 October 1999 respectively, Seattle, Washington). The Viceroys, another popular Seattle band, included "Mary Ann" on their regional smash hit album, *Granny's Pad* (Bolo BLP 8000, 1963).

For more biographical information on the Northwest bands and musicians given above see James Bush, *Encyclopedia of Northwest Music* (Seattle: Sasquatch Books, 1999). Additionally, Peter Blecha is a respected authority on the history of Northwest rock and R & B, and the liner notes he has produced for various compilations and reissues are also excellent sources on the subject. See Blecha's notes to *Wild and Woolly: The Northwest Rock Collection*, (Experience Music Project, 2000).

An additional note: Frank Roberts (1937-), a tenor saxophone player and band leader from Seattle, issued a single "Miss Ann" (Notla Records RB-21) on the local Notla label in 1961, the year that Hendrix left Seattle for military service. Roberts's recording bears some striking resemblances to Ray Charles's "Mary Ann"; the horn arrangement for the song's verses are clearly owing to the Charles recording. Roberts does not remember much about the record or how he came to write his composition. Roberts does seem to regard its horn arrangement as made up of stock phrases that came from no specific source, although he does not discount the possibility that he appropriated ideas from Charles. (A copy of Roberts's single, "Miss Ann/I Know Just How Ya' Feel," belongs to the Experience Music Project Permanent Collection [artifact number .59835-1997.342-209], and was used as a source by the author. At the time of this writing, an excerpt of the recording is also available for listening at a kiosk in the "Northwest Passage" exhibit at the Experience Music Project in Seattle.)

Roberts played jazz, R & B, and rock 'n' roll all around Seattle in the 1950s and through the 1960s, and, incidentally, saw Ray Charles perform in Seattle nightclubs. Frank Roberts, like Seattle's Dave Lewis, was a well-connected and highly visible figure in Seattle's musical community. Roberts knew many of Hendrix's early musical associates, and he claims that Hendrix sat in with his group at some point in time (Frank Roberts, phone interview by the author, 4 and 10 December 2000).

[24] In his accompanying notes to the CD compilation *Ray Charles: The Birth of Soul* (Atlantic 7 82310-2, [1991]), Robert Palmer reports that Charles composed "Mary Ann" to celebrate Fisher's induction into the ranks of Charles's regular backing lineup. For another account, see Charles and Ritz, *Brother Ray*, 167.

[25] The piano harmonies are incomplete and implied; the root motion is established by the bass. Charles plays full chords only in mm. 9—11.

[26] *Band of Gypsys* (Warner's video MCAV-11931, 1999).

[27] For his video presentation, Cox demonstrates the patterns with his bass tuned to standard tuning (low string tuned to concert E natural); the ostinato series begins, then, in the key of B natural (instead of nearly concert B-flat, as sounded on the recording by reason of Hendrix's and Cox's drop tuning). (In the video production, Cox's demonstration finishes in a cross-cut and fade into filmed footage of the Band of Gypsys performing "Power to Love" at the Fillmore East.)

[28] The transcription shows the complete theme as comprised of one measure of 9/8 and one of 7/8 time. As discussed below, when it appears in another form and functional role, the theme is cast in 4/4 time.

[29] Cox repeatedly speaks of working with Hendrix on developing such patterns in their exploratory and songwriting sessions. The bassist goes into some detail about the process when describing the sessions that took place during the time of Gypsy Sun and Rainbows. Cox states that after their having already come up with a collection of patterns, " . . . Jimi would take pattern 1, add parts of pattern 9 [e.g.,], and finish it off with a piece of pattern 3. That's how the songs would come together" (McDermott, Cox, and Kramer, *Sessions*, 113). Cox implies that this kind of method was used to compose the tunes "Jam Back at the House," "Izabella," "Dolly Dagger," and unspecified others.

Reviewing the tape of a studio jam session made by the re-formed Experience in May 1970, Billy Cox comments on Hendrix's guiding the band in a spontaneous joining of three separately formed structures to create a hybrid three-part form. In this case, an initial pattern served as an instrumental introduction to an experimental combination of two incomplete and heretofore independent song structures. Cox explains: " [The first pattern] was a pattern we had worked out [sometime before] in Los Angeles . . . We weren't playing by notes, we were playing by patterns . . . that's how we thought. We were always trying to hook these patterns together to make songs" (ibid., 143).

Lyrics would also migrate around from different songs in their beginning stages; the same line or phrase of lyric might turn up in what would later become two distinctly separate Hendrix compositions (ibid., 132). Furthermore, what might start as a new arrangement and cover version of a tune might evolve into a new original song composition; for example, Hendrix's version of B.B. King's evergreen, "Rock Me Baby," became Hendrix's composition "Lover Man." Hendrix's performance of "Rock Me

Baby" appears in concert footage in D. A. Pennebaker and Chris Hegedus, directors, *Jimi Hendrix: Live at Monterey*. HBO Video 0251, 1986.

[30] A qualification is needed here: the melodies as given for comparison in the examples are removed from their critical and distinguishing features of tempo, register, timbre, and any subtle inflection of pitch or rhythm, as well as key quality. In addition, my thesis advisor Larry Starr pointed out to me the similarity of these melodies to the main riff in "Sunshine of Your Love" by Cream. Starr's accurate observation is more amusing given that Cream bassist Jack Bruce composed the riff in "Sunshine of Your Love" as a tribute to Hendrix. (Shapiro and Glebbeek, *Electric Gypsy*, 137).

[31] *South Saturn Delta* (MCA Records MCAD-11684, 1997); *Band of Gypsys Live at the Fillmore East* (MCA Records MCAD2-11931, 1999); and *Jimi Hendrix: The Baggy's Rehearsal Sessions* (Dagger Records/MCA 088 112 956-2, 2002).

[32] A copy of the multi-track master recording of "Power To Love," as recorded on the second show of 1 January 1970, was made available to the author by the Experience Music Project (EMP Permanent Collection, artifact number 1998.192.5).

[33] McDermott, Cox, and Kramer, *Sessions*, 108.

[34] Ibid.

[35] John McDermott documents that in a taped session on 21 November 1969, Band of Gypsys struggled through twenty-four takes of "Paper Airplanes" ("Power to Love") in attempting to solidify "the song's complex arrangement" (ibid., 130). Elsewhere, Hendrix's singer friend Emeretta Marks recalls that progress on the November session was impeded by Hendrix's repeated missed entrances to a "turnaround" section in the piece. Marks claims she aided Hendrix by accompanying him into the studio and then prompting his entrances by means of giving him visual cues (Shapiro and Glebbeek, *Electric Gypsy*, 546). Focused on getting the basic tracks together and, one suspects, because elements of the song and its lyrical contents were likely still unsettled, Hendrix laid down no vocal tracks on the November date.

[36] Audible cues include signal riffs and melodic figures that Hendrix plays on the guitar, as well as off-mic vocal cues that Hendrix shouts to his band mates. Films of Hendrix show that he also habitually used visual signals to direct musical events in live performance; one sees him using such gestures in a video recording of Band of Gypsys performing "Power to Love" at the Fillmore (*Band of Gypsys*, Warner Video MCAV-11931 [1999]).

[37] As previously noted, Albert King (Albert Nelson, 1923–1992) was an electric blues guitarist, singer, and composer whose playing evidently influenced Hendrix. Like Hendrix, King was a left-handed player who frequently lowered his guitar's tuning.

King's guitar style is principally distinguished by his single note solos and fills; his sound is a distinctive combination of a strong attack—where the strings can be heard to snap against the frets—high sustain, and wide string bends and vibrato. According to Jimi Hendrix's father, Al Hendrix, his son was a "fan of Albert King" when he was first learning to play the guitar (Hendrix, *My Son Jimi*, 126).

In "Power to Love" the "Albert King" lick occurs in the third measure (0:06, CD clock time). I do not mean to say that this amounts to a quote or even an evocation, but the note choices—the alternating between the blue third above and the tonic below, the pronounced vibrato, the register, the strong pick attack, and the slack tuning, all contribute to the impression of King's style (cf. Albert King's "Oh Pretty Woman," and "Crosscut Saw," tracks from King's influential 1967 album release, *Born under a Bad Sign* [Stax STAD-472, 1967])

Hendrix recorded a version of King's signature piece, "Born Under a Bad Sign" with Band of Gypsys on 15 December 1969 (McDermott, Cox, and Kramer, *Sessions,* 130) (this was a studio demo that was released in a 1994 compilation, *Jimi Hendrix: Blues*).

[38] The seventh-chord sounding over the B-sharp (or C natural) bass can be understood as constituting a tritone substitution for a dominant seventh harmony (i.e., a C seventh chord substituting for an F-sharp, dominant seventh chord, a harmonic substitution facilitated by the two chords sharing a common tritone interval). Hendrix made use of this type of chord substitution, a standard harmonic device of jazz performance, in "Villanova Junction," an instrumental homage to the guitar style of Wes Montgomery (1923–1968) that Hendrix performed with Gypsy Sun and Rainbows at Woodstock.

However, the preceding harmonic analysis does not address the subjective sense of the seventh chord in "Power to Love" actually displacing the tonic harmony. Lack of any previous harmonic movement away from the reiterated tonic chord in the previous measures, and the expectation of an exact repetition rather than a chromatically altered variation of the guitar and bass figures generated by "Mary Ann" (mm. 5–6), contribute to the sense of an anticipated tonic harmony being displaced by a semitone. In any case, such a chromatic approach to a tonic harmony (real or implied) often occurs in blues-based idioms as the penultimate chord in a dramatic final cadence, rather than in an introduction.

[39] In the real time performance of the piece, the drum and bass pickup figures that are represented in the seventh measure of the score—along with Buddy Miles's bellowing "cattle call"—occurred in the thirty-sixth measure of the piece (corresponding to the second half of the last measure in the thirty-measure deleted passage). Deleted along with the thematic exposition was also a short linking passage and solo drum break; as recorded on the original tracks, Miles's scurrying snare drum solo spans two measures and links the exposition to its varied repetition (the modulating sequence and guitar solo section that is discussed below; mm. 8–30, in the recorded form). Miles's propulsive segue is prefaced by a foreshortened measure of 2/4 meter—inserted into the prevailing

common time meter—and a sudden truncation of the guitar and bass parts' thematic material (this occurs in the twenty-eighth measure of the edited passage). Metric asymmetry combined with thematic permutation will be an abiding and distinguishing feature of the piece, and will receive attention in the analysis to follow.

In addition, the concordances of "Power to Love," i.e., the recordings previously listed, evince these same formal components, although the length of the large-scale divisions and the attendant measure count will vary owing to the open-ended design of the exposition.

[40] With the exception of PTL-3, all other ostinati sound their keynotes on the downbeats of their rhythmic patterns. It is even possible that Cox originally conceived his line (PTL-3) as being grounded to D natural, i.e., the note which, in fact, comes on the downbeat of his pattern. In any case, the choice of D must reflect a contrapuntal consideration, that tone making a strong chromatic connection with the foregoing pattern centered on C-sharp (PTL-2) (a contrapuntal connection further emphasized by the C-sharp in the pickup figure to PTL-3).

However Cox's pattern originated—or was intended to be heard—the listener is predisposed to hear the D natural as the keynote in a modulation by half-step up from the previous tonal center of C-sharp; earlier tonal juxtapositions in the piece have been by step (the half-step harmonic juxtapositions in mm. 6–8, and the preceding shift from the B natural key area to C-sharp), and, in addition, an ascending modulation by half-step or whole step is a most typical device of rock and related styles of music. That the repeated bass part does not sound the root (E) suggested by the guitar's treble part, but rather emphasizes scale degrees 6 and b7 (C-sharp and D natural, respectively), further subverting an unequivocal sense of the tonal center.

As previously stated, it is Hendrix's unfolding melodic line and the tonic drone on the guitar's high string (in mm. 59–60) that superimpose the E tonality over the bass part. Thus, Hendrix and Cox nearly stand the conventional relationship of bass and melodic instruments on its head: here, the treble part, rather than the bass ostinato, projects the tonality from the top of the texture downwards—a most unusual condition in a R & B or rock context (except where the bass note explicitly functions as a passing tone). Additionally, the momentary effect of a floating tonality is extended a bit into the subsequent pattern, PTL-4, whose A natural tonic is withheld until the second half of the first measure of the pattern (see mm. 16 and 61), whereupon its arrival is doubly emphasized by a syncopation and an octave leap.

[41] One might represent the scalar makeup of the two phrases as being a pentatonic collection with a variable third degree, the third shifting between being minor and major. The spelling of the collection would be: B - C-sharp – D, or alternately D-sharp (m. 10) - E - A. The bass ostinato centered on B provides the tonal reference point. The triplet figure that seemingly closes the pair of phrases is actually the start of a new melodic idea and, in terms of its pitch content, anticipates the upcoming shift to the key of C-sharp beginning in m. 12; hence, the guitar's chromatic E-sharp in measure eleven.

As in the introductory passage, the basic melodic pattern, phrasing, and articulation in the passage discussed above are all rooted in blues guitar style. It is the timbre—the electronically processed and *highly* overdriven guitar sound—that is distinct from but also arguably an extension of earlier electric blues guitar.

[42] Hendrix's lowered tuning (strings pitched from low to high: E-flat, A-flat, D-flat, G-flat, B-flat, E-flat) makes this interval and these specific pitch choices available on his guitar's open first and second strings (see discussion of the Hendrix Chord, in Chapter II). The guitar parts in "Spanish Castle Magic" and "Ain't No Tellin'" share the same ("E-flat") drop tuning that is also heard on many other tracks on *Axis: Bold As Love*. Like the aforementioned songs, "Crosstown Traffic" from *Electric Ladyland*, is also in the key of C and features the dyad described above in its main riff and turnaround sections. (The choice of key in "Spanish Castle Magic" and "Crosstown Traffic," however, may owe more to the particular piano voicings which Hendrix learned to play from studio engineer Eddie Kramer than to any consideration of exploiting an open string sonority. [Conversation with Eddie Kramer, 2 December 2000, Seattle.])

[43] Hendrix's usage here is similar to that heard on the final cadenza to his "Voodoo Child (Slight Return)" from *Electric Ladyland* (at 3:57–4:09, and again, with phasing effects and a rapid alternation of pickup selection at 4:29–4:36).

[44] In the key of the moment, A natural, the guitar's bend up to B-flat (or A-sharp) has a tonal correspondence with the harmonized flat-second degree of the piece's introduction (see mm. 6 and 7). In terms of Hendrix's personal style, a similarity is also noted here with procedures in "Purple Haze." In the outro of that earlier recording, Hendrix superimposes string bends reaching up to an F natural, sounding over the bass part's E-based cycle (pitches E - F# - D). These bends occurs at 2:34–2:38 and at 2:42–2:43 in "Purple Haze." (See Hanford, "Realities Altered and Redefined," 26).

[45] The transcription shows an arch of peak notes as concert pitches A – B-flat - B – C-flat - A – A-flat. However, these are approximate pitch values. The bends are initiated on a G natural fretted on the eighth fret and second string of the guitar (according to the tablature of the published transcription). Thus, the transcription shows the G natural as the lower, repeated note in the interval leaps.

[46] Contemporaneous with Band of Gypsys (i.e., around the years 1969–1970), British guitarist John McLaughlin was incorporating similar string bend "howling" and overbending into his improvisations. McLaughlin plays these kinds of ideas on his 1970 solo album, *Devotion* (Douglas 3, 1970; e.g., "Marbles"). That recording featured Buddy Miles on drums (whom McLaughlin first met at a jam session led by Hendrix), and was jointly produced by two men also associated with the birth of Band of Gypsys, Alan Douglas and Stefan Bright. More striking parallels with this aspect of Hendrix's playing style can be identified in the moments of frenzied and "ecstatic" guitar work heard on *The Inner Mounting Flame*, the stunning debut album for McLaughlin's Mahavishnu

Orchestra (The Mahavishnu Orchestra, *The Inner Mounting Flame* [Columbia, KC 31067], 1971). These albums, as well as the recordings McLaughlin made under the leadership of Tony Williams and Miles Davis, were cornerstones of the new category of jazz-rock or "fusion."

[47] In the studio version of "Power to Love" (titled "Power of Love" on CD *South Saturn Delta*), the four-bar phrase occurs several times, more often performed in octave unison by two overdubbed guitar tracks (0:53–1:04; 1:54–2:04; and played solo by one guitar track only at 3:37–3:49).

The studio arrangement of the song also features a prominent vocal part that possibly shares a common point of origin with the guitar line just indicated. The part is sung by both Hendrix alone and in parallel harmony with overdubbed background singers (credited to be Hendrix, Buddy Miles, and Billy Cox, by John McDermott in his liner notes to *South Saturn Delta*). (The vocal part is intoned as either a vocable "ooh" or on the lyric "yeah" at clock times: 0:45–0:52; 1:05–1:15; 1:44–1:53; and 2:05–2:15). The note choices and melodic shape of the vocal line suggest a link to Hendrix's guitar part, and as the singing part on the later studio version does not appear in the live sets recorded by Band of Gypsys, it possibly evolved out of the guitar part that is heard on the recordings made at the Fillmore, and in the Baggy's rehearsal sessions made in December 1969 (the studio tracks were cut on 21 January, 3 February, and 22 August 1970). Since the guitar part itself evidently originated as counterpoint to the bass ostinato (PTL-4), the vocal part would then represent a further, though more indirect derivation from the bass part and, ultimately, also from "Mary Ann."

[48] The episode of "outside" improvisation begins in measure sixteen and the start of the A key area. In the event, this happens at the midpoint in the piece's form as measured from the beginning of the introduction to the arrival of the main theme in m. 31. Thus, the improvisation's peak level of excitement comes in the middle of the introductory and solo sections when they are taken together as a whole. Hendrix's melodic insertion and the emphatic repetition of the ostinato that follows it give ballast and a sense of closure to the larger formal division as well as to the solo section itself.

[49] As seen in the transcription, the two measures are alike except for these details in the guitar parts: the measure of 9/8 contains the glissando; the measure of 7/8 contains more parallel fourth intervals (and is, then, similar in intervallic content to the guitar's paraphrase of "Mary Ann" heard in the introduction).

[50] Harmonically, the guitar part in mm. 35–36 and ongoing throughout the first section of verse might be more fully described as being based on an incomplete seventh chord (spelled, B - A - D-sharp, from top to bottom) alternating with an eleventh chord (spelled B - A - E natural). But the part is more simply described as being based on the alternating motion of third of the seventh chord with its upper neighbor note (the fourth scale degree). As the following discussion will point out, the 4-3 melodic component will reappear in several different guises during the course of the piece.

Such "comp" patterns as just described were becoming increasingly common in early seventies rhythm and blues, jazz fusion, and later in disco music as well. In 1972 Hendrix's old employers the Isley Brothers reaped a hit record, "Work To Do" (T-Neck 936, 1972), whose signature instrumental vamp was based on this kind of harmonic and melodic pattern.

[51] Band of Gypsys made studio demos of the song under the title "Paper Airplanes" both before and after they had made their live recording at the Fillmore (McDermott, Cox, and Kramer, *Sessions*, 130 and 133). The first studio session occurred on 15 May 1969, days after Hendrix's arrest at Toronto on 3 May, for suspicion of possessing and transporting illegal drugs (ibid., 108).

Another song from the Band of Gypsys' repertoire makes a clearer allusion to Hendrix's Toronto misadventure. In "Stepping Stone," a Hendrix tune that Band of Gypsys recorded in the studio during January 1970, Hendrix sings the phrase: "Flyin' can't be trusted—got busted" (*Jimi Hendrix: First Rays of the New Rising Sun*, MCAD-11599, 1997).

"Power to Love" may have had another or an additional inspiration. A memo written in Hendrix's hand, with the heading "Song's to try in the studio," lists "Power of God. . . Love to Devon," along with "Machine Gun" and other pieces that Hendrix earmarked for recording (Nitopi, pp. xxxi and 66). As previously mentioned, Hendrix's friend Devon Wilson is thought to have been an inspiration for "Dolly Dagger." Perhaps Wilson's reported drug addiction elicited Hendrix's cautionary words to avoid "driving" low-flying airplanes, and his exhortation to "come back" to "reality."

[52] "That Black Snake Moan" 1926 (available on *Blind Lemon Jefferson* [Milestone MCD-47002-2, 1992]).

[53] Any number of factors might have adversely effected Hendrix's vocal performance. Inadequate stage monitoring was an endemic problem for live performance in Hendrix's time; even if vocal monitor speakers were in operation for a given performance, such a speaker system would likely be underpowered. That is, the vocal monitors were too underpowered to compete with the onstage volume of amplified instruments. (By the time of Band of Gypsys, Hendrix would be running a daisy-chain of 100- and 200-watt Marshall amplifiers.) The scenario is a familiar one: as the singer struggles to hear himself, he also has difficulty singing on pitch, and otherwise exhausts his voice trying to be heard above the band.

The listener's impression of Hendrix's vocal delivery is also responsive to the mix and balance of the vocal and instrumental tracks in the finished recording. In the passage considered above, Hendrix's voice is barely above the volume levels of the backing tracks, particularly the guitar. Always insecure about his singing abilities, Hendrix was notoriously reticent about placing his lead vocals in the foreground of his recordings. Manager and producer Chas Chandler reported that he continually struggled with his artist over this point in the production of the earlier Experience albums (McDermott and

Kramer, *Setting the Record Straight*, 33, 60–61, 142). For *Band of Gypsys*, however, Chandler was not on board to argue for a stronger vocal presence on the recording. Although in the final mixdown for *Band of Gypsys* Hendrix was assisted by engineers Eddie Kramer and Kim King, Hendrix was for the first time acting as the sole producer for an entire album and likely exercised final say on the sound levels in the mix.

[54] The guitar and bass lines principally move in parallel minor tenths. The rhythmic accents in their lines fall one sixteenth-note behind the beat, the figure beginning on the sixteenth-note after beat three in m. 44 and stretching over beat four to the downbeat of m. 45.; each accent spans one eighth-note's duration.

[55] "Stone Free," recorded on 2 November 1966 was issued as the B side to "Hey Joe," the Experience's debut single in England (Track 56139, 16 December 1966). The figure alluded to is played as a riff and turnaround in the coda to "Stone Free" (figure is first heard at [2:59]; "Stone Free" on *Are You Experienced*, CD, 1993).

At the time of its release, Hendrix characterized "Stone Free" as representing a "simpler," more traditionally-rooted alternative to what he then saw as a growing complexity and pretentiousness in pop music. Sometime during the heyday of British underground radio, Hendrix was quoted as stating: "Underground radio is getting together so nicely, I just hope it keeps on . . so that [it] makes everybody make better records . . .That means music itself is being presented to the public in a better way. Things were getting too pretentious, too complicated. 'Stone Free,' that's much simpler, that's blues and rock and whatever else happens" (quote given in Michael Fairchild's liner notes to CD *Are You Experienced*?; date not given). In context, the statement is both an endorsement of the pirate radio stations that were playing the Experience's recordings, as well as a bit of promotion for Hendrix's new single and first composition.

[56] Some of Hendrix's personal "scores"—lyric sheets that show detailed instructions and performance notes for his guitar parts and effects—reveal the composer planning for a careful integration of text and music. Photo reproductions of Hendrix's lyric sheets and song outlines have been published in John McDermott's *Sessions*, and in Bill Nitopi's *Cherokee Mist*. In addition, the Hendrix Gallery exhibit at the Experience Music Project routinely displays these artifacts.

[57] Robert Johnson plays this pattern in "Rambling On My Mind" (SA 2583-2; recorded 23 Nov 1936). For a discussion of the pattern's occurrence in rock music, and its historical relationship to boogie woogie piano styles, see Dave Headlam,"Blues Transformation in the Music of Cream," in *Understanding Rock: Essays in Musical Analysis*, John Covach and Graeme M. Boone, eds. (New York and Oxford: Oxford University Press, 1997), 71. For a brief history of Robert Johnson, and his influence in rock, see Robert Palmer, *Deep Blues* (New York: Penguin, 1981), 128–131.

To learn the parts on "Honky Tonk" as performed by guitarist Billy Butler on Bill Doggett's recording (King 4950 released 25 Aug 1956) was a rite of passage for any guitarist coming up in the 1950s and 1960s. Hendrix's friend Pernell Alexander

remembers him and Hendrix learning the song when Hendrix lived in Seattle (Willix, *Voices from Home*, 57).

[58] Hendrix would also play this same accompaniment pattern in his live performances of Chuck Berry's "Johnny B. Goode" (Chess 1691, 1958)—an "oldie" that Hendrix's fuzztone powered guitar solos and cadenzas would pointedly make over in his own style of late 1960s "rock." (In concert Hendrix would introduce Berry's classic tune with some measure of irony—"What the hell—Johnny B. Goode.'")

[59] The two passages are both formal and tonal complements; where the bass line in m. 44 made a chromatic ascent from tonic B to subdominant E, the chromatic sequence played by the bass and guitar in the retransition likewise fills in the tetrachord E to subtonic A natural. The subtonic, one remembers, serves a dominant function in "Power to Love" when it is heard as part of a progression of implied roots; bVII to I. But by virtue of their relative positions in the sequence, as well as the given tonal context, the subdominant and dominant scale degrees in the melodic pattern carry the harmonic tinge of an implied cadential progression, IV-V-(bVII)-I.

[60] As previously mentioned, the song had various working titles. Perhaps Hendrix eventually settled on the given title with reference to its order and listing in relation to other tracks on *Band of Gypsys*. On the original album, "Power to Love" is the cut immediately preceding "Message of Love"; could Hendrix have considered a "poetic" pairing of song titles in naming "Power to Love"?

Assuredly, in terms of mood and tempo, etc., the order and placement of song material on an album was an important consideration in the era of vinyl. Thus, it is possible that Hendrix also considered the naming of his pieces in light of considerations of format. As his career progressed, Hendrix showed an increasing involvement and concern with all areas in the planning and even packaging of his works; in preparation for *Electric Ladyland*, he undertook very detailed planning for the album cover's layout, liner notes, photography, and graphic design (although those plans mostly came to naught as Hendrix's record company eventually issued another album design (Shapiro and Glebbeek, *Electric Gypsy*, 305–308).

My speculations notwithstanding, from the first Experience album onwards, Hendrix's titles were not always extracted from the lyrics of a song's text—i.e., the titles reflected neither the words of the verse nor of the chorus in literal terms; e.g., the ballads "May This Be Love" (also known by its refrain, "Waterfall," from *Are You Experienced?*) and "One Rainy Wish" (often referred to as "Gold and Rose," from *Axis: Bold As Love*). One can see a clear precedent for the creative approach to song titles in the work of Bob Dylan, a stated influence on Hendrix's lyrical writing; e.g., Dylan's "It Takes a Lot to Laugh, It Takes a Train to Cry," and "Positively 4th Street")

An equally plausible, though more prosaic explanation for "Power to Love" appearing under various titles on the official releases accrues to record company "editing." Author Sean Egan has detailed the many garbled spellings as well as major changes in format that were visited upon the original British version of *Are You*

Experienced by Reprise Records, Hendrix's American distributor. See Egan, *The Making of Are You Experienced*, 8–9.

[61] So as not to tax readers with additional transcribed examples, the author will merely direct their attention to similarities in the phrase endings of the chorus melody with features of ostinati, PTL-2 and PTL-4: note the comparable melodic skips and the syncopations placed either before or after the third beat of a given measure. Also note the emphasis shared by the vocal melody and the bass patterns on the minor third degree (in the key center of the moment) and on a descending melodic motion from the minor third degree to the tonic.

[62] Rhythmic similarity between the head motive of the chorus melody and the concluding figure of the main theme is a significant element of continuity. The eighth-note rhythms of "pow-er" (mm. 53 and 55) correspond to the similarly adamant sounding phrase endings of the instrumental theme (see, e.g., the ending of the first phrase of the theme in m. 51, with all instruments playing the eighth-note hammerstrokes on the third pulse of the measure). The rhythmic comparisons can be extended if one also includes the pair of sixteenth-note values that precede the eighth-note figures just described.

[63] The guitar phrase in the latter half of m. 54 winds its way down from the minor third degree, that was just quit by the vocal melody, to cadence on the tonic; the single note guitar line seems both to answer and to complete the antecedent vocal phrase.

[64] This detail is characteristic of Hendrix's live performing style and of his multi-layered way of thinking. The pedal points begin on the low tonic note, and then expand to a perfect fifth and then to an octave unison on B natural. The tonic pedal is at least an octave below the register of his melodic ideas. Hendrix characteristically uses the thumb of his fretting hand to anchor the lower note.

[65] From another perspective, one can also see the chorus section in B as substituting for the corresponding four measures of material in the B key area that began the first series of ostinati (mm. 8–11). Likewise, one can further construe that the formal positioning of the chorus vocal "chant" represents one form of "ostinato" replacing another (i.e., the repeated chorus melody, in effect, takes the place of PTL-1).

[66] In m. 61 the guitar's figure falls from the minor third degree to the tonic, echoing the first half-phrase of the chorus melody ("of soul"). In mm. 62 and 63, the guitar's melodic figure is expanded to intervals and triads based on the recurring 4-3 appoggiatura.

[67] The spans of these phrases are two, three, three and a half, and four measures, i.e., their equivalent lengths measured from a hypothetical first beat. The parsing of phrases, owing to the elisions of beginnings and endings of phrases, is admittedly a matter of interpretation. But it is clear that the phrases are of differing lengths and that some are

asymmetrical. The nearly continuous melodic flow of Hendrix's phrasing is possibly necessitated, in part, by a practical concern to avoid uncontrolled feedback (see Ch. II Hendrix's Sound: *Feedback*).

[68] The precedent for singing "blues changes" over a single, static chord is an old one, and not exclusive to the performances of the solo, rural blues artist. Howlin' Wolf (Chester Burnett, 1910–1976) directed his bands to stick to a single bass pattern and chord while he sang a typical AAB blues stanza and melodic design (e.g., "Moanin' at Midnight," Chess 1479, rec. 14 August 1951). Howlin' Wolf is quoted as saying: "I was the one who told the guys what to play. . . Some of those numbers are just one chord. There's no changes to them, that's something I got from the old music": See Lawrence Cohn, *Nothin' but the Blues* (New York: Abbeville Press, 1993), 189.

Hendrix fully explored and expanded on this tradition in "Machine Gun." But in "Power to Love" the listener gleans the impression of a blues stanza only in retrospect, as the absence of a lyrical couplet at the opening of the set of verses does not offer any clue that such a form will be inserted.

[69] For perspectives on John Lee Hooker's lyrical improvising on given themes, see Charles Shaar Murray, *Boogie Man: the Adventures of John Lee Hooker in the American Twentieth Century* (New York: St. Martin's Press, 2000).

[70] In mm. 111–114 Hendrix is thumping out, in what sounds like a series of downstrokes, a double-pedal point formed of a minor seventh interval, A and G natural. Voiced in the lower register of the guitar, the rapid fire part plays more of a rhythmic rather than a melodic function, and otherwise seems to really amount to "filler"—something Hendrix is evidently playing while he is collecting his thoughts prior to cueing the forthcoming section.

[71] The guitar and bass lines in mm. 114–116 vary slightly in their anacrusis figures; where the guitar plays three consecutive notes, the bass part starts its pickup figure by an ascending whole step motion (as it unfailingly has played in its corresponding ostinato figure). Additionally, in m. 116 the bass plays a "clinker"—an F natural that conflicts with the guitar's F-sharp and which contradicts the normal form of the sequential motive. Furthermore, in playing the descending line in m. 116, Hendrix sounds a major third degree against the bass part's minor third degree: such variability regarding the third scale degree(s) is a characteristic feature of both Hendrix's performance in this particular piece as well as of blues performance practice in general.

[72] See Hanford, "Realities Altered and Redefined."

[73] Miles accents the off beat on his bass drum and cymbal, a combination he otherwise reserves for downbeats. (It is possible this is an intended accentual "dislocation," but it is doubtful). Miles, it seems, defaults to 4/4 time—an understandable "reflex," especially given the placement of Hendrix's anticipatory note.

In addition to the expected mistakes encountered in a live performance, one must also take in account the uncertain quality of the on-stage sound. By no means can it be assumed that the musicians had an adequate monitor system with which to hear one another. Then, there is also the sketchy history of pre-gig rehearsals that suggests there were problems with form. Finally, there are the formal variants revealed in recordings made of the other show's performance of the song.

[74] Throughout the section, the boundaries of each consecutive four-measure unit are marked by figures played by either the bass or drums, or by both. The refrain melody and lyric structure, however, repeat every two measures.

Hendrix's contrapuntal ideas in mm. 122 and 123 are based on the repeated and lower neighbor note motives of the chorus refrain melody.

[75] The antecedent phrase in m. 129 spans two beats (or eight sixteenth-notes, measured from first to the penultimate note); Hendrix's response spans a beat and half (or six sixteenth-notes).

[76] Also note the similar formal asymmetries in the guitar's introductory paraphrase of "Mary Ann" (see previous discussion). On a larger scale, the repeat of the modulation scheme is, likewise, "foreshortened" by the deletion of the B area and PTL-1 ostinato that was heard in the scheme's "prime form." Also, the improvised passage of guitar work in mm. 108–110 exhibits the pattern of a statement followed by its shortened repetition.

[77] Certainly, Hendrix's vocal performance is certainly of a much cooler intensity and on a much smaller scale than one encounters in true hot gospel singing. For an account of the fusion of gospel vocal styles into post-war rhythm and blues, see Arthur Kempton, *Boogaloo: The Quintessence of American Popular Music* (New York: Pantheon Books, 2003).

[78] The first of Hendrix's subphrases spans the length of 3.5 beats (beginning on the second half of beat 2 in m. 123, and extending over the second beat of m. 134, corresponding to the lyrics "with the' soul, soul, soul-soul"); the subsequent subphrase in mm. 134 and 135, spans 2.5 beats, corresponding to "soul, soul-soul"). Besides their shared lyric content, the similarity between the two subphrases is found in their rhythmic patterns of consecutive syncopations. Melodically, the two are complementary designs: the first subphrase ascends by leap to the minor third scale degree; the second descends by step from the minor third degree back down to the tonic.

[79] See transcription, mm. 133–134: the guitar part targets third intervals above principal notes in the vocal melody. The single-note guitar line also matches the pitch glides and bends of Hendrix's voice, i.e., if the two parts are not completely synchronized, their melodic lines show similar kinds of blues-style articulations.

[80] In mm. 136–137, Hendrix seems to jump into the theme without having given much forethought, and consequently bobbles the pickup figure that would have given his rhythm section their cue to begin the coda (see last beat of m. 136).

Having again been taken unawares, Buddy Miles goes into the same "recovery" mode as when he earlier missed his cue (i.e., he starts playing sixteenth-note fills on his snare drum while he mentally catches up.).

[81] Bassist Cox evidently parts company with Hendrix's lead in m. 141 when he omits playing the pickup figure that the bass has sounded in every other statement of the theme. Cox's sin of omission is betrayed by the bass's premature glissando—a gesture intended to end the song, as events will show.

In making this "mistake" Cox is, perhaps, remembering the arrangement of the song that was played by the Band of Gypsys earlier that same day; on the first Fillmore show the band played five measures of the theme as a coda section, as Cox seems to have anticipated here, rather than the seven measures that Hendrix leads the band through in the later performance as recorded on *Band of Gypsys*. In any case, the listener, though he or she may not be able to identify the source of difficulty (and notwithstanding Cox's remarks that the mistakes left on the record were of no consequence to the public's ears), hears a disruption of the groove when the bass suddenly disappears.

[82] A filmed excerpt of the Band of Gypsys performing "Fire" is available on the video, *Hendrix: Band of Gypsys* (MCAV-11931, 1999). The live soundtrack that accompanies the color film footage (made by Amalie Rothschild) records the Band of Gypsys modulating from the tonic key of D-flat to key center E-flat and subsequently to F, in the extended solo section of the piece.

[83] On "Jam Back at the House," Hendrix repeatedly cues up the varied and repeated thematic areas—all based on melodic or harmonic ostinati—by playing a signal motto or a specific transitional figure. Thus, areas of extensive repetition, characterized by an intensified and collective focus on the groove, are abruptly re-directed by audio cues from Hendrix's lead guitar.

As is the case with Hendrix's "Jam Back at the House" and "Power to Love," on Miles Davis's *Bitches Brew*, it is bass ostinati, rather than a harmonic structures or progressions, that provide the structural basis for improvisation.

On *Bitches Brew*, Davis or another soloist in his expanded ensemble is at liberty to effect shifts in key and mode by means of audio cues, that is, by playing melodic fragments or even a single note that notifies the bass player and other musicians to move to another key area and section. Thus, the lengthy "Spanish Key" rotates through tonal centers A, E, D, and G, with each section and accompanying tonal juxtaposition being cued by a motto or signal tone played by Miles Davis. (Unlike similar sounding tracks on the basic tracks of "Spanish Key" were achieved in a continuous performance in the studio, rather than being created as a composite of taped segments.)

CHAPTER VI: MESSAGE TO LOVE

"Message to Love" is the final Hendrix composition to appear on *Band of Gypsys*.[1] By reason of its complex musical form as well as its exhortative "message," the piece shows obvious conceptual parallels to the preceding track on the album, the similarly titled "Power to Love." (Example VI-1 in Appendix E shows the formal design of "Message to Love.") Indeed, the two songs were roughly coeval in their development and similarly came together in jam and rehearsal sessions, apparently with some input from Hendrix's Band of Gypsys colleagues, Cox and Miles. However, Hendrix had hammered together a nearly complete arrangement of "Message to Love" for his performance at Woodstock with Gypsy Sun and Rainbows, some months before Band of Gypsys would begin rehearsing the piece. In consequence, perhaps, of their having inherited a more solidified arrangement from the earlier group, Band of Gypsys execute the intricate melodic patterns and tricky rhythms more assuredly in "Message to Love" than they do in "Power to Love," although in both performances Hendrix has difficulties cueing sectional changes to his colleagues. As will be discussed below, the faster-paced "Message" is also, by turns, more serious and more exuberant sounding in its exhortation than the latter work.

Although Hendrix had put a basic arrangement together with Gypsy Sun and Rainbows, various component parts and whole sections of "Message to Love" would continue to change as he developed the piece after the Woodstock performance. Several studio and live recordings document different stages in the song's evolution—beginning with its possible moment of conception.

Reportedly, the main riff in "Message to Love" spontaneously emerged during an extended jam in a live concert performance by the original Jimi Hendrix Experience. The Experience's engagement took place on 18 February 1969 at London's Royal Albert Hall. Reviewing tapes of the Albert Hall gig, Hendrix scholar John McDermott has concluded that during a segment of "Spanish Castle Magic" Hendrix improvised a riff that would eventually become a principal guitar part in "Message to Love."[2] The Experience's high profile appearance at the Albert Hall was professionally recorded, and Hendrix, who, in any case, routinely reviewed tapes of his live concerts, could have easily retrieved the improvised idea from the taped performance.

It was in private sessions with Billy Cox that Hendrix apparently developed and expanded the Albert Hall riff into the foundation for a new song composition. Cox remembers having just reunited with Hendrix for recording sessions beginning in May 1969, when Hendrix played a recording for him of the principal guitar part in "Message to Love":

> Jimi had the opening guitar riff [of "Message to Love"] on a little tape he made at home. When he played it to me, I suggested some changes to the riff he was playing, and that made one complete pattern. The next pattern was repeated twice before the melody came back to the top. That's all it was. It was nothing but two separate patterns linked together.[3]

Cox's description of the compositional process is familiar from the preceding discussions of "Power to Love" and "Dolly Dagger." In the present case, of course, the nucleus of "Message to Love" originated with Hendrix and Cox rather than reflecting musical raw material extracted from Ray Charles or modeled on the sound of Big Ben.

However, having such readily identifiable and evident raw materials in the former songs made Cox's statements about their constructions more comprehensible. In this case, Billy Cox's given account of "Message to Love" neither specifies the origin of the "second" melodic pattern that he mentions, nor does it explain how his bass line, supportive of the guitar riff but independent of it, came into being. As will be shown, the contrapuntal design of the combined guitar and bass parts in "Message to Love" distinguishes the piece's principal theme from other thematic elements in the song as well as from the prominent ostinati of the companion tracks on *Band of Gypsys*. All of the major thematic elements in the song will be treated in the analysis of "Message to Love" to follow.

Hendrix recorded a fledgling version of "Message to Love," under the working title of "Message from Nine to the Universe," on 22 May 1969. The recording session took place in New York while Hendrix took a brief hiatus from the Experience's extended spring touring schedule. The May sessions at the Record Plant were informal, and Hendrix's backup included his future partners in Band of Gypsys, Billy Cox and Buddy Miles. "Message from Nine to the Universe" was reportedly marbled within a lengthy jam session that was also made up of bits of "Earth Blues," another work in progress that was likewise destined to become part of the Band of Gypsys repertoire.[4]

Obliged to resume his touring dates with the Experience, and otherwise occupied with preliminary hearings in connection with his upcoming trial for illegal possession of drugs, Hendrix suspended working in the recording studio for some two months after the May sessions in New York. Efforts on "Message to the Universe," as Hendrix now titled his song, would recommence in rehearsals with Gypsy Sun and Rainbows that were held

at Hendrix's Shokan retreat, beginning sometime after the Experience folded in June 1969.

Hendrix was evidently confident enough of his new piece to place it in the opening slot for his set at Woodstock (18 August). Ten days after the Woodstock gig, Gypsy Sun and Rainbows would record another, tighter arrangement of "Message to the Universe" as their first effort in their one and only set of studio sessions, held at the Hit Factory Studios in New York. Band of Gypsys would bring further revisions to the piece that they inherited from Gypsy Sun and Rainbows, as documented in the studio version of "Message to Love" that group recorded on 14 December, and on the live recording that they made on the final set of their Fillmore appearance (1 January 1970), as issued on the *Band of Gypsys* album. Subsequent to the breakup of Band of Gypsys, Hendrix would continue performing the piece in concerts with the re-formed Experience on the "Cry of Love" tour.

"MESSAGE TO LOVE": CRITICAL ANALYSIS

"Jimi's gonna do a thing that he - - he wrote called
'Message of [sic] Love'" —
Buddy Miles's introduction, 1 January 1970

Introduction

(mm. 1–4 [0:0 – 0:14])

A bursting guitar glissando and a synchronized crack on the snare drum cue up the booming introduction to "Message to Love" (see synchronized, upbeat pickup to m. 1). The guitar and bass, accompanied by a propulsive drum pattern, begin a

surging ascent—climbing upwards in an interlocking pair of sequential chromatic patterns (see mm. 1–4, in score). In the opening measures of the segment, Hendrix downstrokes a set of consecutively rising pairs of octave intervals on his guitar, accenting each chromatic shift in the sequence to impart a greater sense of thrust to the climb. Sounding a major tenth below the guitar part, Billy Cox's "walking" bass pattern is made up of consecutive eighth-notes, sounding a rising sequence of octave leaps. The sound of the combined parts is massive, and the solid resonance of the wide-spaced texture—particularly the major tenth intervals sounding between the respective low notes of the guitar and bass parts—gives greater heft to the rising body of sound.

The booming guitar and bass parts are not yet anchored to any tonal context, however. And although there is a growing anticipation of an impending tonal clarification, there is also no sense of an appointed tonal destination for the chromatic sequence. For the first four measures of the piece, the surging sound rises up with no evident "ceiling" in place, yet one imagines the harmonized melodic lines as striving towards some as yet unspecified tonal goal.

Hendrix employed a somewhat analogous compositional technique in "Purple Haze." That early Experience piece also begins in a condition of tonal ambiguity, albeit the song's famous tritone opening is both aggressively discordant and initially static. Moreover, the stomping tritones that open "Purple Haze," besides making a striking effect, are integral to the composition in both structural and aesthetic terms; they forecast other extra-tonal and dissonant elements in the recording, and also give the first dramatic expression of the violently confused and "altered" psychological state of the song's protagonist.[5]

The chromatic planing which begins "Message to Love" will forecast no other comparable chromaticism or tonal ambiguity, except for a varied reprise of the introductory segment itself and a novel tonal juxtaposition that occurs at the conclusion of the piece. And, to be sure, the suspenseful delay of tonal stability in the piece will not be an overture to a Purple Haze-type "freak out." Yet, the evocative climb of the harmonized guitar and bass parts would seem to be inspired by the song's "elevating" message of universal liberation through self-knowledge, as will be seen in the analysis of text to follow. Hendrix was careful in crafting the introduction, and the interlocking part that he plays with the bass was evidently the fruit of revisions that he had made by the time he was performing "Message to Love" with Band of Gypsys. Billy Cox remembers how he and Hendrix, their guitars in hand, intuited the rising chromatic sequence in "Message to the Universe," the erstwhile title of the piece: "We just went up the fretboard until we could go no further."[6]

Section A: Main Thematic Area and Verse I

(mm. 5–12 [0:15–0:31])

Main Theme and Riff: MTL-1

(mm. 5–9 [0:15–0:23])

The momentous and "heavy" sounding introduction carries the piece into a disarmingly cheerful riff and main thematic area; a four-measure instrumental section that quickly establishes the song's D key center as well as its energetic rhythmic character (see mm. 5–9, in score). The instrumental section will also function as a

preface to the song's first verse, wherein the same basic parts will serve as accompaniment to Hendrix's vocals.

Whereas either a bass ostinato or unison guitar and bass parts principally defined the main themes in the previous examples from *Band of Gypsys*, the main theme in "Message to Love" is fundamentally contrapuntal, being based on two distinct and largely independent guitar and bass patterns. Enriching their contrapuntal relationship, both the bass part and especially Hendrix's complex guitar parts, will vary their melodic patterns in repetitions of the main theme throughout the piece.

As observed in its initial statement, Hendrix's guitar riff compresses several ideas into its pair of matched, two-measure phrases (mm. 5–8). The transcription shows that the guitar part unfolds in a linked series of intervallic shapes, chords, blues licks, and single-note melodic fills. The ad-lib melodic ideas (see score annotations, mm. 6 and 7.5) are particularly enlivening, and they typify an aspect of Hendrix's playing style in subsequent passages. The trilling figure centered on the major third scale degree (F-sharp) in m. 6 is a familiar blues lick, and its rapid flourish and major quality imbue an uplifting spirit to the phrase. Similarly, the pentatonic-based lick in the next measure counterpoises the strident sounding thematic head motive (labeled motive MTL in mm. 5 and 7) that begins the measure; played here as an ad-lib melodic fill, Hendrix played variations of this same pentatonic figure—a lick rooted in the soul guitar style—in the chorus sections of "Fire" (*Are You Experienced*). Furthermore, the mixed melodic and chordal style of playing in the passage from "Message to Love" exemplifies Hendrix's lauded ability to perform simultaneous "lead" and "rhythm" guitar chores in his live performances.

The head motive of the main thematic idea and guitar riff, shown as motive MTL, represents, in and of itself, a variation of a signature "sliding fourth" guitar lick; Hendrix employed similar ideas in a variety of contexts, and, as discussed previously, the sliding fourth and related melodic figures were stylistic components inherited from rhythm and blues guitar playing (see Chapter II Hendrix's Sound: *Curtis Mayfield Guitar Style*). In "Message to Love," Hendrix has fattened the texture of the archetypal sliding parallel fourth intervals by doubling the their constituent tones at the octave. In subsequent statements of the riff, Hendrix will sometimes omit one or both octave doublings of the motive's principal upper fourth interval.

In the guitar's head motive, one also hears Hendrix ringing changes on another of his favorite sounds and intervallic configurations. The motive's primary quartal shape, formed on pitches F and C natural, contains the critical fourth voicing and tonal makeup that one would find in an incomplete Hendrix chord (see Chapter II Hendrix's Sound: *Hendrix Chord*). Indeed, the sound and rhythmic character of the head motive closely resembles a memorable guitar riff in Hendrix's "House Burning Down" (*Electric Ladyland*), whose punched glissando figure doubles the upper voices of a supporting Hendrix chord. Example VI-2 shows transcriptions of three layered guitar parts in "House Burning Down"; the over-dubbed guitar part 3, sounding the aforementioned perfect fourth, dominates the texture. However, unlike the riff in "House Burning Down" and the many comparable riffs in other Hendrix compositions, the head motive in "Message to Love" belongs to no supportive harmony; instead, Hendrix superimposes the pair of quartal shapes over the bass part's implied roots on the subtonic and subdominant scale degrees, respectively.

The harmonic progression underpinning the main thematic area (and all sections designated by the letter A, appearing in the score) is a two-measure chord cycle: root progression, bVII - IV - I + IV – I (see score annotations, mm. 5–6). In terms of its component chords, the main harmonic progression in "Message to Love" has little to distinguish it from similar chord sequences in countless pop songs; progressions made up of major chords formed on the tonic, subdominant, and subtonic scale degrees are ubiquitous in both contemporary rhythm and blues and rock. Several of Hendrix's earlier works, including pieces as divergent in character as "Foxy Lady" and "Burning of the Midnight Lamp," made substantial use of a similar, stock chord progression (I - bVII - IV).

However, the chord sequence in "Message to Love" is a bit out of the ordinary, in that it begins on the subtonic rather than on the tonic chord. Consequently, when the cycle starts up it first strikes the ear as a progression of chord roots ascending by perfect fifths (C - G - D, in the progression's first measure)—a rising harmonic sequence that seems to flow naturally out of the introduction's chromatic lift-off. But as the chord pattern settles into its cyclic role as a harmonic framework and vamp progression, it is characterized by its multiple plagal relationships; in addition to the repeated subdominant to tonic chordal progression (G - D), one also hears the subtonic chord (C) proceeding to the subdominant as an additional "plagal" motion (IV of IV - IV).[7]

As indicated, the two-measure harmonic cycle coincides with the main guitar theme's two-measure phrasing. Billy Cox's four-measure bass pattern, labeled MTL-1 in the transcription, adds another layer of rhythmic and melodic structure. Cox plays the first half of the MTL-1 pattern in his upper register, then leaps down into the bass's lower

register to complete his larger phrase (Cox exercised a somewhat analogous approach in "Machine Gun," playing two closely related ostinati, MG-1 and MG-3, whose most appreciable difference was their contrasting registers). Although the bass's two half-phrases adhere to the same root harmonic progression, they are audibly distinguishable from one another in terms of their specific melodic and rhythmic characteristics as well as their contrasting registers. The complete MTL-1 pattern will function both as accompaniment to the song's short, four-measure sections of verse (in A sections), and as a supporting ostinato for Hendrix's lengthy solos. Cox plays very loosely with this, the longest bass pattern and ostinato in the Band of Gypsys repertoire, varying its rhythms and improvising many melodic details. While the piece is hardly a showcase for the bass, Cox's subtle inventiveness, and especially his rhythmic surefootedness in later passages, will be most evident in "Message to Love."

Verse I:

(mm. 9–12 [0:24–0:31])

With the core groove being firmly established in the preceding four measures, Hendrix begins singing the first verse of the song. His phrases, starting after the second beat in each measure, "answer" the ongoing guitar motive and thematic motto (motive MTL), and are, in turn, responded to by Buddy Miles's backing vocal part (shown in parentheses below):

Well, I travel at the speed of a reborn man

(Yeah) (Oo)

I got a lot of love to give from the mirrors of my hand

(Yeah) (Oo)

The rate of speed at which Hendrix's reborn man is traveling and dispensing love is evidently quite fast; after a brief four measures the verse is over and the piece hurries off into another equally short instrumental passage. "Message to Love" will continue to unfold in a rapid succession of different, but organically connected, verse and instrumental sections—engendering a restless and peripatetic character that begins with the introduction's searching chromaticism.

The moderately fast tempo (ca. 112 b.p.m.) will also play an increasingly important role in conveying a breathless urgency in the piece. In their pre-concert rehearsals, Band of Gypsys labored a great deal in trying to find a proper tempo for "Message to Love." When Buddy Miles reportedly wanted to slow things down a bit, Hendrix insisted on keeping the song's tempo and rhythmic feeling lively and upbeat. Remembering the rehearsal sessions for "Message to Love," Billy Cox recalls Hendrix describing a particular mental image and visualization that he associated with a suitable uptempo setting: "If you can't see little kids skipping on your fast songs," Hendrix explained, "you got nothing."[8]

Section B: Instrumental Passage; Theme and Bass Pattern MTL-2

(mm. 13–16 [0:32–0:39])

Unison bass and guitar parts bring a sudden shift in texture and begin a third instrumental passage bearing its own distinctive theme. The passage is interposed between the song's first and second verses, and is labeled here as the B section in the piece's larger form (see Ex. VI-1 and letter B in score, indicating mm. 13–16). One hesitates to characterize the passage as being an "episode," implying that it is fundamentally a digression from the main theme and section of verse. Rather, this instrumental passages as well as a subsequent, corresponding passage, occurs in dialogue with the singing verse in a kind of large-scale, equally proportioned pattern of call and response.

It is the unchanging bass pattern that defines the new thematic material, labeled here as MTL-2, and Cox's part would seem to tally with his description of a "second pattern" that Hendrix and he came up with when first putting the song together. Hendrix adds a spare amount of incidental counterpoint in the passage (mm. 14 and 16), but otherwise the guitar adheres to playing in unison with the bass. Supplementing the tightly focused sound of the bass and guitar, Buddy Miles expands the volume and rhythmic complexity of his drum parts, shifting from the hi-hat to the ride cymbal, and adding syncopated figures in the bass drum part.

The compact and animated new theme bolsters the bustling momentum of the piece, and its structural elements are linked with other melodic, rhythmic, and harmonic events. Example VI-3 shows a transcription of the theme and fundamental bass pattern,

MTL-2. In beginning a comparative analysis, one quickly spots the ascending chromaticism that the theme's opening shares with the piece's introduction; one can, indeed, hear a faint echo of the introduction in the chromatic gesture. But the blues-based style and unequivocal tonality of the theme—the chromatic raised-fourth degree (G-sharp) representing an inflection of the passage's basic pentatonic scalar set (D, F natural, G, A, and C natural)—shares nothing of the chromatic ambiguity of the introduction.

Analysis also reveals the theme's highly repetitive internal structure. Within its repeated two-measure phrase length—half the span of the foregoing bass pattern—the theme's melody varies from one measure to the next only in the alternating figures that occur on the respective measures' downbeats. The rhythmic structure is similarly concentrated, and amounts to a single pattern that is repeated in each measure.

The stripped-down theme brings some new harmonic implications; the combined bass and sketchy counterpoint of the guitar part (mm. 13–16) suggest an underlying progression of roots, IV - I - bIII - I. Thus, the parts imply a new chord root formed on the flat mediant (F natural); that harmonic implication will be made explicit in a section of verse to follow (see third verse, section D). Moreover, a motivic element, the angular, sixteenth-note figure sounding in the second half of each measure, will reemerge in permutated form as a thematic element in the piece's climactic sections (labeled as sections C, C prime, and C double prime, as given below).

Verse II and Instrumental Passage: Sections A' and C

(mm. 17–24 [0:40–0:57])

Hendrix's second verse (mm. 17–20) delivers a key phrase and lyric:

I said a message of love—don't you run away

(Yeah) (Oo)

Look at your heart baby, come along with me today

(Yeah) (Oo)

While retaining the same general melodic contour of his first verse vocal part, Hendrix varies both the exact pitch content and the phrasing (largely the internal rhythms of the phrases) in his second verse melody. One suspects that changes in the text mostly shape these subtle variations from the first verse, owing to Hendrix's syllabic singing style. Moreover, listening to several other performances of the piece, as well as the character of the melodies themselves, convince one that there was no set or "prime" form of the A section melody from which Hendrix deviated. Rather, Hendrix worked from a flexible melodic design comprising both integral and optional pitch choices and rhythmic inflections, rather than a set tune.

In terms of lyrical style, one might find the poetry in both verses similarly unconvincing; the rhymes can seem forced ("come along with me today"), and the imagery obscure and less than compelling; "mirrors of my hand" would seem to be a residual bit of post-psychedelic doggerel. However, the anticipated

"message"—whatever it may come to mean—is clearly of great import, as the loud and ecstatic response that issues from the band affirms.

The rousing passage that responds to Hendrix's second verse also comprises another four-measure formal division, section C, and a third thematic area, marked MTL-3 (see section C, marked in score; mm. 21–24). With its faster rhythms and even tighter phrasing, the melodic and rhythmic patterns of theme MTL-3 being compressed into the span of a single measure, the passage is dramatically more intense than its formal counterpart, section B. Buddy Miles's rapid-fire, untexted vocal part, sung in unison with the guitar and bass lines, is crucial to the heightened expression of the passage.

In addition to formal as well as some general stylistic similarities between sections B and C, the sections' respective themes (MTL-2 and MTL-3) also share motivic elements (compare Ex. VI-3 with Ex. VI-4, showing bass pattern, MTL-3): the paired sixteenth-notes and eighth-note figures of the two themes are strikingly similar in melodic contour as well as rhythm; less obvious is the correspondence between the bass pickup figure in MTL-3 and the chromatic head motive in MTL-2. With respect to implied harmonies and root progressions, MTL-3, in effect, compresses the plagal motions of both preceding themes into an oscillation between subdominant and tonic.

In the context of the piece's unfolding form the climactic passage described above gains a particularly high level of intensity. After having rushed through five four-measure sections, the theme's concentrated repetition of brief melodic and rhythmic figures, and of a similarly condensed implied harmonic content, produces a mounting anticipation for release and the resumption of forward-moving development. In the event, the bottled-up energy and excitement give way to a calmer condition in the

succeeding section of a new and lengthier verse form. In this manner, the musical stage is set for the song's heralded message. Moreover, following the climactic passage and beginning with the third verse, formal structures will grow progressively and substantially longer, and the piece effectively slows down its rate of thematic change.

Third Verse and Section D

(mm. 25–32 [0:57–1:13])

> Well I am, what I am—thank God
> Some people just don't understand (well, help them God)
> Find yourself first and then your tool
> Find yourself first—don't you be no fool

The message in "Message to Love," as represented in the text of the song's third verse quoted above, exemplifies the direct, "straight talking" expression that was Hendrix's stated goal for his post-Experience songwriting. As noted above, "Power to Love" similarly represented a balance of poetic expression (e.g., the allegories of low-flying airplanes and lazy jelly fish) and plain-spoken exhortation. However, in the above lines, and in subsequent verses of "Message to Love," the tone of the text is decidedly homiletic —downright "preachy." Moreover, Hendrix's sermon sounds a bit smug; one wonders whether the parenthetical aside to God in the second line represents an entreaty for universal enlightenment or just a self-centered peevishness.

Admittedly, the role of "messenger," bearer of universal truths, is a difficult one, and in playing the part Hendrix inevitably risks sounding pompous—if not plain silly. But it was, in a sense, a role that Hendrix seems to have wished to play on a larger scale.

One remembers his statements that he would be striving in his art to communicate "solutions" to the social and spiritual quandaries of his era. It was, in fact, shortly before making his first demo recordings of "Message to Love" and "Power to Love," that Hendrix stated in interview: "It's solutions [that] everyone wants now, not just protest."[9] Perhaps the composer envisioned "Message to Love" as becoming a part of an emerging body of similarly inspirational and thematically interrelated works.

Hendrix's committed-sounding text receives a fittingly resolute musical setting. Contributing to that impression is a new harmonic progression that firmly begins on a fully realized tonic chord and supports the vocal's new downbeat oriented phrasing. As indicated by the author's annotations in the transcribed score (letter D, mm. 25–26), the two-measure harmonic progression cycles through root motion I-IV-bIII-bVII (sounding both implied and realized major chords formed on roots D, G, F natural, and C natural, respectively). Thus, the progression merges the various harmonies, both real and implied, of preceding thematic areas (corresponding to formal sections A, B, and C). In addition, the progression also reconfigures the chord connections and, particularly, the aforementioned plagal motions of the preceding harmonic progressions; the chord of the flat-mediant (F major) now acts as a local subdominant of the subtonic chord (C major); the head of the progression moves from tonic to subdominant, I-IV, a refreshing and elevating reversal of the pervasive IV-I progressions of preceding themes. Underpinning the harmonic scheme, the bass plays variations of a two-measure pattern, labeled MTL-4.

The serious intent of the text notwithstanding, the musical mood of the passage is not predominantly one of "heavy business." It is primarily the lively guitar part, both supporting and responding to the lead vocal, that leavens the serious tone of Hendrix's

text and vocal delivery. Accompanying the vocal phrases, the guitar plays complete chords and intervallic shapes that outline the supporting harmonies. The "skipping" imagery that Hendrix evoked during the Band of Gypsys rehearsal sessions could very well characterize the combined effect of dancing sixteenth-note figures ( and), leaping interval shapes, and staccato articulations that one hears in the backing guitar part (e.g., see mm. 25 and 26).

In response to his own vocals, and linking the vocal part's two-measure phrase structures, Hendrix plays a repeated and varied short melodic phrase (see mm. 26.5, 28.5, and 30.5). The guitar's melodic fill represents a pre-planned part, and it frames Hendrix's bluesy singing phrases with a smooth, pentatonic lyricism (the tonal content of the guitar's melody corresponds to a C major pentatonic scale; pitch set C, D, E, G, and A). The guitar's lyrical quality is also rooted in and associated with dance-oriented rhythm and blues: similar pentatonic guitar licks, formed of oblique intervallic patterns, were earmarks of 1960s soul music (see Chapter II Hendrix's Sound: *Style and Idioms of Soul Guitar*). Hendrix shows a characteristic finesse in his application of the inherited style. The first two guitar fills smoothly connect the underlying harmonic changes in the second and third measures of the phrase structure (underlying root motion, F to C, progressing back to tonic D; mm. 26.5–27, and 28.5–29); voiced under the common tone C natural, the A natural on beat three of the measure occurs as a suspension held over from the preceding implied F major chord. Hendrix also varies the second repetition of the guitar phrase by sounding a blue-note appoggiatura (rendered in the published transcription as E-flat, the flatted third of the chord of the moment), over the subtonic chord on C (fourth beat, m. 30).

Conclusion of Third Verse and Exposition of Principal Themes

The end of the song's third verse concludes the first thirty-two measures of the piece and caps off its primary thematic complex. In the relatively short span of thirty-two measures, and a little over one minute's duration, five thematic ideas have been presented, beginning with the introduction's striking chromatic passage. The following diagram shows the formal divisions in the first thirty-two measures of the piece [0:00–1:14]; each section in the diagram is matched with its associated theme and/or bass pattern:

Introduction (chromatic climb) 4 mm (mm. 1–4)

Section A (MTL-1) 4 mm. main theme and instrumental pad to the first verse (mm. 5–8)

Section A cont'd (MTL-1) 4 mm. first verse (mm. 9–12)

Section B (MTL-2) 4 mm. (mm. 13–16)

Section A' (MTL-1) 4 mm. second verse (mm. 17–20)

Section C (MTL-3) 4 mm. (mm. 21–24)

Section D (MTL-4) 8 mm. third verse (mm. 25–32)

Varied forms of sections A and C, as well as of the introduction's material, will recur later in the piece; sections labeled B and D occur only once. In addition to the varied reprises of the A and C sections, another new section and set of thematic ideas will be introduced as well (see below, section E). But after the initial thirty-two measures of

thematic juggling, as it were, the piece will now "settle" into a forty-four measure guitar solo supported entirely by bass ostinato MTL-1. The listener will hear in the solo section, then, a novel concatenation of thematic "resolution" and stability with a continued development of new, improvised ideas.

Guitar Solo I

(mm. 33–72 [1:14–2:34])

Hendrix's lengthy, first guitar solo will show the wonted integration of thematic elements with trademark licks and techniques that we have encountered in other solos from *Band of Gypsys*. In addition, both the large-scale form and the internal phrase structures of the guitar solo show conceptual parallels to the solo sections that were analyzed above. A general descriptive outline of the solo's structure indicates some relevant correspondences with preceding analyses. Thus, the solo begins with solid connections to principal thematic material, proceeds to develop both freely improvised ideas and new riffs;, culminates in a climactic plateau spanning some several measures, and concludes with a return to the principal theme.

Beginning his extended improvisation, Hendrix effectively paraphrases his guitar parts from the first main thematic area, the four-measure A section that prefaced the first verse of the song (see preceding discussion of mm. 5–8). The new four-measure phrase, however, reflects significant changes from the component parts in preceding A sections. The reader's attention is directed to mm. 33– 37, corresponding to the first five measures of the guitar solo section. As seen in the score, the guitar's opening gesture (m. 33) is a

clear permutation of the A section head motive (motive MTL), being analogous to a melodic inversion of the original motive. The subsequent motivic permutation, the similarly ascending figure in m. 35, trims down the quartal structure of the original motive to form octave intervallic shapes; reaching upwards into the guitar's high register, the figure of parallel octaves also evokes the guitar's rocketing ascent in the piece's introductory segment.

The single-note melodic figures and scalar runs that append the aforementioned motivic permutations form audible counterparts to the chordal- and pentatonic-based fills of preceding A sections. The development of these figures and runs in the solo's opening will lead into the second four-measure passage of the solo. Thus, the guitar's rapid three- and four-note patterns in m. 36 resolve themselves into a brief quotation of C section motivic material in the subsequent measure (MTL-3, m. 37)—a thematic superimposition that sparks the free melodic inventions of the next four measures.

Accompanying Hendrix's improvised solo, Billy Cox's MTL-1 pattern will function as a supporting ground bass. Throughout the solo section Cox will adhere fairly closely to the part (with one significant modification to be discussed), in the main applying only subtle variations and embellishments to the basic pattern. Until the solo reaches its climactic passage, Buddy Miles will scarcely vary the basic drum pattern that he establishes in the opening measures of the section. Uncharacteristically, Miles will refrain from playing *any* drum fills or turnaround figures for the duration of the solo section. However, for the first twelve measures of the section, Miles reprises his background vocal parts (from verses one and two—"Yeah—Oo"), whose exhortative spirit is boosted by Cox's joining Miles's part in close harmony (m. 35 ff.). In a filmed

interview Buddy Miles recalls that it was he and Cox who came up with the background vocal parts to "Message to Love," and, in retrospect at least, he hears a Beatles-like quality to their sound.[10]

Concurrent with the twelve measures of Cox's and Miles's background vocals, Hendrix's improvising remains oriented towards four-bar phrasing. The third such phrase construction in the solo exemplifies Hendrix's gift for extemporizing a concise and clearly defined melodic idea, as well as his ability to develop that idea to the extent of generating a new melodic invention.

Mm. 41–45 represent the third four-measure segment of the guitar solo section. The segment is immediately distinguishable from the preceding measures by Hendrix's switching on his fuzztone, and by the guitar's opening leap up into a higher register (bending up to F natural, m. 41). The guitar's melody is tuneful and comprises a series of varied motivic repetitions. In terms of rhythmic makeup and general melodic contour, the melody's subphrases (commencing on the downbeats in mm. 41, 42, and 43, respectively) are closely related to the ground bass pattern. Those correspondences notwithstanding, in terms of its tonal makeup the melodic line ignores the aforementioned harmonic implications of the bass. With minimal exceptions, Hendrix's improvisation is linear in conception, and his melodic constructions invariably superimpose D-centered scalar collections over any harmonic changes implied by the bass.

Annotations in the score mark out the motivic design of the improvised passage (mm. 41–45). As indicated in the transcribed guitar part, the first pair of motives essentially represents the same figure; the first motivic repetition in m. 42 scarcely varies

from the form appearing in the previous measure (see motives *a* and *a'*). The second variation (m. 43, motive *a''*) brings a more significant, principally melodic, alteration; the pitch level of the altered motive is raised from that of the previous pair of motives, the variation's first note being hoisted up to A-flat, a minor third above the prime form's corresponding F natural (in effect, Hendrix's shift from the flatted third degree targets the next highest blue note—the flatted fifth degree—available from the D-centered blues scale).

An anticipated third variation seems to have barely started when it is supplanted by a new motivic idea; the energizing pattern of sixteenth-note figures that begins in the middle of m. 44. But besides the striking rhythmic acceleration that attends the change, there is also an inherent continuity in the transition. The new melodic pattern actually represents a continued development of the foregoing motivic area; the principal motivic cell in mm. 44–45 is understood as a rhythmically compressed and melodically fragmented permutation of the motivic template set up in the preceding measures. An additional element of large-scale continuity obtains from the audible resemblance of the newly developed pattern to thematic material MTL-3 (compare descending melodic profiles and patterns of three sixteenth-note figures in mm. 44 and 45 with those in MTL-3 guitar part, mm. 21 and 22).

One wonders, however, what prompts Miles and Cox to alter the parts they maintain throughout the first twelve measures of the solo until reaching m. 45. At that point, Miles marks the downbeat of the measure with a cymbal crash and subsequently shifts playing his steady eighth-note pattern on his ride cymbal to the open hi-hat that he otherwise reserves for vocal sections in the piece. Miles switches back to his ride cymbal

after four measures, but Cox's change will have a subtle effect on the remainder of the solo section. In m. 45, Cox effectively begins reversing the order of registral exchanges in his bass part (varied patterns of MTL-1) by staying in his low register for an "additional" two measures (mm. 45–46) in relation to his established four-measure pattern. Cox switches back to his higher register in m. 47 and subsequently renews alternating registers every two measures. Consequently, his renewed four-measure pattern of exchanging registers is now displaced by two-measures—and sounds "backwards"—in relation to the MTL-1 pattern established at the beginning of the solo and in the piece's A sections, as well as in relation to the four-measure phrasing of Hendrix's solo.[11]

Climactic Passage of Solo Section

(mm. 53–68 [1:55–2:27])

The climactic moments of the solo unfold in a string of ideas that spans a proportionately lengthy passage, amounting to nearly a third of the section's duration. One might speak, then, of the same kind of climactic plateau that was previously observed in the corresponding solo section of "Machine Gun." Thus, for sixteen measures, beginning at around the midpoint of the guitar solo (starting at m. 53, and beginning, then, at twenty-one measures into the forty-four measure solo section), the improvisation in "Message to Love" exhibits highlighted effects of rhythm, timbre, and extreme register.[12] Besides formal and stylistic similarities that will be recognizable from the discussion of "Machine Gun," the trademark techniques and elements of style that

Hendrix now engages also will be familiar from previous discussions of "Who Knows" and "Power to Love." Additionally, an important segment of Hendrix's solo bears a strong resemblance to improvised material that he played on "Them Changes," another track included on *Band of Gypsys*.

Hendrix kicks off the climatic passage by leaping into his extreme upper register and performing a series of progressively higher-reaching string bends (mm. 53–57), ultimately stretching up to his high C natural (mm. 56–57), the peak note of both the solo and the entire performance. Accentuating his aggressive pick attack and the spiked profile of the high-register bends, Hendrix floors the wah-pedal to its extreme treble position. Buddy Miles's quick response to the keening guitar sound is to reprise the drum patterns that he played in the piece's introductory section; two measures after Hendrix launches his *altissimo* passage, Miles begins "doubling-up" on his snare drum—switching to a driving "four-to-the-bar" pattern from the established back-beat snare drum part—and accenting consecutive off-beats in his bass drum part. As the passage continues to gather steam Miles will maintain the four-to-the-bar snare drum part and a steady eighth-note pattern on the ride cymbal, using those combined parts as a time line against which the bass drum will sound varied patterns of off-beat syncopations.

Fueled by Miles's "double time" rhythms, Hendrix begins the charging guitar riff that will carry the solo to its culmination (see mm. 61–69 [2:11–2:27]). Hendrix locks into the part a few moments after winding down from his *altissimo* register, and the riff's rushing cycle of motives makes a marked contrast from the preceding segment of whining string bends (as seen in the score, the riff develops from a variation of lick JH-1 that Hendrix plays in mm. 61 and 62). Besides sharing a conceptual kinship with a riff-

driven segment of "Who Knows" (see Chapter IV discussion of the improvised riff for Octavia-processed guitar in mm. 169–175), the guitar part closely resembles a segment of Hendrix's improvised solo in "Them Changes," the Buddy Miles composition that Band of Gypsys recorded on the same Fillmore set that included the performance of "Message to Love" (for comparison, see mm. 61—69, as marked in score, and Example VI-5, showing an excerpt from the guitar solo in "Them Changes," mm. 66–73).[13]

Hendrix bears down on the aforementioned guitar riff for four-and-a-half measures (mm. 61.5–65), initially keeping the wah-pedal in its full treble position before rocking the pedal between its treble and bass settings, thus adding another timbral and rhythmic dimension to the racing motivic pattern. However, in the subsequent and concluding measures of the passage, Hendrix's riff begins to unravel; in addition to making subtle motivic alterations, Hendrix destabilizes and figuratively trips up the rhythmic momentum by making erratic sweeps with the wah-pedal (mm. 66–67). The pattern finally breaks up and dissolves into a howling double-stop; the same JH-1 lick that is, by now, a familiar feature from preceding analyses (mm. 67–68). In turn, Hendrix expands the sustained double-stop figure to form another familiar intervallic shape; the trademark "I Don't Live Today" lick (mm. 68–69 [2:26–2:27]), that, in a different rhythmic guise, played a similarly climactic role in "Who Knows" (see Chapter III discussion of Guitar Solo I, mm. 64–66). In the present instance, however, Hendrix simultaneously plays the shape, pushes down the wah-pedal to full treble, and bends and releases the guitar's vibrato arm. The resultant dive bomb effect—a treble-boosted smear of sound—makes a noisy punctuation to cap off the passage.

Having reached its climactic peak, Hendrix draws the solo to its conclusion and makes preparations to recap the main theme and riff. Thus, in the closing measures of the section, Hendrix switches off the wah-pedal's scorching treble boost to play a concluding phrase (mm. 69–72) and subsequently bypasses the fuzztone in executing the piece's main and riff (mm. 73–76, corresponding to the first four measures of beginning section A''). While Hendrix is shutting down his auxiliary signal processing in order to reduce the guitar's volume and to return to a cleaner sound quality, Miles's double-time drumming continues to plow through the restatement—the only hitch in his otherwise driving rhythm being a quite evident sag in tempo (2:35–2:39). In characteristic form, the restatement of the theme will both conclude the solo section and function as a preface to the song's upcoming and final section of verse.

Fourth Verse: Section A''

(mm. 73–92[2:35–3:15])

Sixteen measures in length, the fourth verse represents a sizable expansion of the A section form established in verses one and two. With no intervening thematic insertions or episodes, Hendrix sings an uninterrupted series of lines, each couplet of text set to a similar melody in consecutive four-measure phrases. The verse lyrics also bring the next and final installment of the song's message, whose text is transcribed as follows (the text of the background vocal parts, reprised from the earlier sections, is not shown):

Here comes a woman, wrapped up in chain
Messin' with that fool, baby—your life is pain
If you wanna be free, come on a-long with me
Don't mess with the Man, he'll never understand
I said, find yourself first, and then your talent
Work hard in your mind, so if you come alive,
You better prove to the Man, you're as strong as him
'Cause in the eyes of God, your both children to Him

In beginning the loosely related set of lyrics, Hendrix reworks a well-worn metaphor; the "chain" imagery is familiar from "51st Anniversary," an early Experience release, and was also seen in "Who Knows."[14] As previously noted, sexual entrapment is an enduring theme that circulates through many of Hendrix's works. But although the first lines of the above text indicate a sexual situation, the subsequent series of "aphorisms" would seem to speak to a larger spiritual condition and social context. Hendrix also expands upon his earlier exhortation to "find yourself first," a key lyric from the third verse and D section of the piece. As seen in the last line of text, the fourth verse closes with an affirmation of spiritual equality—a benediction that echoes the implicit statement of universal brotherhood that is voiced with such tragic irony in "Machine Gun."

Section C'

(mm. 93–96 [3:16–3:23])

Having concluded his lengthy stretch of singing in the fourth verse, Hendrix jumps directly into a varied repetition of C section instrumental material (MTL-3, m. 93). The shift into the swift running passage comes too suddenly for the band to tightly

execute, however, and the bass and guitar take a full measure to lock into their unison parts. The momentary disarrangement is a likely result of Hendrix's either having been unable or having neglected to signal his band members that he was about to begin the section.[15] For that same reason, perhaps, Buddy Miles does not repeat the unison vocal part that he sang during the first C section. It is the guitar that takes the foreground in this passage, Hendrix dividing his phrases between playing unison patterns with the bass and making ad-lib "responses" to his own riffing. To cap the section he changes register, transposing the head motive of the theme up an octave (m. 96). The passage, like the first C section, will lead from the A section verse into a new thematic area, section E.[16]

Thematic Area E: Interlude

(mm. 97–113 [3:24–4:04])

The piece's exhortative character rises to its highest emotional pitch in an evocation of sixties soul music; a seventeen-measure interlude and new thematic area (labeled Section E) that spotlights a soul-inspired duet by Hendrix and Miles. But while the passage evokes the traditional "breakdown" of gospel-rooted rhythm and blues—a highlighted passage for soloists whose expressivity is typically bolstered by a dramatic reduction of volume in the accompanying instruments—there are also significant departures from the sound and style of traditional soul music.

The interlude unfolds in three stages of growing rhythmic intensity, and Hendrix's neo-traditionalism is evident from the first eight-measure segment (mm. 97–104

[3:24–3:40]). The first four measures are for Hendrix alone. After marking the beginning of the section with a loud accent (downbeat m. 97), the drums and bass fall silent, and Hendrix begins singing a textless melody, doubling his soft falsetto phrases with unison lines on the guitar. Rather than being freely extemporized, Hendrix's highly repetitive tune represents an essentially composed form (revealed by comparing different recordings of the piece as it came together in progressive stages). The melody comprises four slightly varied two-measure phrases, and one hears motivic elements of previous thematic material in its sixteenth-note patterns (Ex. VI-6 compares melodic components of the tune's subphrases with motives from thematic areas B and C).

The bass will remain tacet throughout the entire section, and its absence is a defining feature of the passage. The drums, on other hand, begin filtering back into the texture, piecemeal fashion, after four measures. Miles begins his reentry by "doubling up" on the open hi-hat cymbal, performing a single-stroke pattern of sixteenth-notes that, in context, is another stylistic reflection of rhythm and blues traditions. However, the rhythmic traditions of dance-oriented rhythm and blues fall by the wayside in the last measure of the segment; the eight-measure form is stretched by the addition of an extra eighth-note value to its last measure (m. 104), a metric asymmetry and elongation that has parallels in the rhythmic structure of the main theme in "Power to Love," as discussed above. (See score transcriptions showing the guitar's ad-lib sixteenth-note triplet figure and the drum's closed hi-hat part "adding" an eighth-note value to measure 104).

In the middle segment of the interlude, Hendrix shifts from his textless melodicizing to half-singing and half-shouting a chant-like, celebratory invocation. Showing a marked contrast with both the animated syncopation of the A section melodies and the more relaxed vocal phrasing of section D, Hendrix and his guitar "shout" out four, emphatically downbeat oriented and highly repetitive one-measure phrases (mm. 105–108 [3:40–3:49]. The sermonizing of earlier verses is over, and for this, the final set of song lyrics, Hendrix summons the spiritual awakening that is figuratively at hand:

> Everybody, come alive—
> Everybody, love alive—
> Everybody, love alive—
> Everybody hear my message!

Boosting the revivalist spirit evoked by Hendrix's performance, Buddy Miles stomps on his bass drum in a marching four-to-the-bar pattern, and whoops out a backing "chorus" and countermelody over Hendrix's principal vocal part. (Allusions to the secularized, ecstatic gospel style represented in this segment are only more overt in "Earth Blues," another Band of Gypsys piece, unreleased during Hendrix's lifetime, that, in part, parodies "Shout" by the Isley Brothers.[17]) But in the closing segment of the section (mm. 109–113), Hendrix's composition once again plays with traditional rhythmic style and syntax. While Miles continues vocalizing his riff-like background, Hendrix vigorously strums an alternating pattern of chords and sliding intervallic shapes. The harmonic content is static; for four measures the guitar part remains fixed on a D major tonic chord, Hendrix rhythmizing a most rudimentary chordal sound with a set of galloping sixteenth-note figures. An equally rudimentary turnaround figure and stock

lick closes the segment and section (m. 113 [3:56]); in the last measure of the section Hendrix plays a sliding major sixth figure, variations of which are ubiquitous to all styles of blues-based popular music. The melodic cliché is, however, rhythmically askew—humorously displaced from a solid rhythmic footing by another metrical asymmetry (see m. 113).[18]

Final Reprise of Main Thematic Area

(mm. 114–117 [3:57–4:04])

Rhythmical irregularities notwithstanding, the guitar's sliding-sixth figure smoothly slides into a reprise of the principal motive of the main theme to cue a tutti statement of section A material (mm. 114–117). The final, varied reprise of the main theme prefaces a second section of guitar improvisation.

Guitar Solo II

(mm. 118–137 [4:05–4:45])

Hendrix's second guitar solo stretches out for some twenty measures, and will carry the piece directly into its roaring conclusion. As in the first solo section, bass pattern MTL-1 provides the structural foundation and support for Hendrix's improvisation. However, while Cox will employ the basic outline of the pattern and takes care to sound the roots of the implied chord progression, he plays a wider range of variations in this section; the paired sixteenth- and eighth-note figures represented in the

first four measures of the solo (mm. 118–121) are a pervasive motivic variation. (See m. 118 and representative bass figures showing melodic and rhythmic similarities to motives in MTL-2 and MTL-3; also see the bass's anomalous leap into its high register in m. 119).

Guitar Solo II exhibits stylistic and structural similarities to the preceding solo section in "Message to Love." In addition to its sharing a thematic foundation with the first solo, Hendrix's second solo unfolds in analogous stages of improvisation, though these stages will differ in proportion from the lengthier first solo. Thus, after the reiteration of the main theme, his improvisation moves from a passage of motivic development into a segment of *altissimo* wailing, and culminates in a racing guitar riff. Moreover, in terms of both the solo and the ensemble playing, similarities emerge to corresponding passages in other pieces on *Band of Gypsys*.

After playing the main theme and riff (mm. 114–117), Hendrix sets out on the improvisational leg of the solo by developing a new motivic-based melodic idea. As seen in the score, the idea begins in m. 118 with a series of unison string bends; the unison bends sounding the tonic (D) are prefixed by a whole-step bend sounding a rise from the subtonic (C natural), and are suffixed by a fall to the dominant scale degree (A). In succeeding measures, Hendrix hones the developing motivic design into an arched melodic shape, giving fuller expression to the rise from the subtonic to the tonic scale degrees (see the expanded dotted eighth-note values for C natural on the downbeats of mm. 119–121) while abandoning the unison bends of the initial idea. Thus, adjoining the seed melodic idea, Hendrix strings together three consecutive statements of the extrapolated one-measure motives to make a larger four-measure phrase structure

(mm. 118–121). Continuing the development of this melodic idea, he effectively transposes the same motivic shape up a major third, and in subsequent variations reels off another four-measure phrase (mm. 122–125). The highest and last notes of the final motivic variation (m. 125–126.5) soar up into the guitar's highest register to launch another passage of keening string bends—the notes bending in and out of both tempered pitch and regular meter. Again, as during the former solo section, Miles responds to the guitar's heightened intensity by doubling-up the snare drum part and by adding syncopated patterns on the bass drum.

The unfolding *altissimo* segment occurs in the middle of the solo section, a formal feature that was also observed in the piece's first guitar solo as well as in corresponding passages of "Machine Gun" and "Power to Love," as previously stated. In the present context, however, the guitar's howling figures weave and bob around Miles's and Cox's vocal refrain ("Yeah—ooh"), and after four measures Hendrix breaks off to search for a galvanizing riff with which to conclude the solo.

He is quick to find one. Seconds after touching down from his *altissimo* flight, Hendrix channels a stream of sixteenth-note figures and scalar runs into a repeating, rapid-fire lick. Hendrix plays the lick in an unbroken series of repetitions spanning the last five measures of the solo (beginning on the last beat of m. 132 and extending into m. 137). Like the climactic riff of the earlier solo, the guitar's cycling figures, recurring on each beat of the measure, tightly synchronize with Miles's pounding, four-to-the-bar snare drum part.

The lick and unison bend figure shown in the transcribed score is a legacy of traditional rhythm and blues guitar styles, and reflects an idiom inherited from T-Bone

Walker, Chuck Berry, and others (see above, "unison bends"). Moreover, in terms of the lick's intervallic makeup, as well as its fingering and string bending technique, one can describe a kinship with lick JH-1 (particularly when the lick/riff solidifies in mm. 134–135). But Hendrix's use and sound transform the traditional idiom into something new. With its insistent and relatively protracted repetition, the figure begins to assume the character of an ostinato. Moreover, a sustaining fuzztone distortion tends to blur the attack of the guitar's individual notes, and the spinning figures meld into a kind of motoric howling. The overall effect is, perhaps, more evocative of the melodic devices of post-bop saxophonists than of post-War electric guitar playing.

The Concluding Passages of "Message to Love": Reprise of Section C, Coda, and Closing Cadenza

Section C" (mm. 139–143 [4:47–4:56])

The dynamic conclusion of "Message to Love" unfolds in three stages, beginning with an intensified and elongated restatement of the C section theme (the section is shown as C double prime). The "segue" from the end of the preceding guitar solo and into the C section restatement is, however, a ragged one; without cueing his bandmates, it seems, Hendrix simply charges in from playing his racing guitar lick to playing the equally rapid theme.

A measure after Hendrix's hasty "false start" (m. 138 [4:45]), the rhythm section rallies to the guitar's signal, and all three musicians begin vocalizing the theme in unison

with the guitar and bass lines (m. 139 [4:47]). Then, making a remarkable closing gesture for the piece, the unison vocal line splits into parallel thirds, and the harmonized voices join in a stentorian repetition of the MTL-3 head motive. The repetitions of the truncated theme engender a polyrhythmic intensification to the passage, as the daisy-chained motive superimposes a three-note rhythmic grouping (three sixteenth notes) over the underlying pulse and common time meter maintained by the drums (see mm. 142–143).[19] After a measure-and-a-half of the most intense vocalizing, the singers seem literally to run out of wind performing their parts, leaving the stampeding instruments alone to finish the "breathless" passage.

Coda: Varied Reprise of the Introduction

(mm. 144–149 [4:57–ca. 5:08])

With a centrifugal-like force, the culminating vocal passage hurls "Message to Love" into its coda, an expanded restatement of the piece's introductory segment. Initially, there is little to differentiate the reprise of the introduction from the original passage; only the percussion parts of the ending show any change. Thus, from the start of the section Miles abandons his snare drum altogether, and, instead, strikes his overhead cymbals and bass drum in rhythmic unison with the climbing bass and guitar parts.

A more dramatic change occurs when the bass spins away from its chromatic rise and into a whirling ostinato, a thumping pedal point figure that—defying the pull of tonic gravity, as it were—arpeggiates an open triadic shape centered on E, the second scale

degree (mm. 147–150). The bass also strikes out in a new rhythmic direction; the combined melodic and accentual patterns of the ostinato, sounding a rhythmic subdivision of three eighth-notes, creates a hemiola effect within the established common time meter (see mm. 147–150).

The implied progression to the supertonic will not function as a part of any cadential motion leading back to the tonic (D), as one might anticipate. Rather, the bass will hold on to its E-centered ostinato until making its exit from the piece, and the deflection from the established key center will effect a surprising tonal shift for the closing measures of "Message to Love."

Over the bass pedal point figure, the guitar continues playing its series of rising octave intervals. The guitar's chromatic ascent summits on the keynote, D, and for two measures Hendrix sustains the peak note by means of an energetic tremolo (mm. 148–149). Creating a coloristic effect that parallels both Hendrix's excited strumming and Cox's circling ostinato, Miles stops "playing time" and performs a sizzling roll on his open hi-hat cymbals.

Cadenza

(mm. 150–154 [5:09–5:20])

From its starting point on the first beat of m. 147, the bass ostinato will go through eight revolutions, spanning three full measures, before the first note in its three-note motivic design (i.e., E below middle C) realigns with a measure downbeat. In the event, the aforementioned realignment and the "completion" of the bass's larger cyclic pattern

coincide with the beginning of a brief guitar cadenza in m. 150. Both the bass and drums attack the first beat in the m. 150, then rest before pouncing on the next measure's downbeat to make a dramatic *sforzando* exit.

The guitar also performs the punched accents concluding the coda. But as the bass and drums fall silent after the first punch, Hendrix sustains the guitar's notes, depressing the whammy bar to dip the hovering octave interval formed on the tonic D, down a whole step. After the climactic accent in m. 151, the guitar's single-note melody languidly rises from the tonic D to E, and subsequently falls to close the piece with a final cadential gesture. However, the blues-based cadential melody is tonally centered on E—the guitar having modulated and "risen" to the now exited bass part's tonal center.

The coda and short solo cadenza engender a curious sense of tonal dislocation for the ending of "Message to Love." A precedent for such a radical juxtaposition is, in fact, evident in an earlier work; the fuzztone-driven coda to "Stone Free," Hendrix's swaggering manifesto of sexual freedom, makes a similarly surprising modulation (up by a half step from the tonic key of E to F natural). Other structural and rhythmical similarities are evident in the Experience piece; in a like manner to that of "Message to Love," the closing bass part in "Stone Free" also shifts into an accelerated ostinato.[20]

The last moments of "Message to Love" convey a much different mood and character from that of the bustling fadeout of "Stone Free," and some listeners might find the conclusion to the Band of Gypsys' piece less convincing: in "Message to Love," Hendrix's blues guitar tag straggles off, seeming a bit unsure of its tonal context. In fact, until Hendrix's cadential gesture ambles down to close on its focal pitch, E (m. 155), it is uncertain to which tonal center it belongs, a tonal ambiguity that results from the absence

of a sounding bass reference and the preponderance of common tones shared by the two scalar sets of the juxtaposed key centers (D and E). However, the unedited tape of the concert reveals that Hendrix's meandering guitar was actually headed towards another destination; Hendrix's cadential close in E was also part of a segue leading into the introduction of "Machine Gun" (as performed in the second New Year's Day show). Of course, in listening to the edited performance on *Band of Gypsys*, one has no expectation of the deleted segue, and one can hear a different implication in the piece's ending. Rather than finishing in a complete and fully realized modulation, the piece closes, one might say, while still "reaching" towards the ascending key change that is implicit in the concluding bass and guitar parts. "Message to Love" ends, then, with a final elevating gesture that signifies and embodies the song's call for spiritual awakening and rebirth.[21]

Notes to Chapter VI

[1] Like "Power to Love," "Message to Love" is known by various titles. The author's original vinyl copy of *Band of Gypsys* lists "Message of Love" on its label and jacket sleeve. However, the author has chosen to refer to the piece by the title given in CD reissues of *Band of Gypsys*, and as used by virtually all writers on Hendrix. Additional working titles that Hendrix used for "Message to Love" will appear in the discussion to follow.

[2] McDermott and Kramer, *Setting the Record Straight*, 169–170.

[3] McDermott, Cox, and Kramer, *Sessions*, 115.

[4] Ibid., 109; and McDermott and Kramer, *Setting the Record*, 194.

[5] See Hanford, "Realities Altered and Redefined," 1–46.

[6] McDermott, Cox, and Kramer, *Sessions*, 115.

[7] Author Michael Hicks has analyzed archetypal harmonic progressions in certain styles of rock music, including chord progressions that he characterizes as incorporating "double" and "triple plagal" motions (Hicks, *Sixties Rock*, 34–35).

Hicks feels that the harmonic language of guitar-based bands in the 1960s was shaped by the primary instrument's standard tuning. Hicks writes:

> Chord progressions in which the chord roots form chains of perfect fourths grow out of a musical culture based on the guitar, an instrument tuned in fourths (except for one string) . . . Chains of fourth-related chord roots come in part from the very act of tuning the instruments: as players tuned up their guitars, they inevitably became accustomed to the sound of these chains (ibid., 35).

1960s soul music also evinced double-plagal chord progressions, as exemplified by Solomon Burke's pop and soul hit record "Everybody Needs Somebody to Love," credited to Burke, Bert Burns, and Jerry Wexler (Atlantic 45-2241, 1964). The principal progression in Burke's tune is a repeated chord cycle, | I-IV- | bVII (IV of IV)-IV | I etc., variations of which are found in many rock songs.

[8] McDermott, Cox, and Kramer, *Sessions*, 132.

[9] Hendrix made this statement in an interview with Jane de Mendellsohn for London's *International Times*, 28 March 1969 (excerpt of interview reprinted in Shapiro and Glebbeek, *Electric Gypsy*, 348).

[10] In a video interview, Miles remembered he and Cox having come up with the Beatles-type harmonies (*Hendrix: Band of Gypsys*, MCAV-11931, Experience Hendrix, 1999). The 'yeah' and 'ooh' parts are, indeed, "Beatlesque"; similar vocal parts became emblematic for the Fab Four in the earliest days of Beatlemania. However, the Beatles' inspiration for their trademark falsetto "oohs" seems to have come from recordings by Hendrix's former employers, Little Richard (1932-), and the Isley Brothers, whose "Twist and Shout" (Wand, 124, 1962) was an early Beatles cover tune and hit record (Tollie 9001, 1964).

[11] Cox adheres to his re-ordered and rhythmically "askew" pattern until reaching mm. 73–76, and the beginning of section A''; the bass restores MTL-1, in its normal form, for the fourth verse.

In making their changes, Miles and Cox may have been responding to some visual or musical cue from Hendrix. (The possibility of a tape edit does not seem to be indicated.)

[12] The climactic *altissimo* passage begins in m. 53, twenty-one measures after the solo begins. If one includes the four-measure section of main theme riffing that effectively concludes the solo in addition to prefacing the song's third verse (mm. 73—78), the, by measure count, the passage begins very near the midpoint of the forty-four measure solo section. If one disallows the concluding riff section, then the passage begins at the exact midpoint of the forty-measure improvisation.

[13] See Example VI-4: "Them Changes," guitar solo section, mm. 66–73 [2:22–2:36.] More intricate than its counterpart in "Message to Love," Hendrix's improvisation in these measures adds an element of "auto" call-and-response. Thus, the improvised passage develops a small-scale dialogue between Hendrix's galloping riff and the higher-register figures and "responses" that he plays in mm. 69–70. The culminating moment of the passage in "Them Changes" is also a sustained double-stop and string bend, representing a verticalization of the preceding "answering" melodic figures (see mm. 72–73).

[14] "51st Anniversary," written by Hendrix, was the British single B-side to "Purple Haze" (Track 604001, 1967). The song's hip protagonist rebuffs his seventeen year-old girlfriend's wish to marry him, telling her: "you say you wanna get married—Aw baby, tryin' to put me on a chain."

[15] Film footage of the performance shows Billy Cox on the Fillmore stage, looking intently over at Hendrix, in anticipation, it would seem, of receiving a visual cue. Cox gets none, and instead has only the guitar's varied—or bungled—first phrase to notify him of the sectional change. (*Hendrix: Band of Gypsys*, MCAV-1191,1999).

[16] The published score of "Message to Love" designates mm. 97–104 as comprising a "Pre-Interlude"; the score labels the subsequent measures 105–118 as comprising the

"Interlude." While likewise distinguishing these two distinct segments, this dissertation will treat them as representing one large section, "Thematic Area E: Interlude."

[17] Like "Message to Love," "Earth Blues," a titular blues, was a part of the Gypsy Sun and Rainbows repertoire that Band of Gypsys developed. Band of Gypsys recorded basic tracks for a studio version of the piece on 19 December 1969 at the Record Plant Studios. Hendrix kept tinkering with the tracks through the summer of 1970, though no version of "Earth Blues" was released during his lifetime. Various live and studio-produced versions of the piece—some featuring background vocals credited to the Ronettes (overdubbed on the original Band of Gypsys' studio tracks)—have surfaced over the years.

The "shout chorus" in "Earth Blues" modulates to the key of the flat-submediant, and, in a clear evocation of traditional soul music, Hendrix trades phrases with his background vocalists over a gospel-like vamp whose underlying chord progression alternates between harmonies on I and VI (in the new key area), a feature that is reminiscent of the Isley Brothers' "Shout" (RCA 7588, 1959 and RCA 0589, 1962).

[18] Bob Dylan also employed a similar "sliding sixth" figure to comic effect as the main instrumental riff in "Rainy Day Women #12 & 35," and, as a turnaround figure, in "Leopard-Skin Pill-Box Hat," both recordings included on *Blonde on Blonde* (Columbia 41-841, 1966).

[19] An interesting detail of the performance can be seen in the transcribed score. Hendrix's and Cox's guitar and bass parts diverge at the beginning of m. 143, a result of Hendrix carrying over the three-note pattern across the bar line from the preceding measure, while Cox begins the motivic pattern anew on the downbeat of m. 143. Cox thus, perhaps unintentionally, realigns the start of the pattern with the downbeat of the new measure. The vocal parts, however, adhere to Hendrix's cycling across the bar line (see vocal parts, m. 143).

[20] The verse sections of "Stone Free" are in the key of E; the song's chorus sections, however, modulate to D; the coda's sudden juxtaposition moves to F, rather than an expected return to the key of E from the final chorus. In addition to modulating, the coda to "Stone Free" accelerates from the song's average tempo of around 132 b.p.m. to around 160 b.p.m (beginning at 3:28).

[21] The possibility that Hendrix—in either of his capacities as composer or producer—viewed the tonal "elevation" at the conclusion of "Message to Love" as an expression of transcendence is somewhat encouraged by the evidence of an earlier recording.

On 28 August 1969, Gypsy Sun and Rainbows recorded "Message to the Universe" at the Hit Factory Studios. In what was reportedly a spontaneous experiment made during the recording session, the band immediately launched into the key of C-sharp at the conclusion of the climbing bass and second guitar parts in the coda section

(liner notes to CD *South Saturn Delta,* 1997). As one hears on the recording (version on *South Saturn Delta*), the sudden lurch from D to C-sharp has an altogether more jarring effect than does the subtle key change one hears in the short solo cadenza that Hendrix plays on *Band of Gypsys*. Moreover, for the Hit Factory experiment, the lead guitar's free-form and lengthy cadenza [5:10–6:15] keeps changing its modal coloring; sounding over a C-sharp drone that is sustained by the bass and second guitar, Hendrix's melodic lines glide through shifting pitch collections comprising pentatonic scalar sets and mixtures of dorian and more exotic sounding "synthetic" modes. The Hit Factory coda also stages a kind of rhythmic modulation, with both Hendrix and drummer Mitchell accelerating into a hyper-speed mode of free-style improvisation.

CHAPTER VII: SUMMARY and CODA

Band of Gypsys came to an ignominious end before Hendrix and Eddie Kramer had even finished mixing the group's debut album in the studio.[1] Performing as the headline act for the Winter Festival For Peace, held at Madison Square Garden on 28 January 1970, the band's set was preempted when Hendrix walked off the stage, reportedly suffering from nervous fatigue and the ill effects of drugs he had taken, either knowingly or unknowingly, before the concert began.[2] In the wake of the debacle, Michael Jeffery fired Buddy Miles (both he and Cox were working as salaried employees of Hendrix's management), and the band was dissolved.

In interviews, Hendrix was vague and elusive about what had happened at the aborted concert, and he never elucidated the reasons for the band's breakup. Continuing disputes among the surviving band members and Hendrix's management team about what was behind the group's demise are unlikely ever to be settled or sorted out. Arguments hinge on whether or not Hendrix voluntarily ordered Jeffery to fire the band, or was pressured by his management and record companies into breaking up Band of Gypsys. In any case, shortly after the group folded, Hendrix would draft Cox, along with drummer Mitch Mitchell, into a new version of the Experience—in effect, a merger of Band of Gypsys with the former Experience. Supporting the re-formed Experience on its concert debut (held on 25 April 1970 at the Los Angeles Forum) was the re-formed Buddy Miles Express.

Despite the album's commercial success, *Band of Gypsys* has never occupied a comfortable niche in the Hendrix oeuvre. In the redoubtable company of the Experience

recordings, the three brilliant and revolutionary albums that are regarded as representing the essential works, *Band of Gypsys* has ranked as "minor Hendrix." Critics have persisted in measuring Band of Gypsys and the group's single, eponymous album against the artistic achievements of the Jimi Hendrix Experience and have generally found the successor to Hendrix's namesake band to be sorely wanting.

Implicit in many criticisms is the notion that Band of Gypsys constituted an artistic retreat from the Experience's celebrated experimentation. Band of Gypsys, in fact, was contemporaneous with the first expression of a "back to roots" movement in rock. The years 1968 and 1969 saw Bob Dylan, the Beatles, and Hendrix's rival guitar virtuoso, Eric Clapton, either revisiting or evoking traditional elements of country music and earlier styles of rock 'n' roll.

Critical reception of Band of Gypsys, both positive and negative, has emphasized that the band represented Hendrix's "return" to his R & B roots. However, this emphasis privileges one facet of the band's complex musical character, and tends to obscure Hendrix's continued experimentation in Band of Gypsys. In fact, the compositions and performances treated here reflect a tendency toward neotraditionalism, along with a synthesis of the traditional and the innovative: defining characteristics of Hendrix's musical personality.

The analyses in previous chapters have shown how Hendrix created new hybrid forms of song/instrumental compositions for *Band of Gypsys* out of traditional forms and inherited materials. In addition, the analyses highlighted the progressive features of both Hendrix's songwriting and playing, and pointed out specific instances where he expanded and continued to draw on concepts that he had developed with the Experience. "Machine

Gun," equally rooted in both the "one chord blues"—the legacy of Muddy Waters and Howlin' Wolf—and the electronic sound paintings that Hendrix had cultivated in the Experience, embodies the most radical aspect of Hendrix's stylistic synthesis. In "Machine Gun," however, the pyrotechnics that had formerly amazed Experience audiences in live renditions of "Wild Thing" and "Voodoo Child (Slight Return)" became expressive means for an intensely serious artistic statement. "Power to Love" and "Message to Love" reflect the composer's abiding interest in creating thematically complex works and in finding new contexts for improvisation. "Who Knows," combining the rhythmic swing of traditional rhythm and blues with the intensity of contemporary funk, added yet another novel timbre into Hendrix's spectrum of sounds.

Dissenting opinions have leveled the most severe criticisms at Band of Gypsys' rhythm section, finding Hendrix's colleagues to have provided little more than a "pedestrian" and "orthodox" style of accompaniment.[3] To be sure, one can fairly characterize the playing of Miles and Cox on *Band of Gypsys* as being "economical." By largely eschewing virtuosic drumming and bass playing, Band of Gypsys was, indeed, a different kind of "60s power trio." Miles and Cox concentrated, instead, on building a solid and yet responsive ensemble sound behind Hendrix. The foregoing analyses show Miles and Cox habitually locking into repetitive patterns, a cornerstone concept in contemporary soul and funk rhythm sections; in this approach, embellishments and fills are typically reserved for articulating formal divisions in the composition, or occur as periodic events that reinforce established patterns in a groove.[4] However, one also hears Band of Gypsys' rhythm section making highly nuanced changes in response to and in concert with Hendrix's improvised ideas. Additionally, the band's performances in

"Machine Gun" and "Who Knows" show that even if Miles and Cox were committed to building a solid groove through varied repetition, they were not wary of leaving space in the textural and rhythmic activity. The altogether more economic playing style distinguishes Band of Gypsys' sound from the sometimes cluttered complexity that one hears in live performances by Cream and other rock trios, and, indeed, in live recordings by the Experience. Moreover, the steady backing provided by Miles and Cox enabled Hendrix's improvised ideas and riffs to unfold and develop at length without engaging in the kind of intricate and busy exchanges between the guitar and rhythm section that was a pervasive feature in the Experience's live performances.

Although *Band of Gypsys* is ostensibly a "live recording" and exhibits few overt studio effects, the analyses have disclosed significant alterations that were made in the post-production stage of the album—edits that, in some cases, shaped the musical content of the work in unexpected ways. In "Power to Love," substantial tape edits effectively changed the large-scale form of the piece from its live performance. Hendrix also edited out the most egregious playing errors that occurred in the live concerts; however, the passages that immediately followed the excised mishaps remained on the finished recording, so that in listening to the album one "hears" the players' reactions to phantom events that are no longer audible. Thus, in *Band of Gypsys*, studio production is inextricably linked with the composition and "performance" of the music as represented in the finished recording.

While examining the compositions and specific performances represented in *Band of Gypsys*, this thesis has also studied Hendrix's evolving musical language. Any or all of the Experience recordings could serve equally well for future research and critical

analysis along these lines. In dealing with the major works of the Experience, however, analytical treatments will inevitably be drawn deeper into the realm of the multi-track recording studio; serious critical studies of the "canonic" Experience recordings, if they are to discuss compositional structure and process, will need to examine the "orchestration" of the recorded tracks and the special studio techniques that are integral to those compositions in the tape medium. (Assuredly, future efforts will benefit from the increasingly wider availability of alternate recordings, greater access to master tapes and studio logs, and expanding digital technologies that will facilitate analyzing complex multi-track recordings.)

Avenues for future research might also include a more thorough treatment of Band of Gypsys' musical legacy. In addition to the pieces covered here, the band bequeathed several other songs to the repertoire of the re-formed Experience. These were pieces that Hendrix chose to leave off the *Band of Gypsys* album, but that he worked on in the studio with Miles and Cox. Among these compositions were: "Ezy Ryder," "Izabella," "Stepping Stone" ("Sky Blues Today"), "Earth Blues," "Burning Desire," and "Room Full Of Mirrors." After Band of Gypsys ended, Hendrix continued working on these pieces, using basic tracks that were recorded by the group in the studio as foundations for later sessions held at Electric Lady Studios, the private recording facility Hendrix began using in June 1970. Hendrix reportedly intended to include most of the aforementioned songs and studio recordings on the double-album that he was planning when he died.

The group's larger historical importance also invites a new assessment. The 1999 video documentary, *Hendrix: Band of Gypsys*, includes testimonials to the group's

influence by contemporary mainstream rock artists who were a generation younger than the members of Band of Gypsys. But the band may have had a larger, though indirect, impact outside of the rock mainstream. Miles Davis, who thought that Hendrix sounded his best with Band of Gypsys, directed his 1970s and 1980s rhythm sections to emulate the sound and playing styles of both Hendrix and Buddy Miles.[5] The influence of Davis's highly controversial "electric period" came to the fore in the "acid jazz" movement that emerged in the mid-1990s.

The last album to be authorized by Hendrix for release, *Band of Gypsys* represents an important chapter in Hendrix's career. For the musicologist, the album offers a particular vantage point from which to view aspects of Hendrix's compositional process, his playing skills in a live situation, and the musical language that he both inherited and developed. Biographers and critics have focused on Hendrix's cultural impact; one of the great rock icons, he has been a lightning rod for discussions of the 1960s counterculture, racial issues, and the Vietnam War. There is still much work to be done concerning Hendrix's significance in relation to these larger historical contexts and issues. It is hoped, however, that future scholarly efforts will also address Hendrix's musical legacy—the recorded compositions and performances that make questions about Hendrix's cultural meaning worth asking.

Notes to Chapter VII

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[1] Hendrix, Eddie Kramer, and assistant engineer Kim King mixed and edited *Band of Gypsys* in sessions held at New York's Juggy Studios. The sessions began on 14 January 1970 and continued intermittently through 17 February 1970. The album was released in the U.S. on 25 March 1970.

[2] Roby, *Black Gold*, 159–160.

[3] An album review of *Band of Gypsys* states, "the trio's potential was marred by pedestrian drumming and unimaginative compositions": See *The Billboard Illustrated Encyclopedia of Rock* (New York: Billboard Books, Watson-Guptill, 1998), 180. British keyboardist and bandleader Bryan Auger (1939-), by way of contrasting Band of Gypsys with the Experience, characterized the former band's rhythm section as "orthodox": See Egan, *The Making of Are You Experienced*, 74.

[4] The Miles-Cox rhythm section shared musical concepts exemplified in contemporary soul and funk. In a 1968 interview, members of Booker T. and the MGs, the top soul instrumental group of the 1960s and architects of the Stax Memphis sound, discussed the economical style for which the band was renowned. Guitarist Steve Cropper and drummer Al Jackson Jr. (1935–1975), a stated influence on Buddy Miles, identified what they held to be a key concept in producing the Memphis sound. In their conception, Cropper and Jackson stressed that the drums should not play a fill or turnaround figure unless doing so were to dramatically enhance what would immediately follow the fill. In the context of Memphis soul, this meant that fills and embellishments were to be reserved for articulating points of large formal and sectional divisions. See Jann Wenner, "Booker T. and the MGs," *The Rolling Stone Interviews*, vol. 1 (New York: Warner Paperback Library, 1971), 129–157.

By 1969, the Memphis sound was a tradition that Buddy Miles had paid homage to on recordings with both the Electric Flag and the Buddy Miles Express, and, months prior to joining Band of Gypsys, Miles had drafted Steve Cropper to produce a track for his own album project ("Memphis Train," recorded in July 1969, and included on Miles's *Them Changes* [Mercury SR 61280, 1970]). Miles's playing on *Band of Gypsys* follows the MGs' stricture implicitly, and Cox's approach shares the same sense of economy and commitment to maintaining a groove. However, in *Band of Gypsys*, the soul-associated playing concept of the rhythm section is amalgamated into Hendrix's complex compositions, tricky rhythmic schemes, extended improvisations, and even the sound painting of "Machine Gun"—a world far removed from the two-and-a-half minute single format and the strophic song forms of contemporary soul music

[5] In his autobiography, Miles Davis states, "The best [Hendrix] sounded to me was when he had Buddy Miles on drums and Billy Cox on bass . . . I think they brought what he was doing all the way out" (Davis and Troupe, *Miles*, 239). As was previously stated, Davis used electronic processing on his amplified trumpet to emulate Hendrix's guitar

sound; the style and sound of Davis's guitar-driven groups in the 1970s also attests to Hendrix's influence.

Author Paul Tingen reports that during sessions for "Miles Runs the Voodoo Down" (Davis, *Bitches Brew*), Davis directed his musicians to model the piece's rhythmic character and groove on "a Buddy Miles thing" (Paul Tingen, *Miles Beyond: The Electric Explorations of Miles Davis, 1967–1991* [New York: Billboard Books, Watson-Guptill, 2001], 63). Tingen also reports that Davis invited Buddy Miles to participate on the April 1970 recording sessions for *Jack Johnson* (Miles Davis, *Jackson Johnson*, Columbia PC 30455, 1971) (Tingen, *Miles Beyond*, 109). In the event, Buddy Miles did not play on the *Jack Johnson* album. However, Ian Carr quotes an account from drummer Jack DeJohnette (1942-) stating that Miles Davis played recordings made by Hendrix and Buddy Miles (presumably from *Band of Gypsys*) in order to demonstrate the kind of groove and drum part that he wanted DeJohnette to play on "What I Say" (Miles Davis, *Live-Evil*, Columbia CG 30954, 1972), a piece that Davis's group recorded in December 1970 (Ian Carr, *Miles Davis: The Definitive Biography* [New York: Thunder's Mouth Press, 1998], 297–298).

Dominique Gaumont (1953–1983), guitarist with Davis's band during the 1970s, characterized the impact of the *Band of Gypsys* album on Miles Davis as having "traumatized" the trumpet player. Gaumont also states that Davis instructed Al Foster (1944-), Davis's regular drummer during the mid-1970s and early 1980s, to "copy the simplicity of Buddy Miles" (Jack Chambers, "Milestones 2: The Music and Times of Miles Davis Since 1960," in *Milestones: The Music and Times of Miles Davis* [New York: Da Capo Press, 1998], 214 and 240). In various interviews and in his memoirs Davis has praised Foster for his ability to sustain a supportive groove.

LIST OF REFERENCES

WRITINGS and MUSICAL SCORES

Aledort, Andy. *In Deep with Jimi Hendrix: A Complete Exploration of His Innovative Guitar Style*. Milwaukee, WI: Hal Leonard, 1995.

Altman, Billy. *Notes to Little Walter: His Best.* MCA CHD-9384, 1997.

The Billboard Illustrated Encyclopedia of Rock. New York: Billboard Books, Watson-Guptill, 1998.

Black, Johnny. *Jimi Hendrix: The Ultimate Experience*. New York: Carlton Books, Thunder's Mouth Press, 1999.

Blecha, Peter. Notes to *Wild and Wooly: The Northwest Rock Collection.* Experience Music Project, 2000.

Bowman, Rob. *Soulsville U.S.A.: The Story of Stax Records*. New York: Schirmer, Simon & Schuster Macmillan, Prentice Hall International, 1997.

Brown, James and Bruce Tucker. *James Brown: The Godfather of Soul.* New York: Macmillan, 1986; reprint, New York: Thunder's Mouth Press, 1986.

Brown, Tony. *Jimi Hendrix: Concert Files*. London: Omnibus Press, 1999.

Bush, James. *Encyclopedia of Northwest Music*. Seattle: Sasquatch Books, 1999.

Carr, Ian. *Miles Davis: The Definitive Biography*. New York: Thunder's Mouth Press, 1998.

Chambers, Jack. *Milestones: The Music and Times of Miles Davis*. New York: Da Capo Press, 1998.

Charles, Ray and David Ritz. *Brother Ray: Ray Charles' Own Story*. New York: Dial Press, 1978.

Clarke, Donald, ed. *The Penguin Encyclopedia of Popular Music*, 2ed. London: Penguin Books, 1998.

Clarke Steve, comp. *The Who in Their Own Words*. London; Omnibus Press, 1979.

Clayson, Alan. *The Yardbirds*. San Francisco: Backbeat Books, 2002.

Cohn, Lawrence. *Nothin' but the Blues*. New York: Abbeville Press, 1993.

Coker, Jerry. *Listening to Jazz*. Englewood Cliffs, NJ: Prentice-Hall, 1978.

Danchin, Sebastian. *Earl Hooker: Blues Master*. Jackson, MS: University Press of Mississippi, 2001.

Davis, Miles and Quincy Troupe. *Miles: The Autobiography*. New York: Simon and Schuster,1989.

De Barros, Paul. *Jackson Street after Hours: The Roots of Jazz in Seattle*. Seattle: Sasquatch Books, 1993.

De Lange, Kees. "Mr. Satire and Mr. Phenomenon." *UniVibes International Jimi Hendrix Magazine*, December 1997, 27–31.

Doyle, Michael, Jon Eiche, ed. *The History of Marshall: The Illustrated Story of 'The Sound of Rock,'* ed. Jon Eiche (Milwaukee, WI: Hal Leonard, 1993.

Duchossoir, A.R. *The Fender Stratocaster*. Mlwaukee, WI: Hal Leonard, revised edition, 1994.

Egan, Sean. *Jimi Hendrix and the Making of Are You Experienced.* Chicago: A Cappella Books, 2002.

Etchingham, Kathy and Andrew Crofts. *Through Gypsy Eyes*. London: Victor Gollancz, Cassell Group, 1998.

Fairchild, Michael. "About The Band of Gypsys." *Goldmine Magazine*, 16 September 1990, 14–16, 36.

_____. Notes to *Are You Experienced?* MCAD-10893, 1993.

_____. Notes to *Electric Ladyland.* MCAD-10895, 1993.

Feather, Leonard and Ira Gitler. *The Encyclopedia of Jazz in the Seventies*. New York: Horizon Press, 1976.

Gershwin, George. *Porgy and Bess: An American Folk Opera*. New York: Gershwin Publishing Company, Chapell Music, 1935.

Gore, Joe. "Curtis Mayfield (1942-1999)." *Guitar Player*, April 2000, 35–36.

Graham, Bill and Robert Greenfield. *Bill Graham Presents: My Life inside Rock and Out.* New York: Doubleday, 1992.

Green, Richard. "Sex, Gimmicks, and Jimi." *Record Mirror*, 14 January 1967, 9.

Greensmith, Bill. Notes to CD *The Best of Ike Turner*. Rhino R2-71819, 1994.

Griffiths, Paul. *A Guide to Electronic Music*. New York: Thames and Hudson, 1980.

Guralnick, Peter. *Last Train to Memphis: The Rise of Elvis Presley*. Back Bay Books: Boston, New York, and London, 1994.

Guralnick. Peter. *Sweet Soul Music: Rhythm and Blues and the Southern Dream of Freedom*. Boston New York and London: Little, Brown and Company, first paperback ed..1999.

Hanford, John. "*Realities Altered and Redefined: Sound, Style and Meaning in Jimi Hendrix's 'Purple Haze' and 'The Star Spangled Banner.'*" Masters Thesis, University of Washington, 1997.

Headlam, Dave. "Blues Transformation in the Music of Cream." In *Understanding Rock; Essays in Musical Analysis*, ed. John Covach and Graeme M. Boone, 59-92. New York and Oxford: Oxford University Press,1997.

Hendrix, James Allen. *My Son Jimi*. Seattle: AlJas Enterprises, 1999.

Hendrix, Janie L., comp. *Jimi Hendrix: The Lyrics*. Milwaukee, WI: Hal Leonard and Omnibus Press, 2003.

Hendrix, Jimi. *Jimi Hendrix: Are You Experienced? Transcribed Scores* (transcriptions by Andy Aledort and Dave Whitehill). Milwaukee, WI: Bella Godiva and Hal Leonard, 1996.

_____. The Jimi Hendrix Experience: Axis: Bold As Love

_____. *Jimi Hendrix: Band of Gypsys Transcribed Scores* (transcriptions by Andy Aledort, Steven Gorenberg, and Howard Field). Milwaukee, WI: Hal Leonard, 1995.

_____. *Jimi Hendrix: Woodstock Recorded Versions* (transcribed scores by Andy Aledort and Jesse Gress). Milwaukee, WI: Hal Leonard, 1995.

The Jimi Hendrix Experience. *Axis: Bold As Love Transcribed Scores*. Milwaukee, WI: Hal Leonard, n.d.

_____. *Electric Ladyland Transcribed Scores* (transcriptions by Dave Whitehill). Milwaukee, WI: Hal Leonard, n.d.

Hicks, Michael. *Sixties Rock: Garage, Psychedelic, and Other Satisfactions.* Chicago: University of Illinois Press, 1999.

Humphrey, Clark. *Loser: The Real Seattle Music Story.* Portland WA: Feral House,1995.

Hyatt, Harry Middleton. *Hoodoo—Conjuration—Witchcraft—Rootwork.* Hannibal, MO: Western Publishing, third edition, 1970.

Isler, Scott, ed. and comp. "Jimi Hendrix in His Own Words." *Musician*, November 1991, 32–46.

Jasper, Tony, comp. *The Top Twenty Book: The Official British Record Charts 1955–1982.* Poole, UK: Blandford Press, 1983.

Jones, Leroy (Amiri Baraka). *Blues People: Negro Music in White America*, first Quill edition [New York: Quill, William Morrow, 1963.

Juber, Laurence. *Univibe and Octavia.* Milwaukee, WI: Hal Leonard, 1992.

Kahn, Ashley. *Kind of Blue: The Making of the Miles Davis Masterpiece.* New York: Da Capo, 2000.

Kempton, Arthur. *Boogaloo: The Quintessence of American Popular Music.* New York: Pantheon Books, 2003.

Koda, Cub. Notes to CD *Rumble!: The Best of Link Wray.* Rhino R2-71222, 1993.

Kruth, John. *Bright Moments: The Life and Legacy of Rahsaan Roland Kirk.* New York: Welcome Rain Publishers, 2000.

McDermott, John. Notes to *Band of Gypsys.* Capitol STOA-472, 1970.

_____. Notes to *The Baggy's Rehearsal Sessions.* Dagger/MCA 088 112 956-2, 2002.

_____. Notes to *Hendrix: Live at the Fillmore East.* MCAD2-11931, 1999.

McDermott, John, and Eddie Kramer. Edited by Mark Lewisohn. *Hendrix: Setting the Record Straight.* New York: Warner Books., 1992.

McDermott, John, Billy Cox, and Eddie Kramer. *Jimi Hendrix Sessions: The Complete Studio Recording Sessions, 1963–1970.* Boston: Little, Brown and Company, 1995.

Millar, Bill. Notes to *Memphis Wham!* ACE CDCHD 713. 1999

Mitchell, Mitch, and John Platt. Jimi Hendrix: *Inside the Experience*. New York: St. Martin's Press. Originally published as *The Hendrix Experience*. London: Pyramid Books, 1990.

Murray, Charles Shaar. *Boogie Man: The Adventures of John Lee Hooker in the American Twentieth Century*. New York: St. Martin's Press, 2000.

_____. *Crosstown Traffic: Jimi Hendrix and the Rock & Roll Revolution.* New York: St. Martin's Press, 1989.

Nager, Larry. *Memphis Beat: The Lives and Times of American's Musical Crossroads.* New York: St. Martin's Press, 1998.

Nicholson, Stuart Nicholson. *Jazz Rock: A History*. New York: Schirmer and Prentice Hall, 1998.

Nitopi, Bill, ed. and comp. *Cherokee Mist: The Lost Writings Of Jimi Hendrix.* New York: Harper Collins, 1993.

Obrecht, Jas. " Curtis Mayfield: The Spirit of Soul." On-line article posted on http://www.guitar.com. Accessed on 9 March 2003.

O'Day, Pat, and Jim Ojala. *It Was All Just Rock 'n' Roll: A Journey to the Center of the Radio & Concert Universe*. Seattle: R-'n'-R Press, 2002.

Oliver, Paul. *Blues Fell This Morning: Meaning in the Blues*. Cambridge: Cambridge University Press, 1990

Olsen, James and Samuel Freeman, eds. *Historical Dictionary of the 1960s.* Westport, CN: Greenwood Press, 1999.

Palmer, Robert. "The Church of the Sonic Guitar." *South Atlantic Quarterly.* Fall1991, 649–673.

_____. Notes to CD *Ray Charles: The Birth of Soul: The Complete Atlantic Rhythm and Blues Recordings, 1952–1969*. Atlantic 7 82310-2, 1991.

_____. *Deep Blues* (New York: Penguin, 1981.

Persichetti, Vincent. *Twentieth Century Harmony: Creative Aspects and Practice.* New York: Norton, 1961.

Pittman, Aspen. *The Tube Amp Book.* Sylmar, CA: Groove Tubes/GT Electronics, 1995.

Porter, Lewis. *John Coltrane: His Life and Music.* Ann Arbor: University of Michigan, 1998 (printings 2001 2000 1999 1998)?

Potash, Chris. *The Jimi Hendrix Companion: Three Decades of Commentary.* (New York: Schirmer; London: Prentice Hall International, 1996.

Redding, Noel and Carol Appleby. *Are You Experienced?:The Inside Story of the Jimi Hendrix Experience*, second ed. New York: Da Capo, 1995.

Ritz, David. Notes to *Ray Charles: Ultimate Hits Collection.* Rhino R2-756614, 1999.

Roby, Steven. *Black Gold: The Lost Archives of Jimi Hendrix.* New York: Billboard Books, 2002.

Romananowski, Patricia and Holly George-Warren, eds. *The New Rolling Stone Encyclopedia of Rock & Roll.* New York: Rolling Stone Press, 1983 and 1999.

Rothschlid, Amalie R., and Ruth Ellen Gruber. *Live at the Fillmore: A Photographic Memoir.* New York: Thunder's Mouth Press, Avalon Publishing, 1999.

Rotondi, James. "Listening Experience: Jimi Hendrix' Personal Record Collection." *Guitar Player.* San Francisco: Miller Freeman, April 1996, 37–42.

_____. "Sunshine Supermen: Britain's Psychedelic Guitar Wizards." *Guitar Player.* San Francisco: Miller Freeman, February 1997, 86–102.

Ruppli, Michel, comp. *Atlantic Records: A Discography.* Westport, CN: Greenwood Press,1979.

_____, comp. *The Chess Labels Discography.* Westport, CN: Greenwood Press, 1983.

Russell, Rusty. "*Nashville Then & Now*," Guitar Player, February 1999, 76–92.

Sacks, Leo. *A Man and a Half: The Best of Wilson Pickett.* Rhino/Atlantic R2-70287. 1992.

Scherman, Tony. *Backbeat: Earl Palmer's Story* (New York: Da Capo Press, 2000.

Shapiro, Harry and Caesar Glebbeek. Jimi Hendrix: *Electric Gypsy*, 2d ed. New York: St. Martin's Griffin, 1995.

Singleton, Carl, ed. *The Sixties in America.* Pasadena: Saben Press, 1999.

Slutsky, Allan and Chuck Silverman. *The Funkmasters: The Great James Brown Rhythm Sections, 1960—1973.* Miami, FLA: Warner Brothers. Pub., 1997.

Snowden, Don. "Think Chess Records and You Don't Think Piano." *Chess Blues Piano Greats*, CD. MCA and Chess Records: CHD2-9385, 1997.

Strong, Martin. *The Great Rock Discography*, 5th ed. Edinburgh, Scotland: Mojo Books, 2000.

Tingen, Paul. *Miles Beyond: The Electric Explorations of Miles Davis, 1967—1991.* New York: Billboard Books, Watson-Guptill, 2001.

Turner, Ike, and Nigel Cawthorne. *Takin' Back My Name: The Confessions of Ike Turner.* London: Virgin Books, 1999.

Vail, Mark. *The Hammond Organ: Beauty in the B.* San Francisco: Miller Freeman Books, 1997

Wenner, Jann. "Booker T. and the MGs." In *The Rolling Stone Interviews.* vol. 1, 129–157. New York: Warner Paperback Library, 1971.

_____. "Phil Spector." In *The Rolling Stone Interviews: Talking with the Legends of Rock & Roll, 1967–1980* [New York: St. Martin's Press, Rolling Stone Press, 1981] 60–75. Ed. Peter Herbst.

Wexler, Jerry and Charles Ritz. *Rhythm and the Blues: A Life in American Music.* New York: St. Martin's Press, 1993.

Wheeler, Tom. *American Guitars: An Illustrated History.* New York: Harper and Row, 1982.

Whitburn, Joel. *Top R & B Singles 1942–1988.* Menomonee Falls, WI: Record Research,1988.

_____. *The Billboard Book of Top 40 Hits*, 4th ed. New York: Billboard Books, 1989.

_____. *Top Pop Albums 1955–1992*, 3d ed. Menomonee Falls, WI: Record Research, 1993.

_____. *Top Pop Singles 1955–1993.* Menomonee Falls, WI: Record Research, 1994.

Willix, Mary. *Jimi Hendrix: Voices From Home.* San Diego: Creative Forces Publishing, 1995.

Whitehill, Dave. *The Jimi Hendrix Experience: Electric Ladyland (Transcribed Scores).* Milwaukee, WI: Hal Leonard, 1996.

Whitehill, Dave, and Andy Aledort. *Jimi Hendrix: Are You Experienced? (Transcribed Scores).* Milwaukee, WI: Hal Leonard, 1996.

Zappa, Frank. Liner notes to LP *Freak Out!* MGM Verve V6/5005-2, 1966.

SOUND RECORDINGS

The Beatles. *Rubber Soul.* Capitol 2442, 1965.

Berry, Chuck. *Chuck Berry's Golden Decade.* Chess Records LP-1514D.

Brown, James. "Cold Sweat (Part 1)." King Records 6110, 1967.

_____. *James Brown Live At The Apollo, 1962.* Polydor 834-479-2, 1990.

_____. *Think.* Polygram 31453 1018-2, 1996.

Burke, Solomon. *The Very Best of Solomon Burke.* Rhino R2 72972. 1998.

The Chantays. "Pipeline." *Billboard Top Ten Hits, 1963.* Rhino R2 71584, 1994.

Charles, Ray. *Ray Charles: The Birth of Soul: The Complete Atlantic Rhythm and Blues Recordings, 1952–1959.* Atlantic CD7-82310-2,1991.

_____. *Genius + Soul = Jazz/My Kind of Jazz.* Rhino R2 72814, 1997.

_____. *Ray Charles: The Ultimate Hits Collection.* Rhino R2 75644, 1999.

Coltrane, John. *Blue Train.* Blue Note CDP 7-46095-21, 1985.

Covay, Don. *Mercy/See Saw.* Koch Records KDC-CD-8186, 2000.

Cream. *Disraeli Gears.* Atco Sd 33-232, 1967.

Davis, Miles. *Bitches Brew.* Columbia C2K 65774, 1999.

_____. *Kind of Blue*. Columbia CK 40579.

_____. *Jack Johnson*. Columbia CK 47036, 1992.

Doggett, Bill. *Bill Doggett: Leaps and Bounds*. Charly 281, 1991.

The Doors. *The Doors Legacy: The Absolute Best*. Elektra/Rhino R2 73889, 2003.

Dyke and the Blazers. *The Very Best of Dyke and the Blazers: Funky Broadway*. Collectibles COL-CD-6038, 1999.

The Electric Flag. *The Electric Flag: Long Time Comin.'* Columbia 9597, 1968.

Everly Brothers. *The Everly Brothers All-Time Original Hits*. Rhino R2 75996, 1999.

The Five Royales. *The "5" Royales Sing for You*. King, KCD-616, 1988.

Franklin, Aretha. *Aretha Franklin: 30 Greatest Hits*. Atlantic 781668-2, 1985.

_____. *Aretha Live at Fillmore West*. Atlantic/Rhino R2 71526, 1993.

Gaye, Marvin. *Trouble Man*. Tamla 322, 1972.

Guitar Slim. *Guitar Slim: Sufferin' Mind*. Speciality, SPCD-7007-2, 1991.

Guy, Buddy. *The Very Best of Buddy Guy*. Rhino R2 70280, 1992.

Heartsman, Johnny. "Sizzling." Big J 101, 1962.

Hendrix, Jimi. *Are You Experienced?*. Reprise RS-6261, 1967. Reissued on MCA Records MCAD-10893, 1993.

_____. *Axis: Bold As Love*. Reprise RS 6281,1968. Reissued on Reprise RS 6281-2.

_____. *Band of Gypsys*. Capitol Records, STAO-472,1970. Reissued on Capitol CDP 0777-7-96414-2-0.

_____. *Blue Wild Angel: Jimi Hendrix at the Isle of Wight*. MCA 088 113 089-2, 2002.

_____. *Electric Ladyland*. Reprise 2-RS 6307, 1968. Reissued on MCA Records MCAD-10895,1993.

_____. *The Essential Jimi Hendrix: Volumes One and Two*. Reprise

CD 9-26035-2, 1989.

_____. *Hendrix: Live at the Fillmore East.* MCA MCAD2-11931, 1999.

_____. *Jimi Hendrix: The Baggy's Rehearsal Sessions.* Dagger Records/MCA 088 112 956-2, 2002.

_____. *Jimi Hendrix: First Rays of the New Rising Sun.* MCA MCAD-11599, 1997.

_____. *Jimi Hendrix: Live at Woodstock.* MCAD2-11987, 1999.

_____. *Jimi Hendrix: Merry Christmas and Happy New Year.* MCA 088 155 651-2 1999.

_____. *Jimi Hendrix Stages.* Reprise CD 9-26732-2, 1991.

_____. *Jimi Hendrix: South Saturn Delta.* MCA MCAD-11684, 1997.

_____. *The Jimi Hendrix Experience.* 4-CD Box Set, MCA 088 1121, 2000.

_____. *The Jimi Hendrix Experience: Live At Winterland.* Rykodisc RCD 20038, 1987.

_____. *Jimi Hendrix Experience Radio One.* Ryko RCD 20078, 1988.

_____. *The Jimi Hendrix Experience Volume 1: The Wild Man of Pop Plays.* Pyramid RGT 003, 1988.

_____. "Wake Up This Morning and You Find Yourself Dead," on *Jimi Hendrix Live at the Scene Club, N.Y., N.Y.* Ramble Tamble (Holland) RATA 002, n.d.

Hooker, Earl. *Earl Hooker: Play You Guitar Mr. Hooker!* Black Top, BT-1093, 1993.

Howlin' Wolf. *The Rockin' Chair Album.* Vogue VG 651 600111, 1986.

The Isley Brothers. *The Isley Brothers Story, Vol. 1, Rockin' Soul (1959–1968).* Rhino R2-70908, 1991.

Jefferson, Blind Lemon. *Blind Lemon Jefferson.* Milestone MCD-47002-2,1992.

Johnson, Blind Willie. *Dark Was the Night: The Essential Recordings of Blind Willie Johnson.* Indigo, J60CD 20234,1995.

Johnson, Robert. *Hellhound on my Trail: The Essential Recordings of Robert Johnson.* Indigo IGOCD 2017, 1995.

The Kinks. *The Kinks: Greatest Hits*. Rhino, R2 70086, 1989.

King, Albert. *Born Under a Bad Sign*. Stax STAD-472, 1967.

Lenoir, J. B. *J.B. Lenoir: Vietnam Blues*. Evidence ECD 26068-2, 1995.

Lewis, Dave. *Little Green Thing*. A&M Records LP-105.

Little Walter. *Little Walter: His Best*. MCA/Chess, CHD-9384, 1997.

Lofton, Cripple Clarence. "I Don't Know" (digital copy provided to author by Richard Shurman).

Mack, Lonnie. *Memphis Wham!* Ace CDCHD 713, 1999.

The Mahavishnu Orchestra. *The Inner Mounting Flame*. Columbia KC 31067, 1972.

Mayall, John. *Blues Breakers: John Mayall with Eric Clapton*. London LL3492, 1966.

Mayfield, Curtis and the Impressions. *Curtis Mayfield & the Impressions*. MCA MCAD2-10664, 1992.

McLaughlin, John. Devotion. Douglas 3, 1970.

Miles, Buddy. *The Best of Buddy Miles*. Mercury 314 510 310-2, 1997.

Muddy Waters. *Muddy Waters: The Chess Box*. MCA/Chess, CHD3-80002, 1989.

Pickett, Wilson. *The Exciting Wilson Pickett*. Atlantic SD 8129, 1966.

Presley, Elvis. *Elvis Presley: The Top Ten Hits*. RCA/BMG 6383-2-R-P1, 1987.

Roberts, Frank. "Miss Ann." CD copy of original recording (Notla "International Gems" RB-21, LB-2917) and photocopy of record label provided to author courtesy of the Experience Music Project Permanent Collection; artifact number .59835.1997.342.209.

Rush, Otis. *Otis Rush: 1956–1958*. Paula PCDO1.

The Shadows. *Shadows Are Go!* Scamp SCP 0711-2, 1996.

The Troggs. "Wild Thing." Fontana 1548, 1966.

Turner, Ike. *The Best of Ike Turner*. Rhino R2-71819, 1994.

The Ventures. *Walk—Don't Run: The Best of the Ventures*. EMI, CDP-7-93451-2, 1990.

The Wailers. *The Fabulous Wailers*. Golden Crest CR 3075, 1959.

Wammack, Travis. *Travis Wammack: That Scratchy Guitar from Memphis*. Bear Family Records LC 5197, 1987.

Wells, Junior. *Junior Wells: Best of the Vanguard Years*. Vanguard 79508-2, 1998.

The Who. *The Who: BBC Sessions*. MCA 1999088 111 960-2, 1998.

Wray, Link. *Rumble!: The Best of Link Wray*. Rhino R2-71222, 1993.

The Yardbirds. *The Yardbirds: BBC Sessions*. Warner Bros. 9 46694-2, 1997.

_____. *Yardbirds Greatest Hits, Volume I: 1964–1966*. Rhino RNCD 75895, 1986.

_____. *The Yardbirds: Roger the Engineer*. Warner Bros. 9 45734-2, 1996.

VIDEO and DVD PUBLICATIONS

Hendrix, Jimi. *Jimi Hendrix: Band of Gypsys Live at the Fillmore East*. MCA and Experience Hendrix , MCAV 11931, 1999.

Hendrix, Jimi. *Jimi Hendrix: The Dick Cavett Show*. MCADVD, Experience Hendrix, no date.

Hendrix, Jimi, D.A. Pennebaker and Chris Hegedus, dir. *Jimi Hendrix: Live at Monterey*. HBO Video, 0251, 1986.

Hendrix, Jimi, D. A. Pennebaker and Chris Hegedus, dir. *Jimi Hendrix: Woodstock*. MCA Video, MCAL-1107, 1986.

UNPUBLISHED SOURCES

Copies of original multi-track master tapes of the Band of Gypsys concerts at the Fillmore East, N.Y. (digitally produced copy mixed by sound technicians at the Experience Music Project). All recordings provided for author's use by courtesy of the Experience Music Project Permanent Collection.

"Who Knows" and "Machine Gun," originally recorded 1 January 1970, first set: artifact number 1998.192.2

"Power of Soul" (sic) and "Message to Love," recorded 1 January 1970, second set: artifact 1998.192.5

With the Power of Soul: Jimi Hendrix in Band of Gypsys

John C. Hanford III

Volume 2 of 2

A dissertation submitted in partial fulfillment of the
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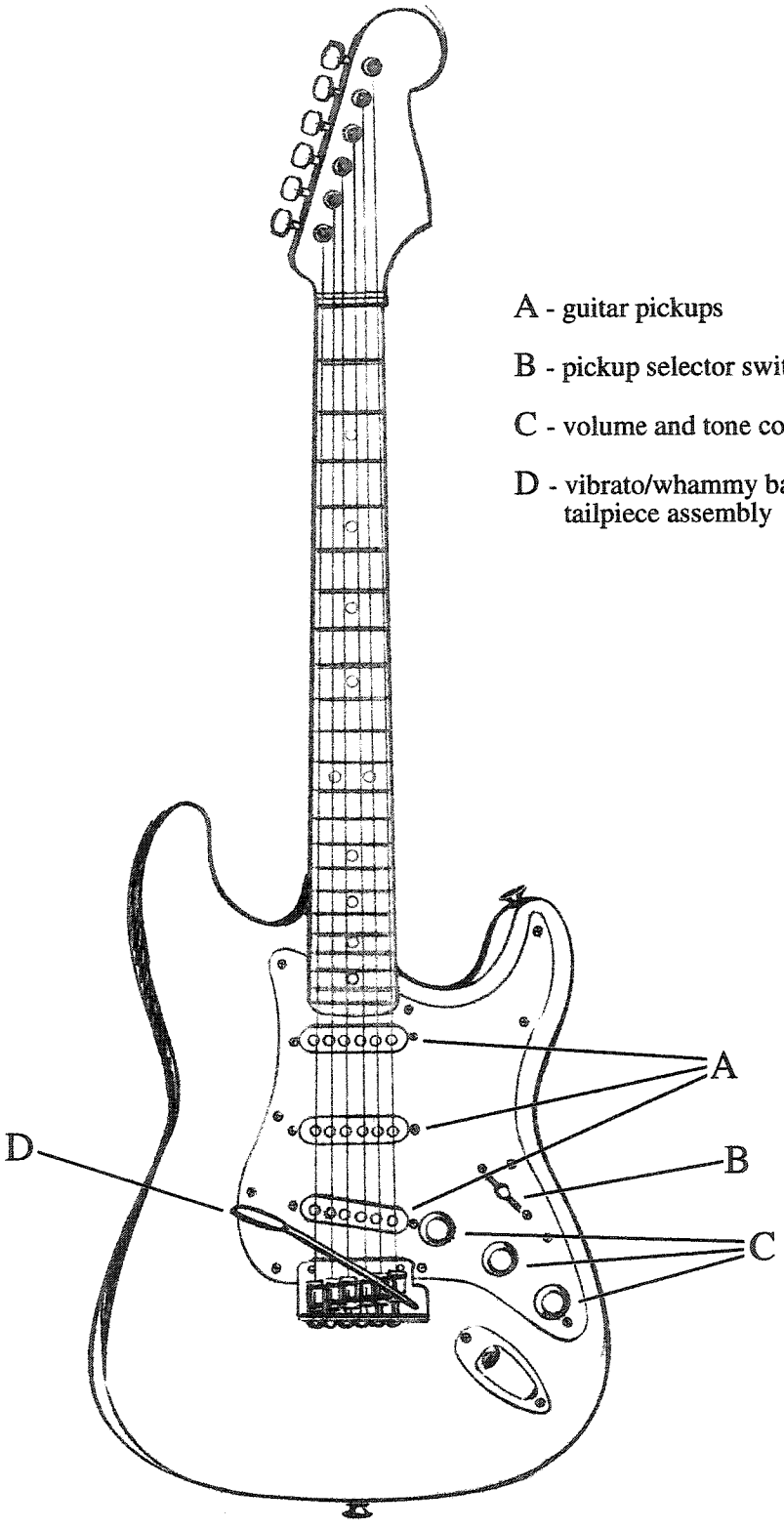
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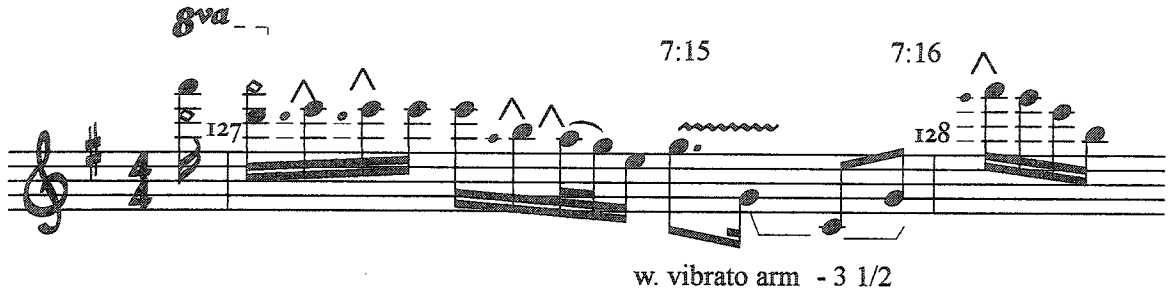
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APPENDIX A: Chapter II Examples

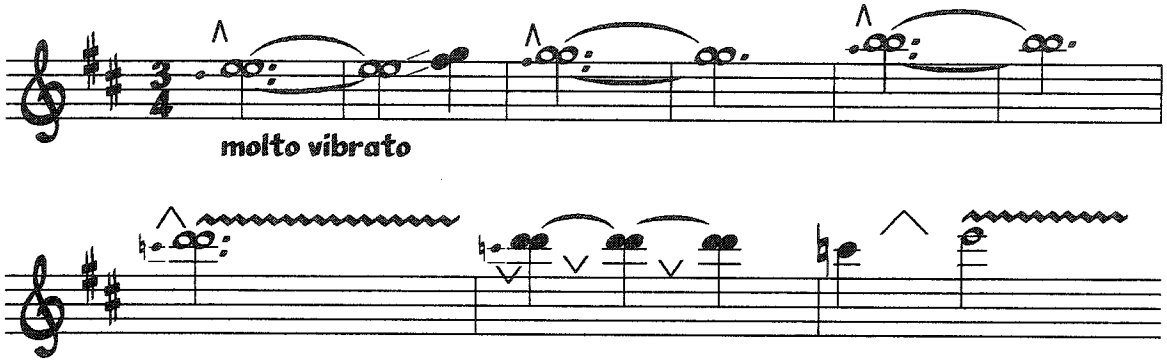
Ex.II–1



EX. II - 2 **"Machine Gun"** (mm. 127-128)

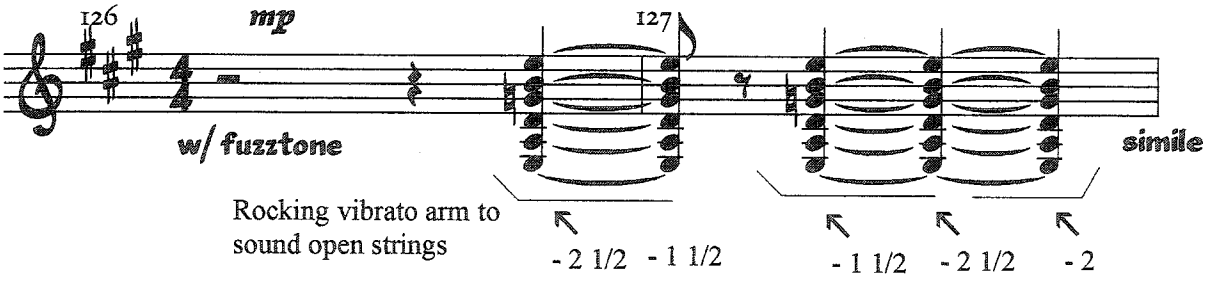


EX. II - 3 **"Manic Depression"** - interlude before guitar solo

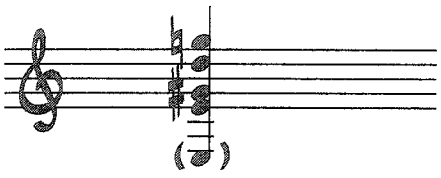


EX. II - 4 **"3rd Stone From the Sun"** - mm. 126-127)
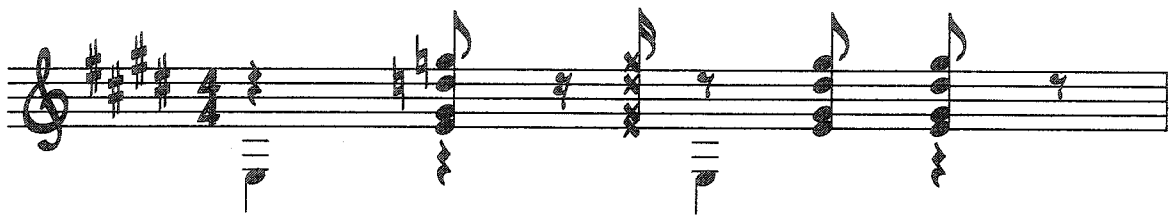
- Transcription does not show actual pitches as they are sounded: rather, the notes indicate the open strings of the guitar whose tuning is destabilized in varying degrees by depression of the vibrato arm (to the extent of lowering pitch values by as much as 2 1/2 semitones)



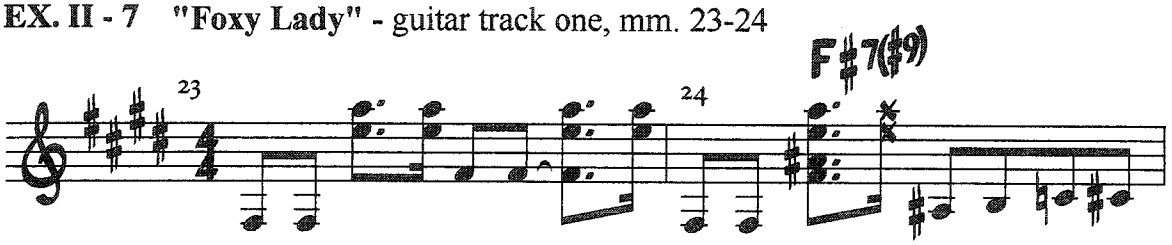
EX. II - 5 The **"Hendrix" or "Purple Haze"** chord



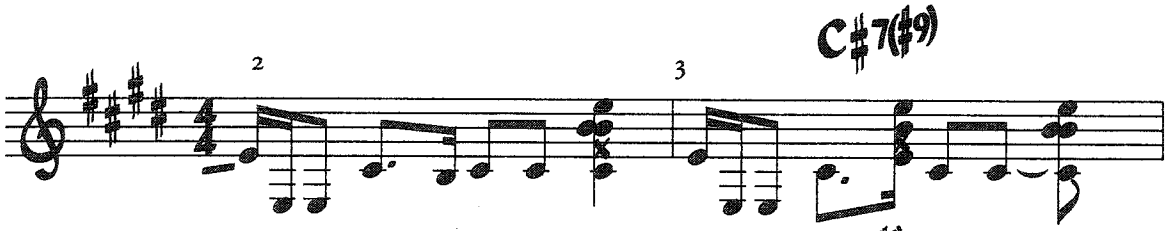
EX. II - 6 Representative example of Steve Cropper's guitar part in "**Sookie Sookie**' (1:40 ff.)



EX. II - 7 "**Foxy Lady**" - guitar track one, mm. 23-24

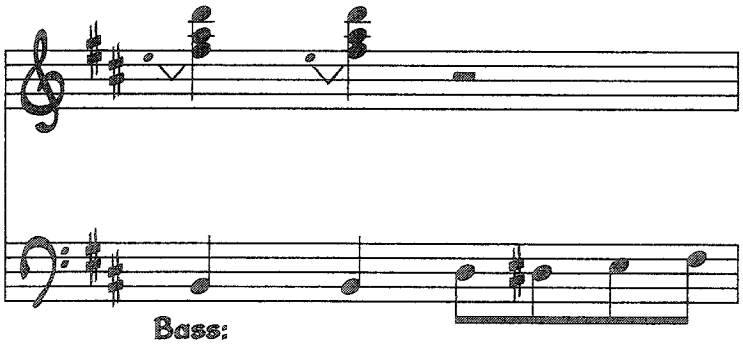


EX. II - 8 "**Spanish Castle Music**" - main theme, guitar
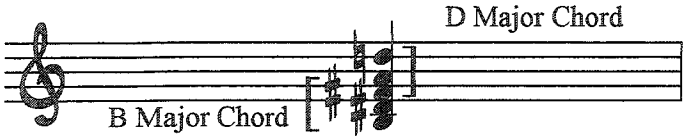


(upper dyad of C♯7(♯9) chord sounds on guitar's open strings - e & b)
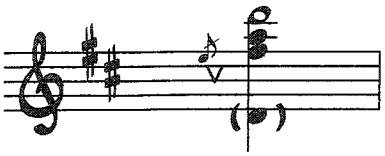
EX. II - 9 "**I Don't Live Today**" lick & riff



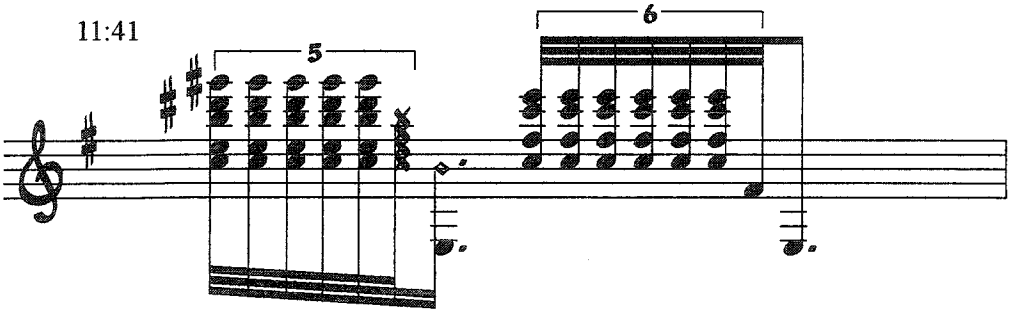
EX. II - 10 "Complete" Hendrix Chord



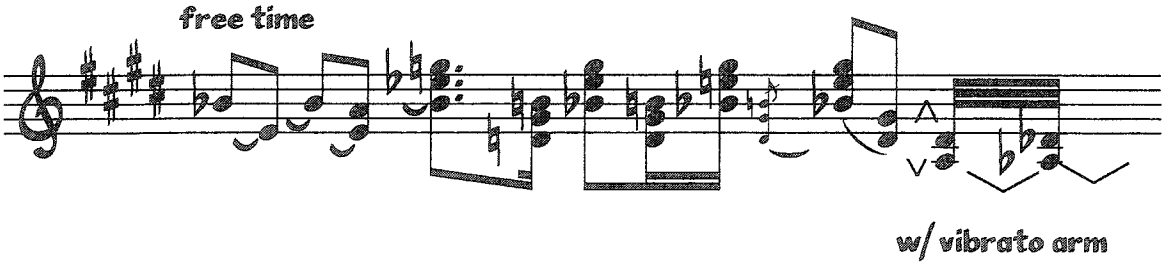
EX. II - 11 "Country Lick" played over a D root
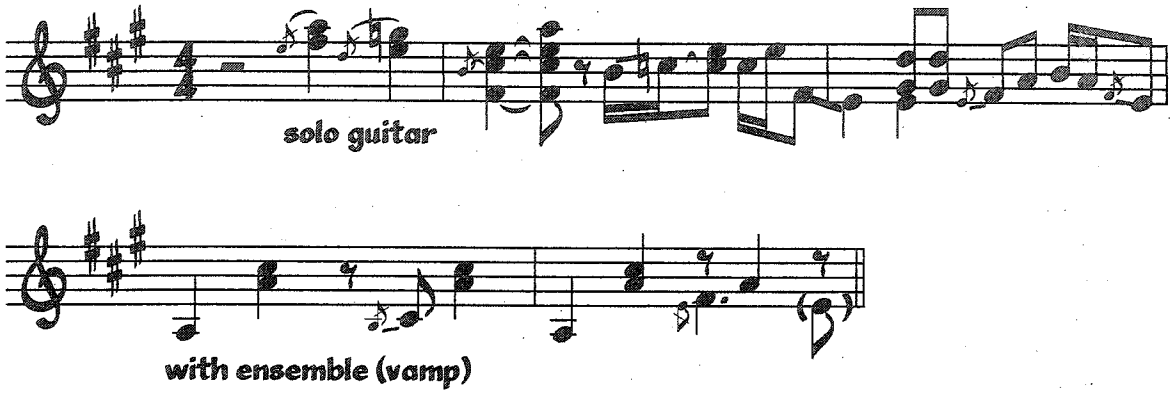


EX. II - 12a Excerpt from free-form cadenza in "Machine Gun"
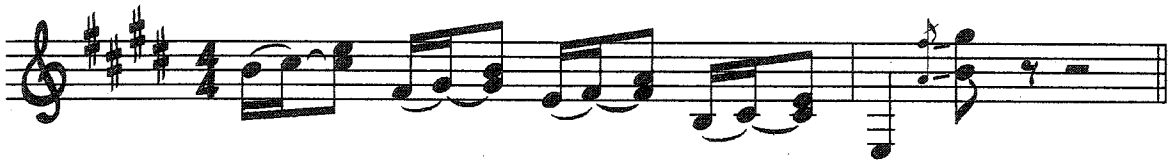


EX. II - 12b Excerpt from free-form episode in "Star Spangled Banner"



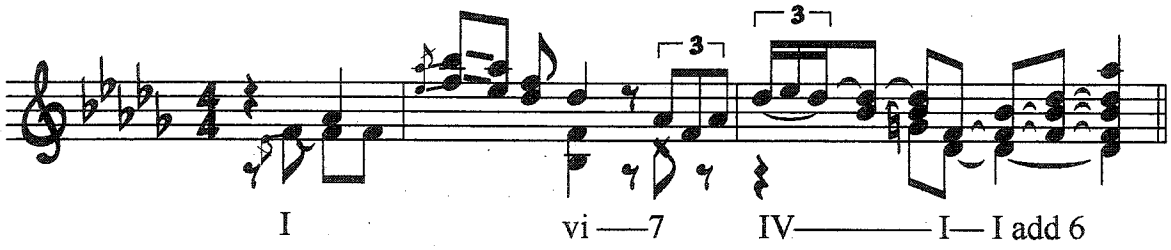
EX. II - 13a "Mercy, Mercy" (1964) - Guitar introduction



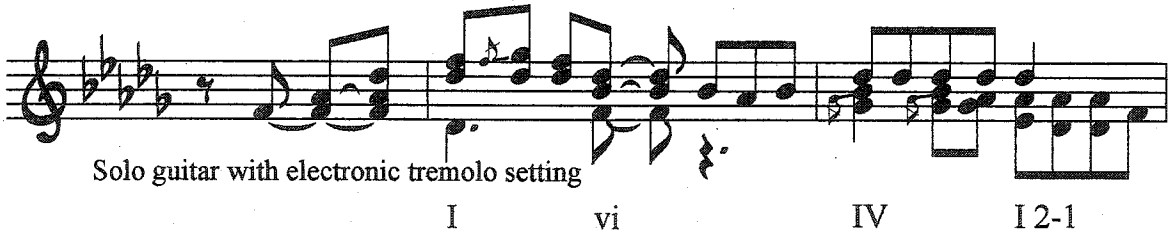
EX. II - 13b "Funky Broadway" (1967) - Guitar introduction
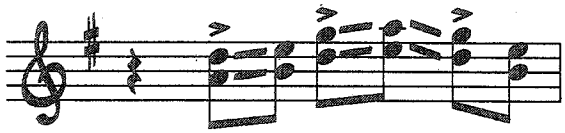


EX. II - 14a "People Get Ready" (1965): First solo guitar break (0:39 - 0:47)



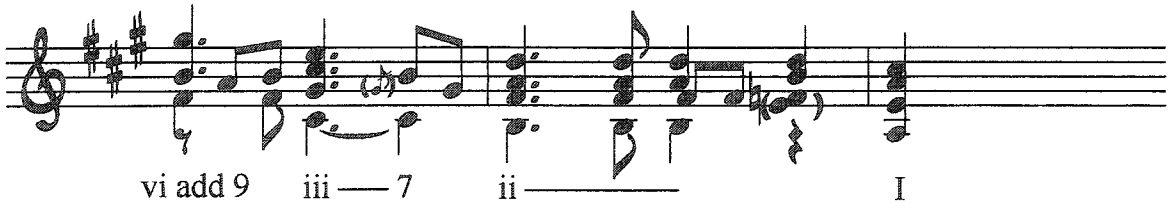
EX. II - 14b "People Get Ready": First half of 2nd guitar break
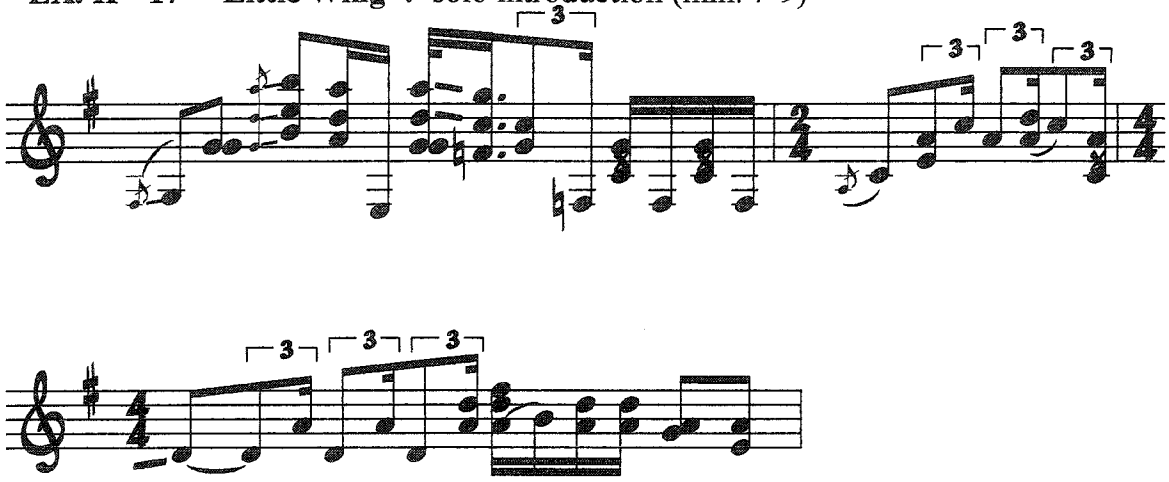


EX. II - 15 "I'm The One Who Loves You" (1963)



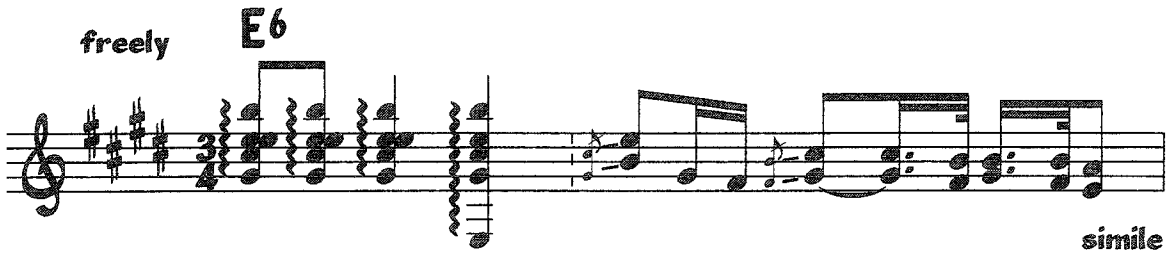
EX. II - 16 "I've Been Trying" (1964): solo guitar introduction (0:00 - 0:07)



EX. II - 17 "Little Wing": solo introduction (mm. 7-9)

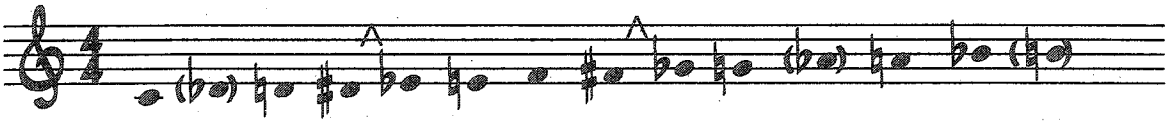


EX. II - 18 "One Rainy Wish": Free-style guitar introduction

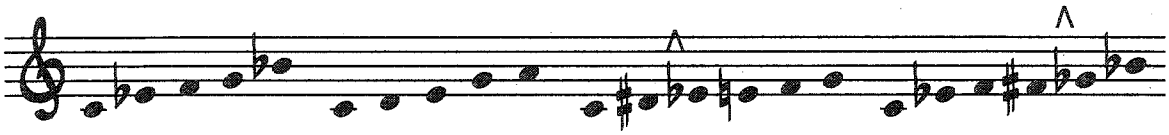


EX. II - 19a-e: scalar sets
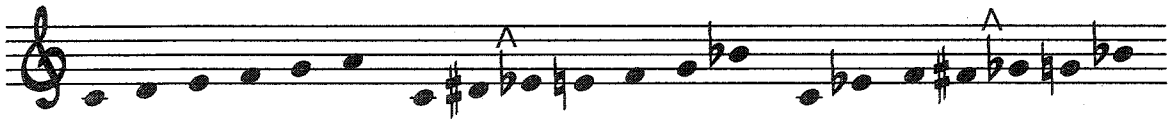
a. Blues Super Set
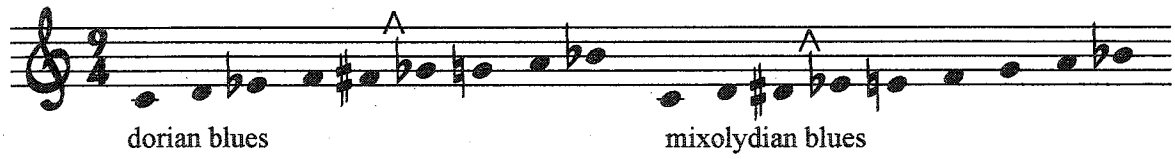


b. Pentatonic subsets



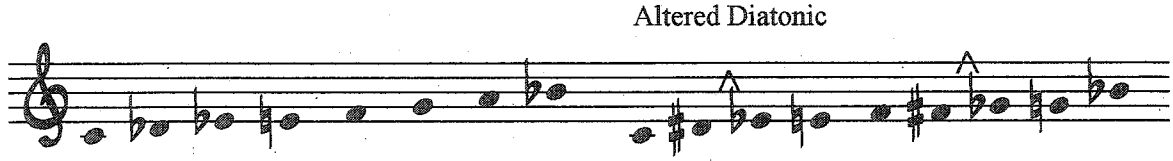
c. Hexatonic subsets



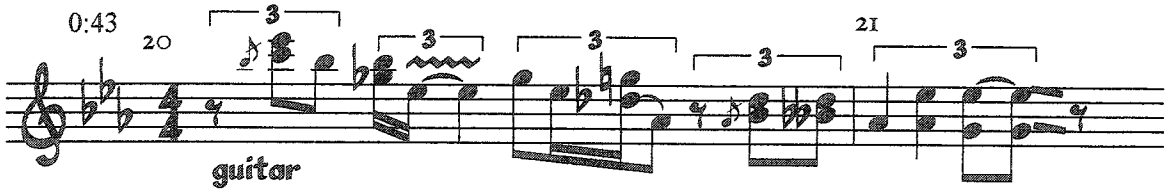
d. Blues-inflected modes
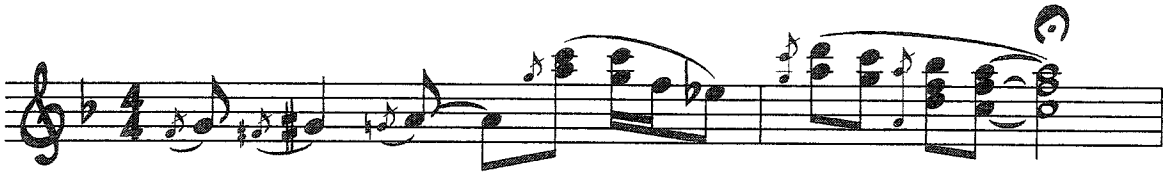


e. Synthetic Scale



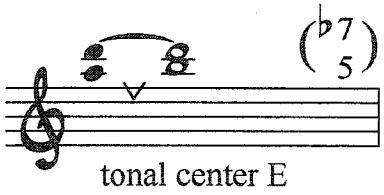
EX. II - 20 "Rainy Day, Dream Away"



EX. II - 21 "The Wind Cries Mary," Coda - mm. 63-64

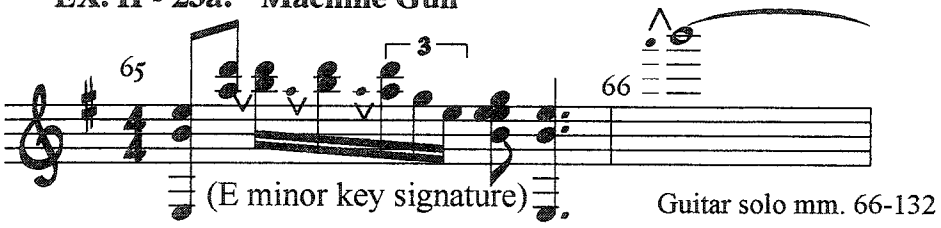


EX. II - 22 Lick JH-1

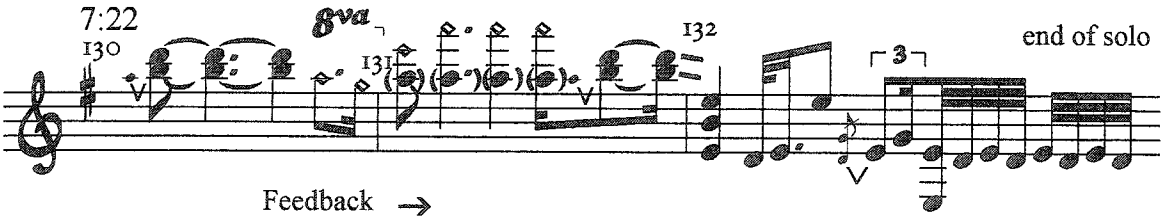


EX. II - 23a-c: "Lick JH-1" in "Machine Gun" and "Who Knows"

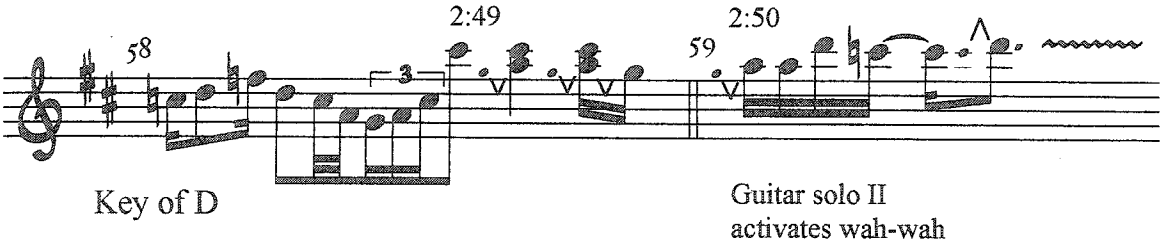
EX. II - 23a: "Machine Gun"



EX. II - 23b: "Machine Gun"



EX. II - 23c: "Who Knows"



APPENDIX B: Chapter III Examples

EXAMPLE III-1: Formal Design of "Who Knows"

Introduction (mm. 1–18): solo guitar plays main theme (mm. 1–6); tutti statement of theme, guitar gradually breaks away from theme to play ad-lib phrases (mm. 7–14); tutti re-statement of theme (mm. 15–18)

Verse I (mm. 19–34): Hendrix and Miles—*They don't know, like I know . . .*

Guitar Solo I (mm. 35–46): blues-based soloing (mm. 35–42); collective riffing (mm. 43–46)

Verse II (mm. 47–58): Hendrix— *Just came in . . . magic honey . . . talkin' about*

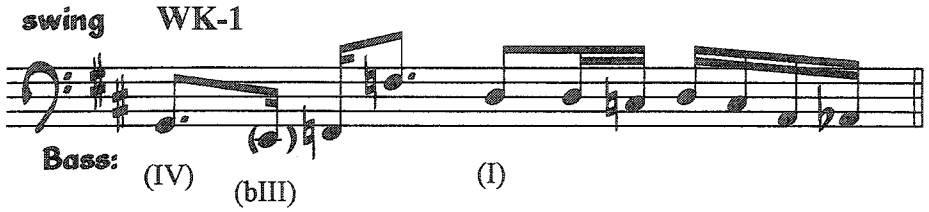
Guitar Solo II (mm. 59–86): Hendrix breaks high 'e' string (m. 69), and redirects direction of improvisation

Verse III (mm. 87–135): Miles ad-libs phrases and scat sings; Hendrix lays out to re-string guitar; drums decrescendo and fade out at m. 1 31

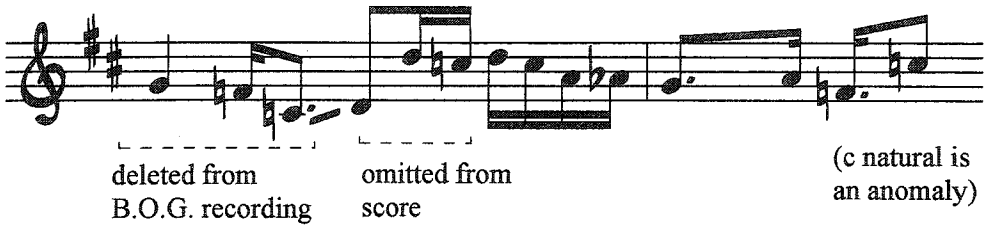
Guitar Solo III (mm. 136–189): Octavia solo unfolds in stages of motivic development, free improvising, and riff building

Coda (mm. 190–199): guitar plays sub-octave version of theme; stop-time cadence at measures 197–198
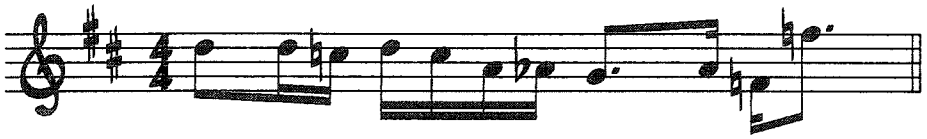
EX. III - 2 Principal Ostinato and Main Theme of "**Who Knows**"



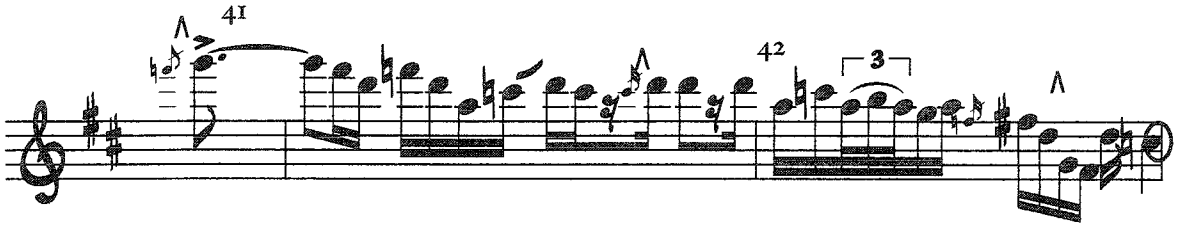
EX. III - 3 Guitar Introduction to "**Who Knows**"



EX. III - 4 Hypothetical "First version" of WK-1

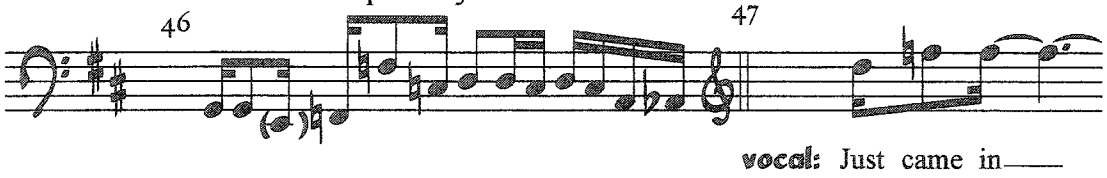


EX. III - 5 Guitar Solo I: Linking phrase and cadential gesture (mm. 41-42)



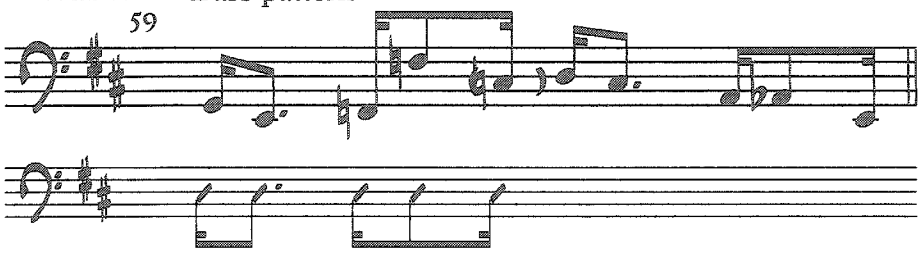
EX. III - 6 Bass pattern

WK-2A Variation of primary ostinato



EX. III - 7
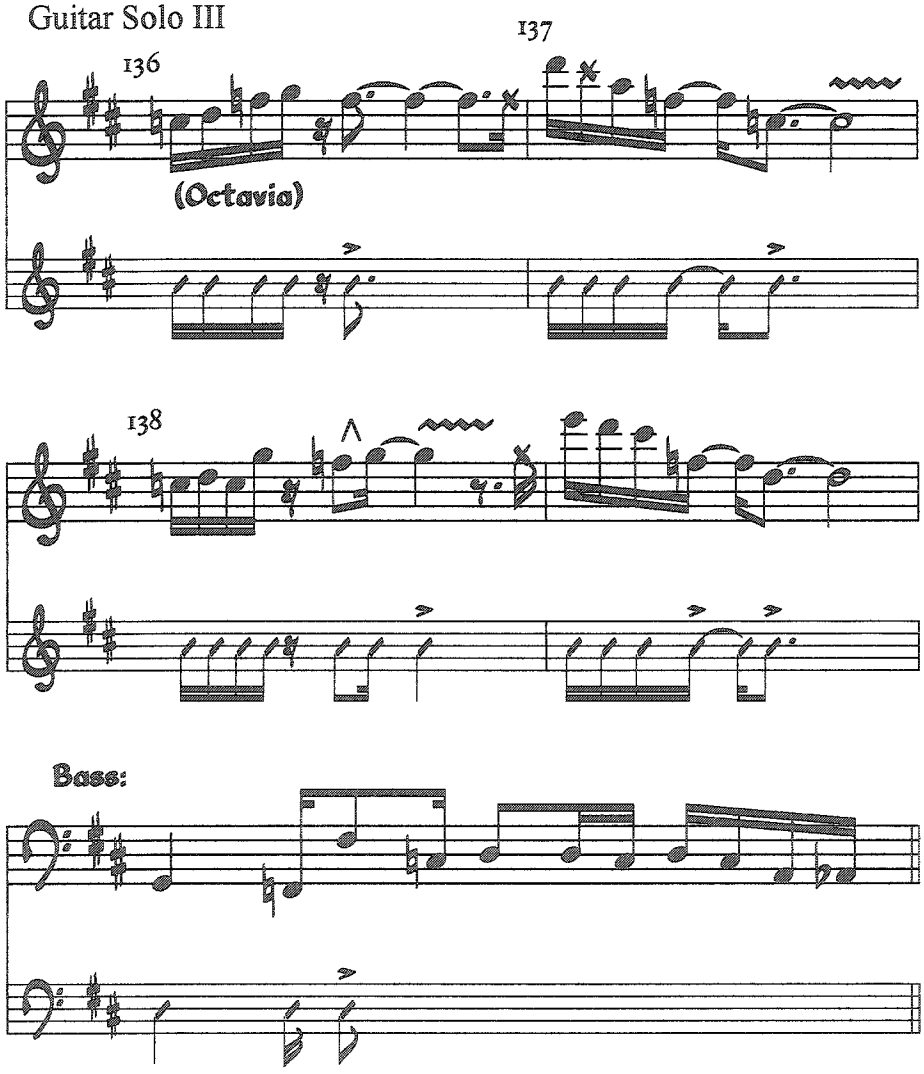
WK-2B Bass pattern



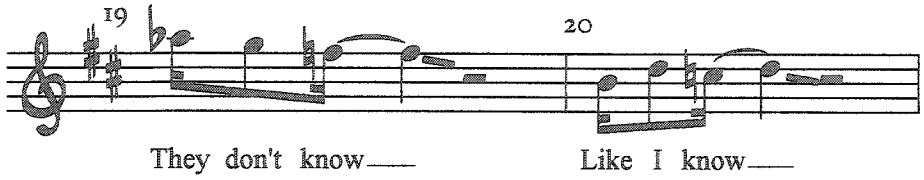
Bass: Lunging rhythmic character; consecutive syncopations

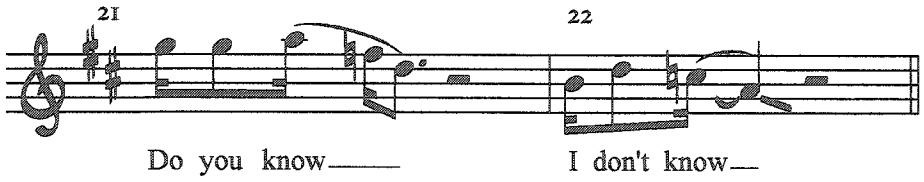
EX. III - 8 Rhythmic & Melodic comparisons between Guitar Solo III and other materials in **"Who Knows"**

Guitar Solo III

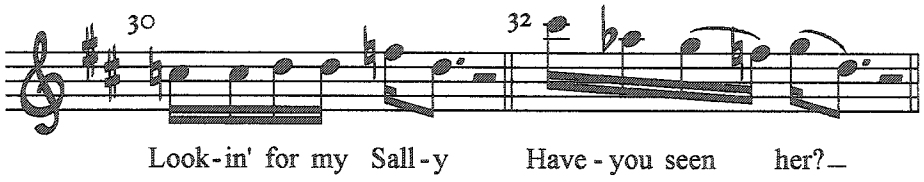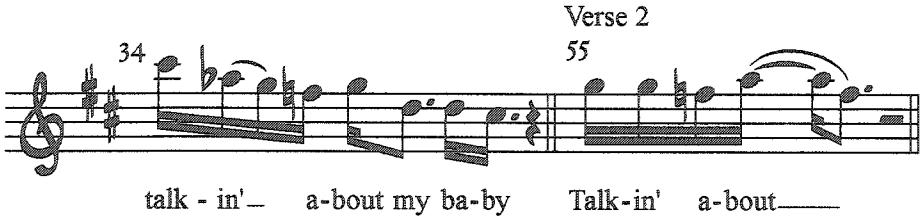


Verse 1 (Hendrix vocals)
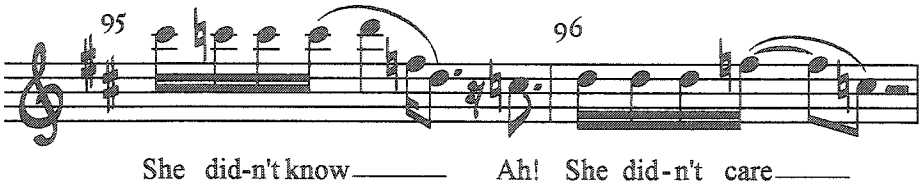




Verse 1 (Hendrix vocals) cont'd



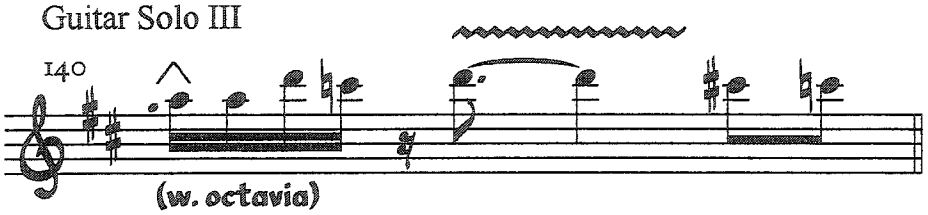


Verse 3 (Buddy Miles vocals)

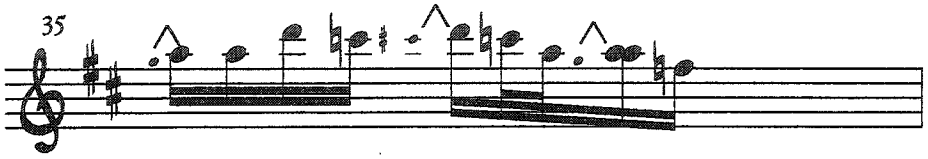


EX. III - 9
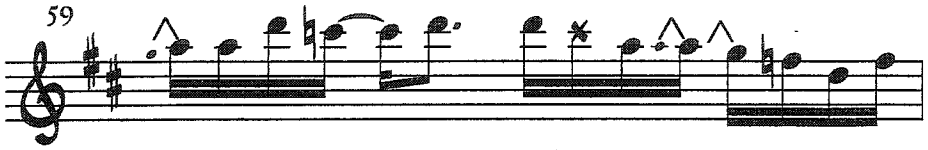
Guitar Solo III
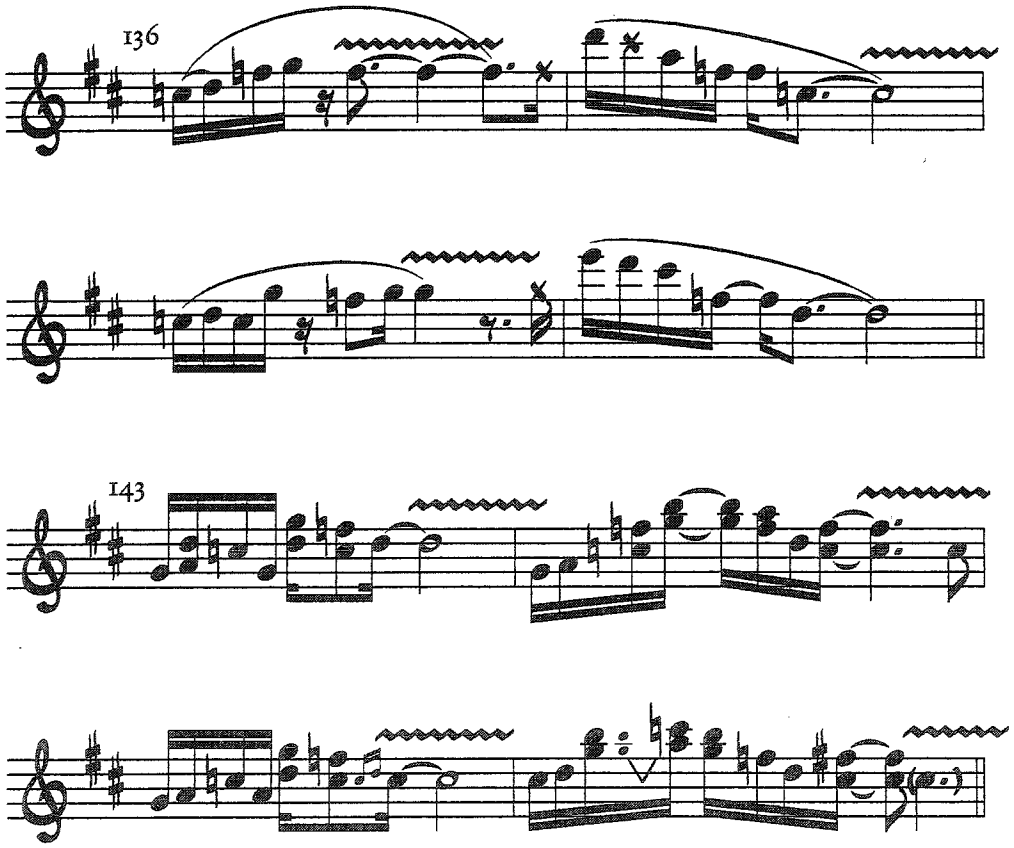


Guitar Solo I (head)
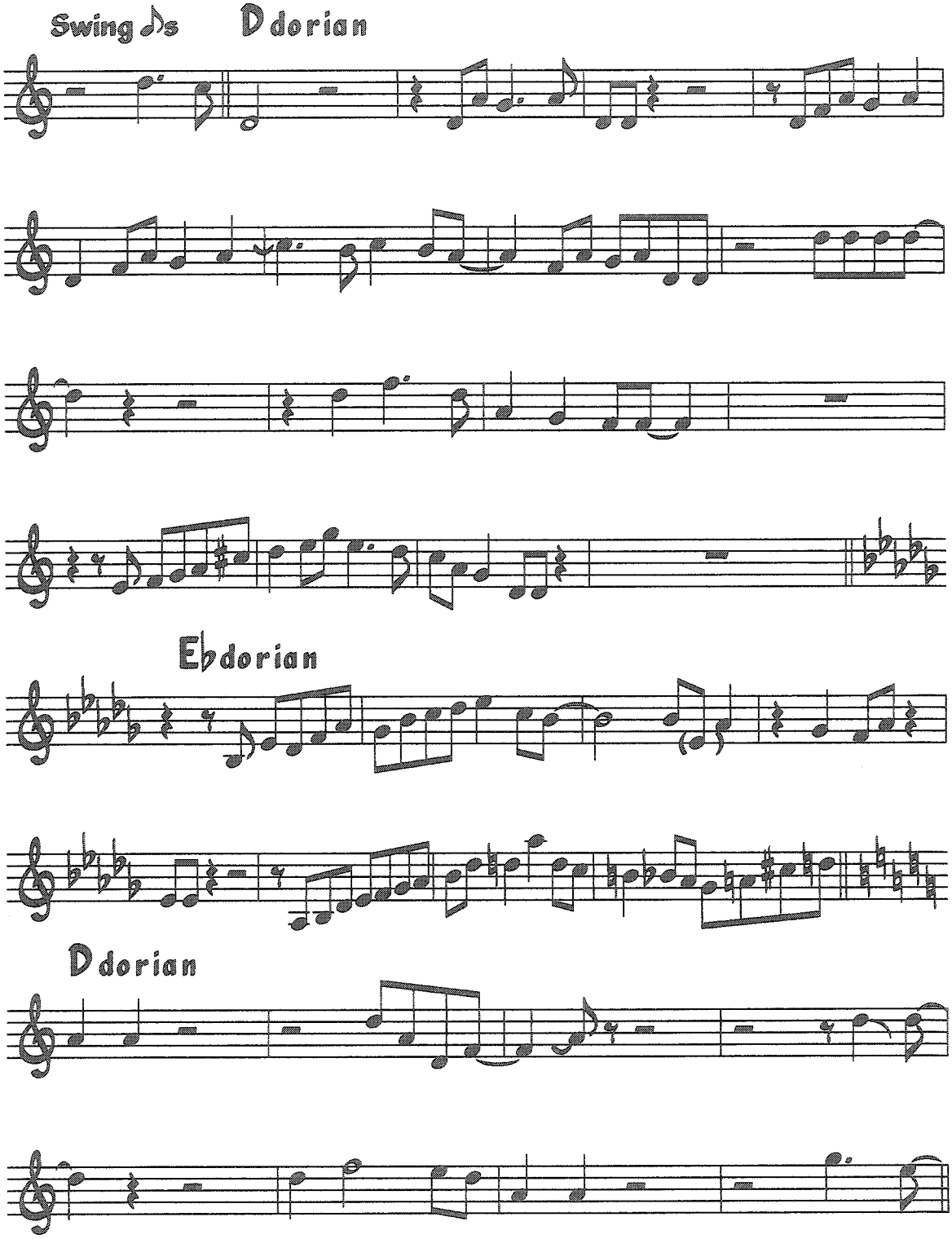


Guitar Solo II (head)
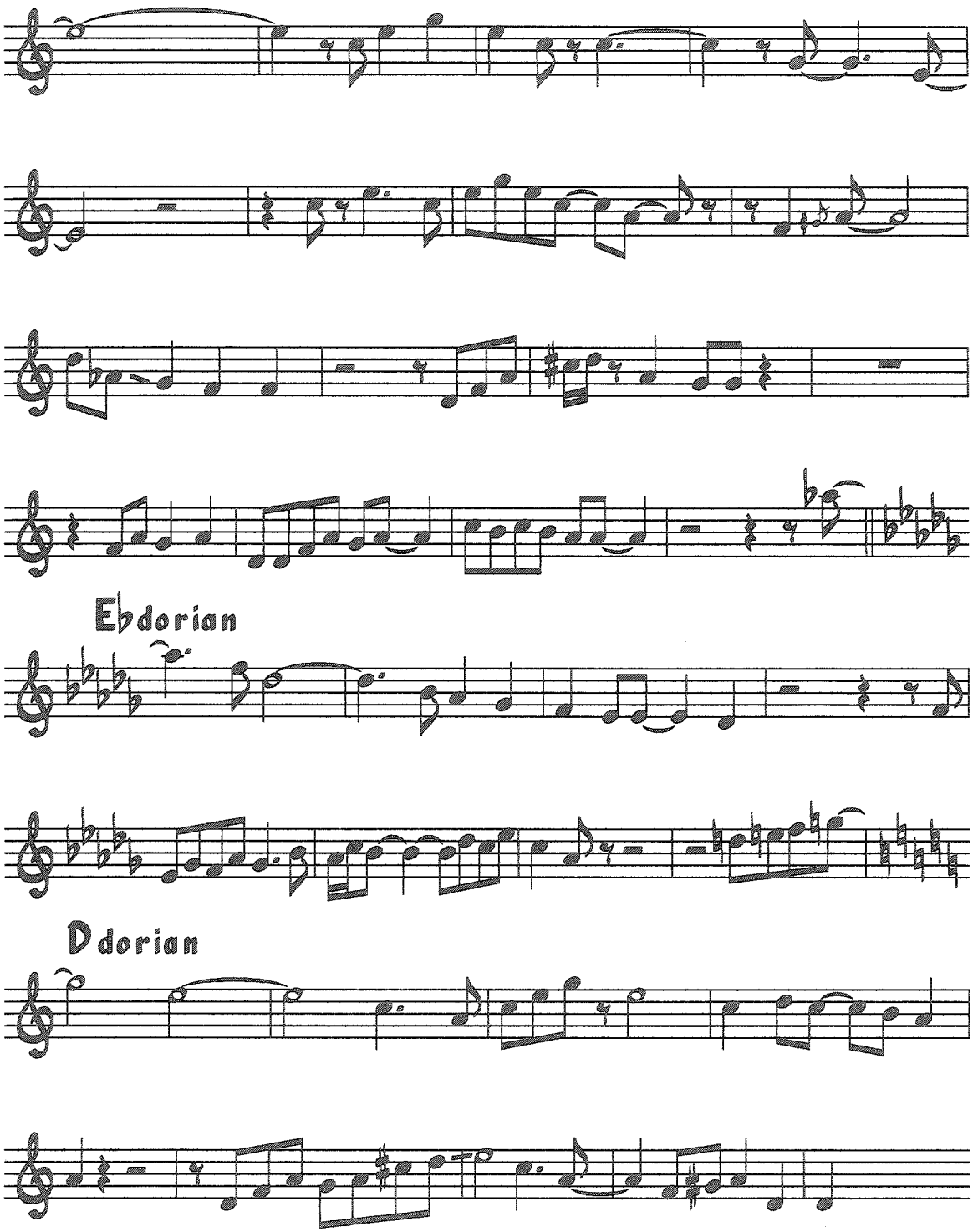


EX. III - 10 Guitar Solo III excerpts



EX. III - 11 "So What" - Trumpet solo, Miles Davis



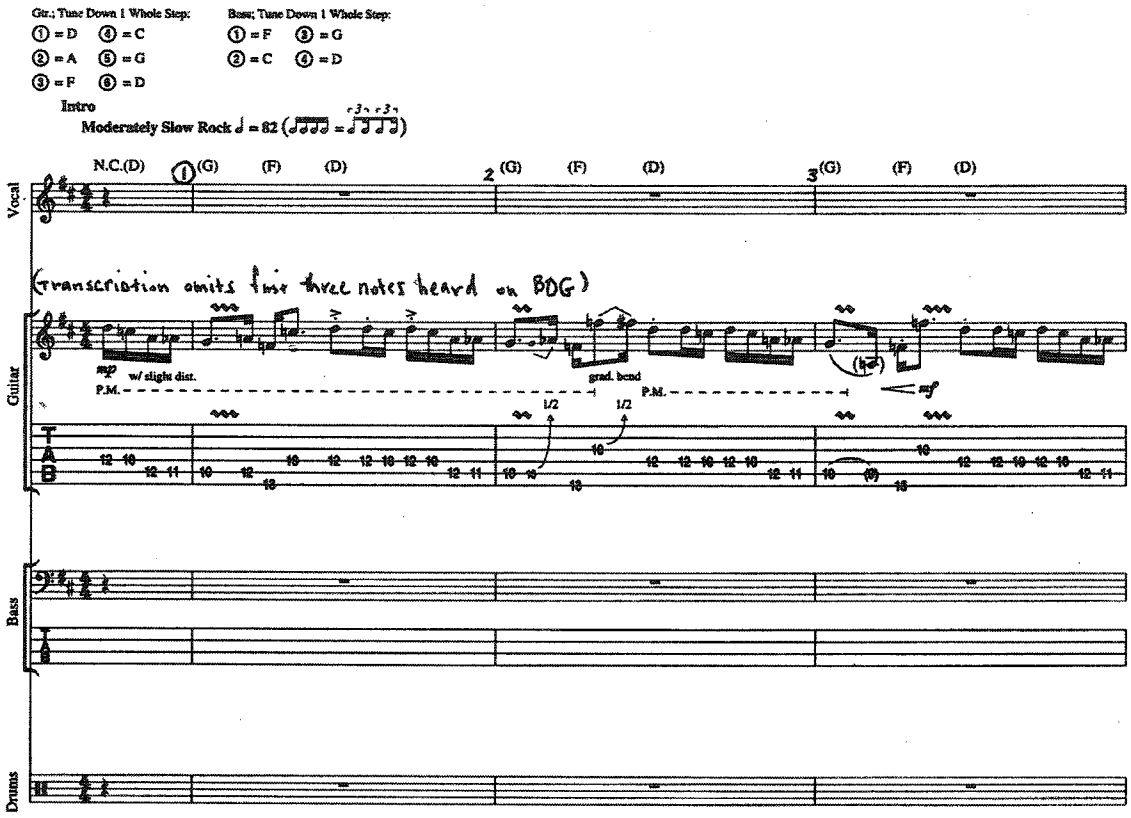
"So What" cont'd
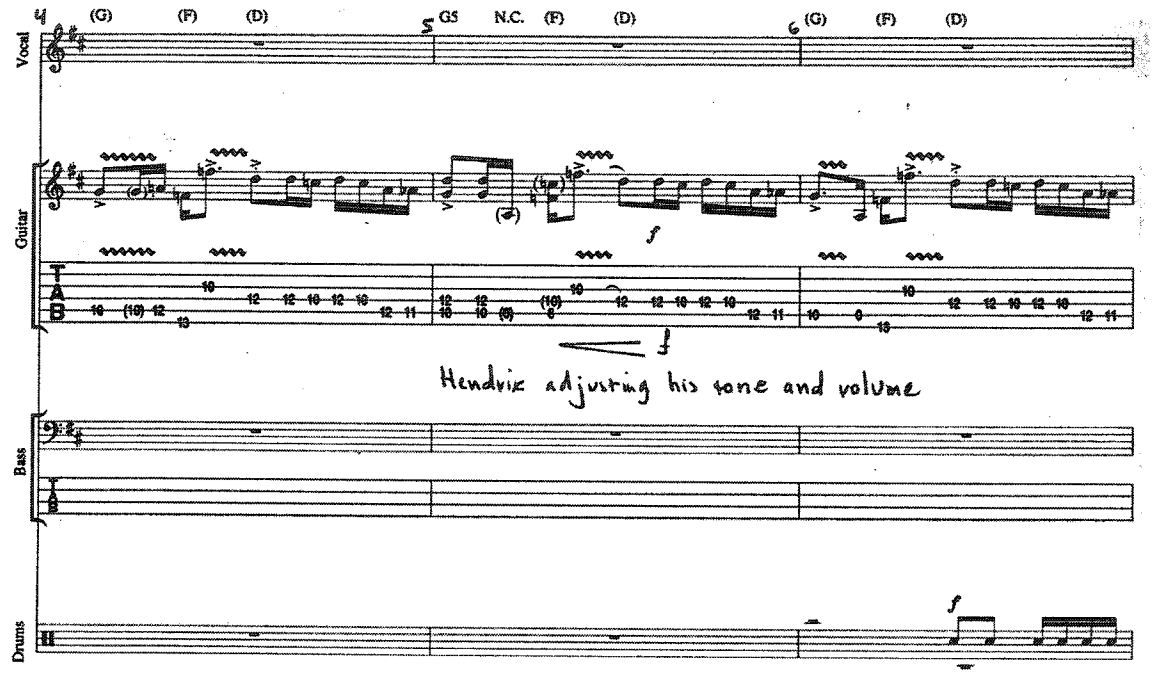


Who Knows
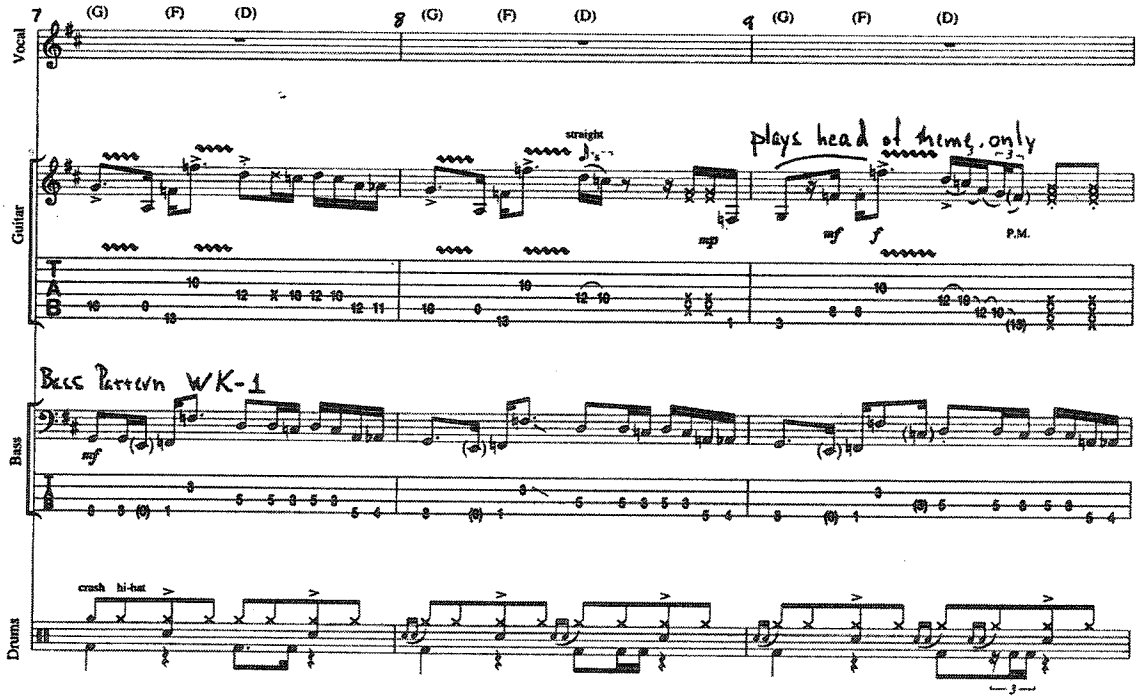
By Jimi Hendrix

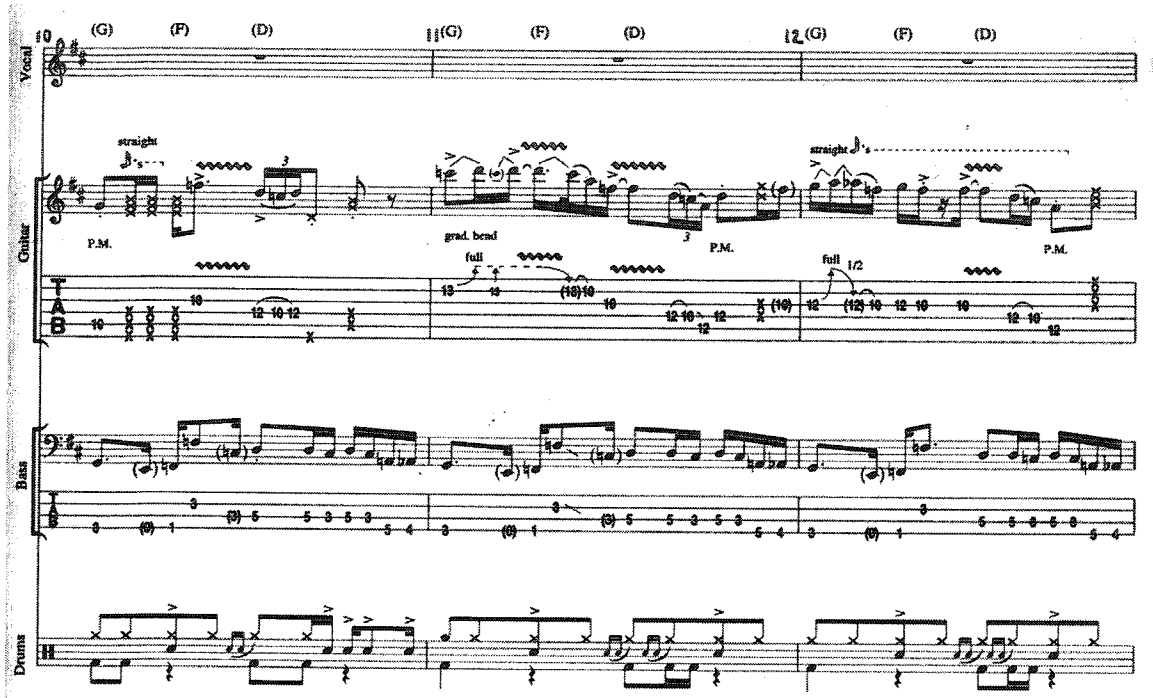
Spoken: "The Fillmore is proud to welcome back some old friends with a brand new name... A Band of Gypsys!"
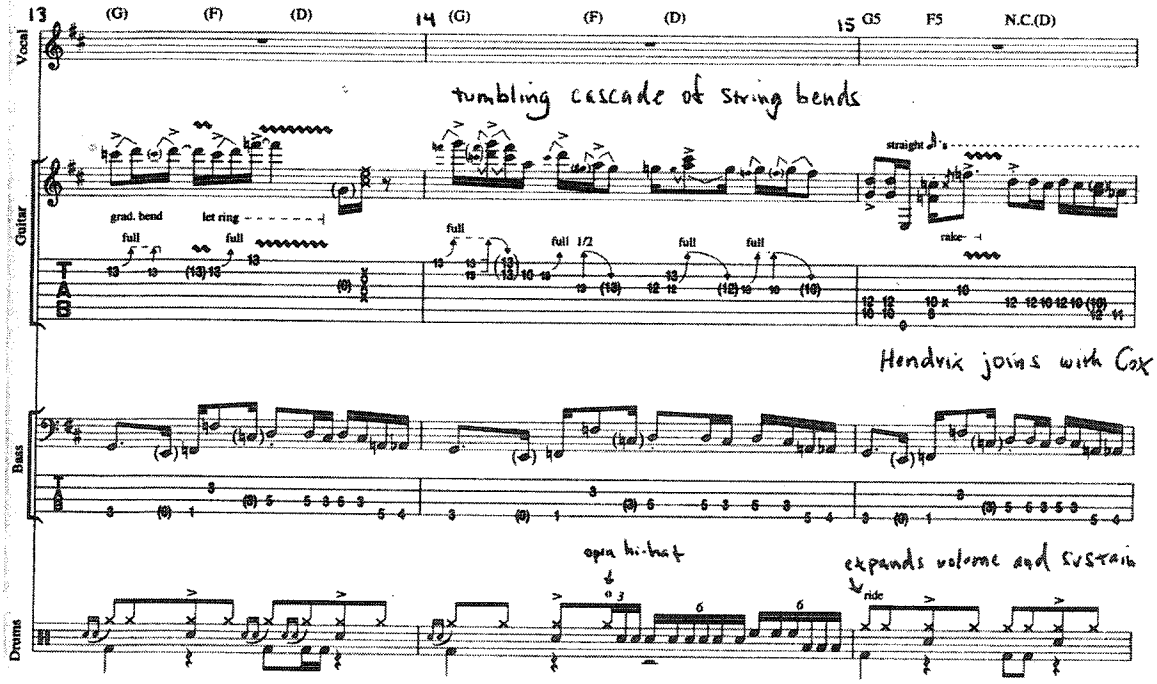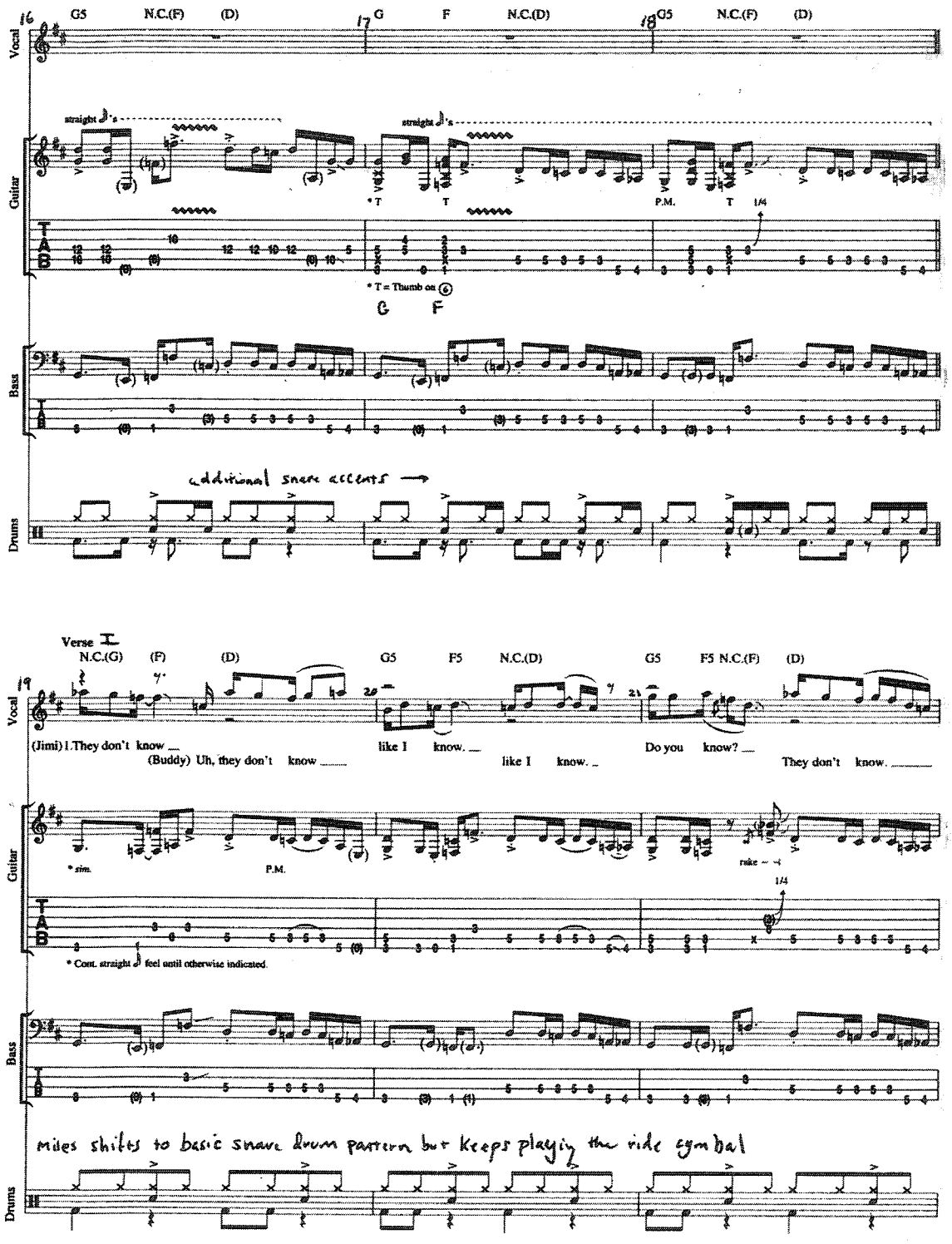


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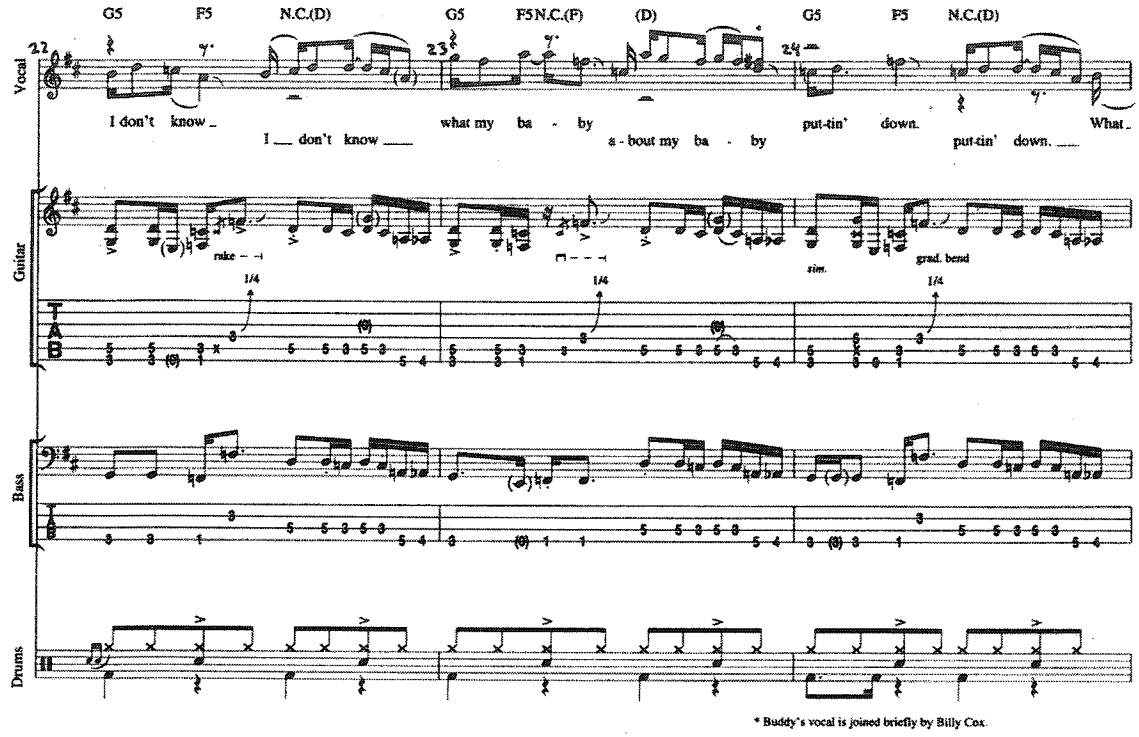

Vocal
Guitar
Bass
Drums
(G) (F) (D)
G5 N.C. (F) (D)
Hendrix adjusting his tone and volume
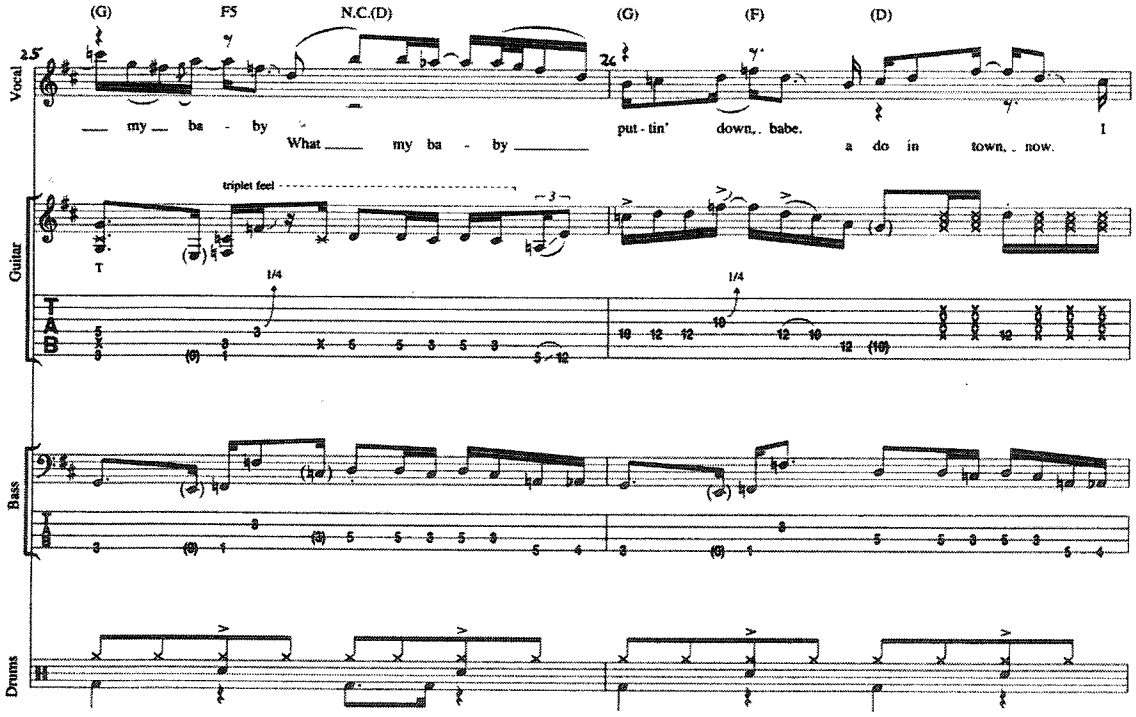

Vocal
Guitar
Bass
Drums
(G) (F) (D)
straight
plays head of theme only
P.M.
Bass Pattern WK-1
crash hi-hat
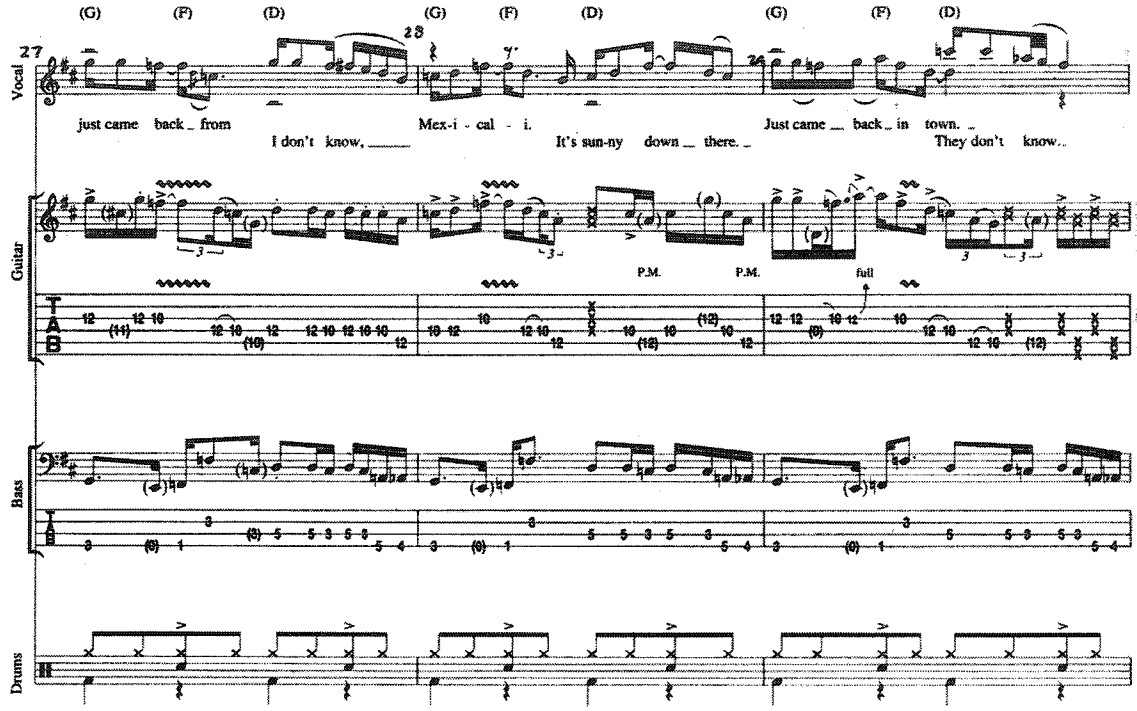

10
(G) (F) (D)
11 (G) (F) (D)
12 (G) (F) (D)
Vocal
Guitar
Bass
Drums
straight
P.M.
grad. bend
full
full 1/2
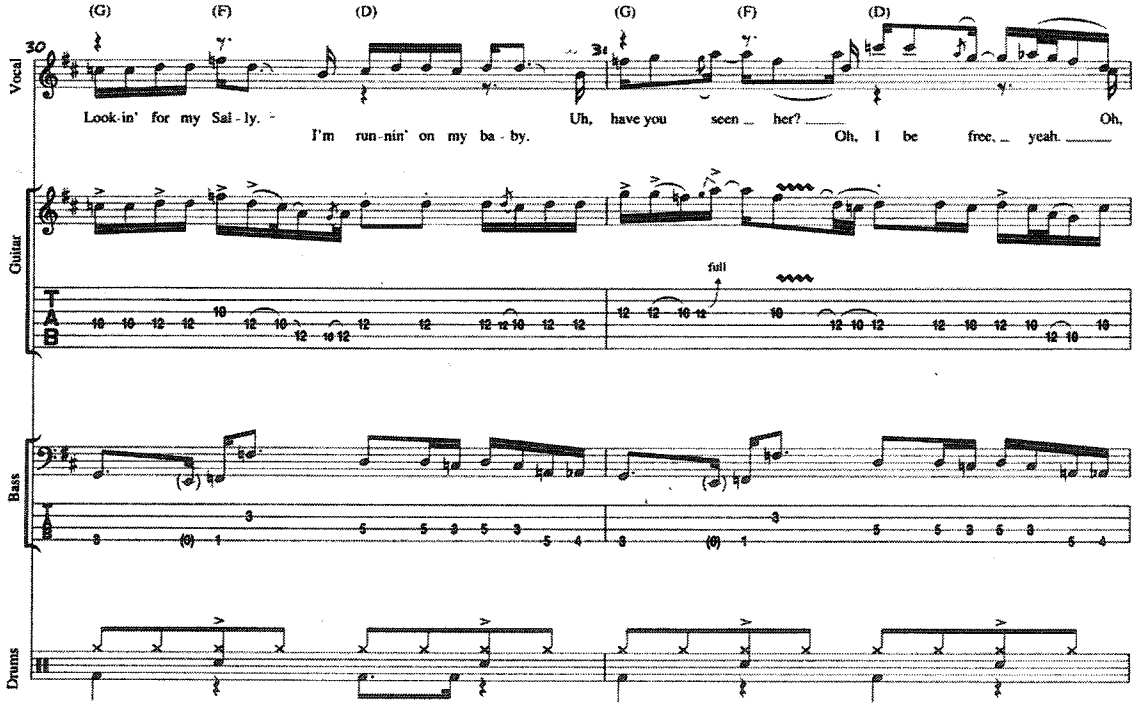

13
(G) (F) (D)
14 (G) (F) (D)
15 G5 F5 N.C.(D)
Vocal
Guitar
Bass
Drums
tumbling cascade of string bends
straight
grad. bend
let ring
full
full 1/2
rake
Hendrix joins with Cox
open hi-hat
expands volume and sustain
ride
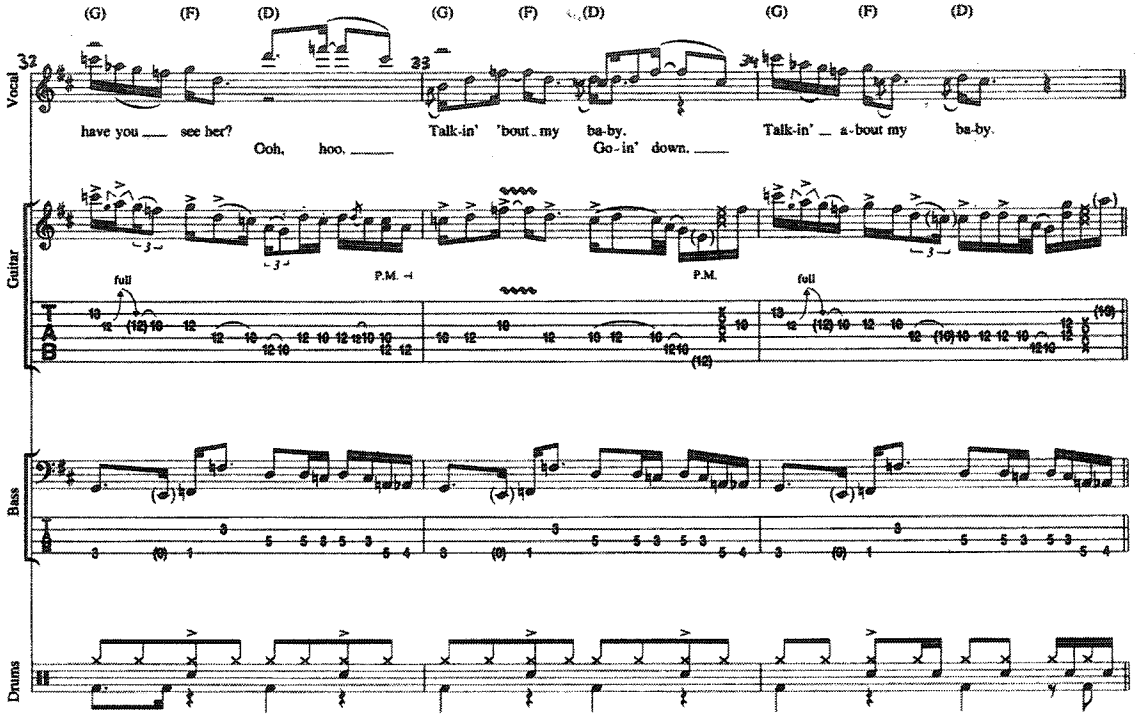

16
G5 N.C.(F) (D)
17
G F N.C.(D)
18
G5 N.C.(F) (D)
Vocal
Guitar
Bass
Drums
straight 8's
* T
T
P.M.
T 1/4
* T = Thumb on 6
C F
additional snare accents
Verse I
N.C.(G) (F) (D)
G5 F5 N.C.(D)
G5 F5 N.C.(F) (D)
19
20
21
(Jimi) I. They don't know
like I know.
Do you know?
(Buddy) Uh, they don't know
like I know.
They don't know.
* sim.
P.M.
rake
1/4
* Cont. straight 8 feel until otherwise indicated.
miles shifts to basic snare drum pattern but keeps playing the ride cymbal
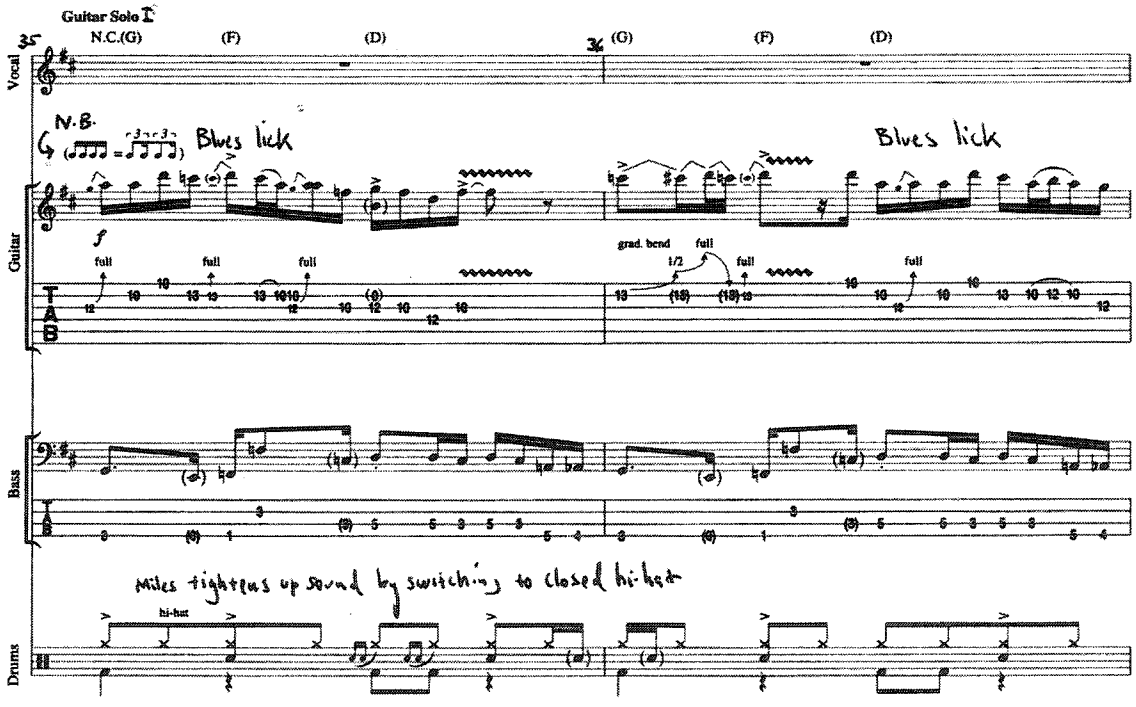

G5 F5 N.C.(D) G5 F5N.C.(F) (D) G5 F5 N.C.(D)
22 23 24
Vocal
I don't know I don't know what my ba - by a - bout my ba - by put-tin' down. put-tin' down. What
Guitar
rake
1/4
sim.
grad. bend
Bass
Drums
* Buddy's vocal is joined briefly by Billy Cox.

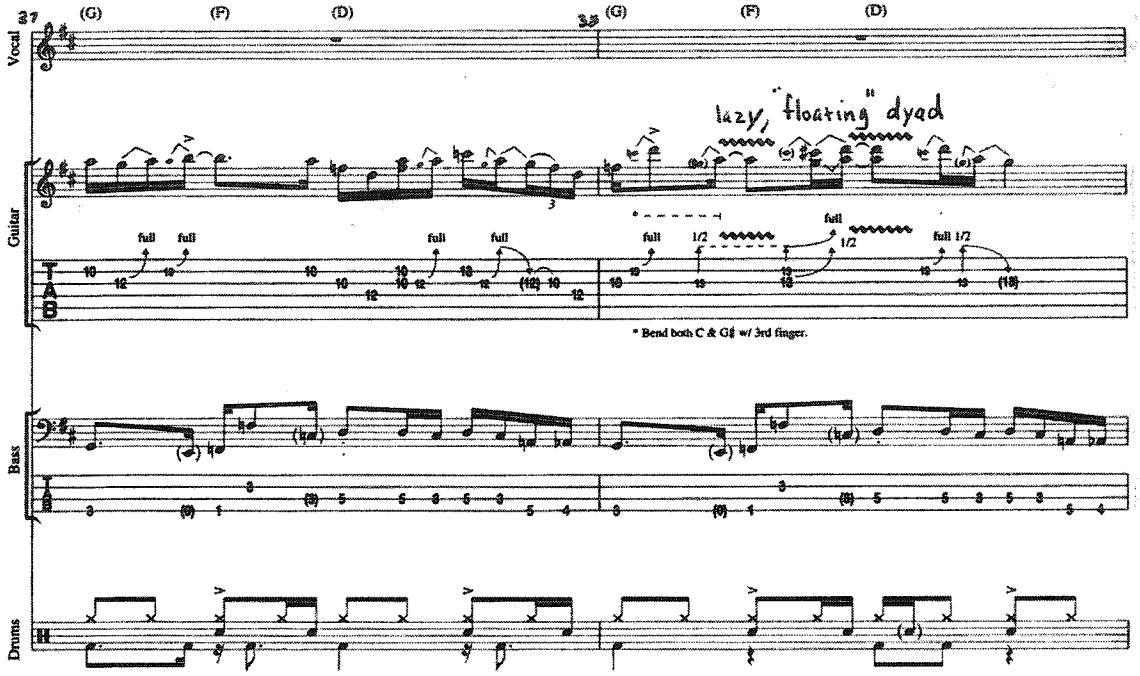

(G) F5 N.C.(D) (G) (F) (D)
25 24
Vocal
my ba - by What my ba - by put - tin' down, babe. a do in town, now. I
Guitar
triplet feel
1/4
Bass
Drums

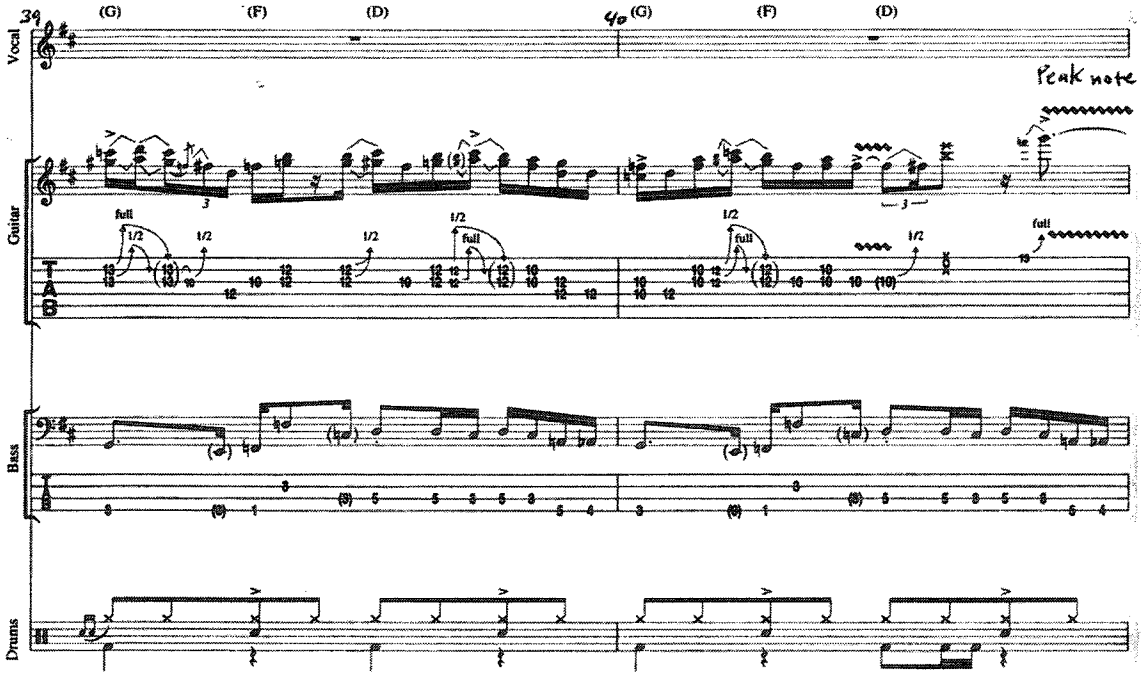

(G) (F) (D) (G) (F) (D) (G) (F) (D)
27
28
Vocal
just came back from Mex-i-cal-i. Just came back in town.
I don't know, It's sun-ny down there. They don't know.
Guitar
P.M. P.M. full
Bass
Drums

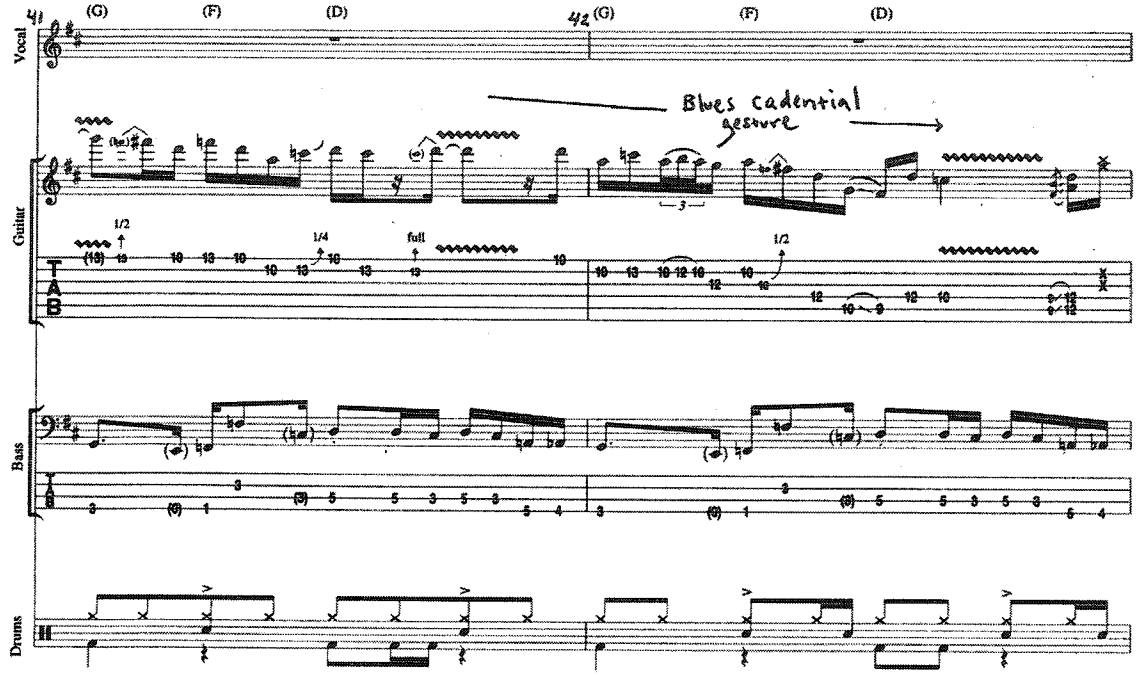

(G) (F) (D) (G) (F) (D)
30
31
Vocal
Look-in' for my Sal-ly. I'm run-nin' on my ba-by. Uh, have you seen her? Oh, I be free, yeah. Oh,
Guitar
full
Bass
Drums
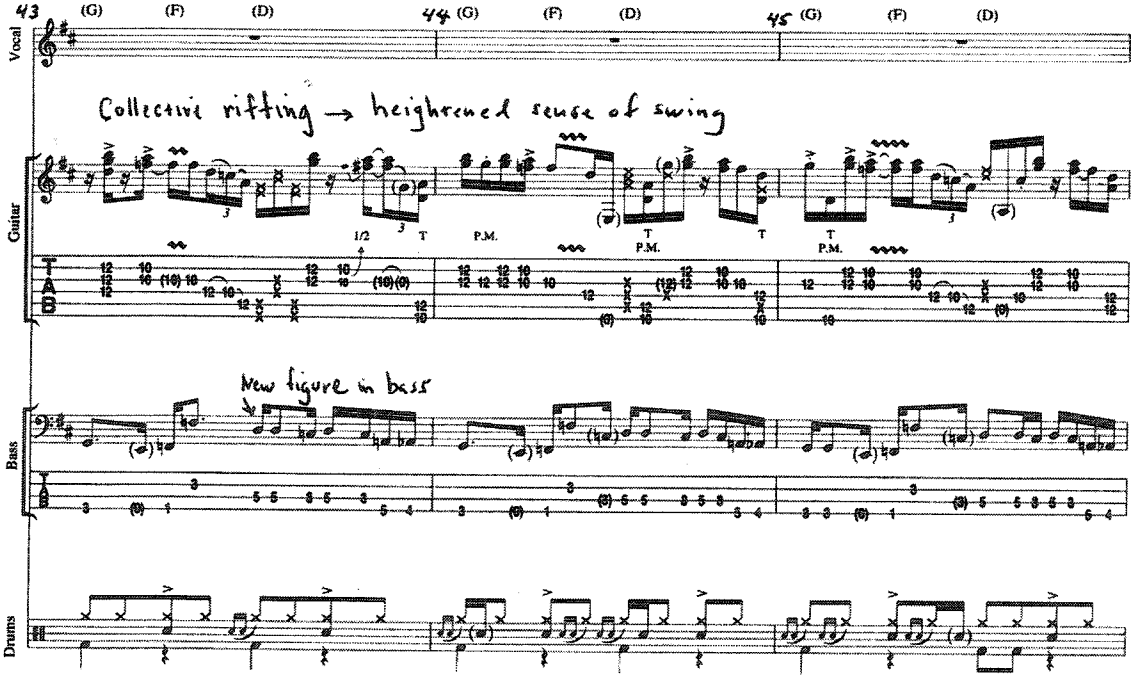

(G) (F) (D) (G) (F) (D) (G) (F) (D)
32 33 34
Vocal
have you see her? Ooh, hoo. Talk-in' 'bout my ba-by. Go-in' down. Talk-in' a-bout my ba-by.
Guitar
P.M. P.M.
full full
Bass
Drums
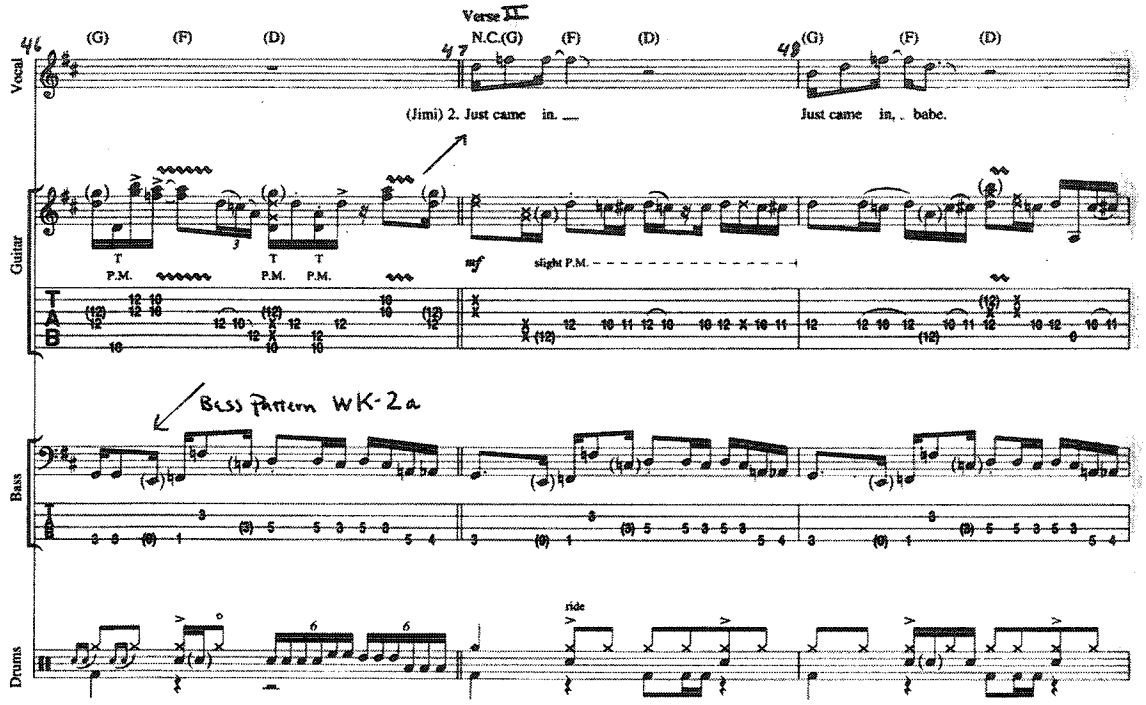

Guitar Solo
N.C.(G) (F) (D) (G) (F) (D)
35 36
Vocal
N.B.
Blues lick
Blues lick
f
full full full
grad. bend full
1/2
full full
Guitar
Bass
Miles tightens up sound by switching to closed hi-hat
hi-hat
Drums
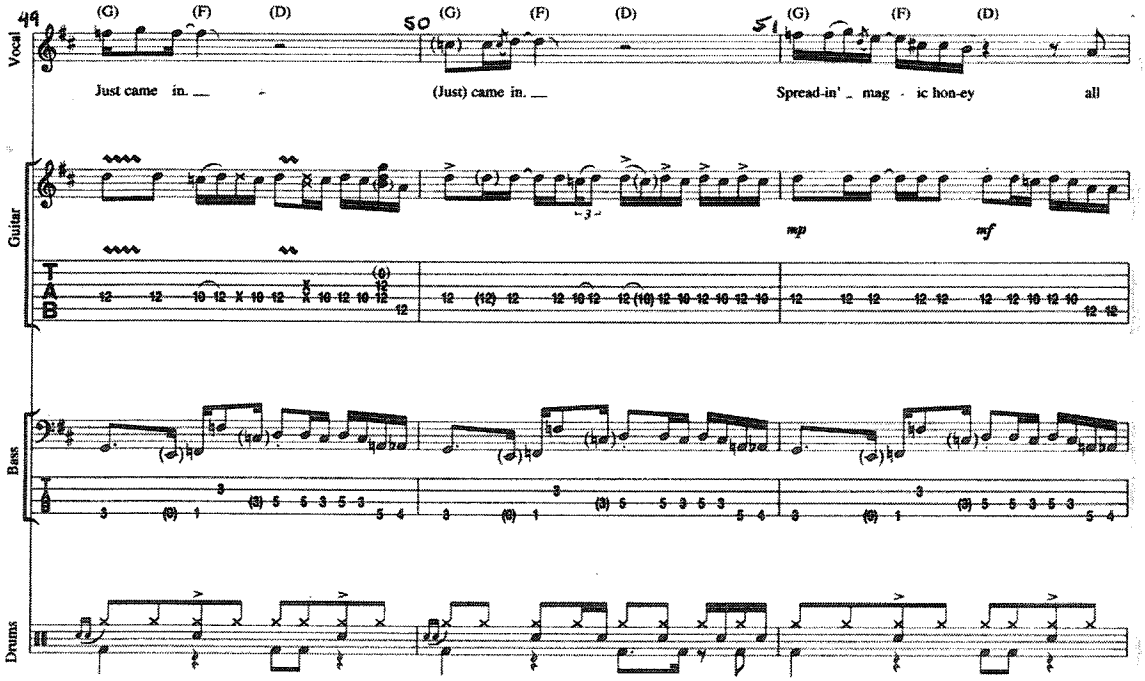

37
(G)
(F)
(D)
38
(G)
(F)
(D)
Vocal
Guitar
Bass
Drums
lazy, "floating" dyad
full
full
full
full
full
1/2
1/2
full
full 1/2
* Bend both C & G# w/ 3rd finger.
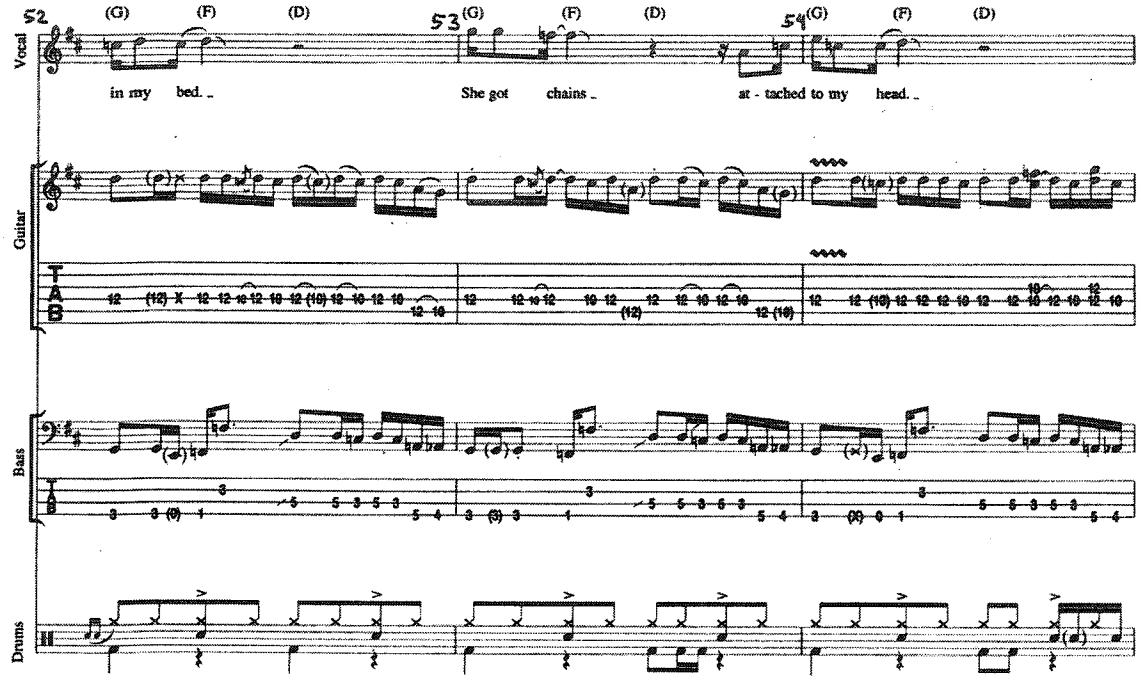

39
(G)
(F)
(D)
40
(G)
(F)
(D)
Vocal
Guitar
Bass
Drums
Peak note
full
1/2
1/2
1/2
full
1/2
full
1/2
full
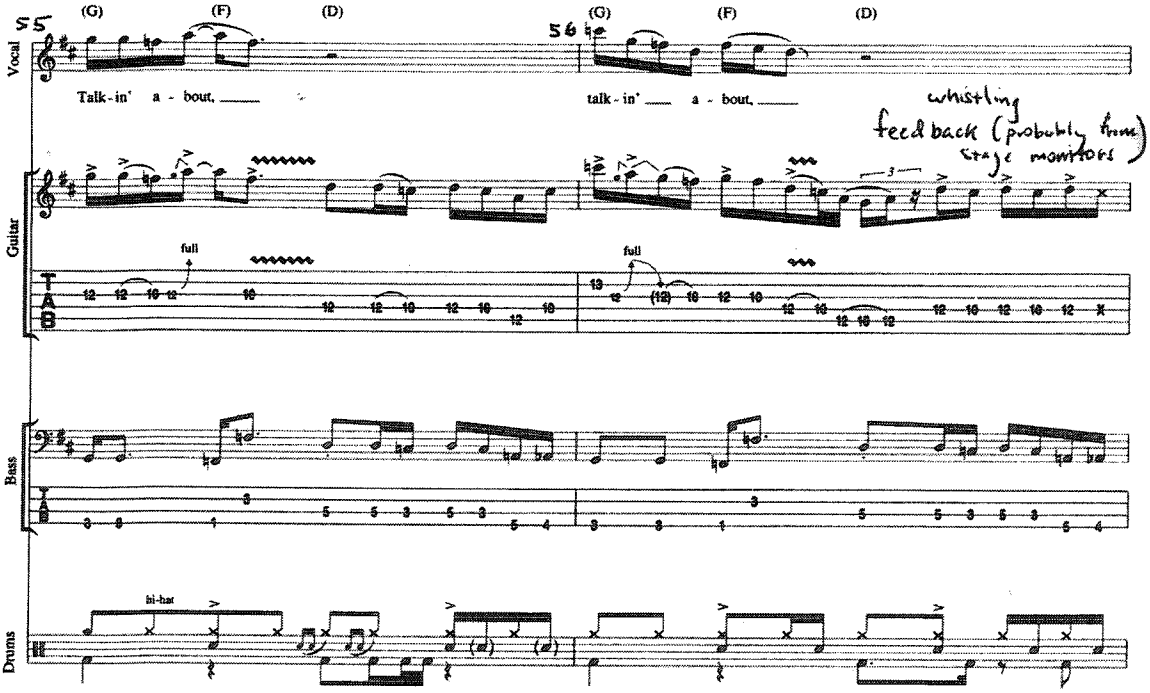

41
(G)
(F)
(D)
42
(G)
(F)
(D)
Vocal
Blues cadential gesture
Guitar
Bass
Drums
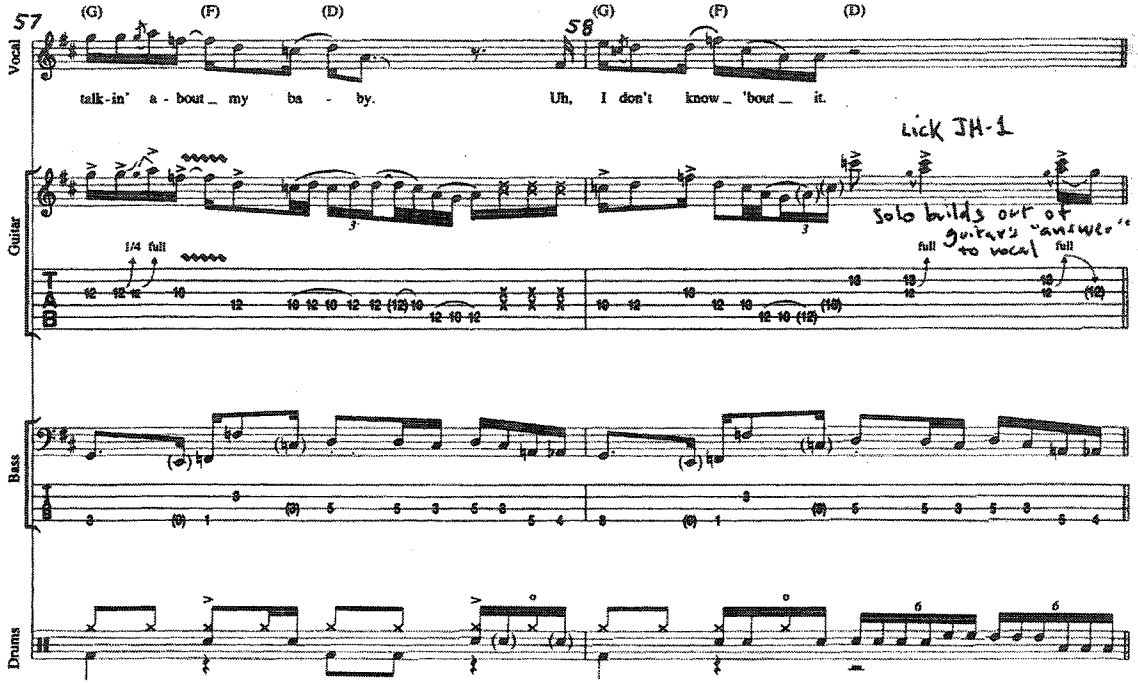

43
(G)
(F)
(D)
44
(G)
(F)
(D)
45
(G)
(F)
(D)
Vocal
Collective rifting → heightened sense of swing
Guitar
P.M.
New figure in bass
Bass
Drums
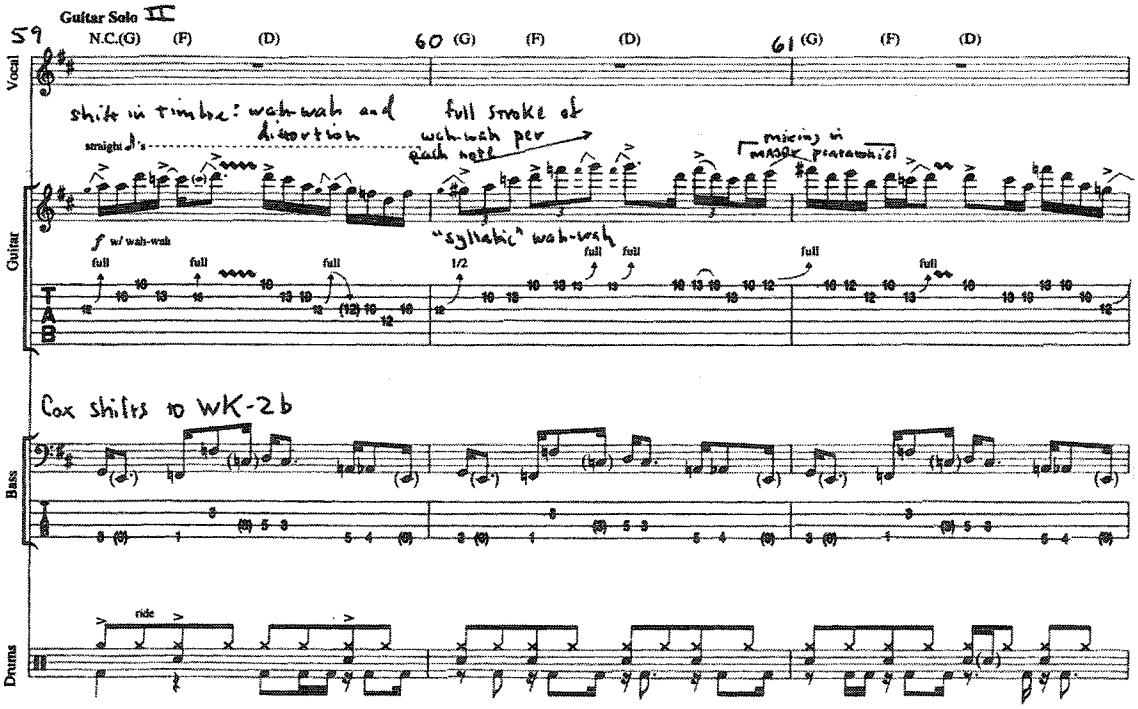

Verse II
46
47
48
(G) (F) (D)
N.C.(G) (F) (D)
(G) (F) (D)
Vocal
(Jimi) 2. Just came in. ___
Just came in, babe.
Guitar
T P.M.
T P.M.
T P.M.
mf
slight P.M.
Bass
Bass Pattern WK-2a
Drums
ride
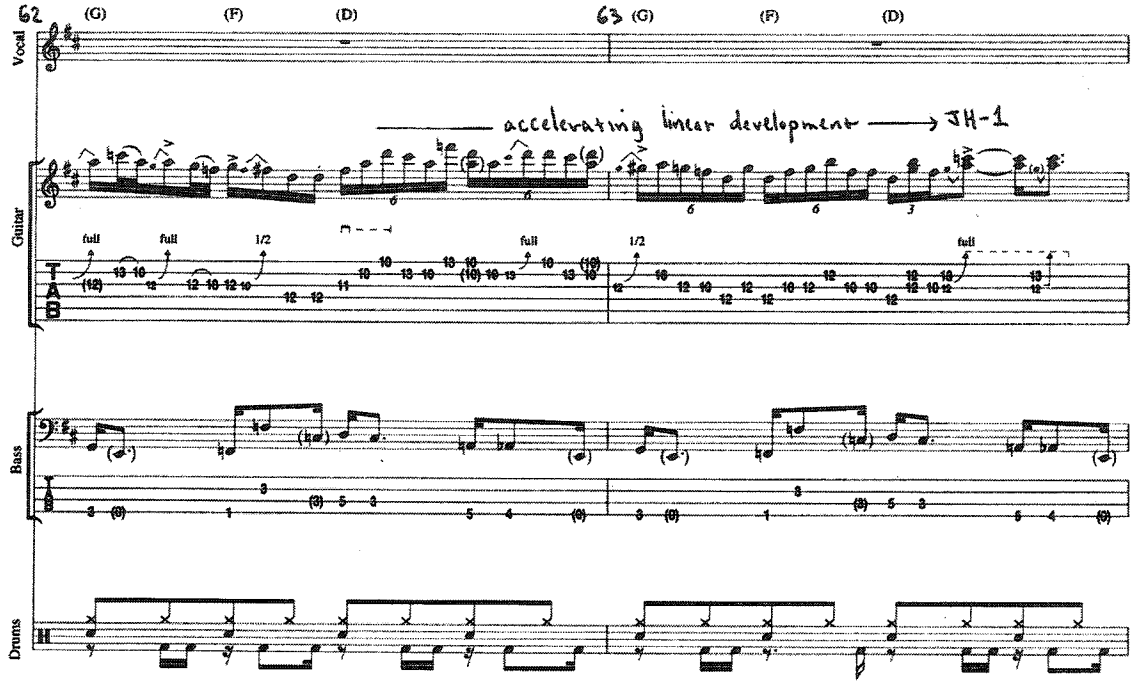

49
50
51
(G) (F) (D)
(G) (F) (D)
(G) (F) (D)
Vocal
Just came in. ___
(Just) came in. ___
Spread-in' mag - ic hon-ey all
Guitar
mp
mf
Bass
Drums
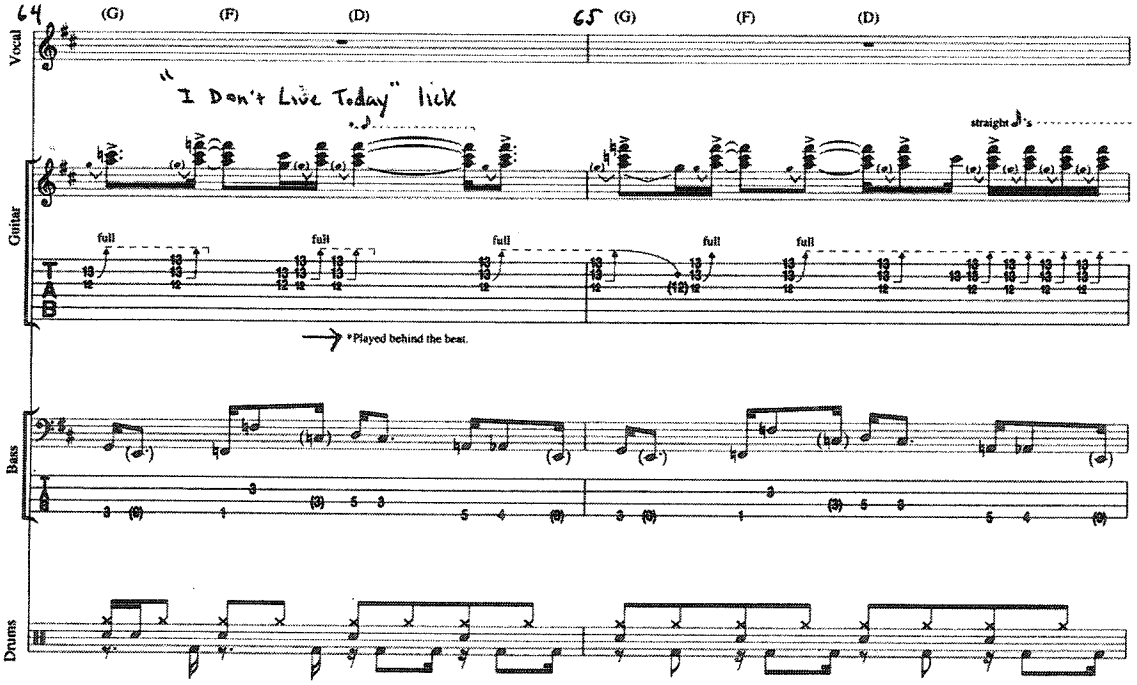

52
(G)
(F)
(D)
53
(G)
(F)
(D)
54
(G)
(F)
(D)
Vocal
in my bed.
She got chains
at - tached to my head.
Guitar
Bass
Drums

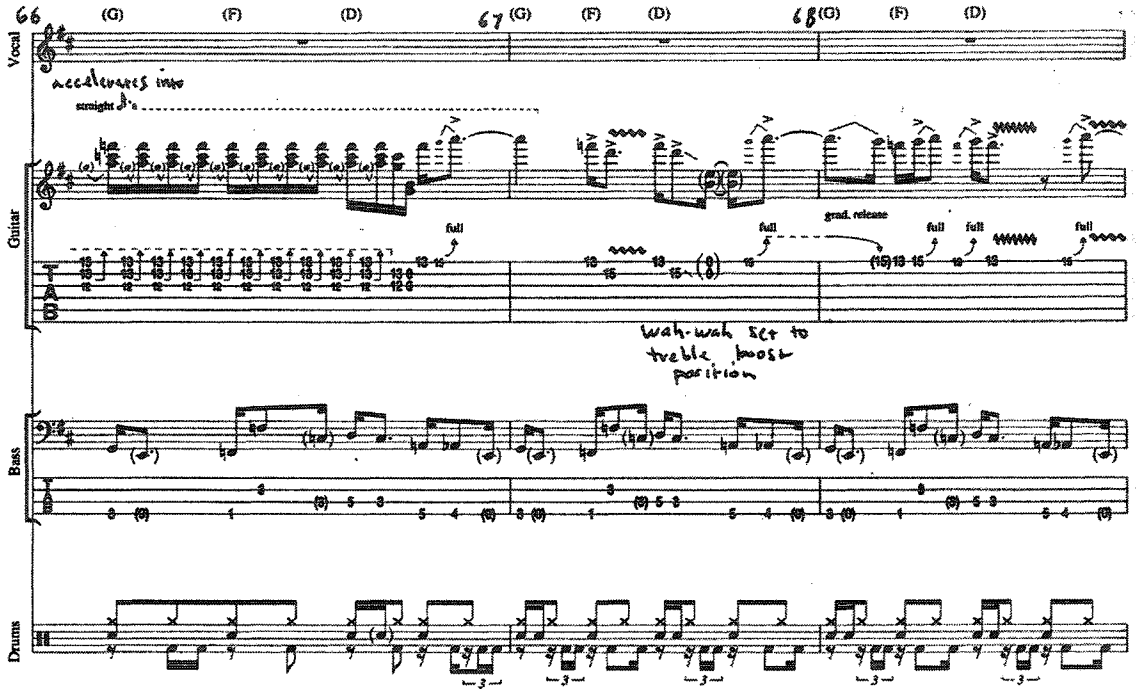

55
(G)
(F)
(D)
56
(G)
(F)
(D)
Vocal
Talk - in' a - bout,
talk - in' a - bout,
whistling
feedback (probably from stage monitors)
Guitar
full
full
Bass
hi-hat
Drums

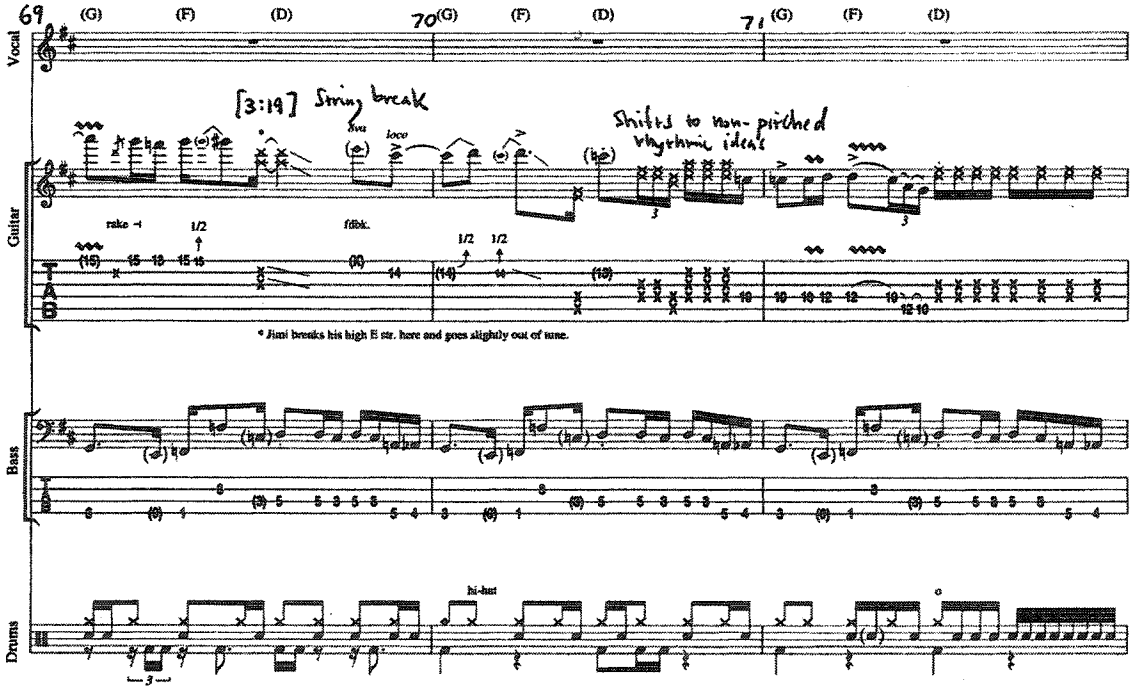

57
(G)
(F)
(D)
58
(G)
(F)
(D)
Vocal
talk-in' a - bout my ba - by.
Uh, I don't know 'bout it.
Lick JH-1
Guitar
Solo builds out of guitar "answer" to vocal
1/4 full
full
full
full
Bass
Drums
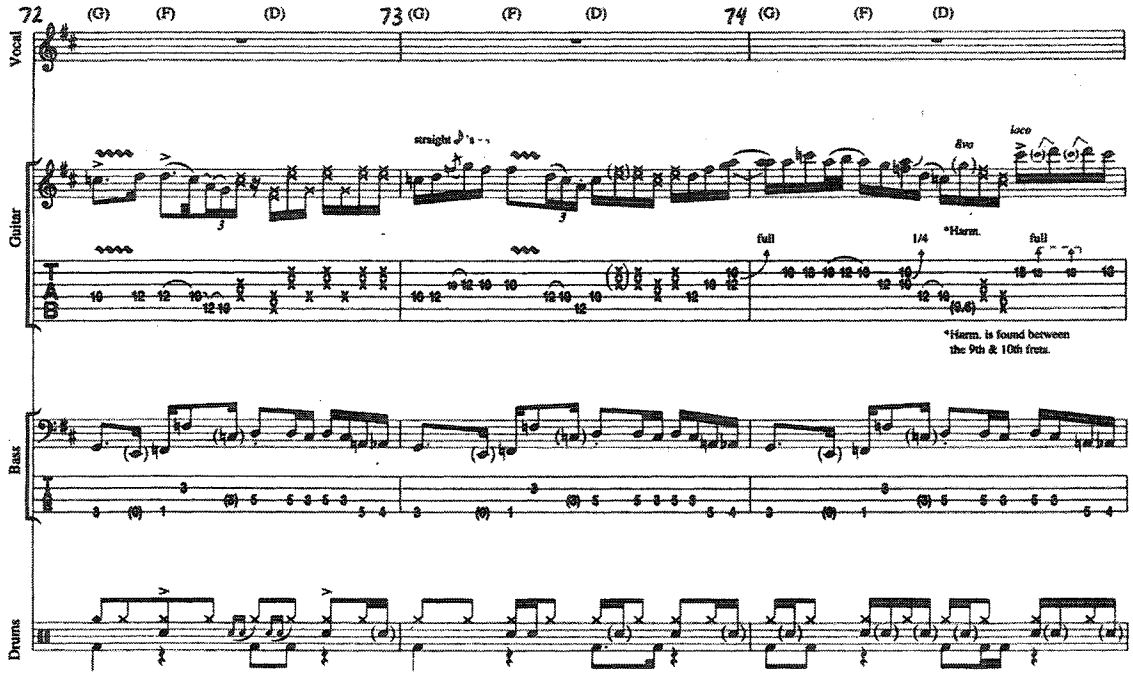

Guitar Solo II
59
N.C.(G)
(F)
(D)
60
(G)
(F)
(D)
61
(G)
(F)
(D)
Vocal
shift in timbre: wah-wah and distortion
straight 8's
full stroke of wah-wah per each note
mixing in master pentatonic
Guitar
f w/ wah-wah
"syllabic" wah-wah
full
1/2
Cox shifts to WK-2b
Bass
ride
Drums
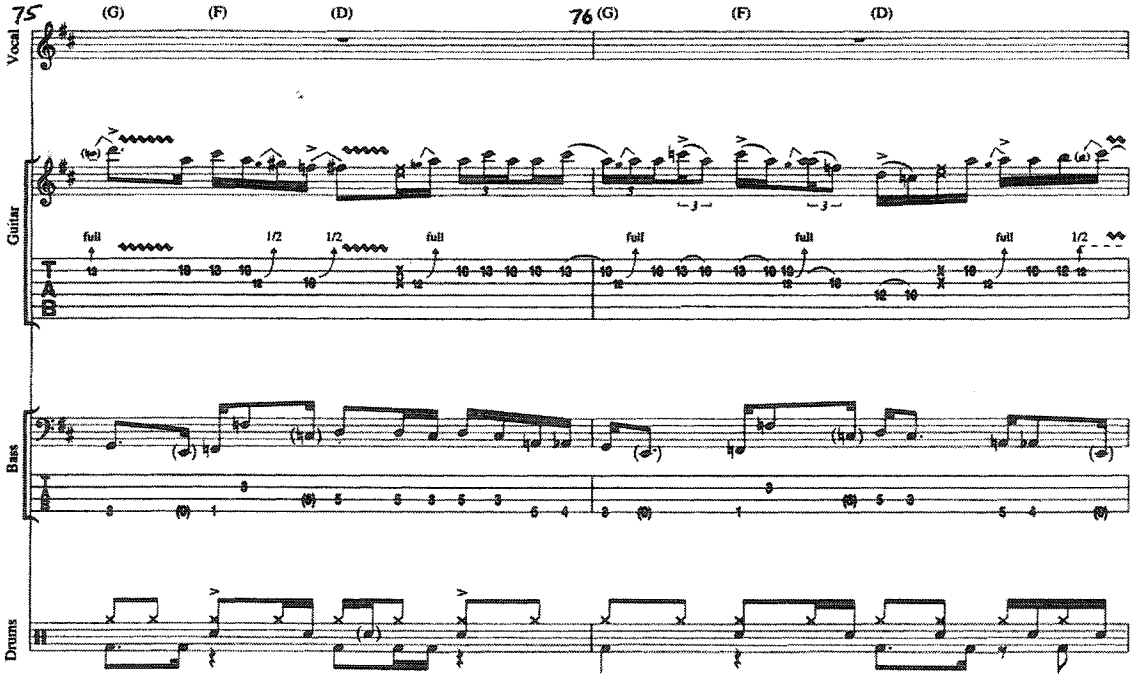

62
(G)
(F)
(D)
63
(G)
(F)
(D)
Vocal
accelerating linear development → JH-1
Guitar
full
full
1/2
full
1/2
full
T
A
B
Bass
Drums
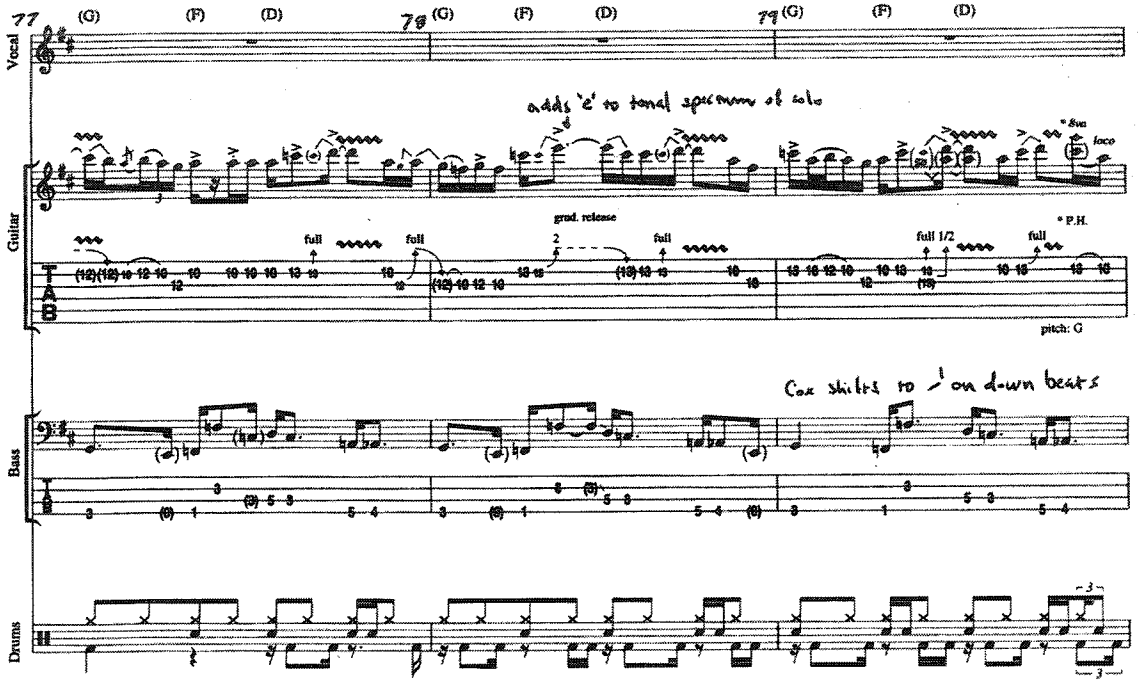

64
(G)
(F)
(D)
65
(G)
(F)
(D)
Vocal
"I Don't Live Today" lick
straight 8's
Guitar
full
full
full
full
full
T
A
B
*Played behind the beat.
Bass
Drums
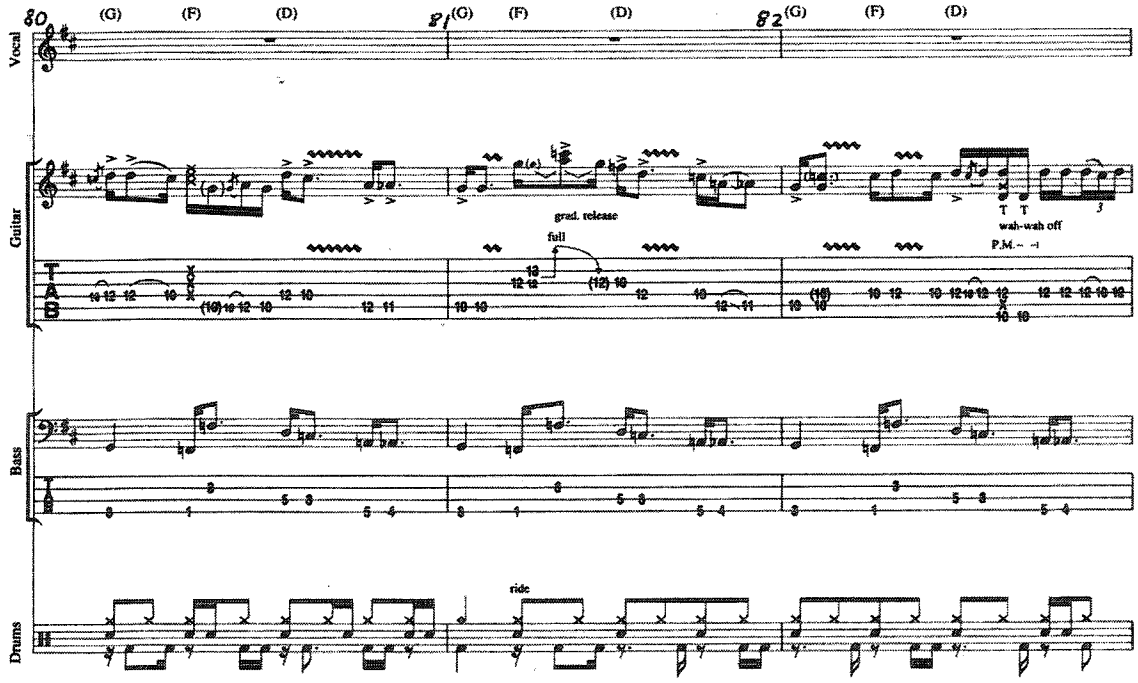

66
(G)
(F)
(D)
67
(G)
(F)
(D)
68
(G)
(F)
(D)
Vocal
accelerates into
straight
Guitar
full
grad. release
wah-wah set to
treble boost
position
Bass
Drums
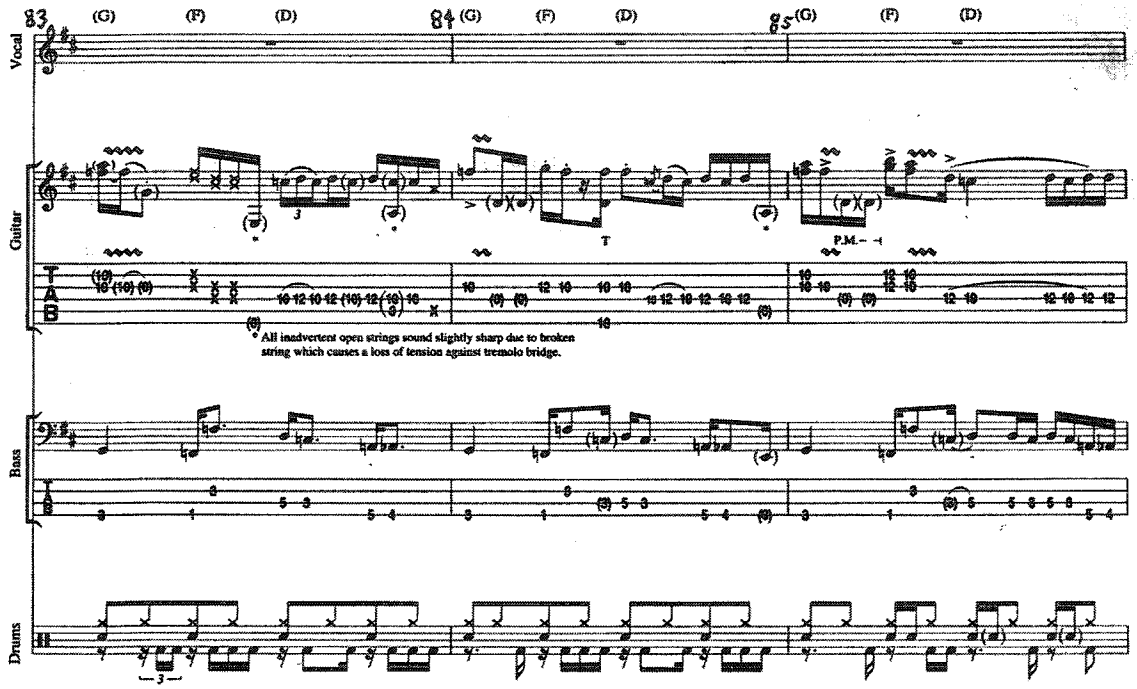

69
(G)
(F)
(D)
70
(G)
(F)
(D)
71
(G)
(F)
(D)
Vocal
[3:19] String break
Shifts to non-pitched
rhythmic ideas
Guitar
rake
1/2
fdbk.
* Jimi breaks his high E str. here and goes slightly out of tune.
Bass
hi-hat
Drums
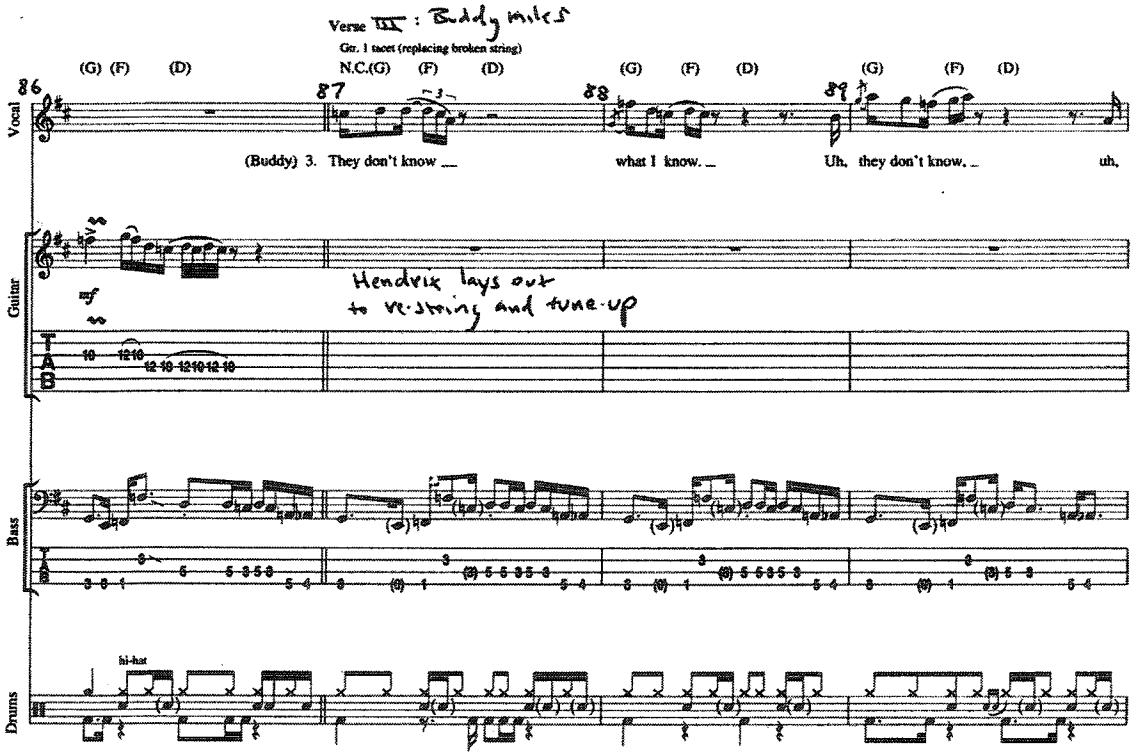

72
(G)
(F)
(D)
73
(G)
(F)
(D)
74
(G)
(F)
(D)
Vocal
Guitar
straight
8va
loco
full
1/4
*Harm.
full
*Harm. is found between the 9th & 10th frets.
Bass
Drums
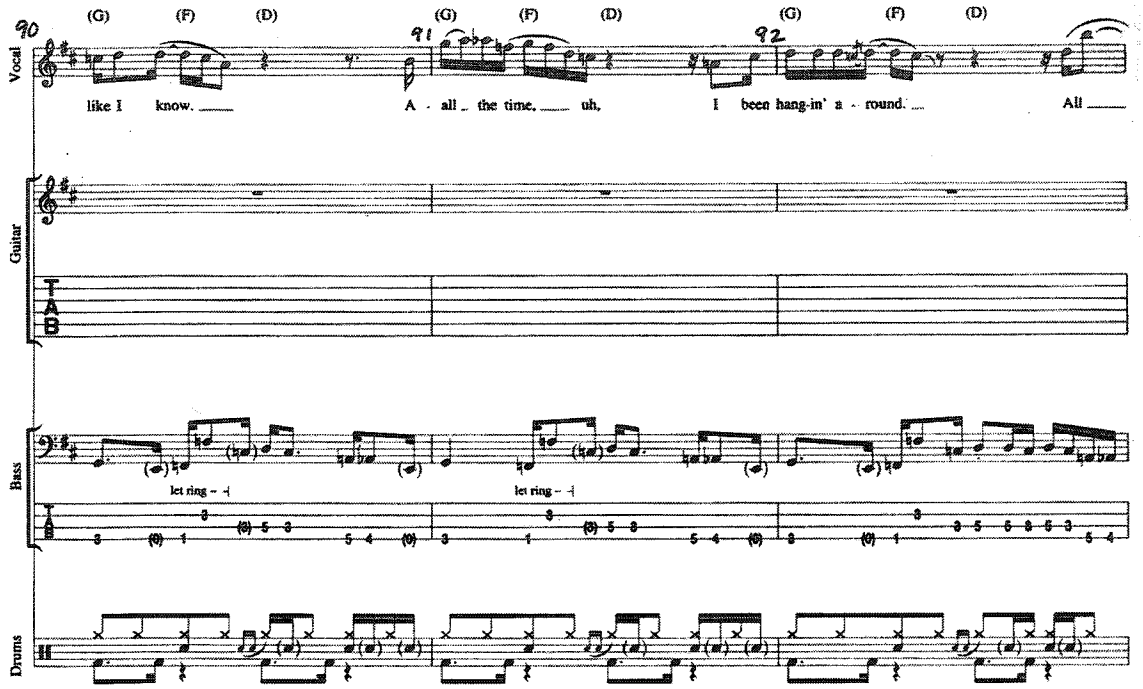

75
(G)
(F)
(D)
76
(G)
(F)
(D)
Vocal
Guitar
full
1/2
1/2
full
full
full
full
full
1/2
Bass
Drums

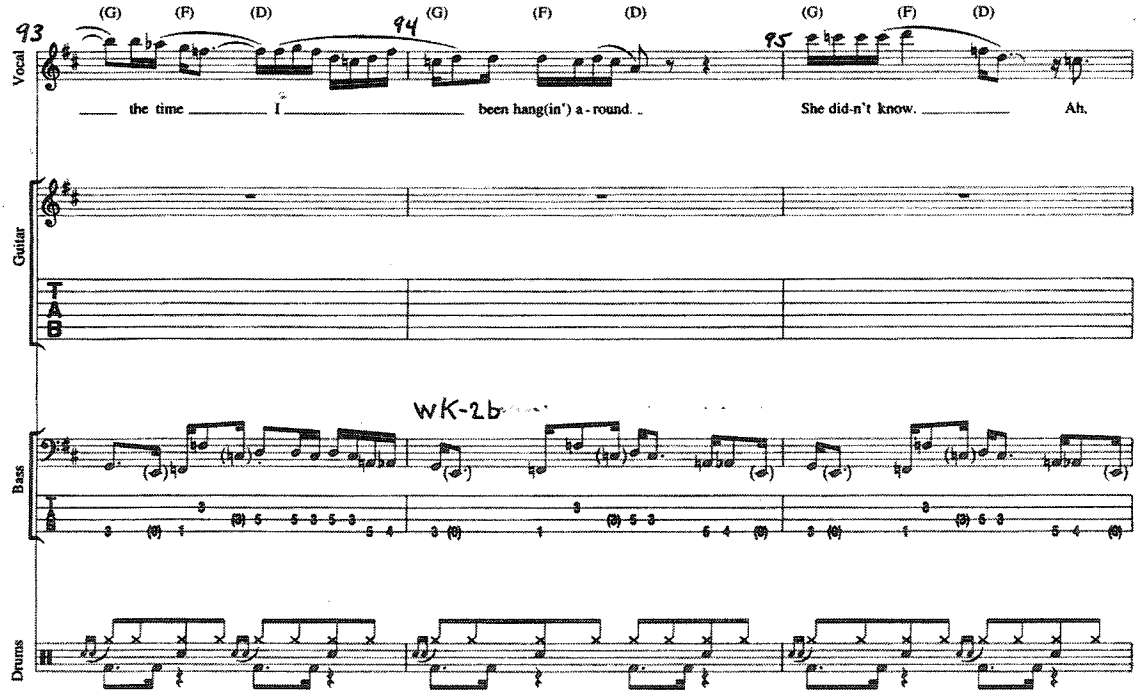

77 (G) (F) (D) 78 (G) (F) (D) 79 (G) (F) (D)
Vocal
adds 'e' to tonal spectrum of solo
Guitar
grad. release
full
full
2
full
full 1/2
full
* P.H.
pitch: G
Bass
Cox shifts to 1 on down beats
Drums
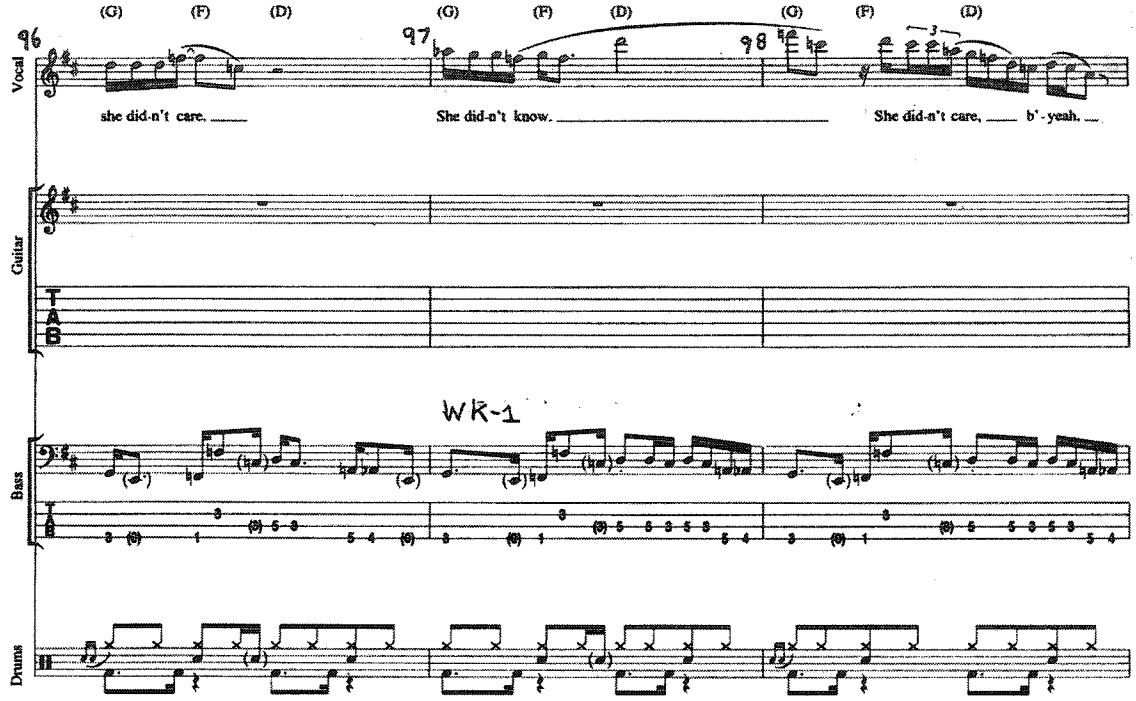

80 (G) (F) (D) 81 (G) (F) (D) 82 (G) (F) (D)
Vocal
Guitar
grad. release
full
T T
wah-wah off
P.M.
Bass
ride
Drums
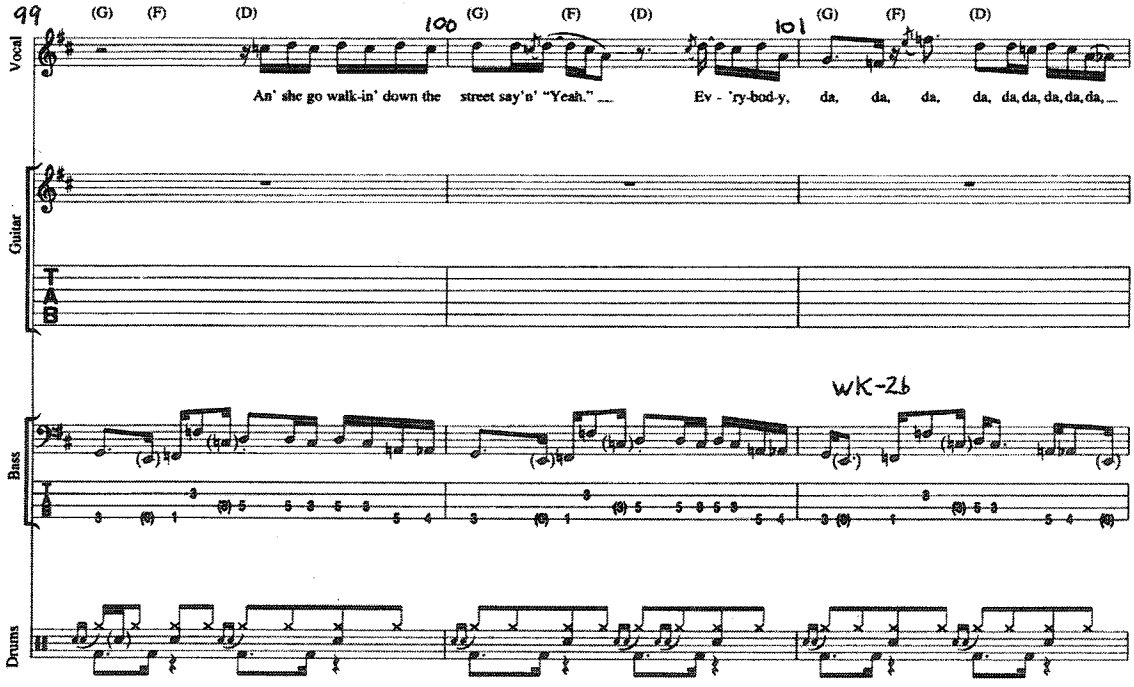

83
84
85
(G) (F) (D)
Vocal
Guitar
Bass
Drums
T
A
B
P.M.
T
* All inadvertent open strings sound slightly sharp due to broken string which causes a loss of tension against tremolo bridge.
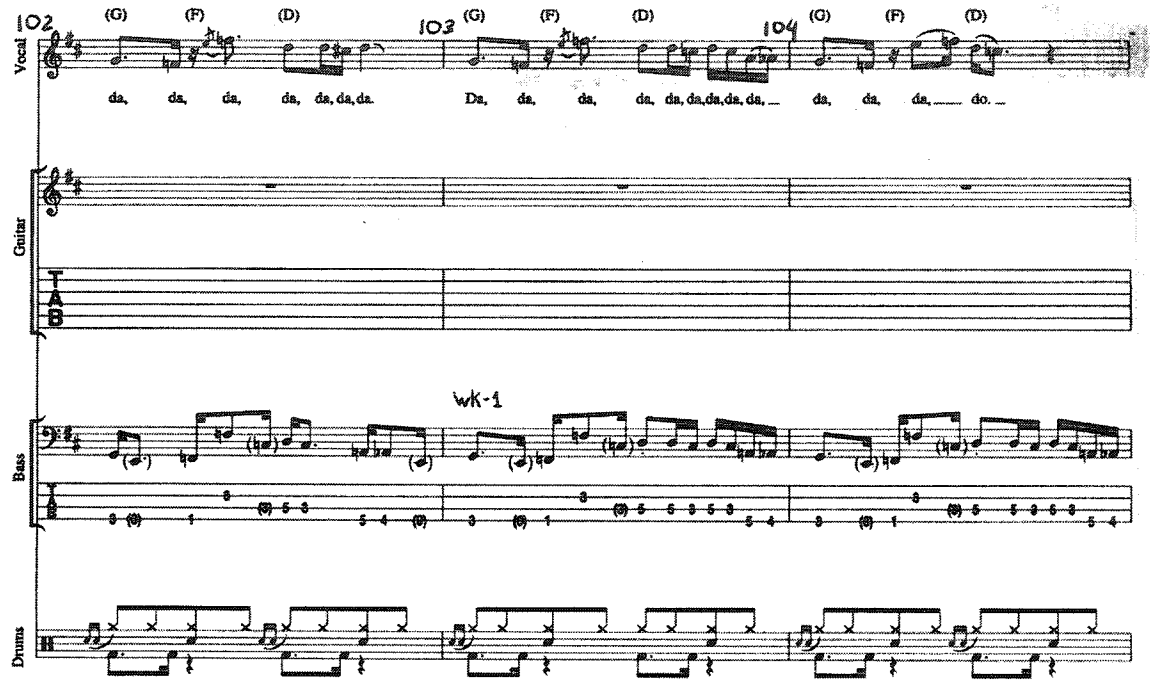

Verse III : Buddy Miles
Gtr. 1 tacet (replacing broken string)
86
87
88
89
(G) (F) (D)
N.C.(G) (F) (D)
Vocal
(Buddy) 3. They don't know ___ what I know. ___ Uh, they don't know. ___ uh,
Guitar
mf
Hendrix lays out to re-string and tune-up
Bass
Drums
hi-hat
T
A
B
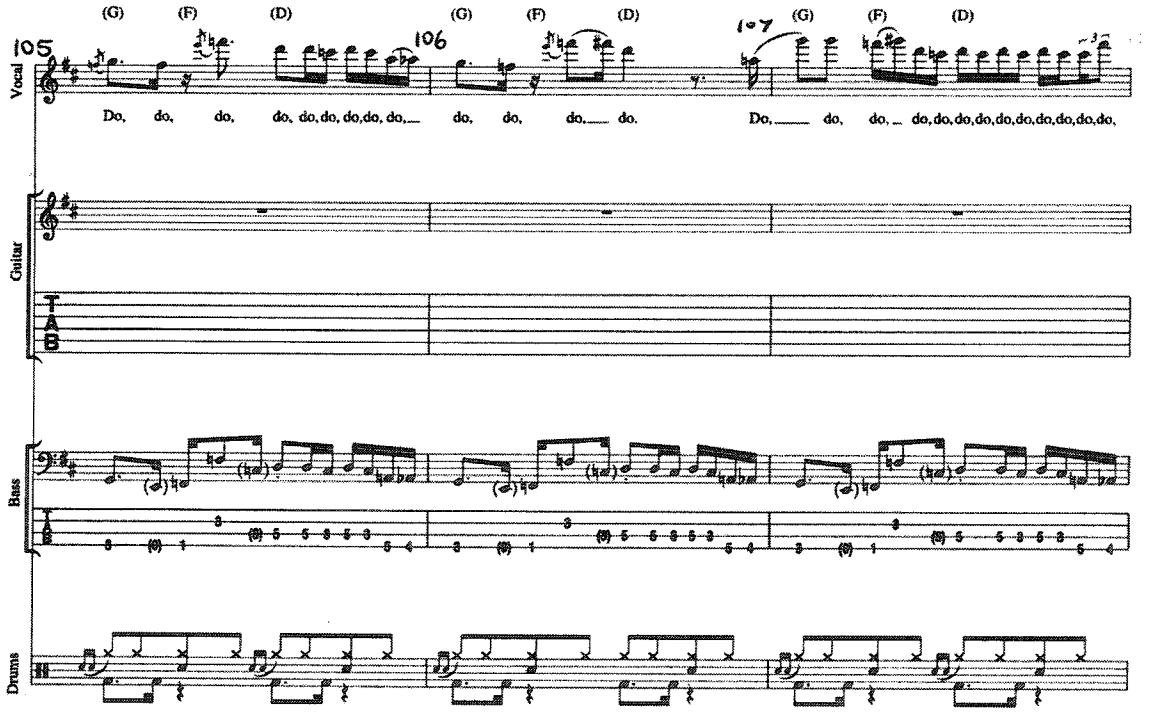

90
91
92
(G) (F) (D) (G) (F) (D) (G) (F) (D)
Vocal
like I know. A - all the time, uh, I been hang-in' a - round. All
Guitar
T
A
B
Bass
let ring - - let ring - -
Drums
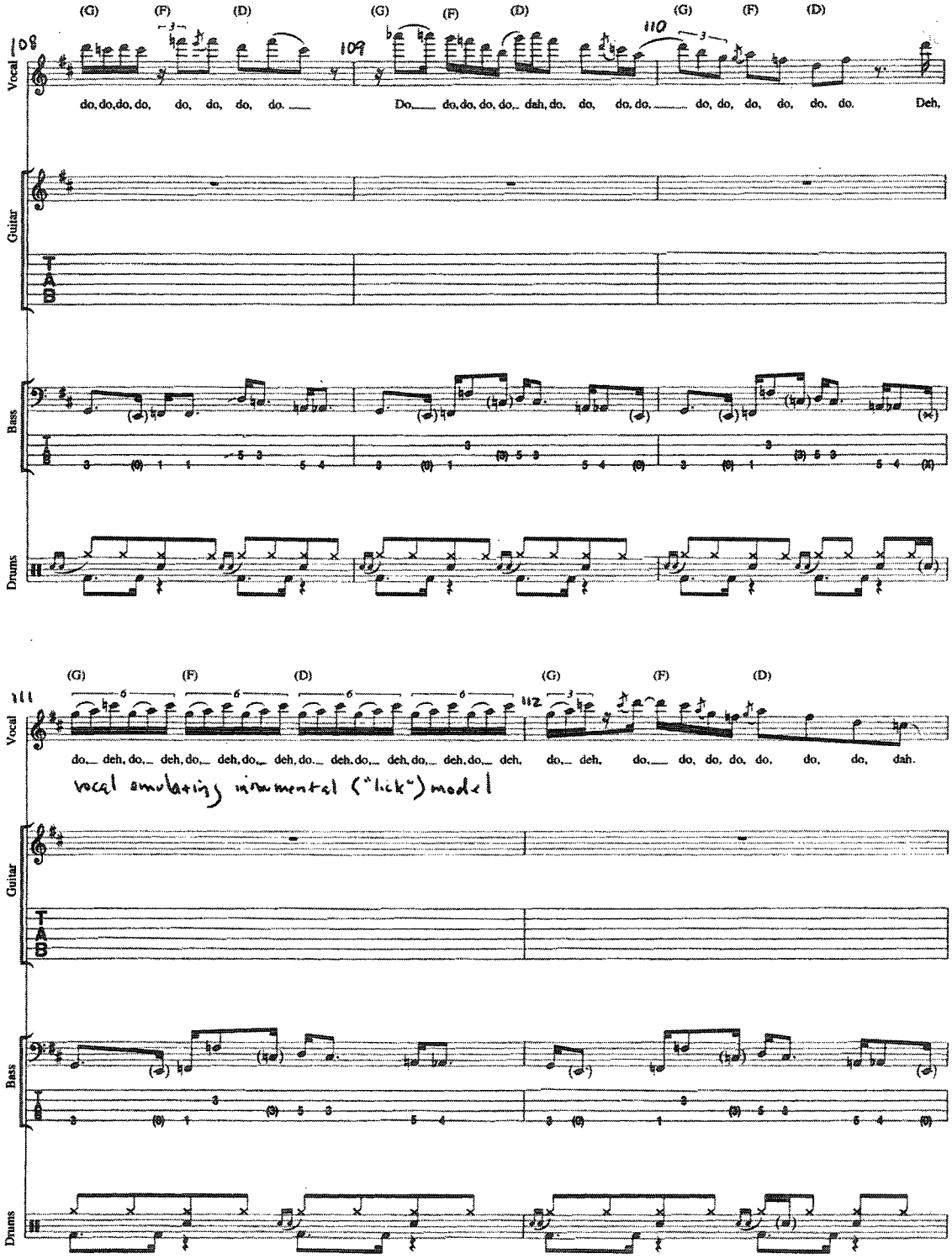

93
94
95
(G) (F) (D) (G) (F) (D) (G) (F) (D)
Vocal
the time I been hang(in') a - round. She did-n't know. Ah,
Guitar
T
A
B
WK-2b
Bass
Drums
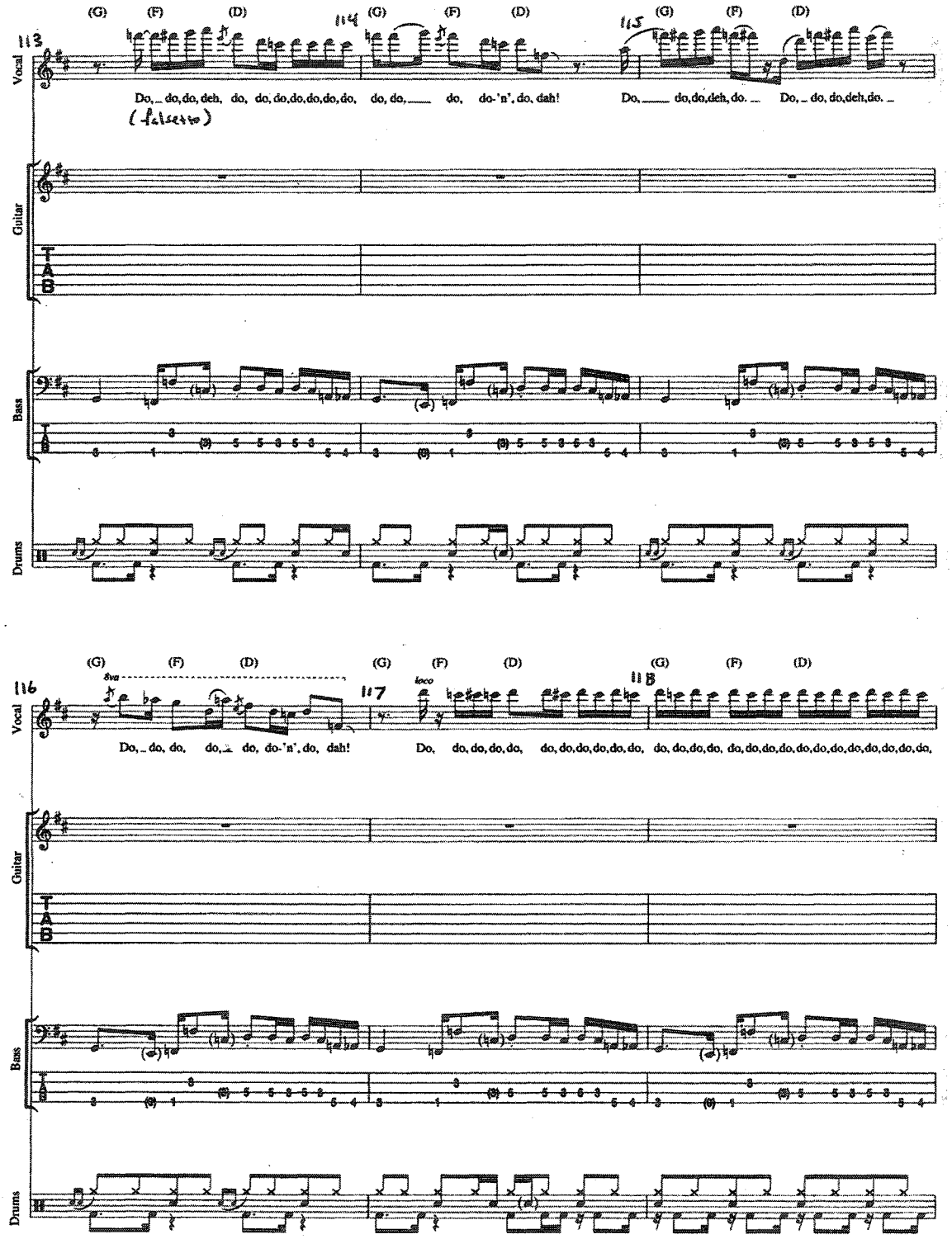

96
97
98
(G) (F) (D) (G) (F) (D) (G) (F) (D)
Vocal
she did-n't care, ____ She did-n't know. ____ She did-n't care, ____ b' - yeah, ___
Guitar
T
A
B
WK-1
Bass
Drums
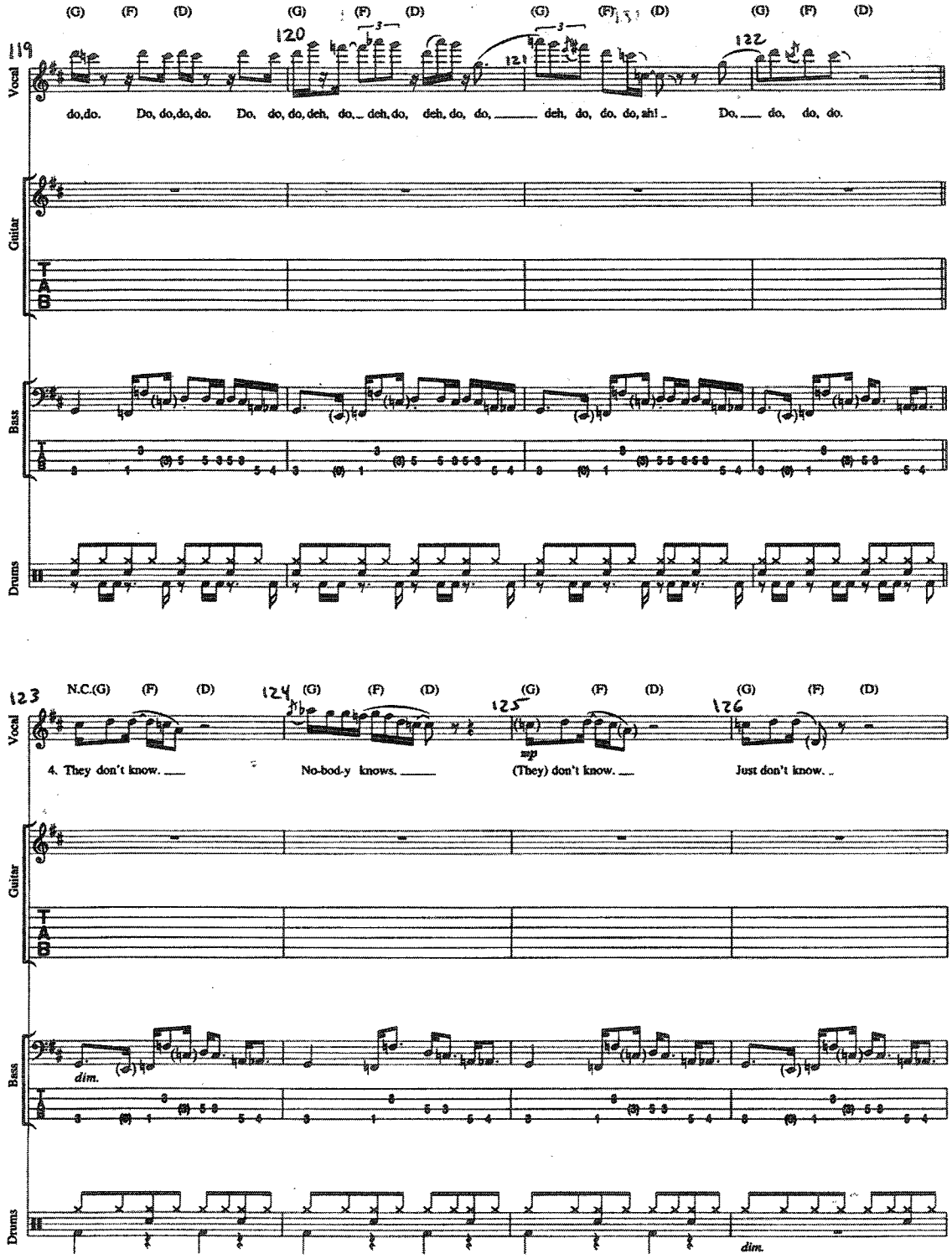

99
100
101
(G) (F) (D) (G) (F) (D) (G) (F) (D)
Vocal
An' she go walk-in' down the street say'n' "Yeah." ___ Ev - 'ry-bod-y, da, da, da, da, da, da, da, da, ___
Guitar
T
A
B
WK-26
Bass
Drums
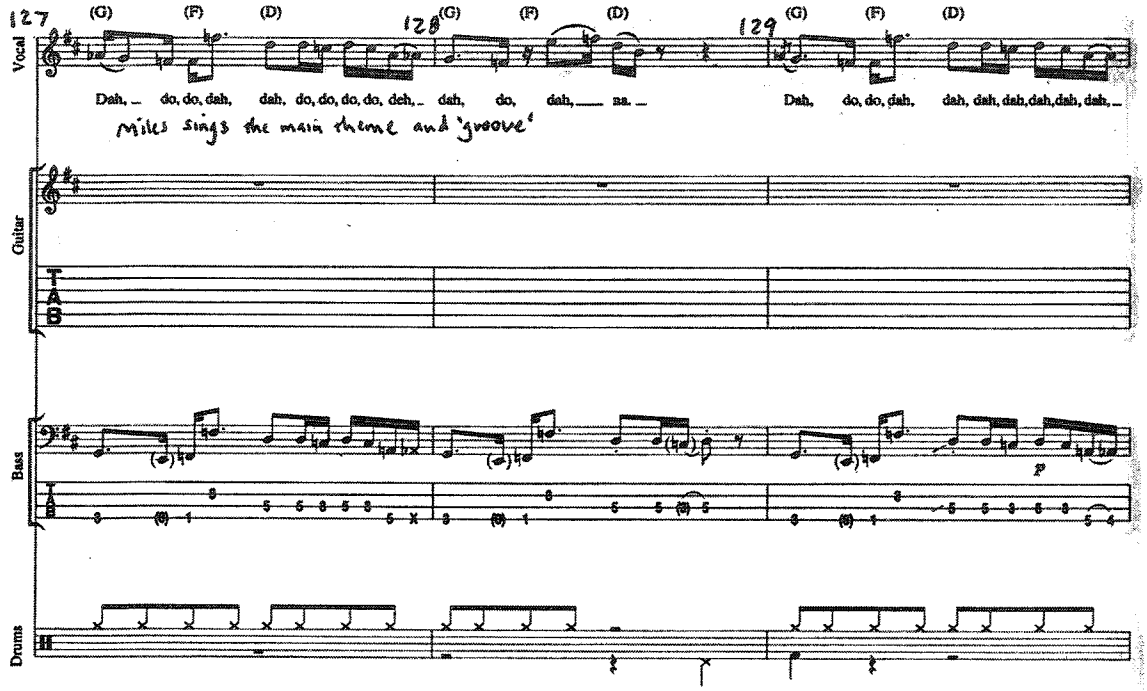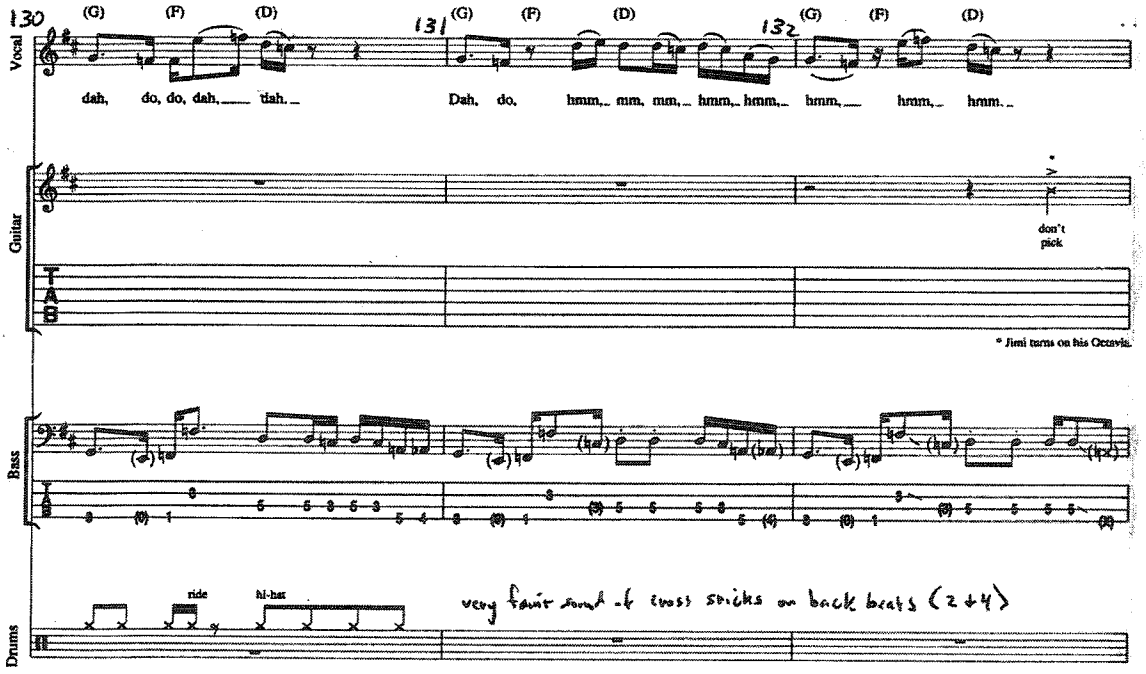



105
106
107
(G) (F) (D)
Do, do, do,
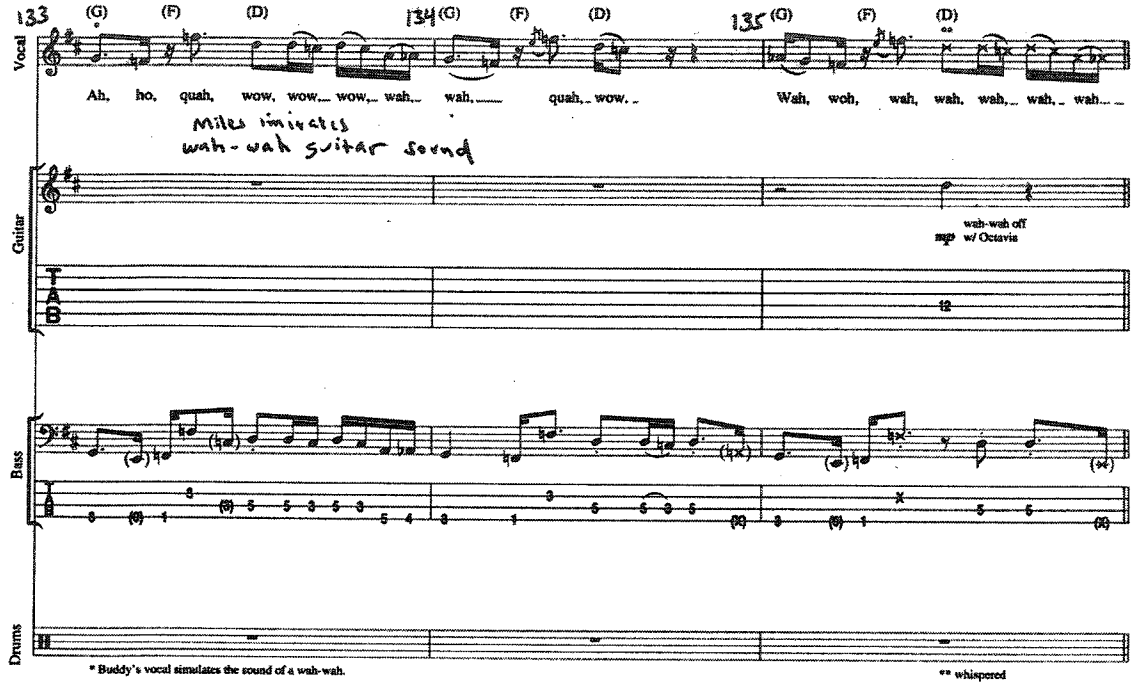

(G) (F) (D) (G) (F) (D) (G) (F) (D)
108 109 110
Vocal
do, do, do, do, do, do, do, do. Do, do, do, do, do, dah, do, do, do, do, do, do, do, do, do. Deh,
Guitar
T A B
Bass
Drums
(G) (F) (D) (G) (F) (D)
111 112
Vocal
do, deh, do, deh, do, deh, do, deh, do, deh, do, deh, do, deh, do, deh, do, deh, do, do, do, do, do, do, dah.
vocal emulating instrumental ("lick") model
Guitar
T A B
Bass
Drums

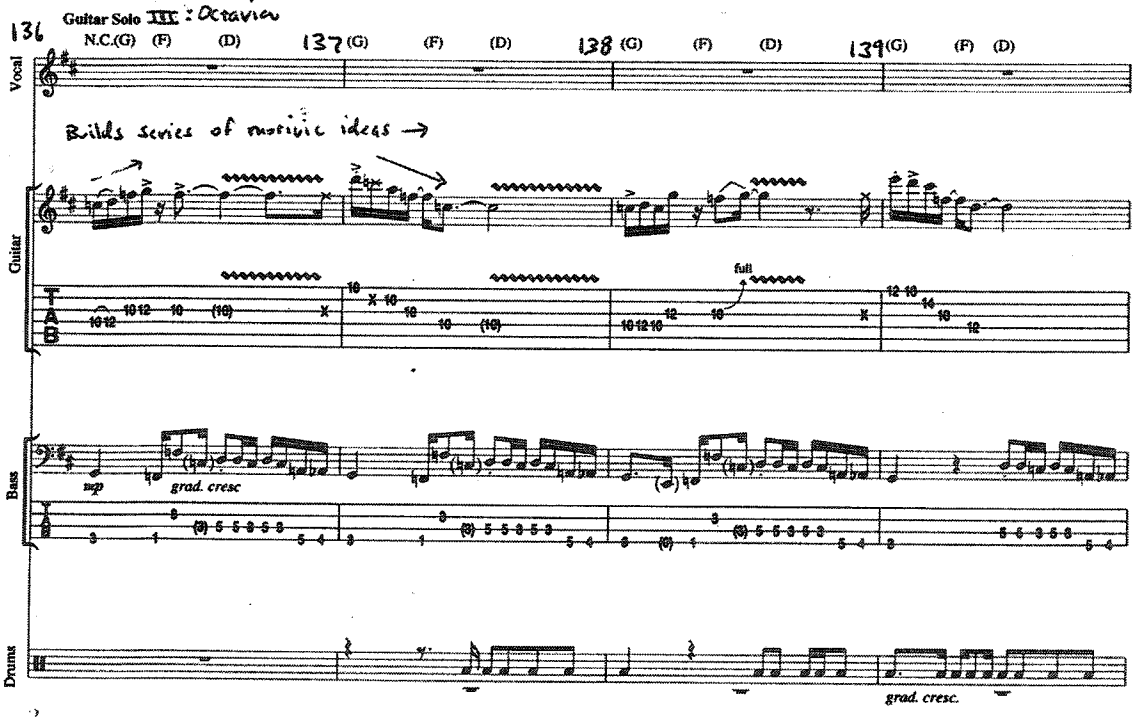

113
114
115
116
117
118
(G) (F) (D)
Vocal
Guitar
Bass
Drums
Do, do, do, deh, do, do, do, do, do, do, do, do, do, do, do, do-'n', do, dah!
Do, do, do, deh, do. Do, do, do, deh, do.
(falsetto)
8va
loco
Do, do, do, do, do, do, do, do, do, do, do,
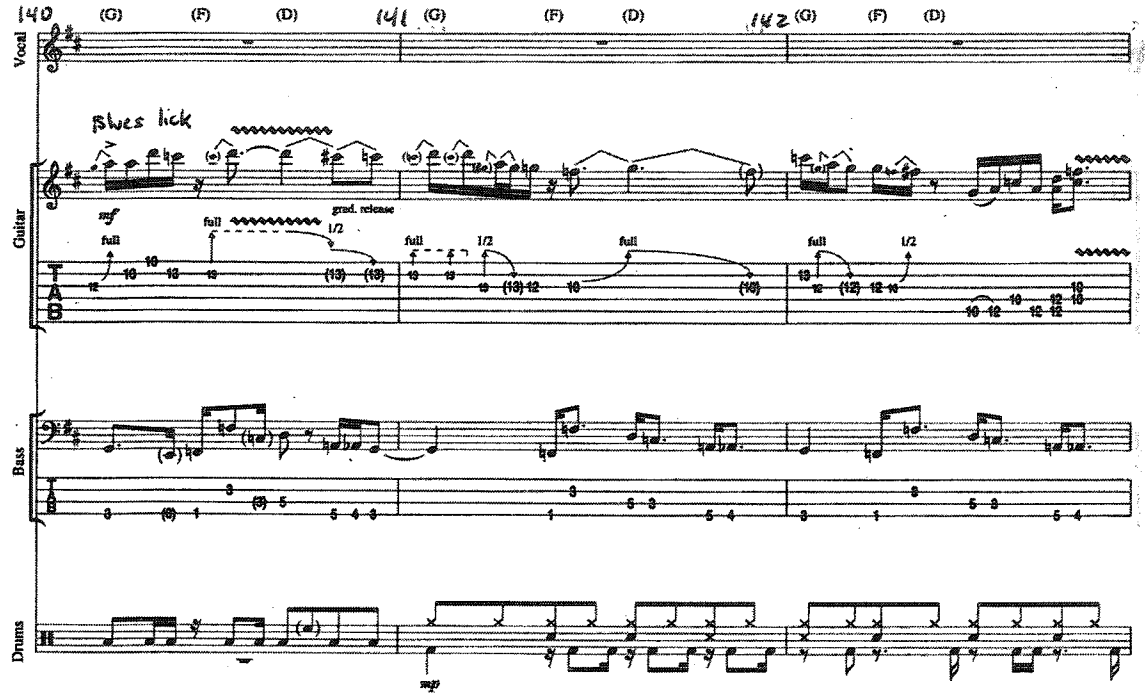

119
(G) (F) (D) (G) (F) (D) (G) (F) (D) (G) (F) (D)
120
121
122
Vocal
do,do. Do, do,do, do. Do, do, do, deh, do, deh, do, deh, do, do, deh, do, do, do, ah! Do, do, do, do.
Guitar
T
A
B
Bass
Drums
123
N.C.(G) (F) (D) 124 (G) (F) (D) (G) (F) (D) (G) (F) (D)
125
126
mp
4. They don't know. No-bod-y knows. (They) don't know. Just don't know.
dim.
dim.

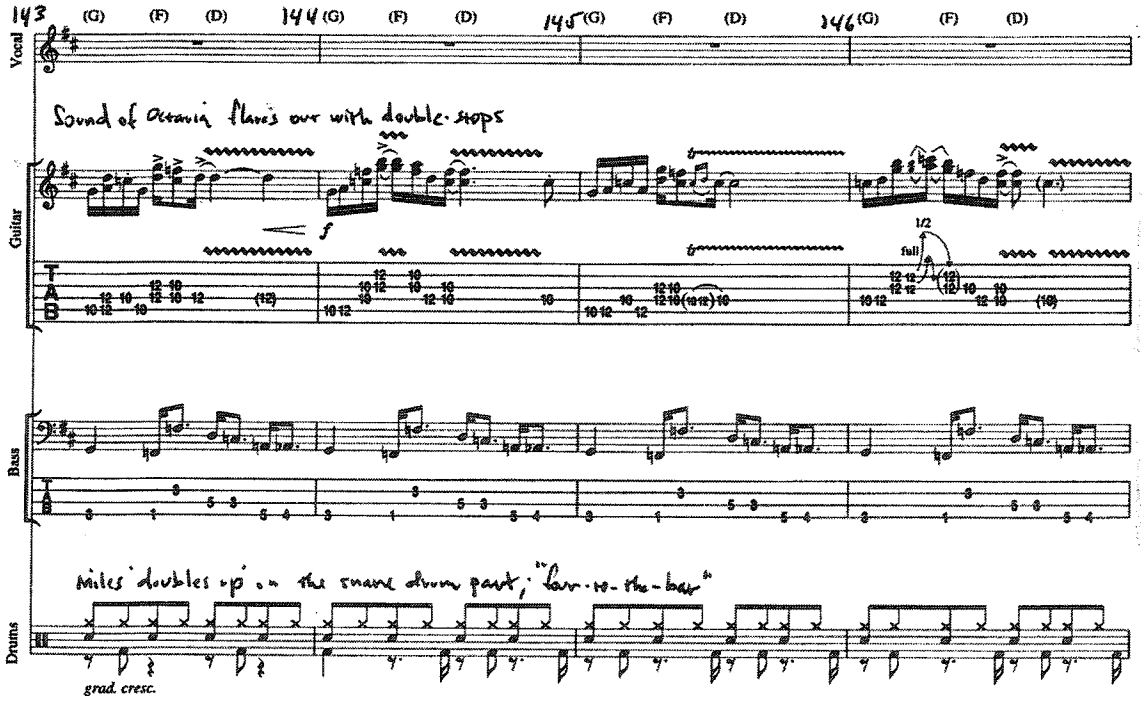

127
(G) (F) (D)
128
(G) (F) (D)
129
(G) (F) (D)
Vocal
Dah, do, do, dah, dah, do, do, do, do, deh, dah, do, dah, na.
Dah, do, do, dah, dah, dah, dah, dah, dah, dah,
Miles sings the main theme and 'groove'
Guitar
T
A
B
Bass
Drums
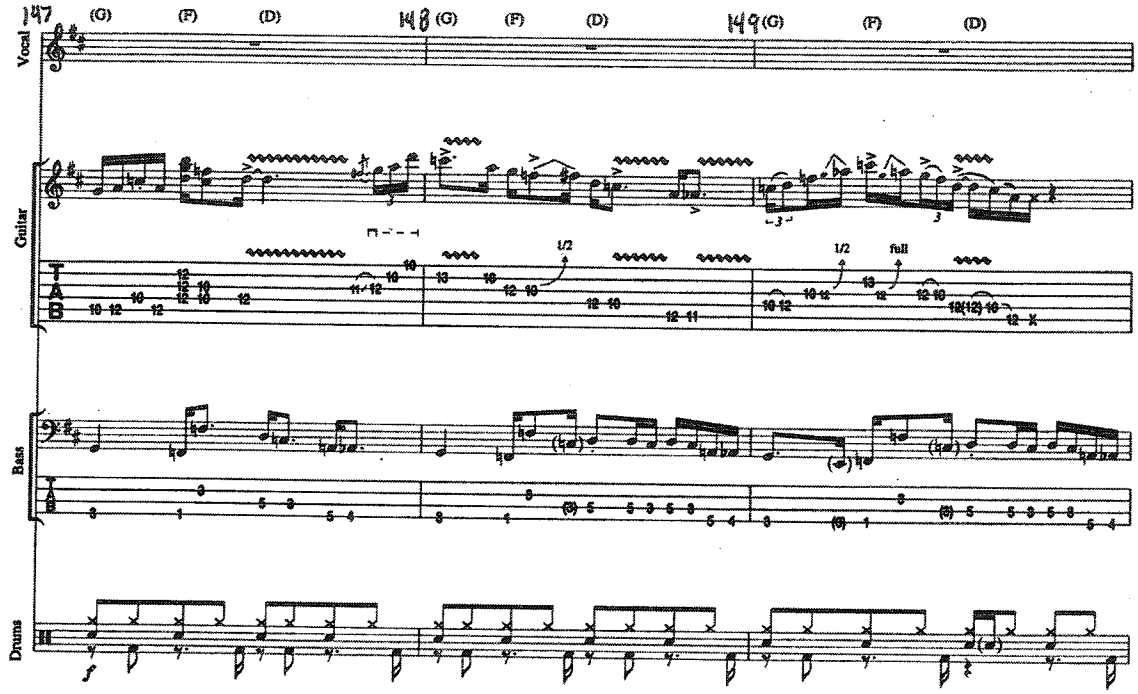

130
(G) (F) (D)
131
(G) (F) (D)
132
(G) (F) (D)
Vocal
dah, do, do, dah, tiah.
Dah, do, hmm, mm, mm, hmm, hmm, hmm, hmm, hmm.
Guitar
don't pick
* Jimi turns on his Octavia.
Bass
Drums
ride
hi-hat
very faint sound of cross sticks on back beats (2 & 4)
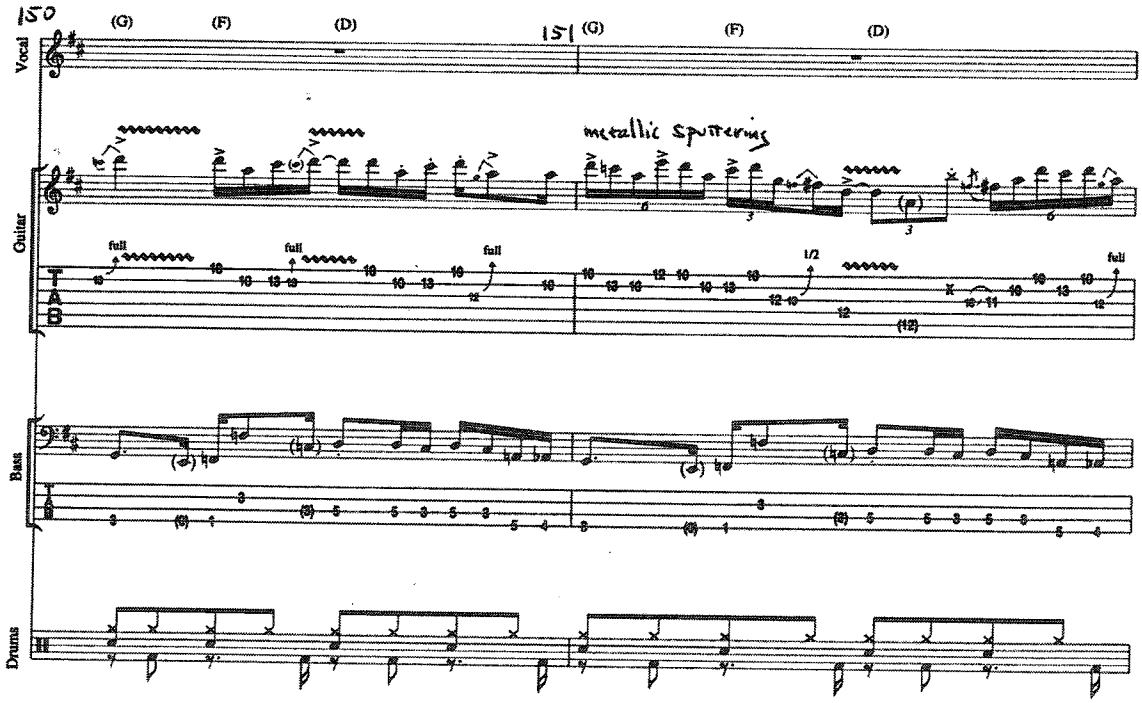

133 (G) (F) (D) 134 (G) (F) (D) 135 (G) (F) (D)
Vocal
Ah, ho, quah, wow, wow... wow,.. wah.. wah,..... quah,.. wow.. Wah, woh, wah, wah, wah,.. wah,.. wah... ..
Miles imitates wah-wah guitar sound
Guitar
wah-wah off
mp w/ Octavia
Bass
Drums
* Buddy's vocal simulates the sound of a wah-wah.
** whispered
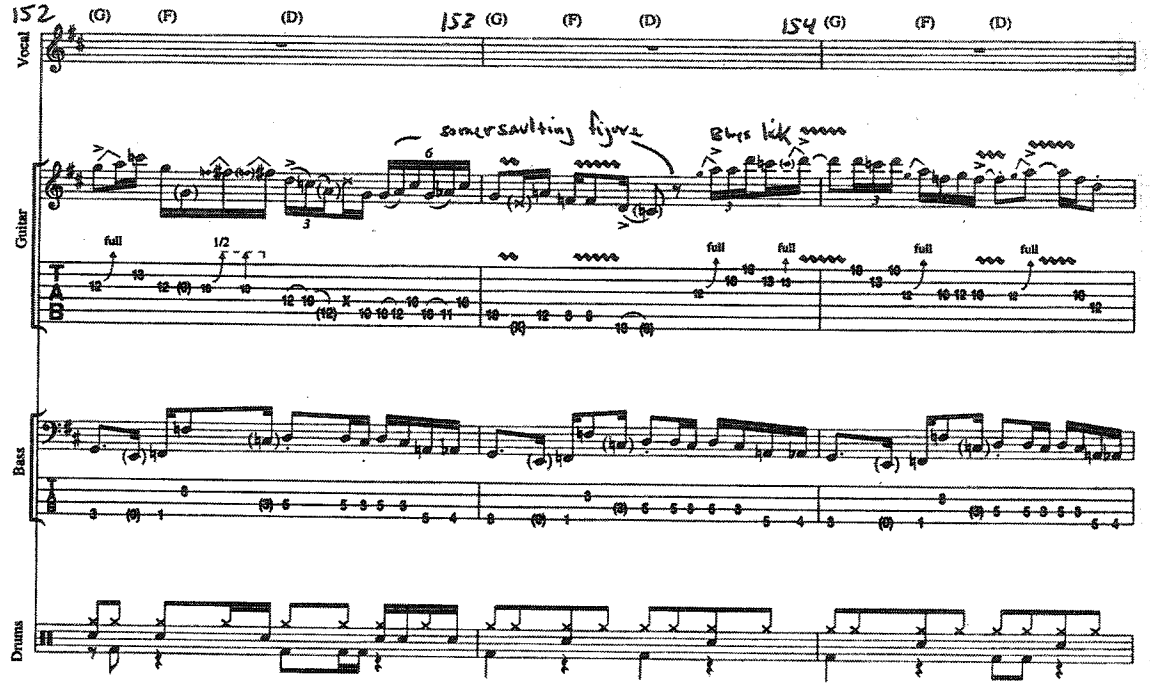

136 Guitar Solo III : Octavia
N.C.(G) (F) (D) 137 (G) (F) (D) 138 (G) (F) (D) 139 (G) (F) (D)
Vocal
Builds series of motivic ideas →
Guitar
full
Bass
mp
grad. cresc
Drums
grad. cresc.

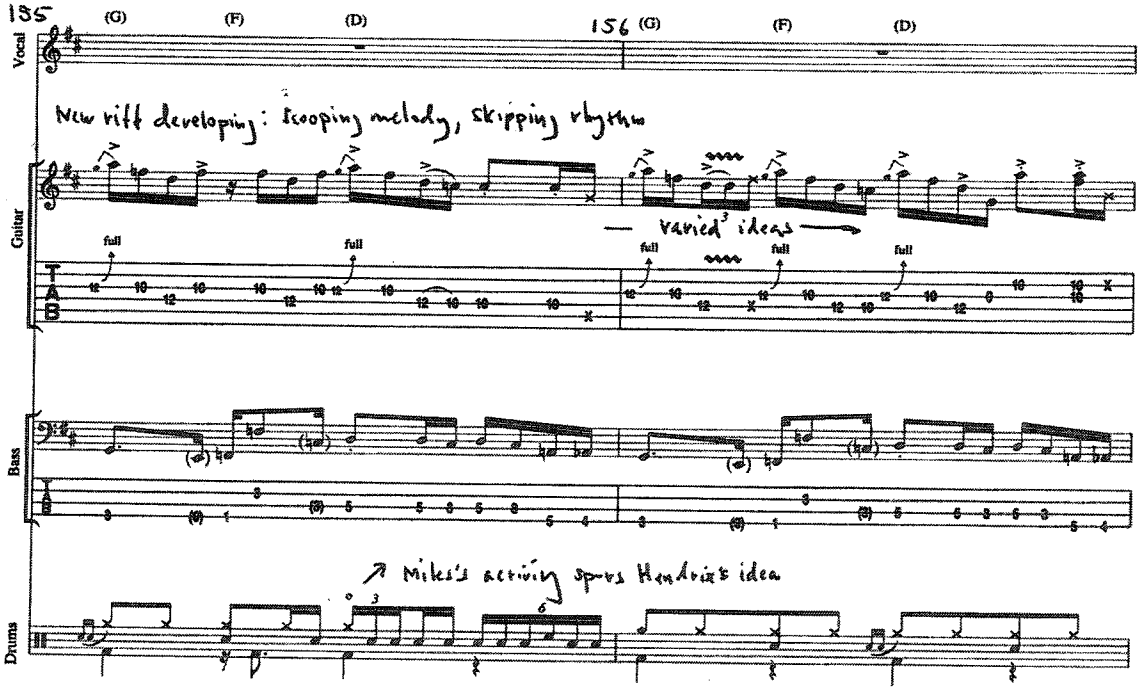

140 (G) (F) (D) 141 (G) (F) (D) 142 (G) (F) (D)
Vocal
Blues lick
grad. release
Guitar
full
1/2
Bass
Drums

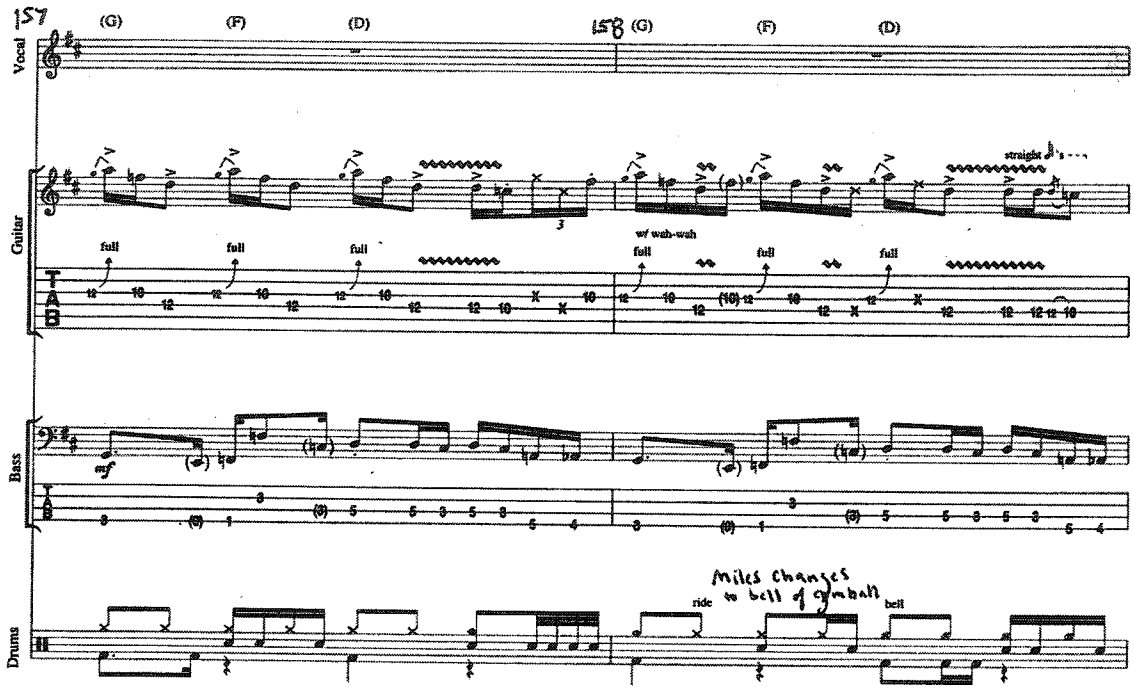

143 (G) (F) (D) 144 (G) (F) (D) 145 (G) (F) (D) 146 (G) (F) (D)
Vocal
Sound of Ostavia plays over with double-stops
Guitar
f
1/2
full
Bass
Miles' doubles up on the snare drum part, "bar-to-the-bar"
Drums
grad. cresc.
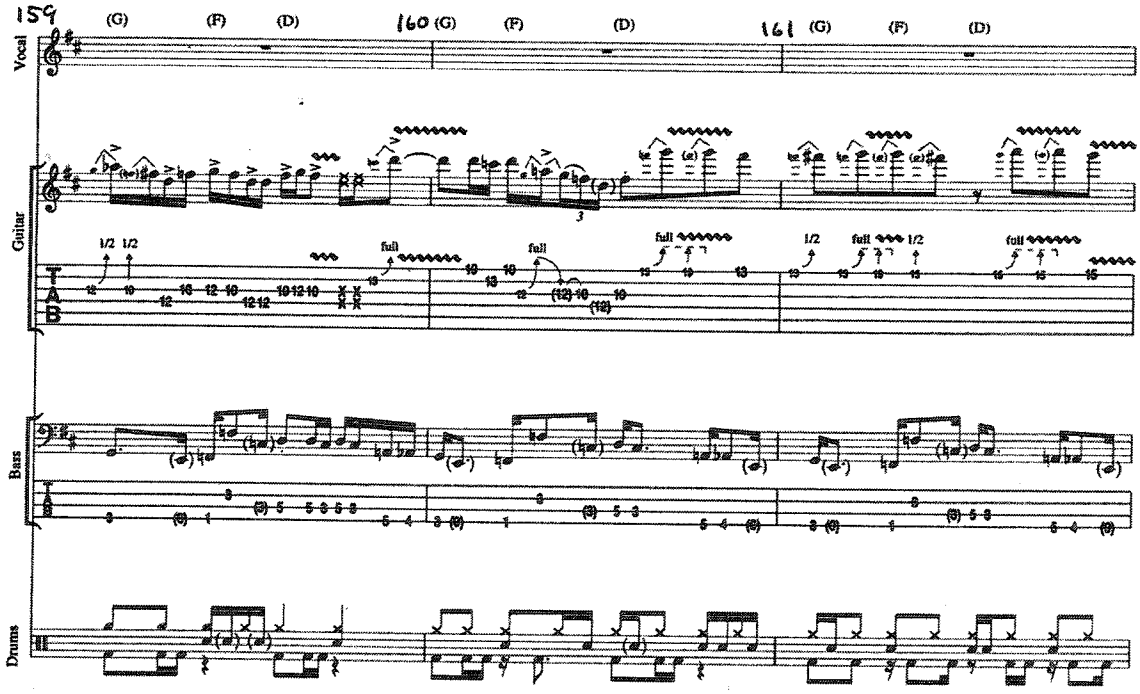

147
(G)
(F)
(D)
148
(G)
(F)
(D)
149
(G)
(F)
(D)
Vocal
Guitar
Bass
Drums
1/2
full
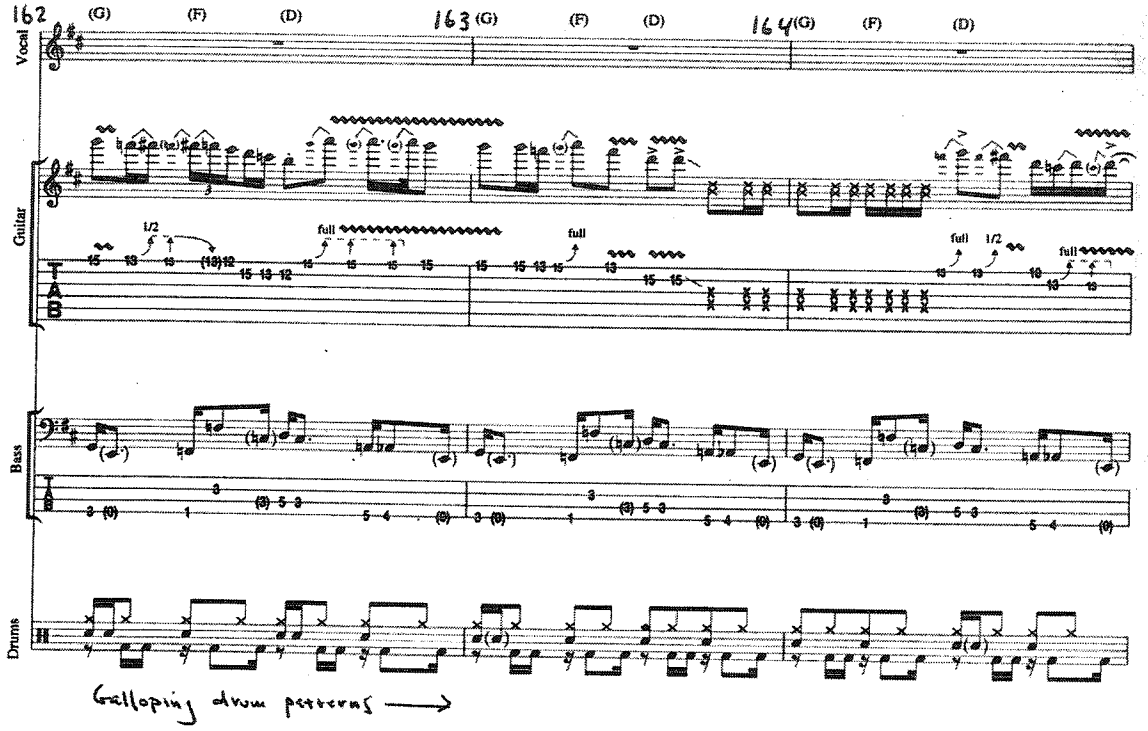

150
(G)
(F)
(D)
151
(G)
(F)
(D)
Vocal
Guitar
Bass
Drums
metallic sputtering
full
1/2
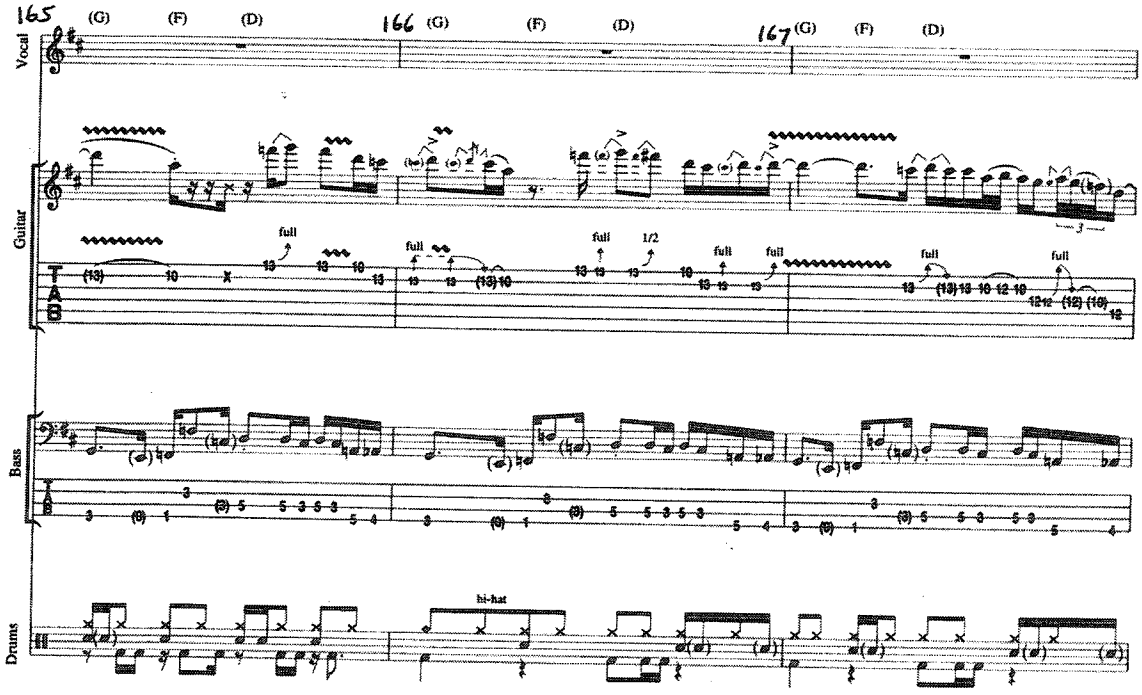

152
(G) (F) (D)
152 (G) (F) (D)
154 (G) (F) (D)
Vocal
somersaulting figure
Blues kick
Guitar
full
1/2
Bass
Drums
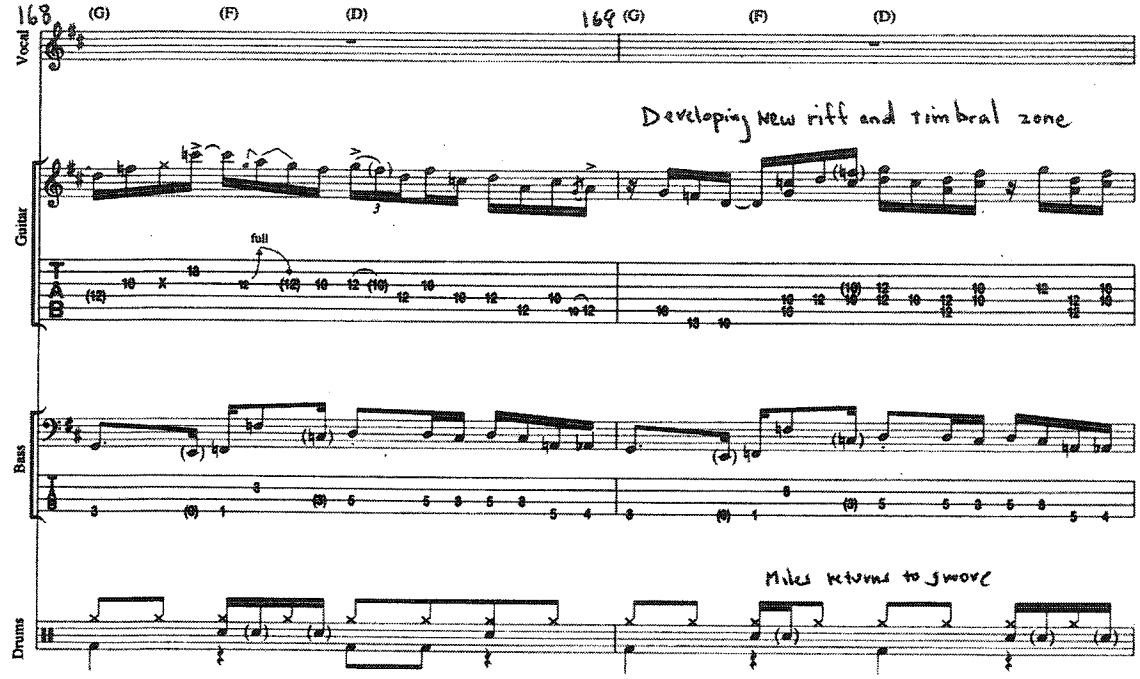

155
(G) (F) (D)
156 (G) (F) (D)
Vocal
New riff developing: scooping melody, skipping rhythm
Guitar
varied³ ideas
full
Bass
Mike's activity spurs Hendrix's idea
Drums

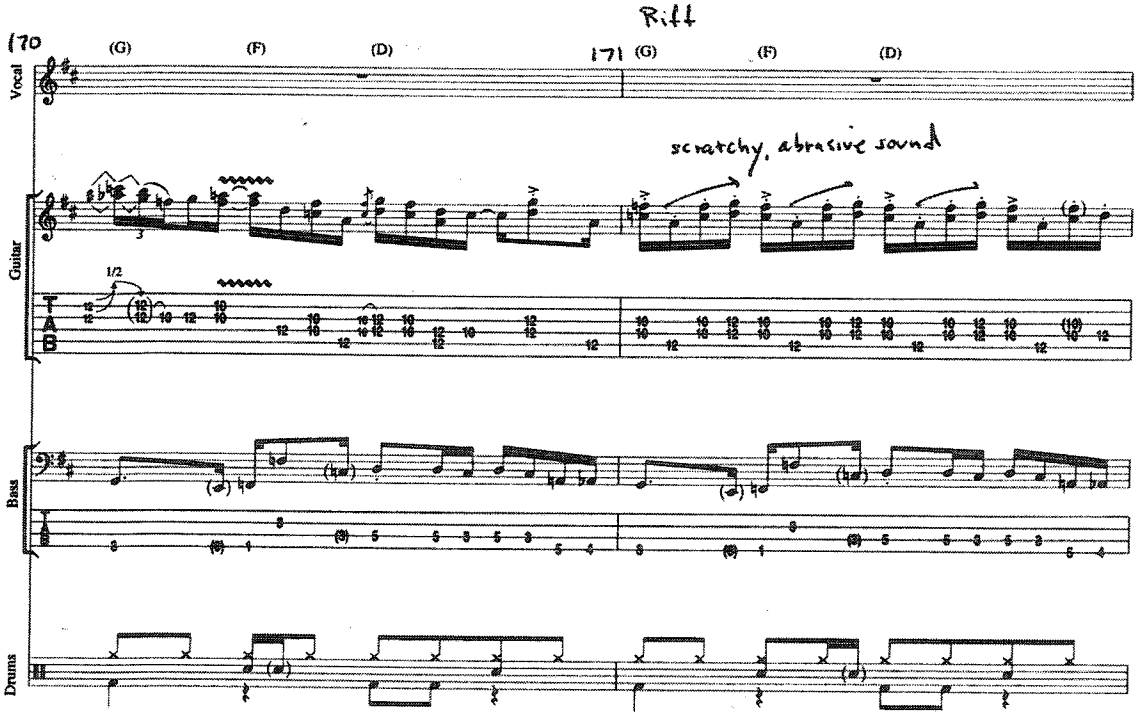

157
(G)
(F)
(D)
158
(G)
(F)
(D)
Vocal
Guitar
straight
full
full
full
w/ wah-wah
full
full
full
Bass
mf
Drums
Miles changes
ride
to bell of cymbal
bell

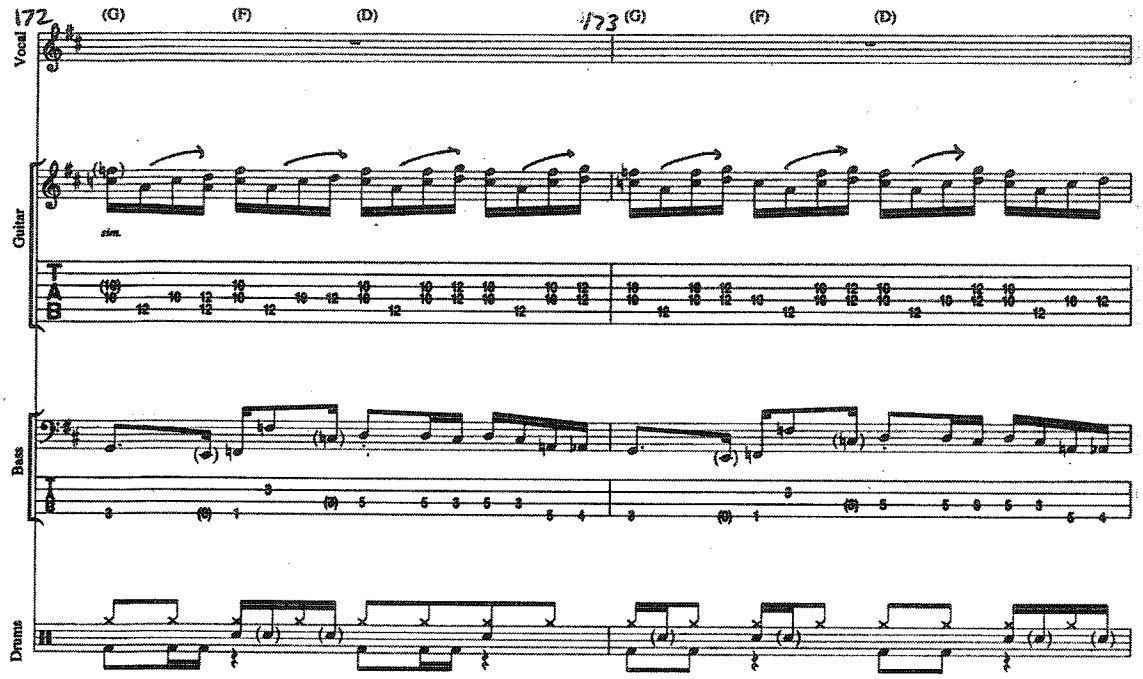

159
(G)
(F)
(D)
160
(G)
(F)
(D)
161
(G)
(F)
(D)
Vocal
Guitar
1/2
1/2
full
full
full
1/2
full
1/2
full
Bass
Drums

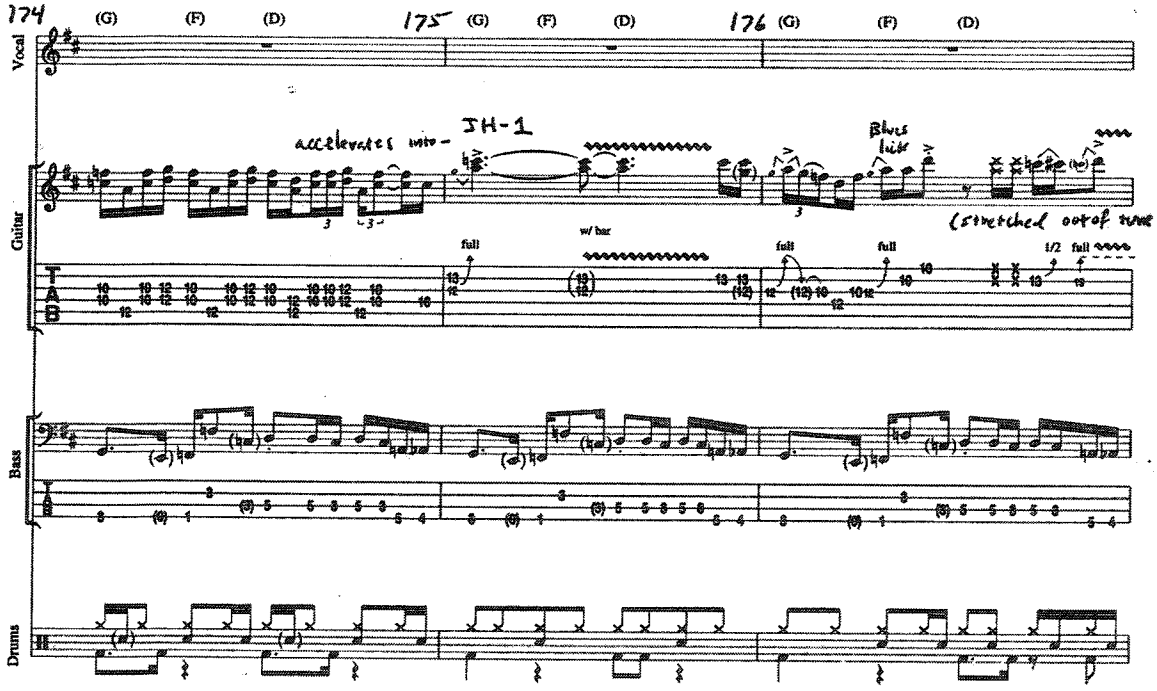

162
(G) (F) (D)
163 (G) (F) (D)
164 (G) (F) (D)
Vocal
Guitar
Bass
Drums
Galloping drum patterns
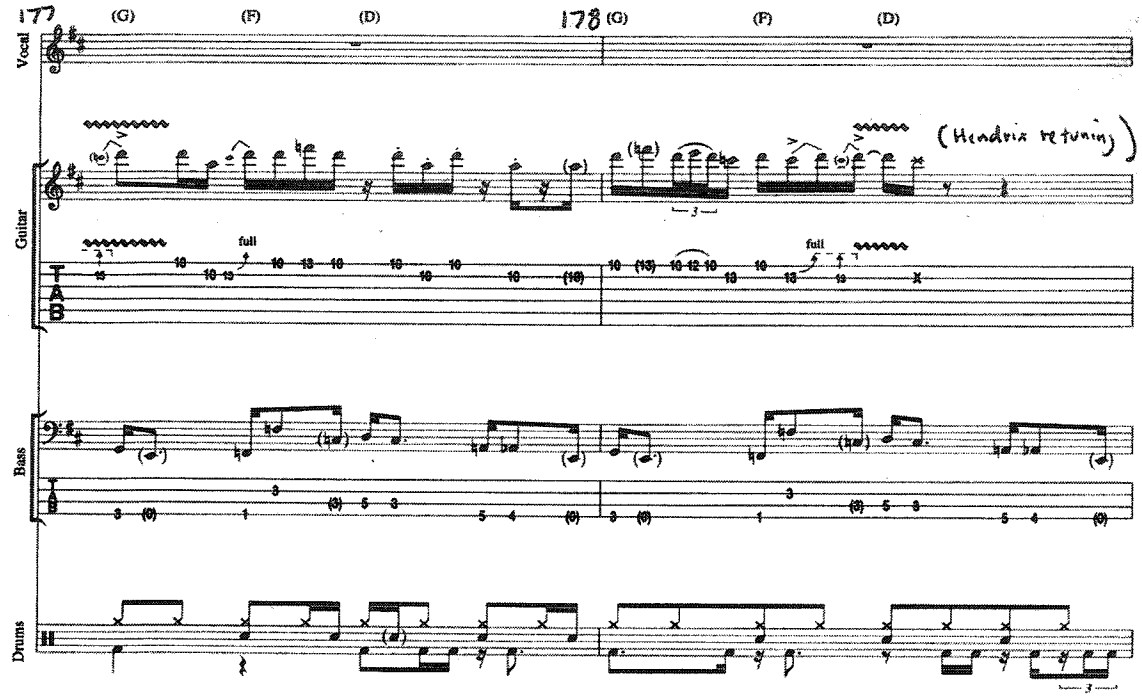

165
(G) (F) (D)
166 (G) (F) (D)
167 (G) (F) (D)
Vocal
Guitar
Bass
Drums
hi-hat
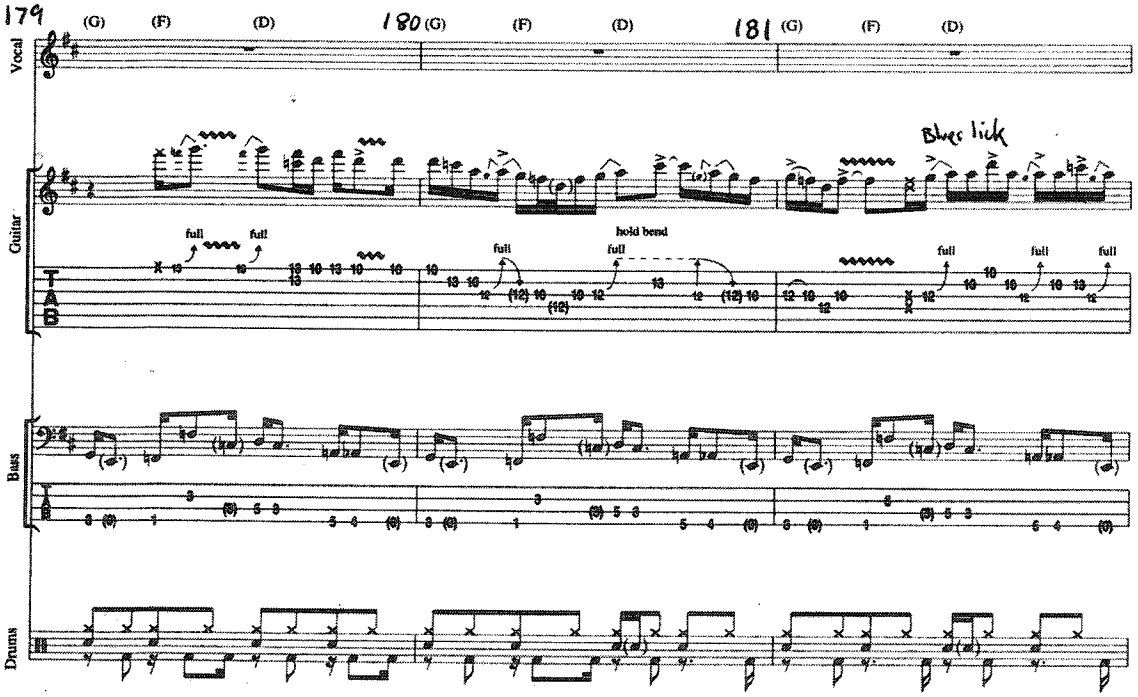

168
(G)
(F)
(D)
169
(G)
(F)
(D)
Vocal
Developing new riff and timbral zone
Guitar
full
T
A
B
Bass
Miles returns to groove
Drums
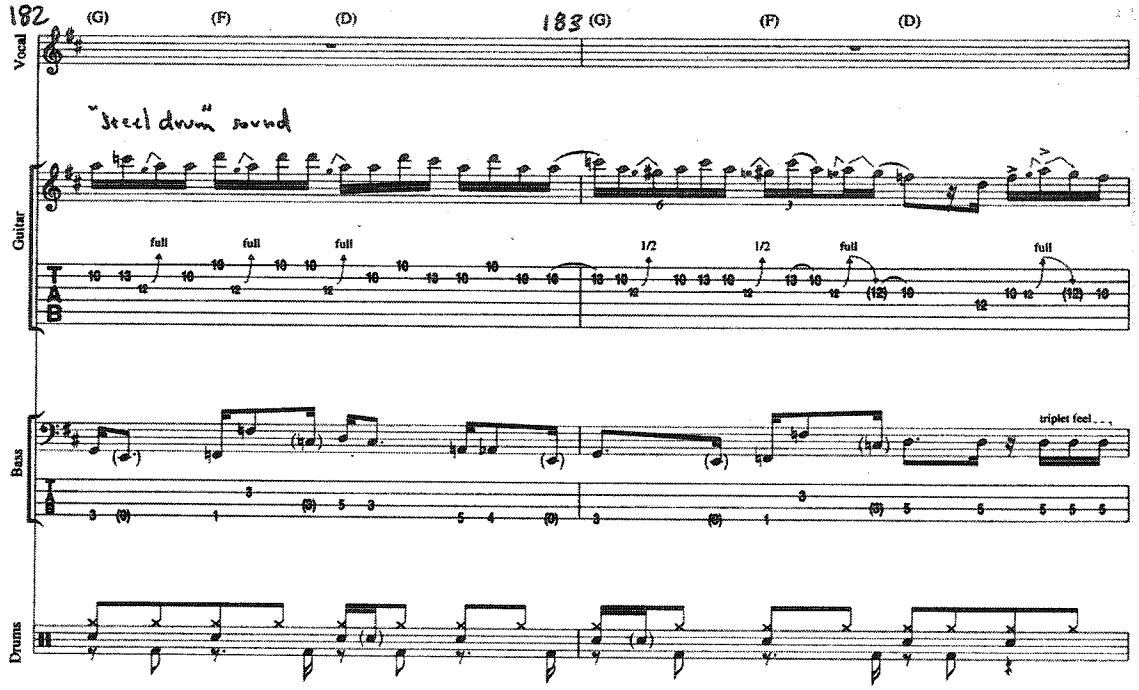

Riff
170
(G)
(F)
(D)
171
(G)
(F)
(D)
Vocal
scratchy, abrasive sound
Guitar
1/2
T
A
B
Bass
Drums

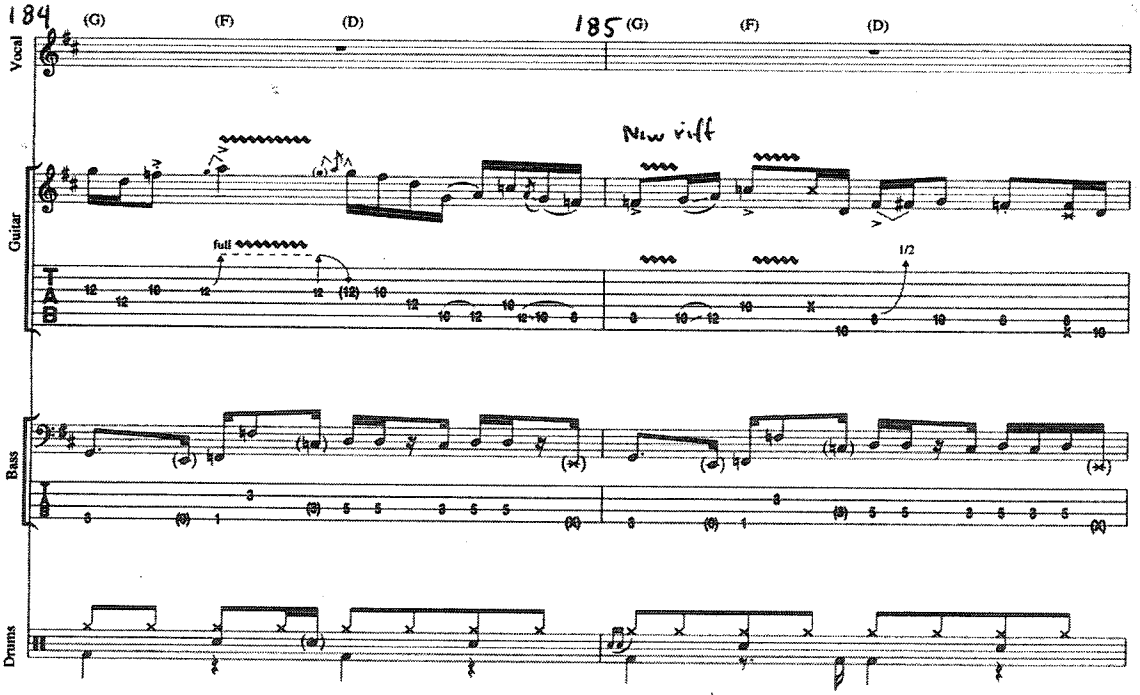

172
(G)
(F)
(D)
173
(G)
(F)
(D)
Vocal
Guitar
sim.
Bass
Drums

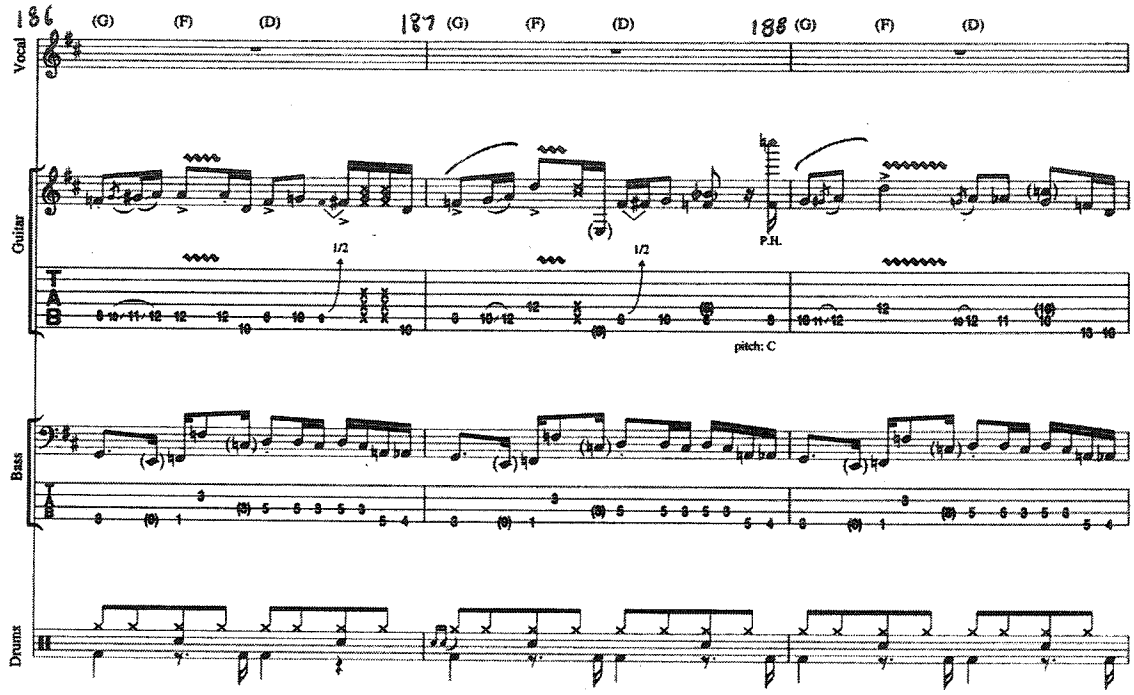

174
(G)
(F)
(D)
175
(G)
(F)
(D)
176
(G)
(F)
(D)
Vocal
Guitar
accelerates into -
IH-1
Blues lick
(Stretched out of tune
full
w/ bar
full
full
full
1/2
full
Bass
Drums

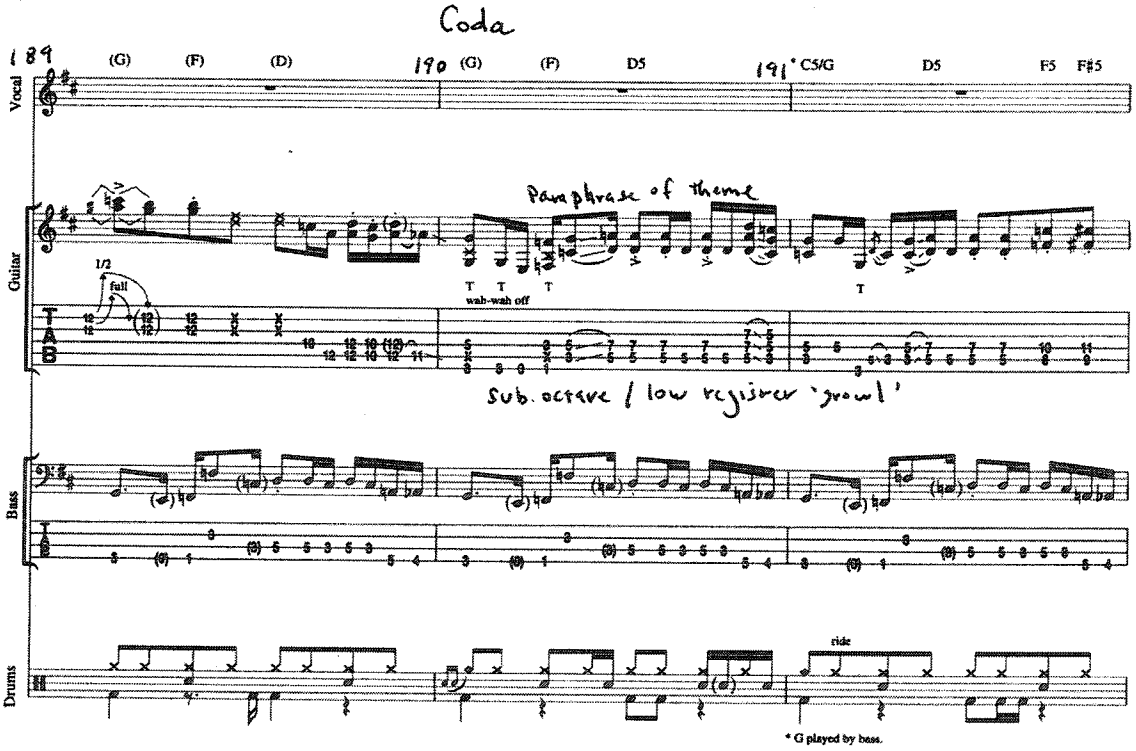

177
(G)
(F)
(D)
178
(G)
(F)
(D)
Vocal
Guitar
(Hendrix returning)
full
full
Bass
Drums

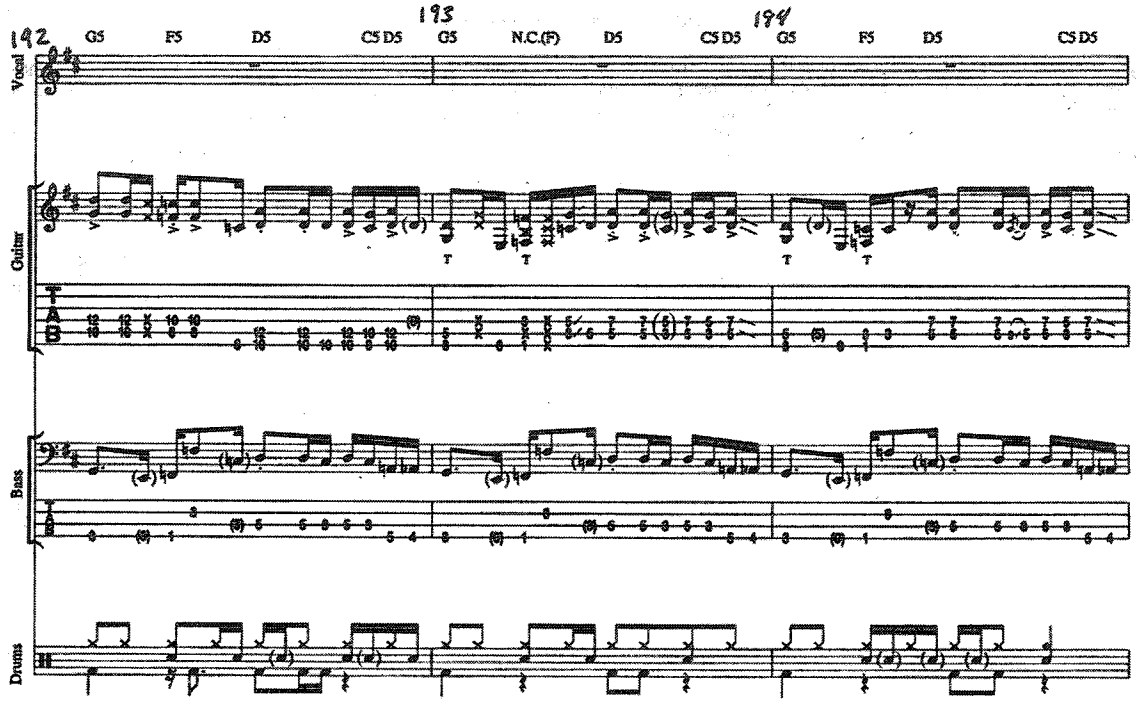

179
(G)
(F)
(D)
180
(G)
(F)
(D)
181
(G)
(F)
(D)
Vocal
Guitar
Blues lick
full
full
full
full
hold bend
full
full
full
full
Bass
Drums
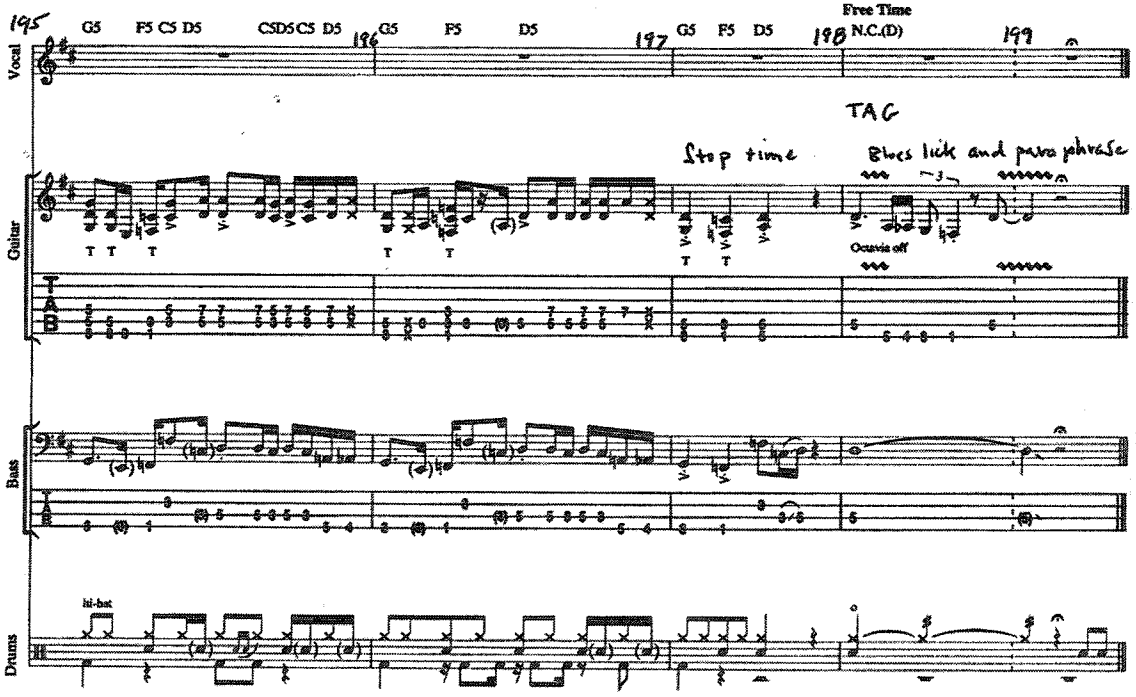

182
(G)
(F)
(D)
183
(G)
(F)
(D)
Vocal
"steel drum" sound
Guitar
full
full
full
1/2
1/2
full
full
T
A
B
Bass
triplet feel
Drums


184
(G)
(F)
(D)
185
(G)
(F)
(D)
Vocal
New riff
Guitar
full
1/2
T
A
B
Bass
Drums


186
(G) (F) (D)
187 (G) (F) (D)
188 (G) (F) (D)
Vocal
Guitar
Bass
Drums
1/2
P.H.
pitch: C


Coda
189
(G) (F) (D)
190 (G) (F) D5
191 C5/G D5 F5 F#5
Vocal
Guitar
Bass
Drums
Paraphrase of theme
1/2
full
wah-wah off
sub. octave / low register 'growl'
ride
* G played by bass.


192
193
194
G5 F5 D5 C5 D5 G5 N.C.(F) D5 C5 D5 G5 F5 D5 C5 D5
Vocal
Guitar
Bass
Drums


195
196
197
198
199
G5 F5 C5 D5 C5D5 C5 D5 G5 F5 D5 G5 F5 D5 N.C.(D)
Free Time
TAC
Stop time
Blues lick and paraphrase
Octavia off
hi-hat
Vocal
Guitar
Bass
Drums

APPENDIX C: Chapter IV Examples

EXAMPLE IV-1: Formal Design of "Machine Gun"

SECTION I (mm. 1–132 [0:22–7:31]

Introduction (mm. 1–24): solo guitar (mm. 1–7); tutti begins, bass plays main theme and ostinato, MG-1; guitar plays "exposition" of blues-based ideas

Verse I (mm. 25–44): Hendrix—*Machine Gun—tearin' my body . . . Evil man . . .*

Verse II (mm. (mm. 45–65): Hendrix—*Well, I pick my axe an' fight like a farmer . . . The same way you shoot me down, baby . . .*

GUITAR SOLO (mm. 66–132): climactic plateau of solo (mm. 107–122) (midpoint of piece comes at m. 107.5)

SECTION II (mm. 133–215 [7:32–12:16])

Tutti statement of new theme and ostinati, MG-4 (begins m. 132)

Verse III (mm. 133–152): Hendrix—*I ain't afraid of your bullets . . . Machine gun . .*

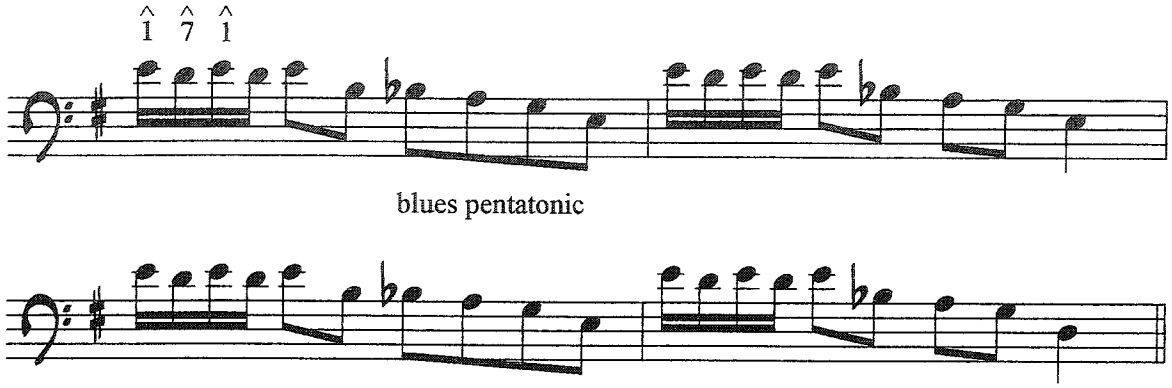
Sound painting (mm. 153–172): soundscape of battlefield; electronic sounds and noises, stereo panning effects; bass anchors with MG-4

Verse IV and Sound painting: Buddy Miles—*Don't you shoot him down! . . .* (bass reintroduces MG-1, beginning in mm. 181–182)
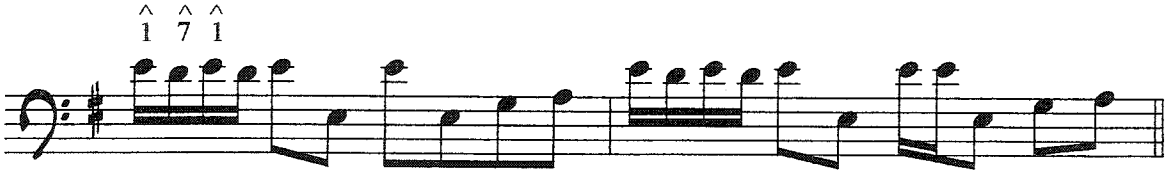
Sound painting and "Denouement" (mm. 184–215): soundscape and electronic elegy

Guitar cadenza/Coda (mm. 209–215): combined harmonic dissonance and timbral distortion

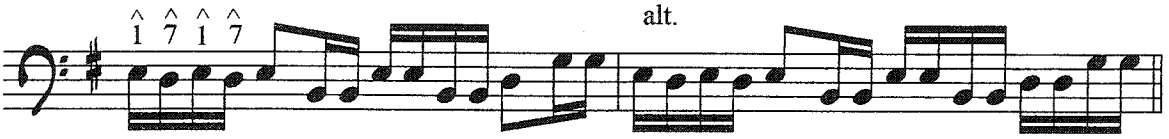
a. MG-1: " **Machine Gun**" theme



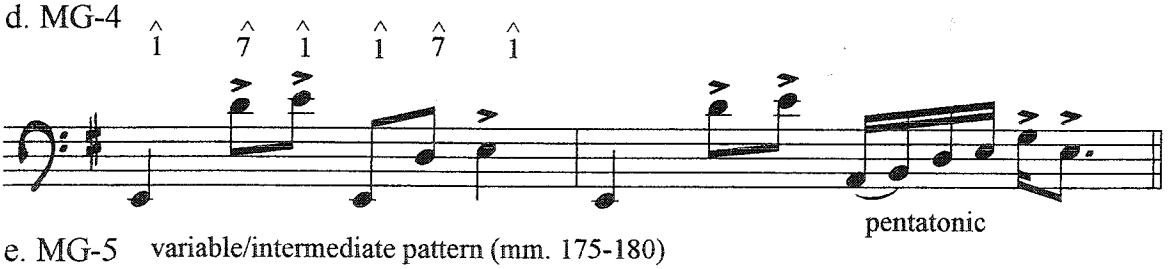
b. MG-2
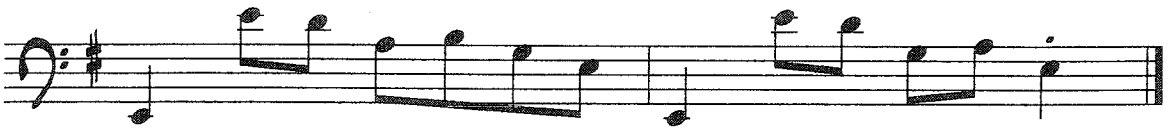


c. MG-3



d. MG-4



e. MG-5 variable/intermediate pattern (mm. 175-180)



Machine Gun

Words and Music by Jimi Hendrix
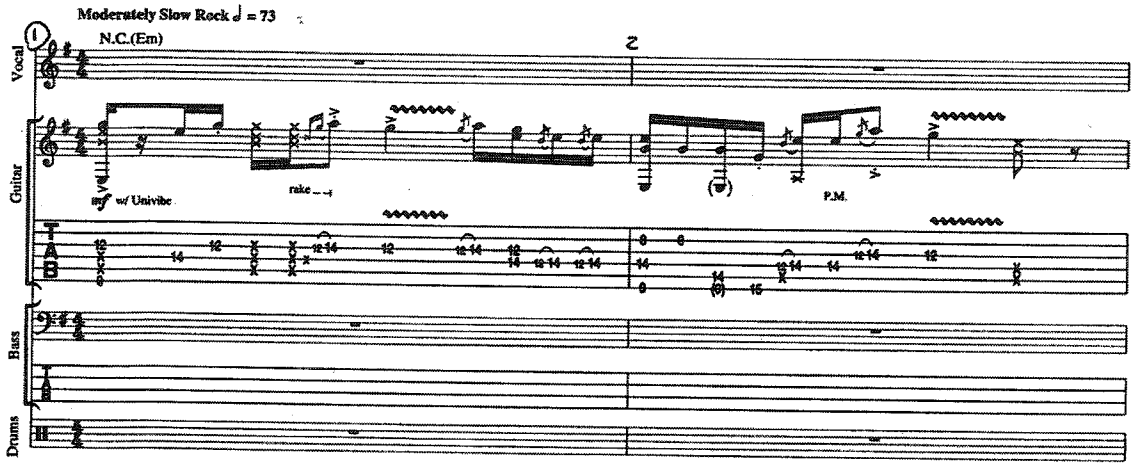
Spoken: "Happy New Year, first of all. An' I hope you have about a million or two million more of 'em, if we can get over this summer. Nyeh heh, heh. We'd like to dedicate this one to, uh, sort (of) a draggy scene that's goin' on, all the soldiers that are fightin' in Chicago and Milwaukee and New York . . . oh yes, and all the soldiers fighting in Viet Nam. Like to do a thing called "Machine Gun."'

Gtr.: Tune Down 1 Whole Step:
① = D ④ = C
② = A ⑤ = G
③ = F ⑥ = D

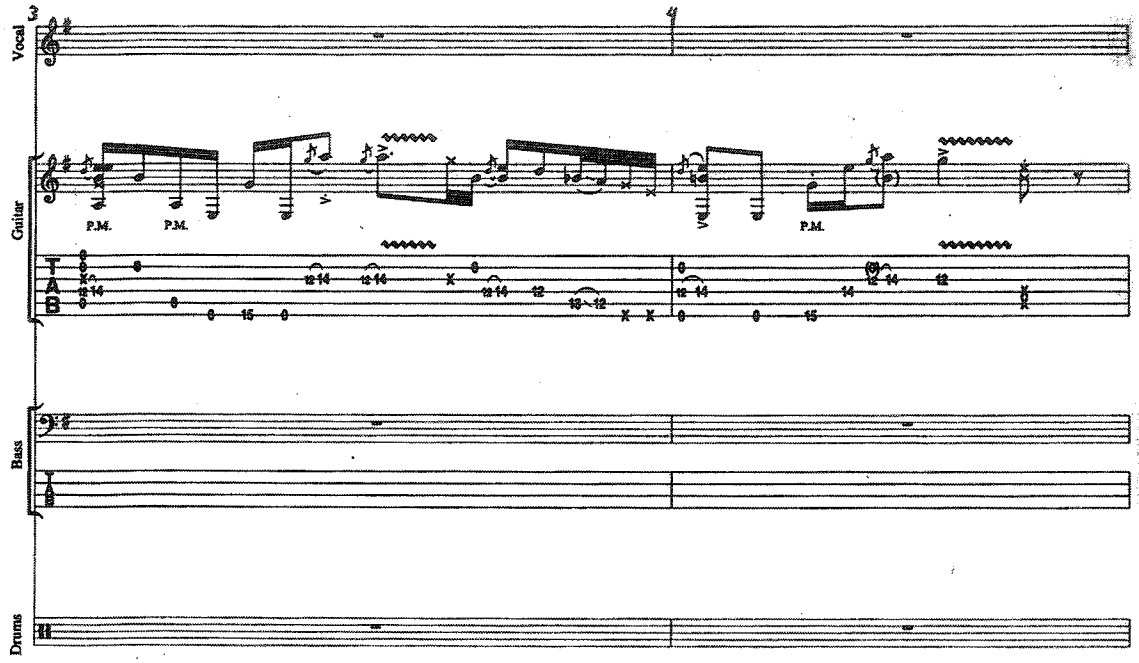
Bass: Tune Down 1 Whole Step:
① = F ③ = G
② = C ④ = D

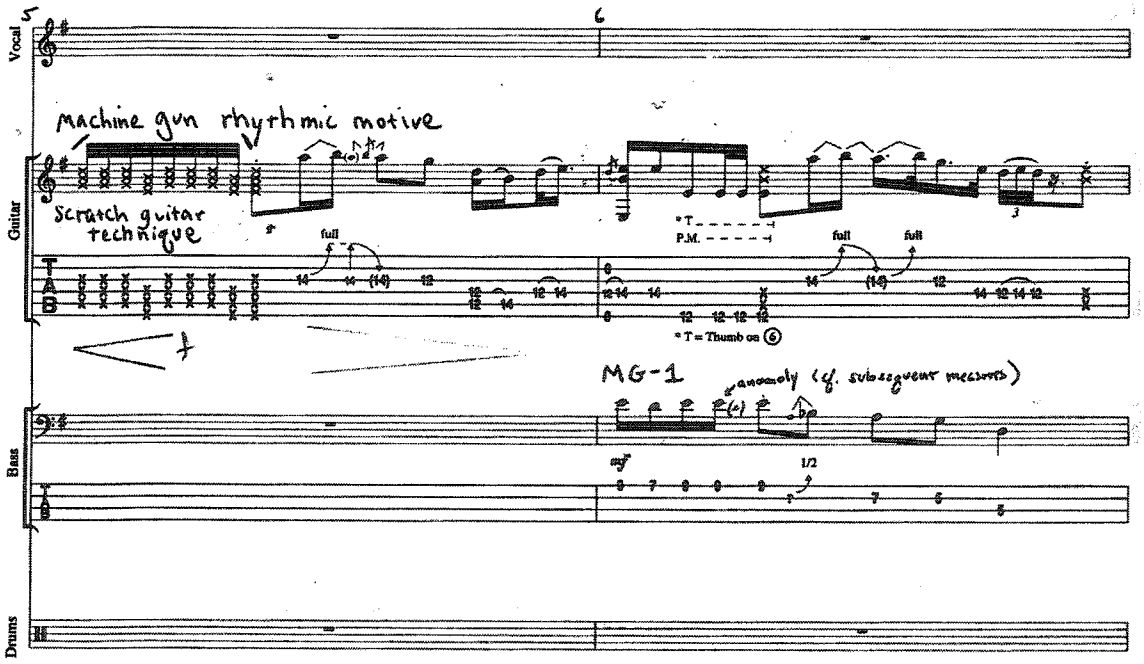
Intro

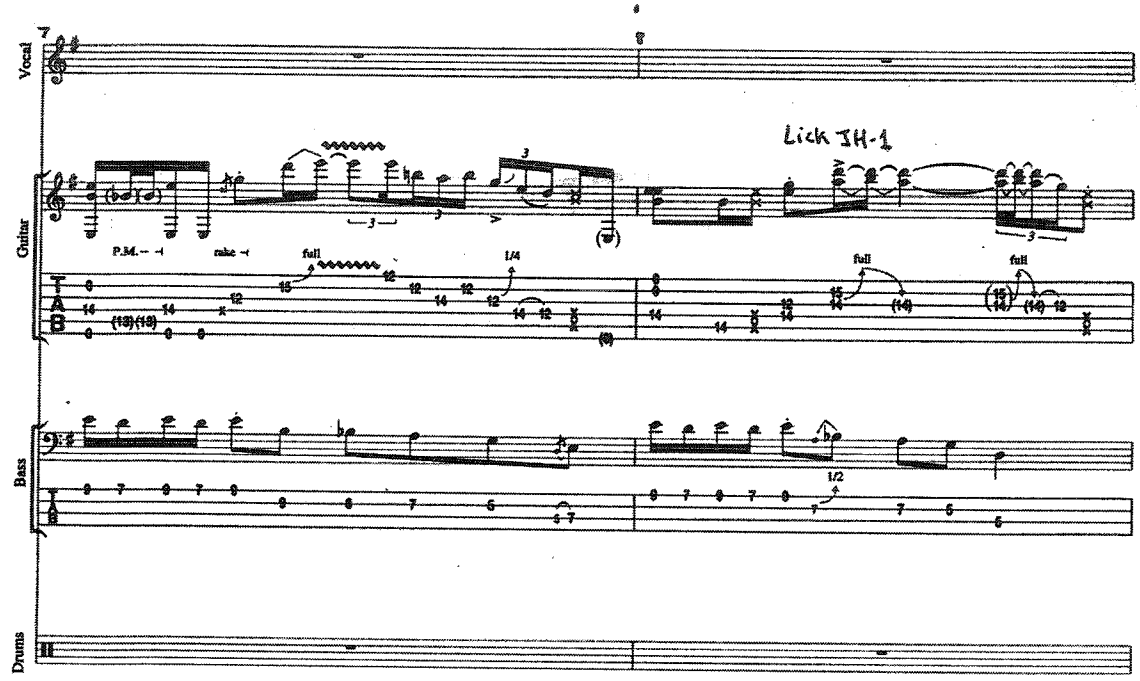
Moderately Slow Rock ♩ = 73

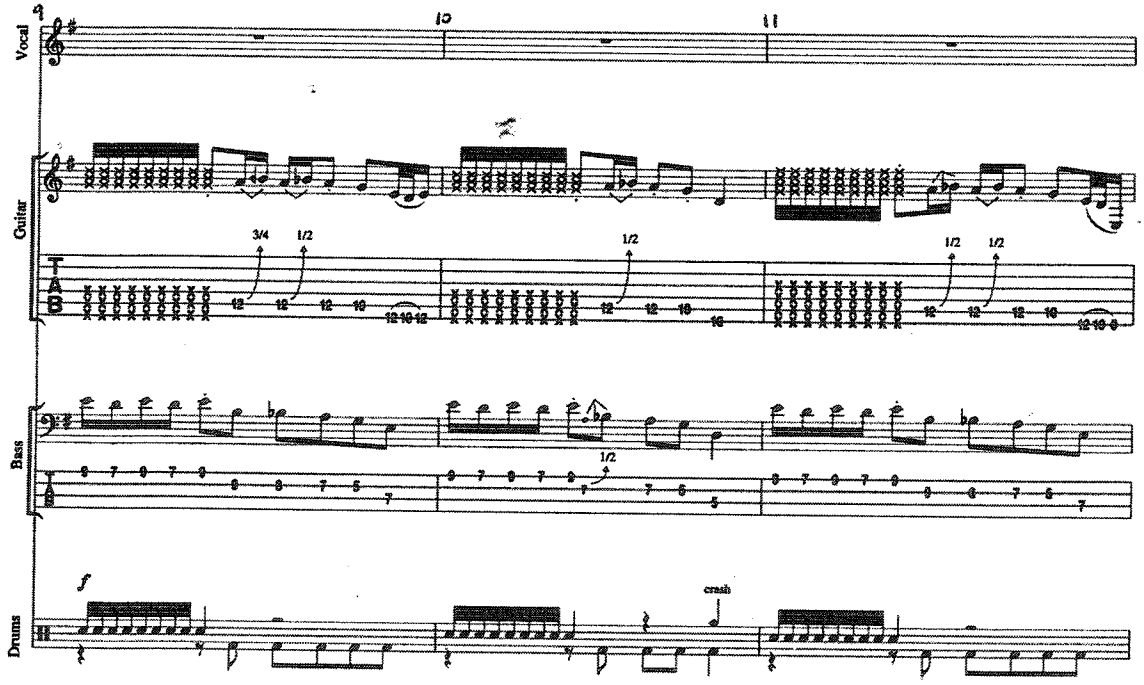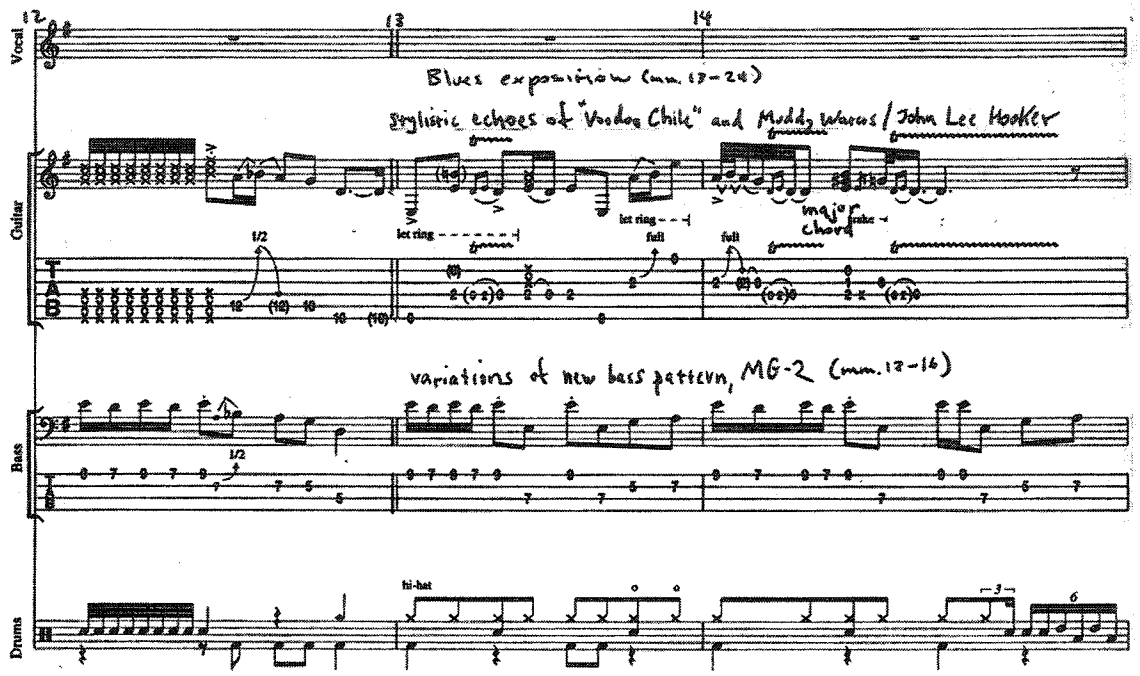


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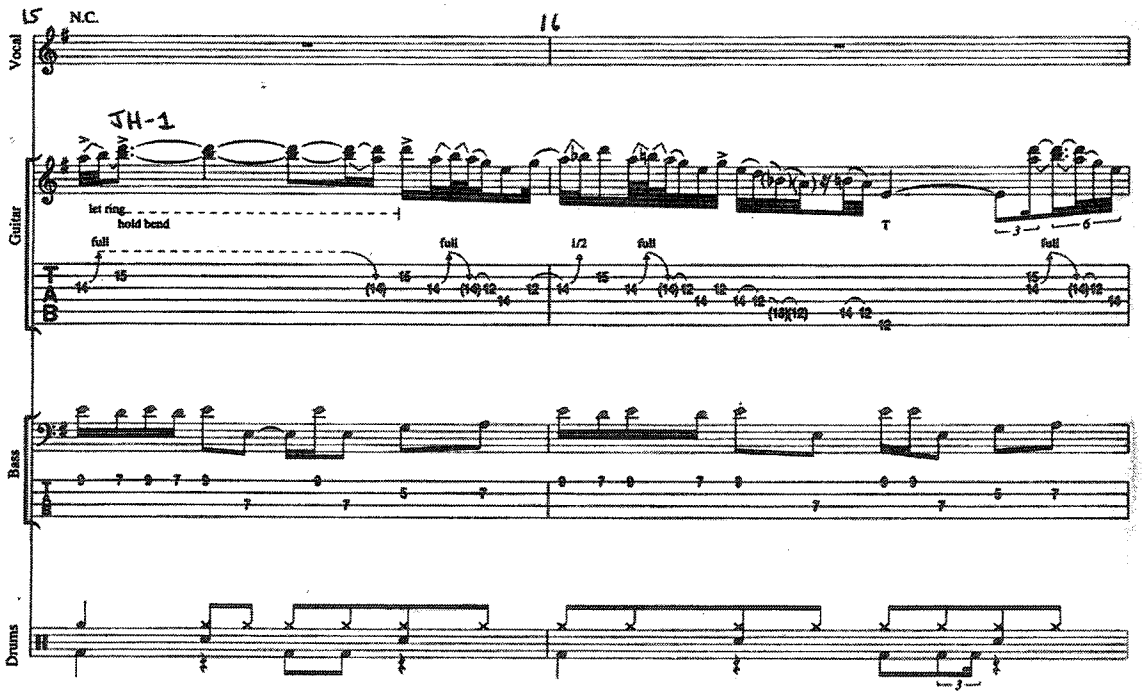

Vocal
Guitar
Bass
Drums
P.M.
P.M.
P.M.

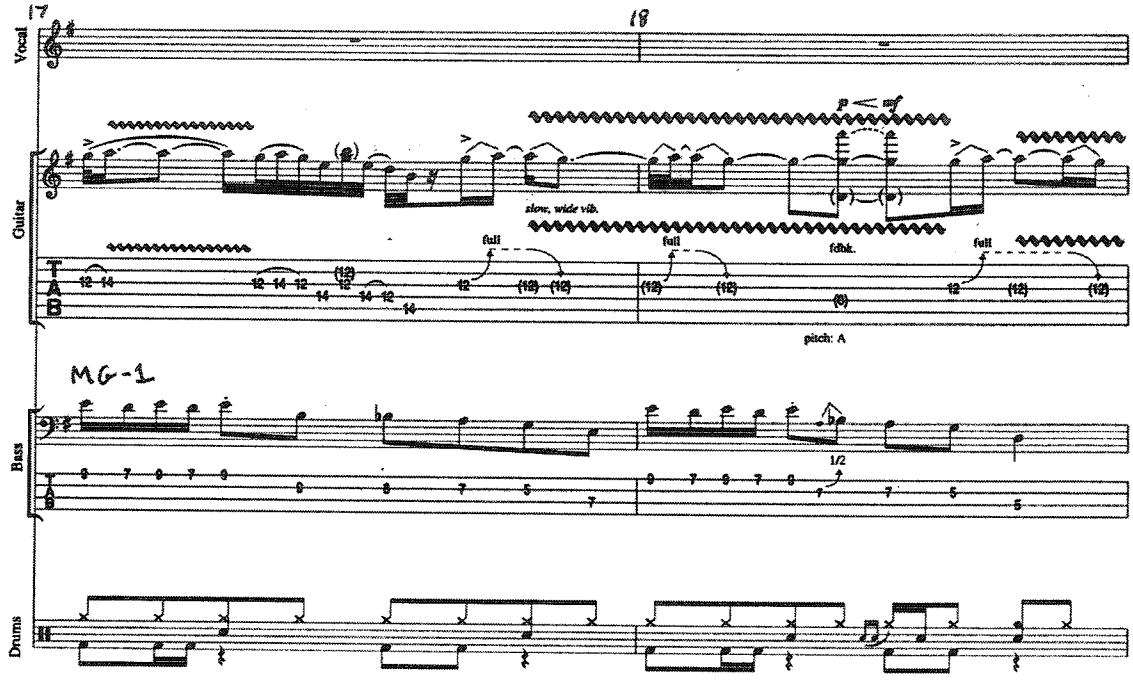

Vocal
Guitar
Bass
Drums
machine gun rhythmic motive
scratch guitar technique
full
full
full
P.M.
* T = Thumb on 6
MG-1
anomaly (cf. subsequent measures)

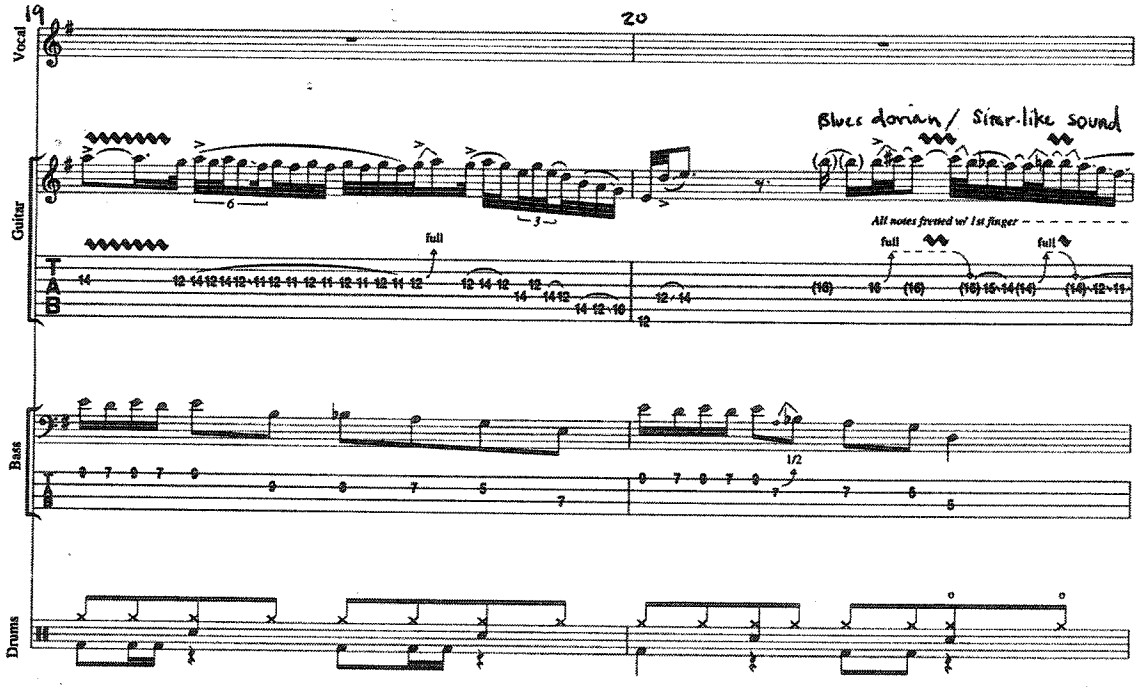

Vocal
Guitar
Bass
Drums
Lick 1H-1
P.M.
rake
full
1/4
1/2

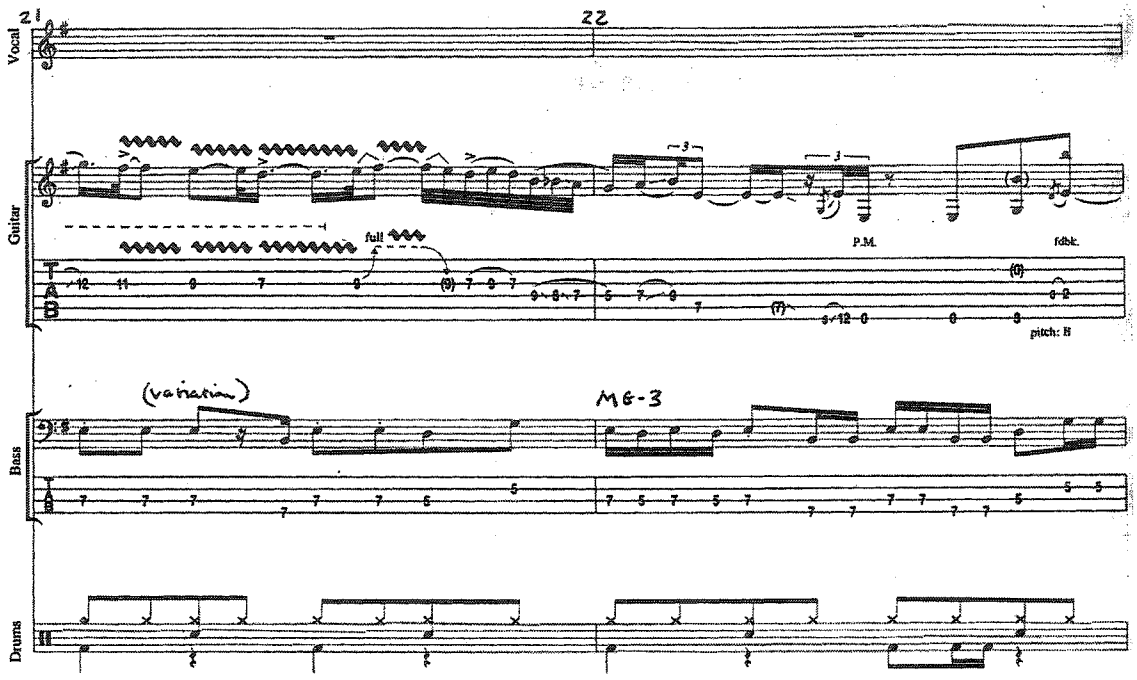

Vocal
Guitar
Bass
Drums
3/4
1/2
f
crash

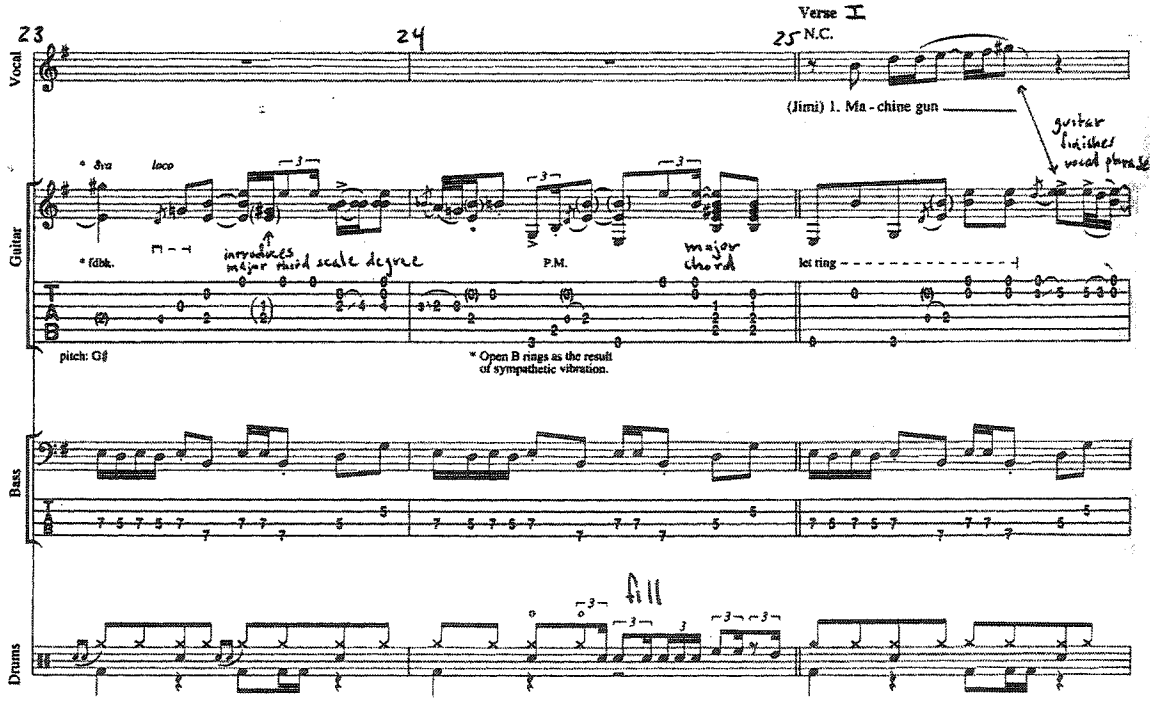

12
13
14
Vocal
Blues expansion (mm. 13-24)
Stylistic echoes of "Voodoo Child" and Muddy Waters / John Lee Hooker
Guitar
let ring
full
major chord
variations of new bass pattern, MG-2 (mm. 12-16)
Bass
Drums
hi-hat

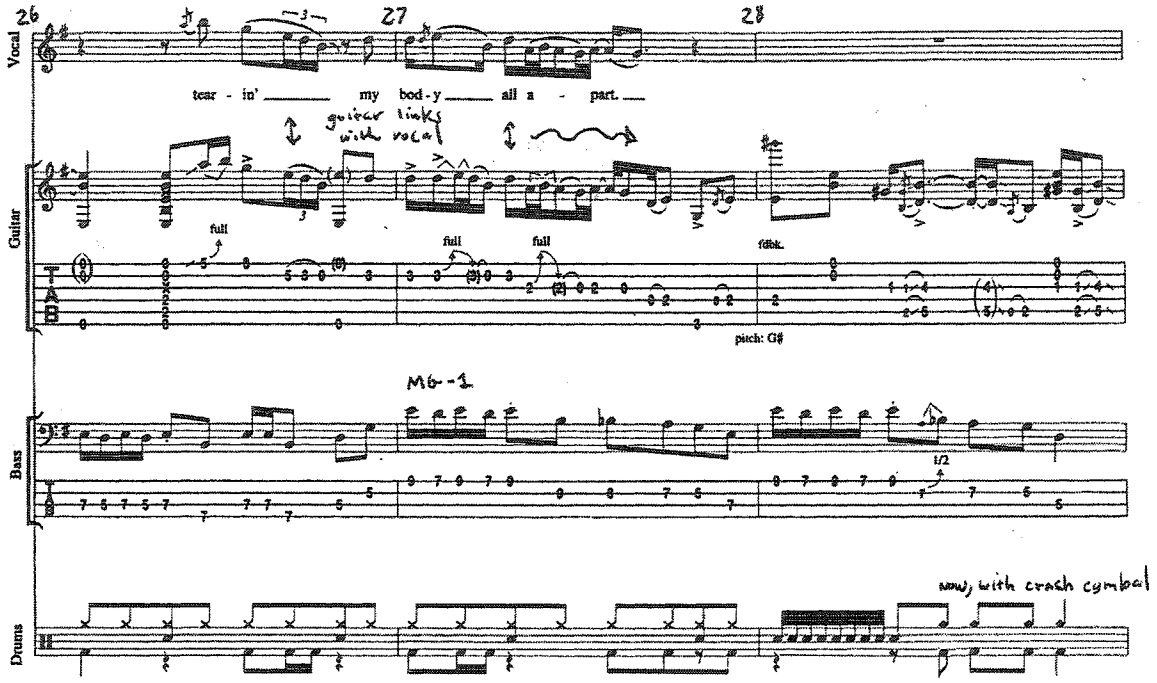

15
N.C.
16
Vocal
JH-1
Guitar
let ring
hold bend
full
Bass
Drums
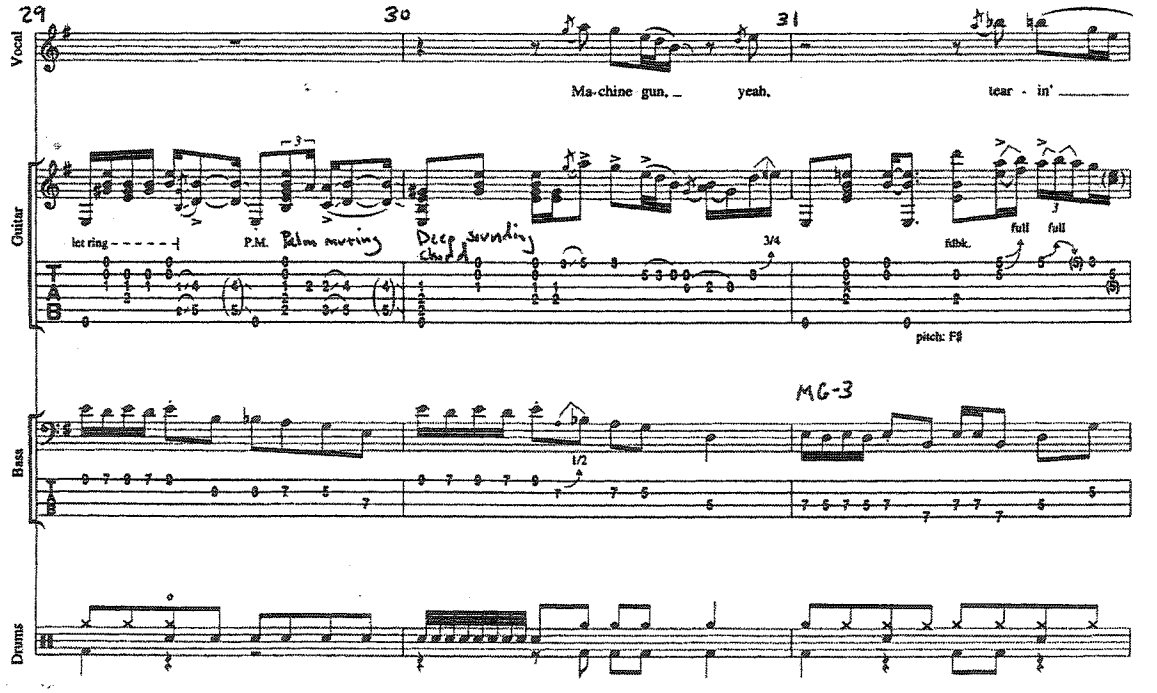

17
18
Vocal
Guitar
Bass
Drums
p < mf
slow, wide vib.
full
fdbk.
pitch: A
MG-1
1/2
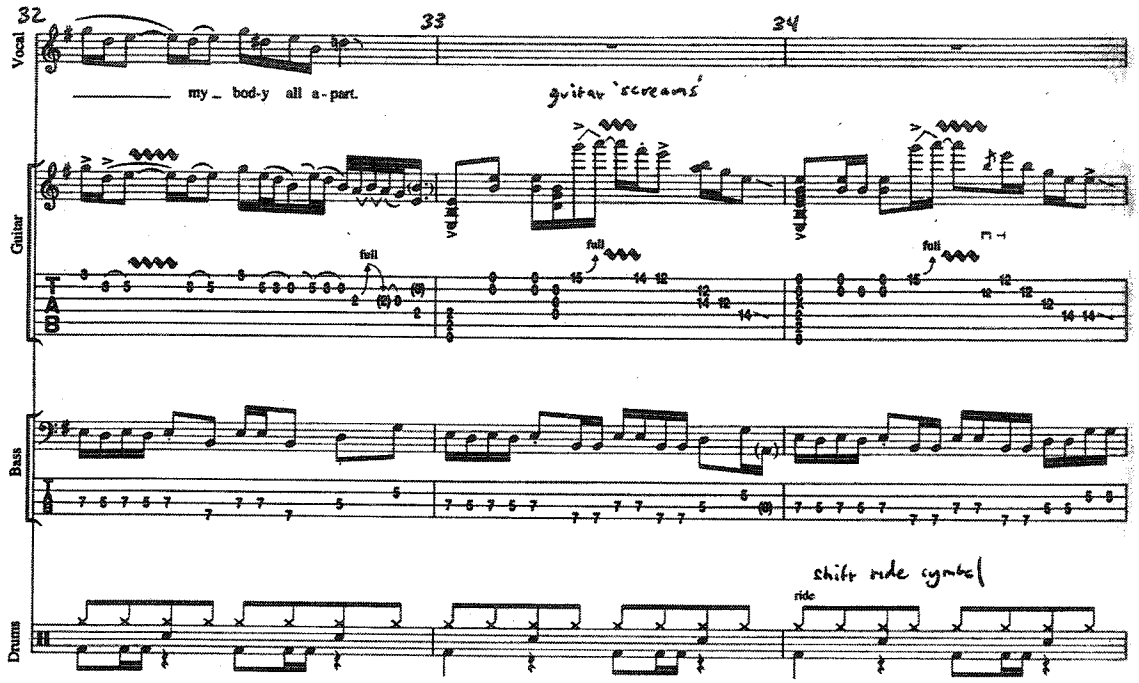

19
20
Vocal
Guitar
Bass
Drums
Blues dorian / Sitar-like sound
All notes fretted w/ 1st finger
full
1/2

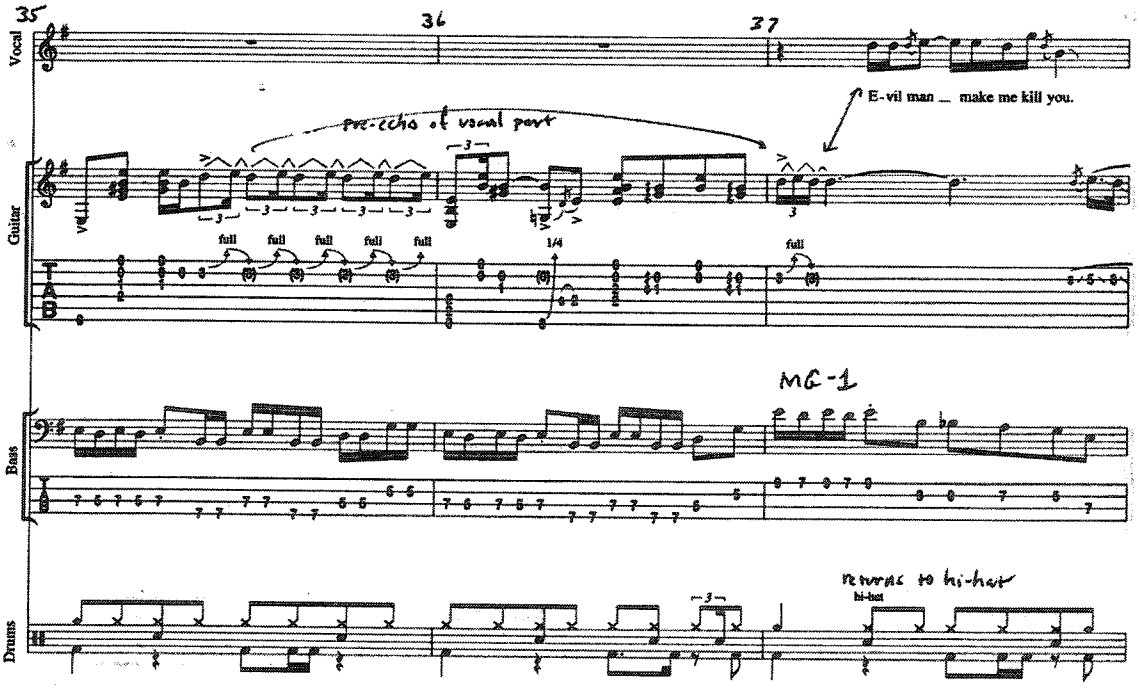

21
22
Vocal
Guitar
full
P.M.
fdbk.
pitch: B
Bass
(variation)
M6-3
Drums
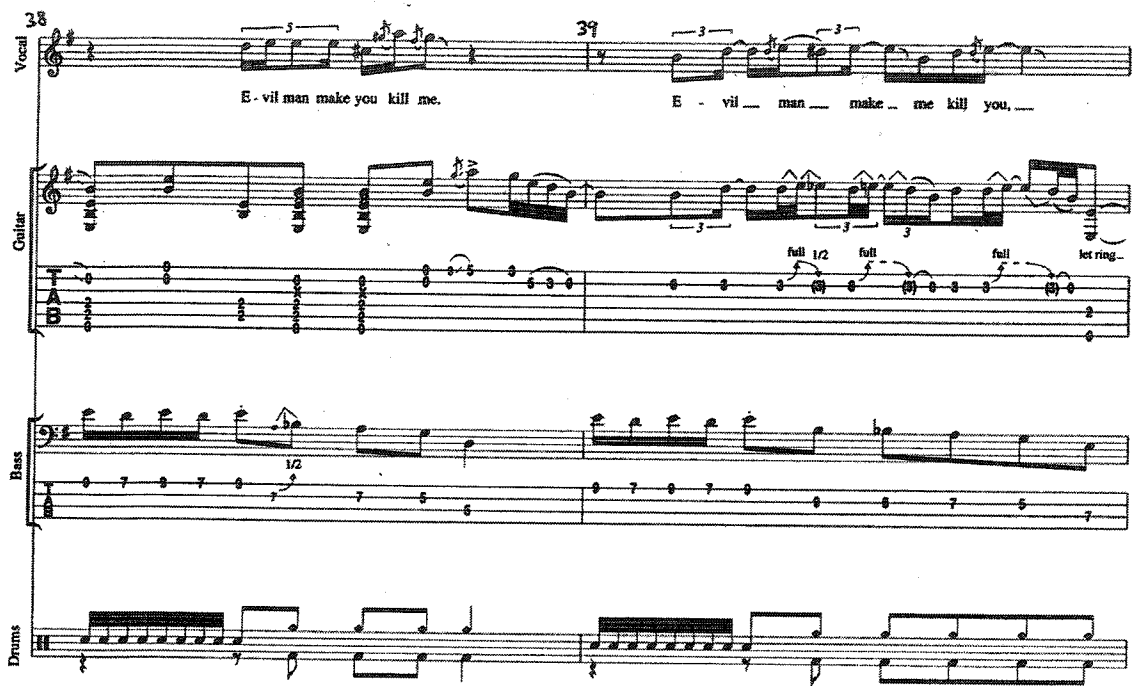

23
24
25
Verse I
N.C.
Vocal
(Jimi) 1. Ma - chine gun
guitar finishes vocal phrase
Guitar
* fdbk.
introduces major third scale degree
P.M.
major chord
let ring
pitch: G♯
* Open B rings as the result of sympathetic vibration.
Bass
fill
Drums

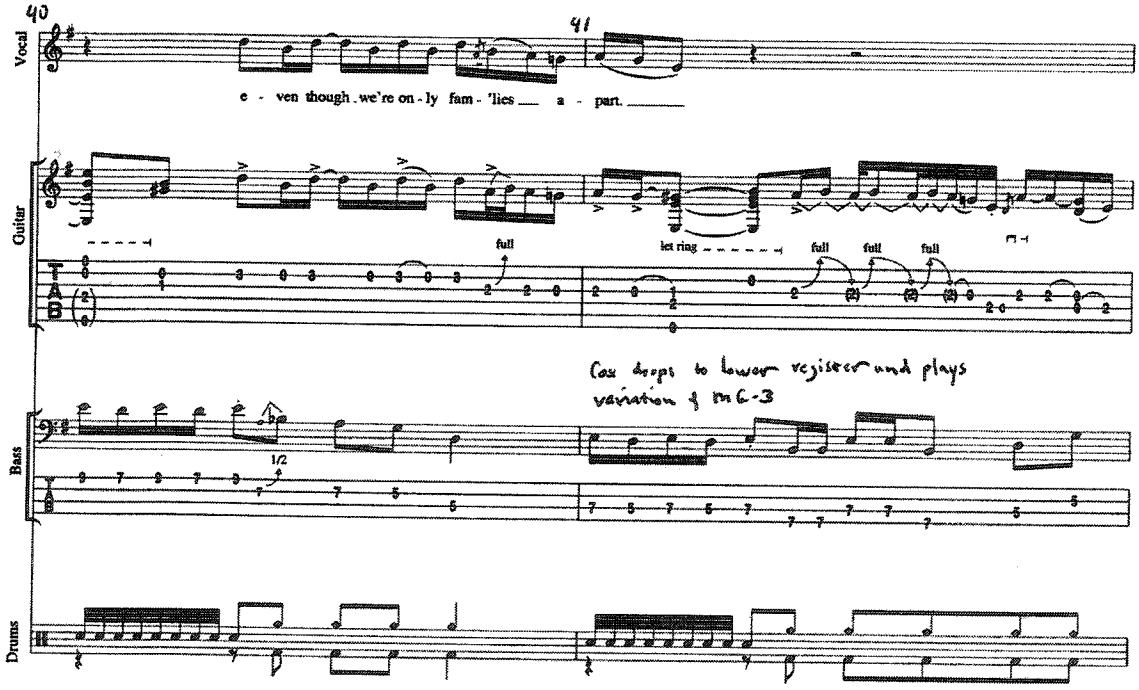

26
27
28
Vocal
tear - in' my bod-y all a - part.
guitar links with vocal
Guitar
full
full
full
fdbk.
pitch: G#
MG-1
Bass
1/2
Drums
now, with crash cymbal
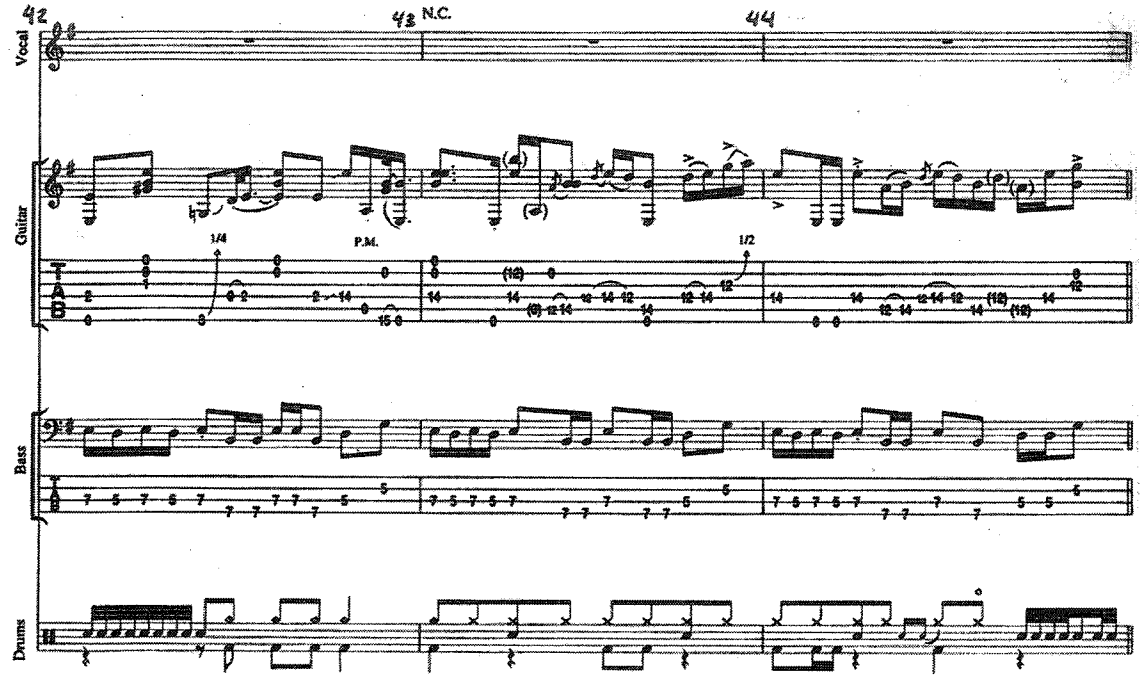

29
30
31
Vocal
Ma-chine gun, yeah, tear - in'
Guitar
let ring
P.M.
Palm muting
Deep sounding Chord
3/4
full
full
fdbk.
pitch: F#
MG-3
Bass
1/2
Drums

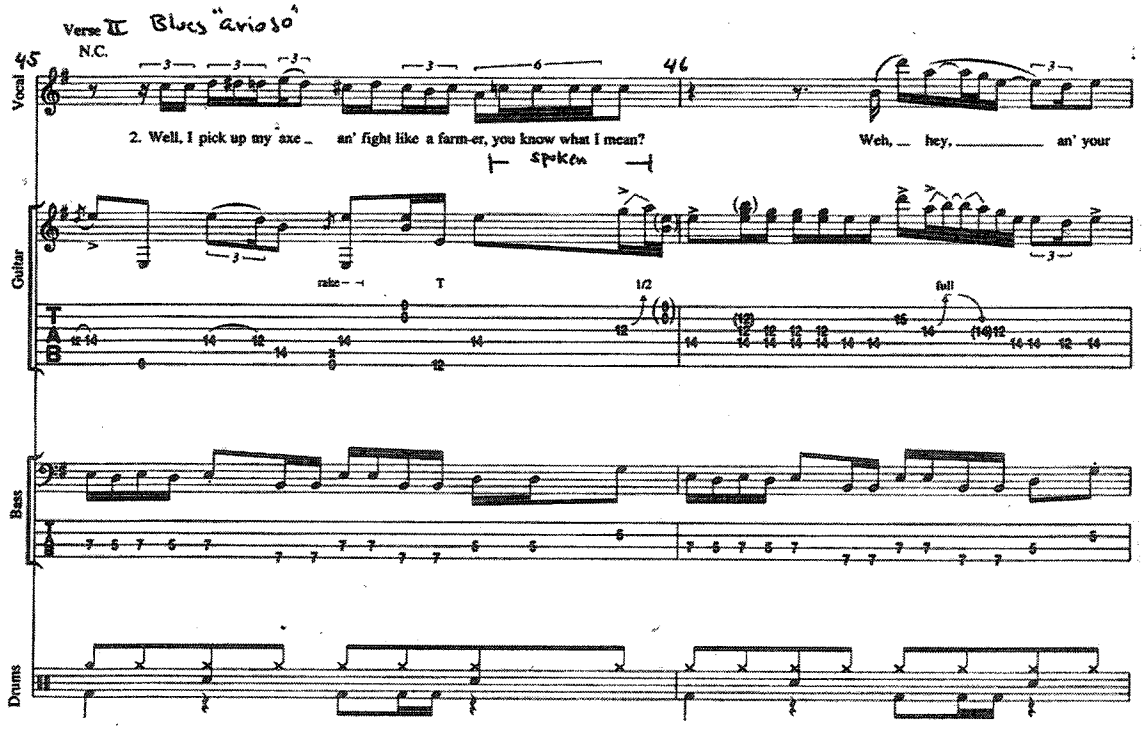

32
33
34
Vocal
my_ bod-y all a-part.
guitar 'screams'
Guitar
full
full
full
Bass
Drums
shift ride cymbal
ride
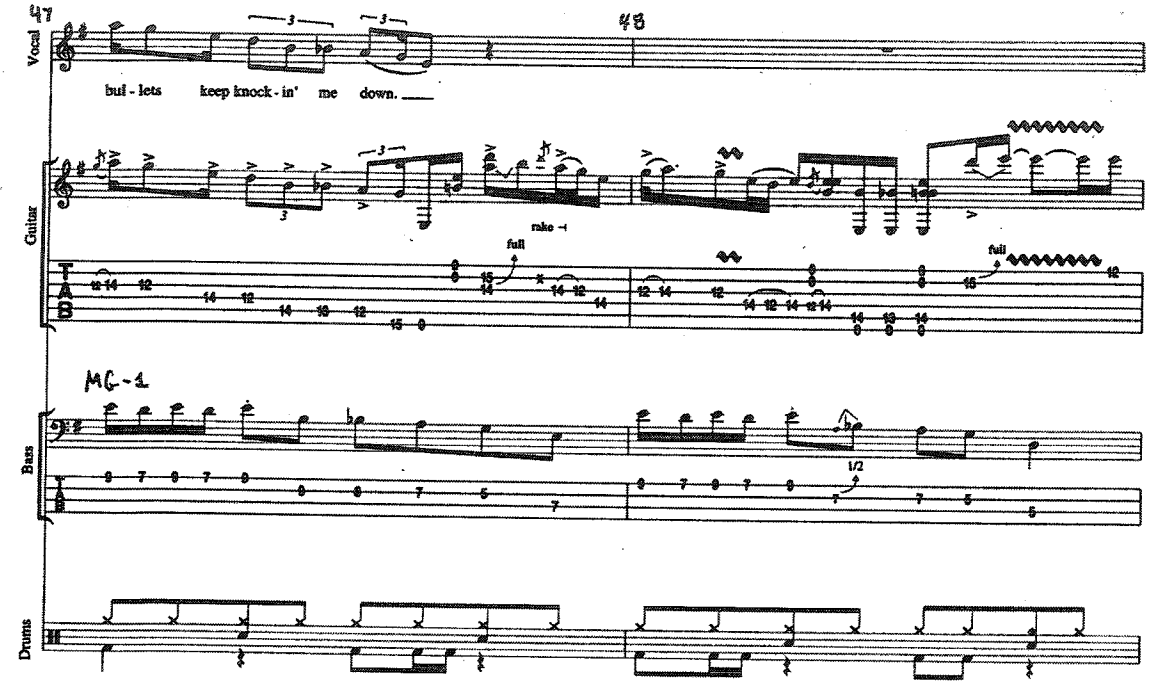

35
36
37
Vocal
E-vil man _ make me kill you.
pre-echo of vocal part
Guitar
full
full
full
full
full
1/4
full
MG-1
Bass
returns to hi-hat
hi-hat
Drums
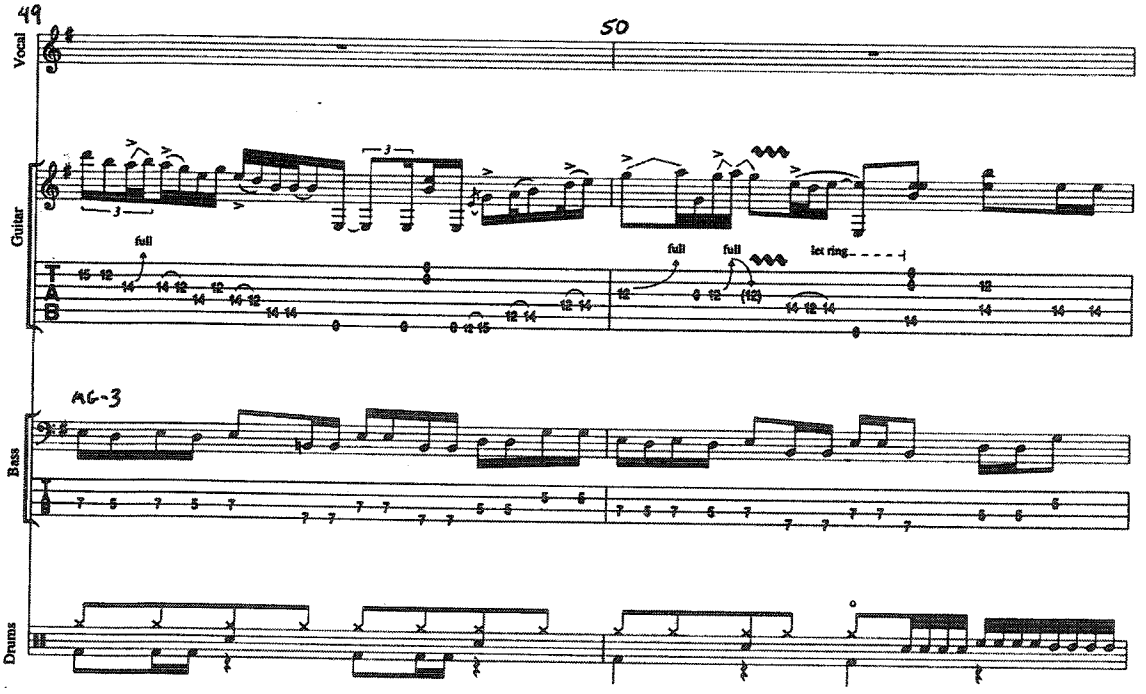

38
39
Vocal
E - vil man make you kill me.
E - vil man make me kill you,
Guitar
full
1/2
full
full
let ring
Bass
1/2
Drums
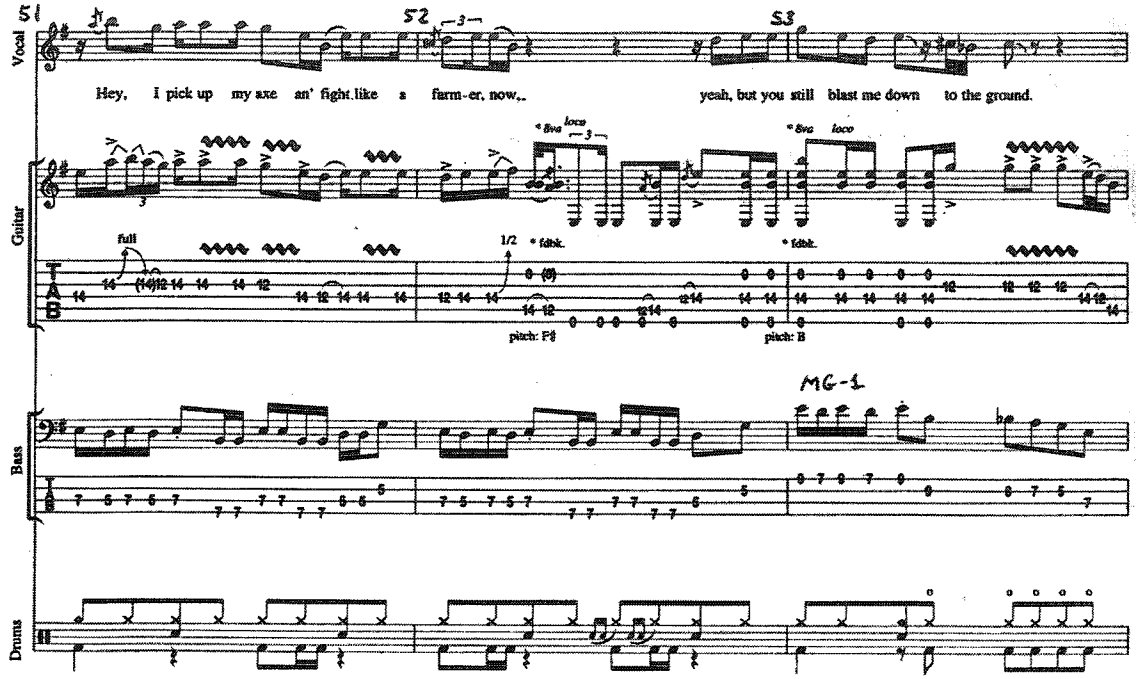

40
41
Vocal
e - ven though we're on - ly fam - 'lies a - part.
Guitar
full
let ring
full
full
full
Bass
Cox drops to lower register and plays
variation of m6-3
1/2
Drums

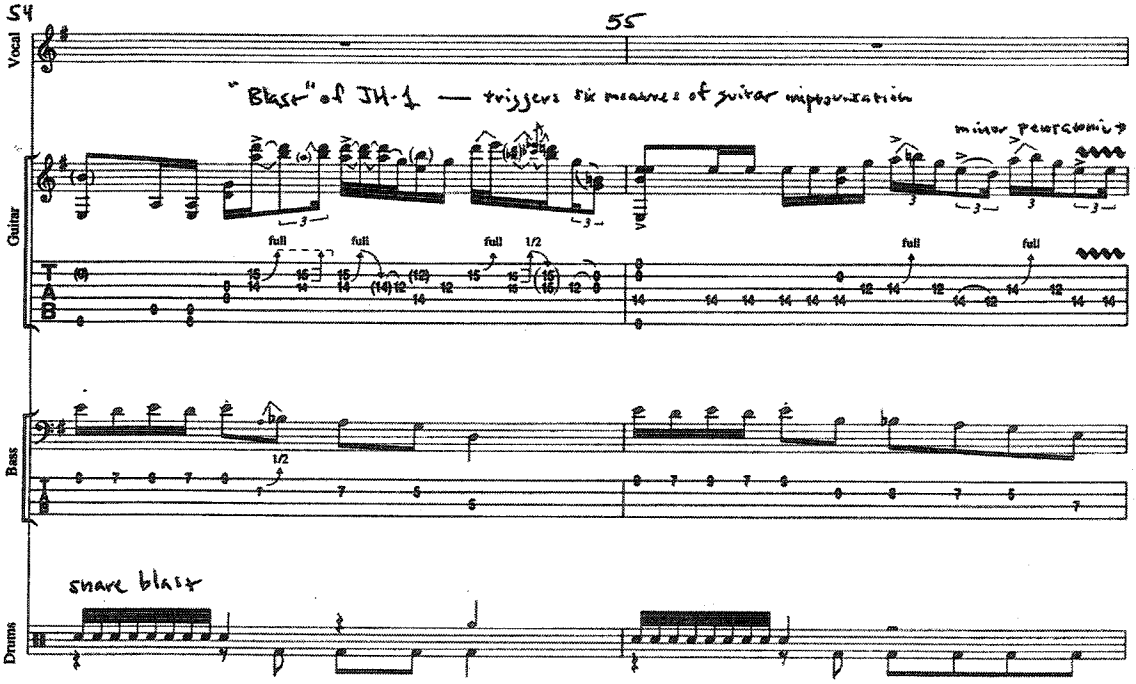

42
43 N.C.
44
Vocal
Guitar
Bass
Drums
1/4
P.M.
1/2

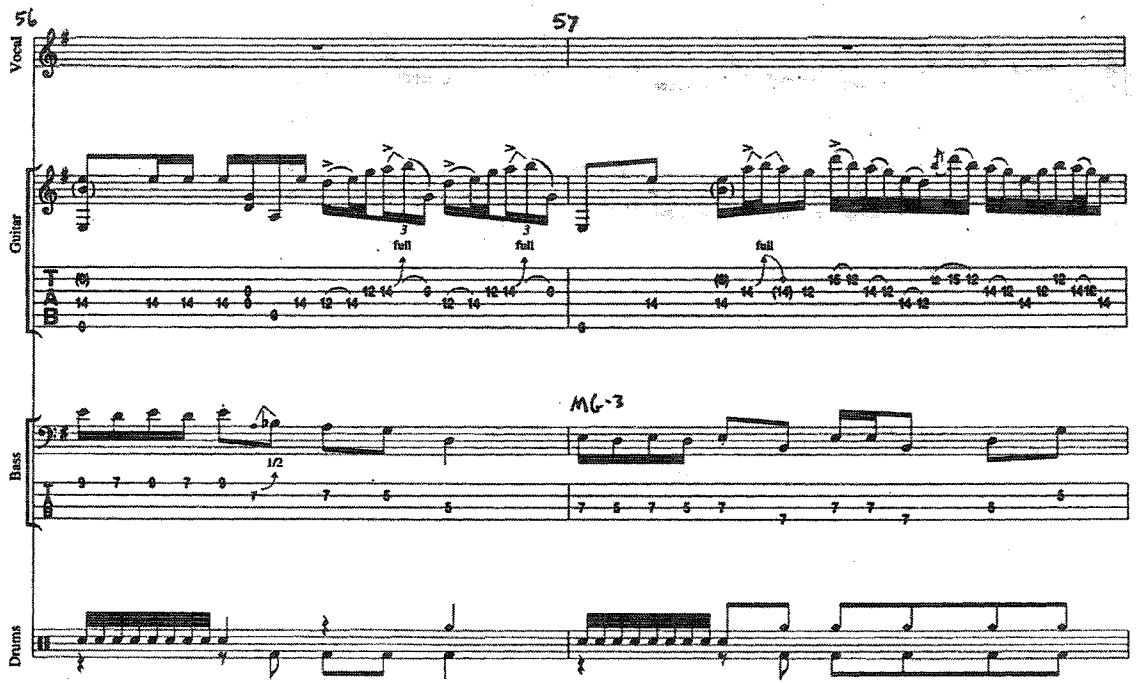

Verse II Blues "arioso"
45
N.C.
46
Vocal
Guitar
Bass
Drums
2. Well, I pick up my axe an' fight like a farm-er, you know what I mean?
spoken
Weh, hey, an' your
raise
T
1/2
full
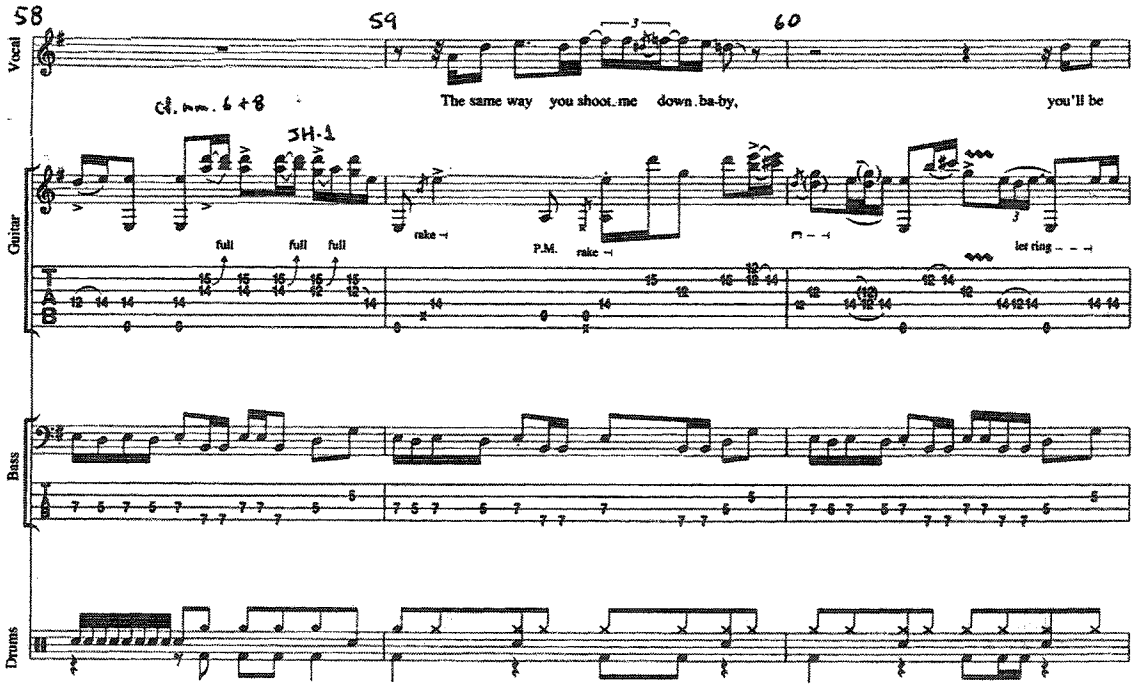

47
48
Vocal
bul - lets keep knock - in' me down.
Guitar
rake
full
full
MG-1
Bass
1/2
Drums
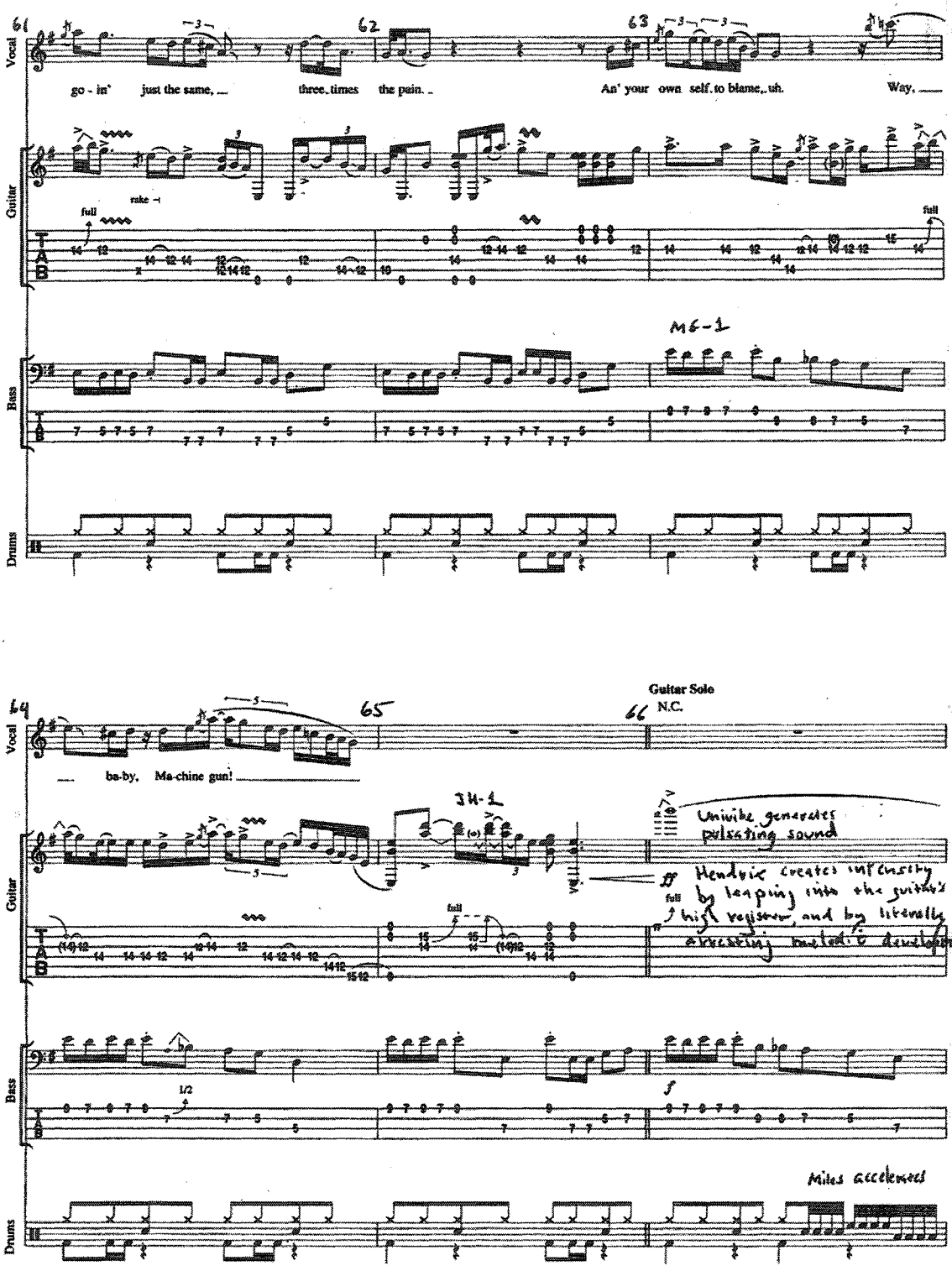

49
50
Vocal
Guitar
full
full
full
let ring
AG-3
Bass
Drums
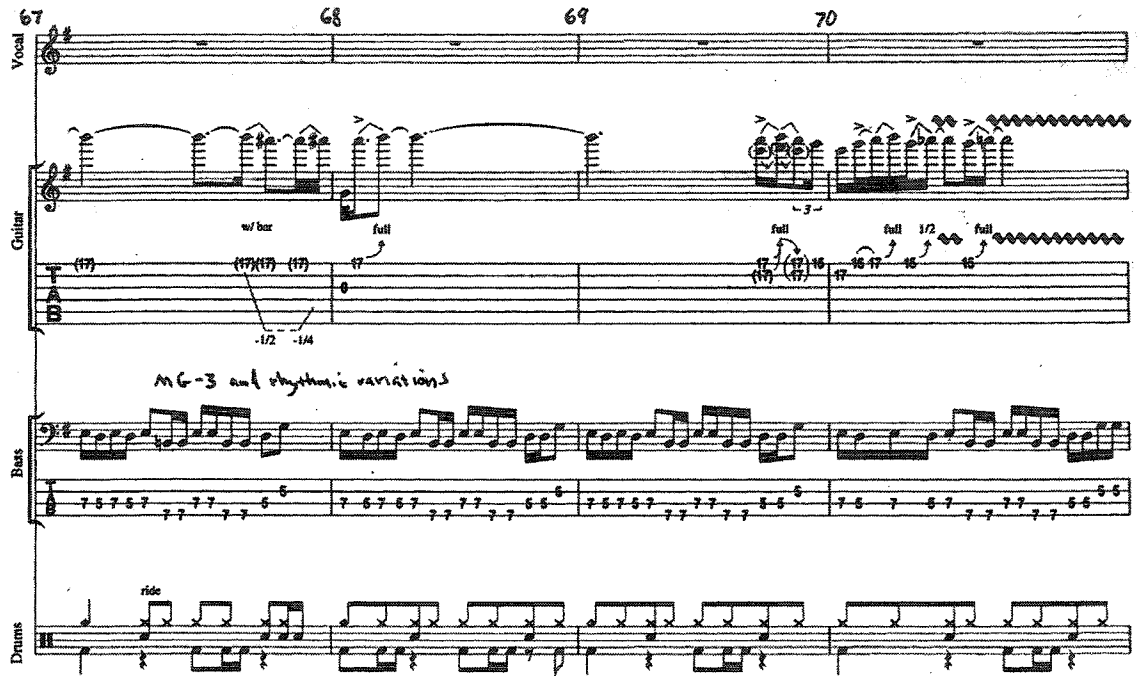

51
52
53
Vocal
Hey, I pick up my axe an' fight like a farm-er, now,.. yeah, but you still blast me down to the ground.
Guitar
Bass
Drums
MG-1
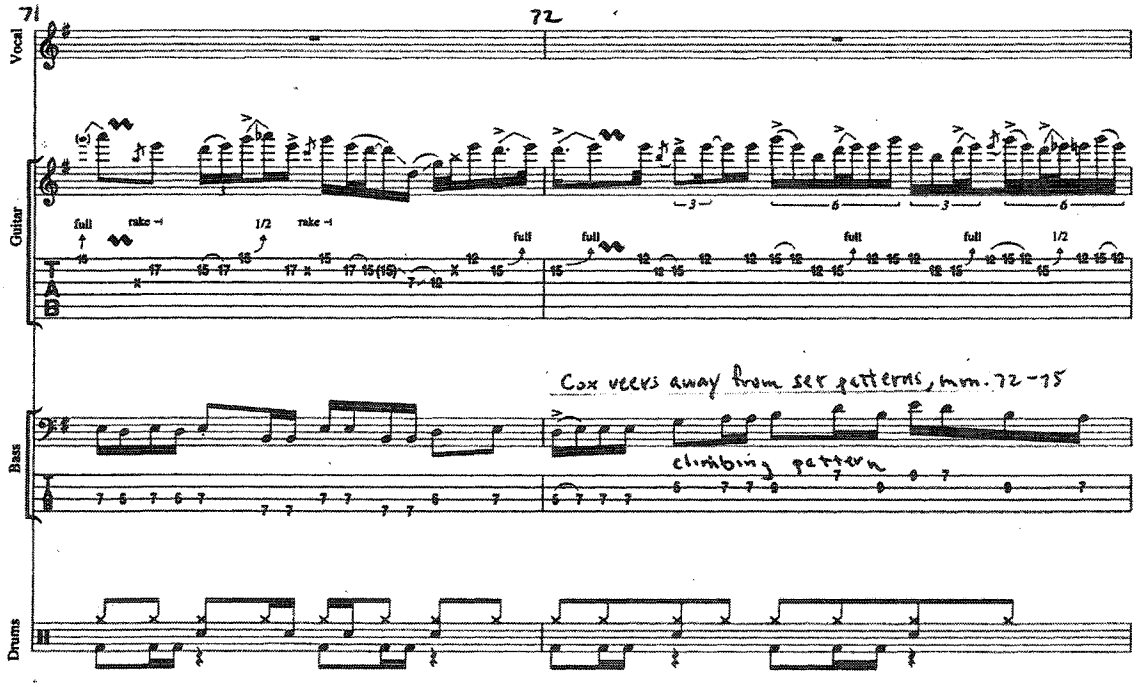

54
55
Vocal
"Blast" of JH-1 — triggers six measures of guitar improvisation
minor percussion
Guitar
Bass
Drums
snare blast

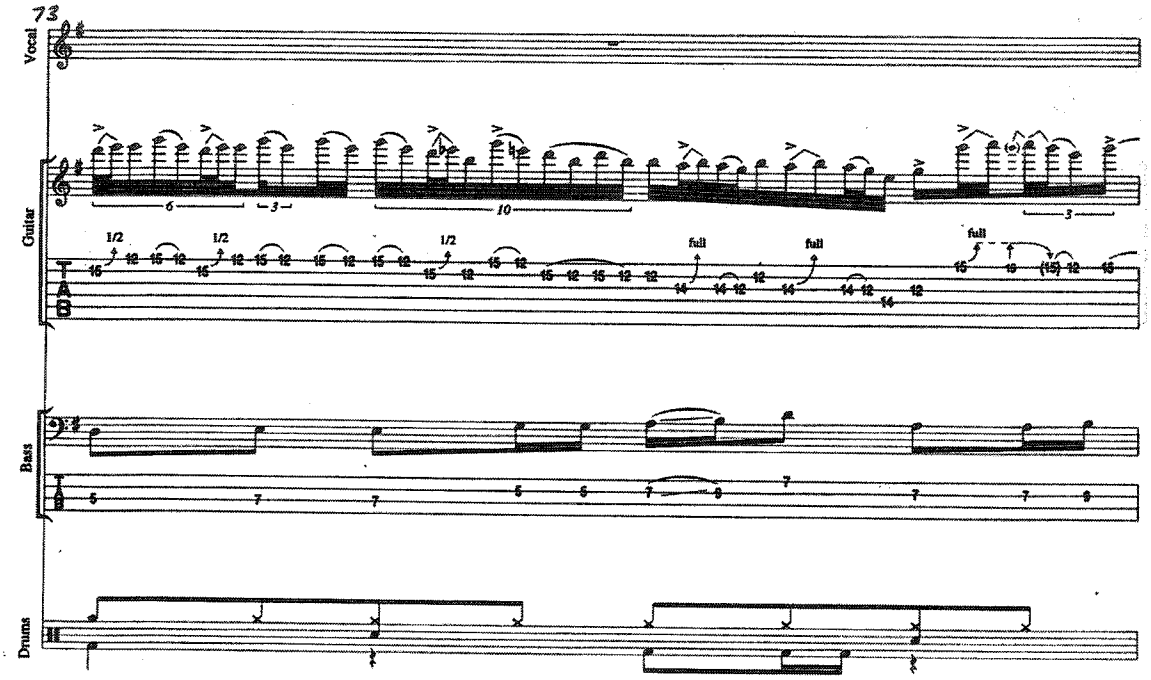

56
57
Vocal
Guitar
full
full
full
Bass
1/2
M6-3
Drums

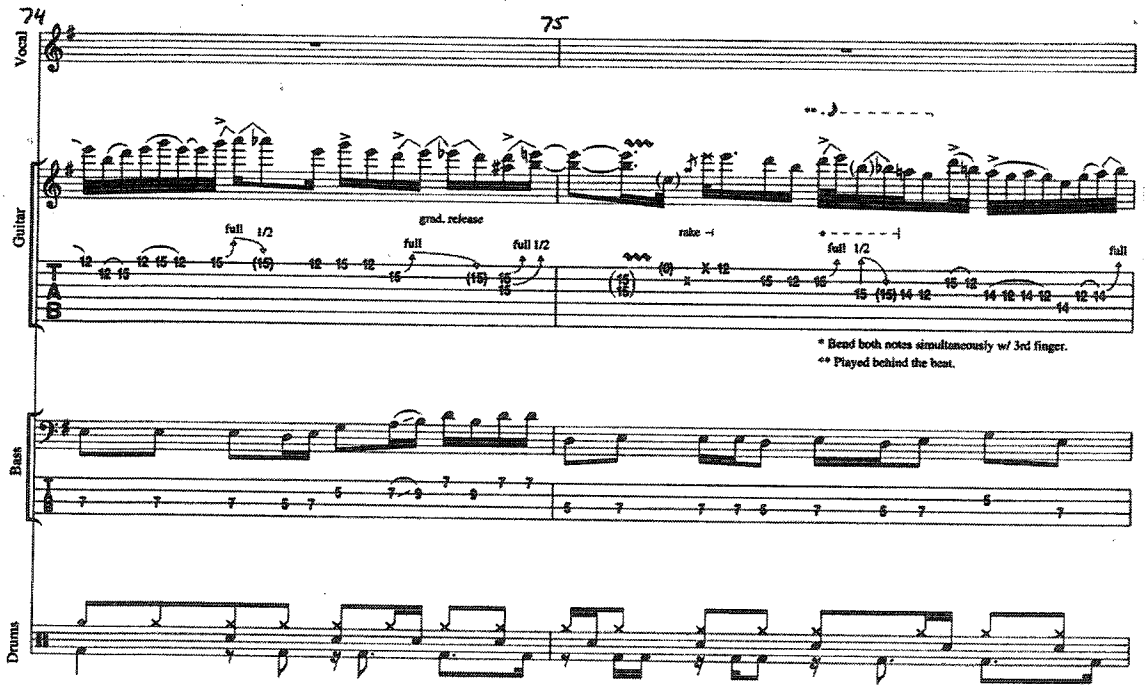

58
59
60
Vocal
The same way you shoot me down ba-by,
you'll be
Cf. mm. 6+8
SH-1
Guitar
full
full
full
rake
P.M.
rake
let ring
Bass
Drums

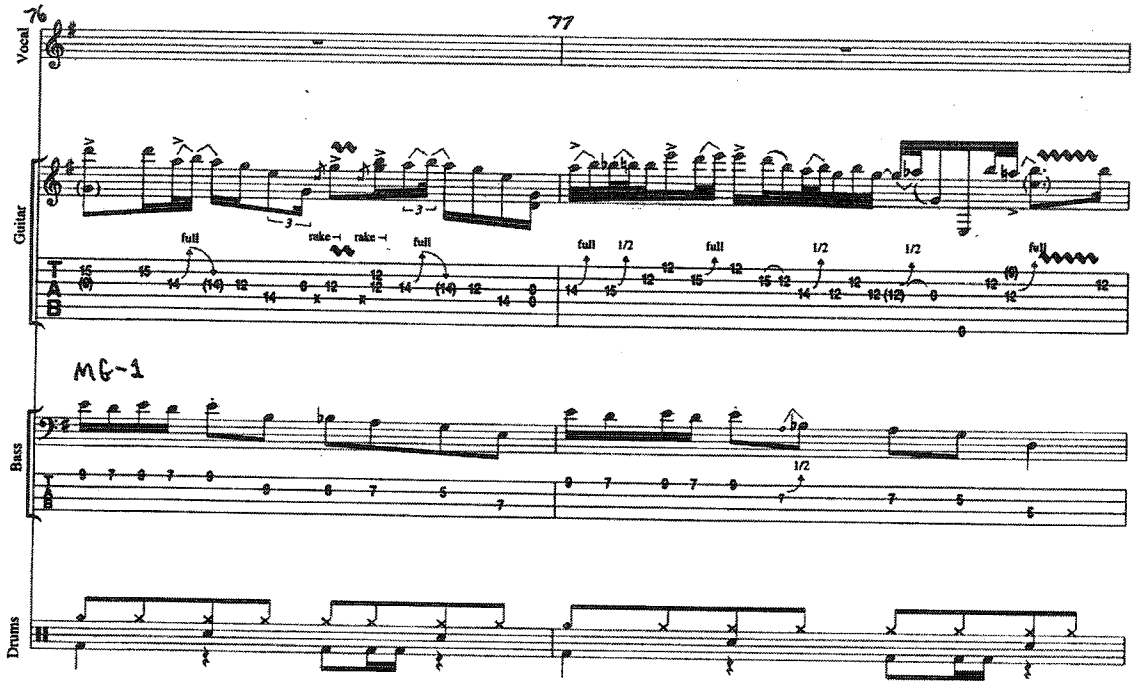

61
62
63
Vocal
go - in' just the same, three. times the pain. An' your own self to blame, uh. Way.
Guitar
rake
full
full
M6-1
Bass
Drums
64
65
66
Guitar Solo
N.C.
ba-by, Ma-chine gun!
JH-1
Unique generates pulsating sound
Hendrix creates intensity by leaping into the guitar's high register, and by literally smearing melodic development
full
1/2
Miles accelerates

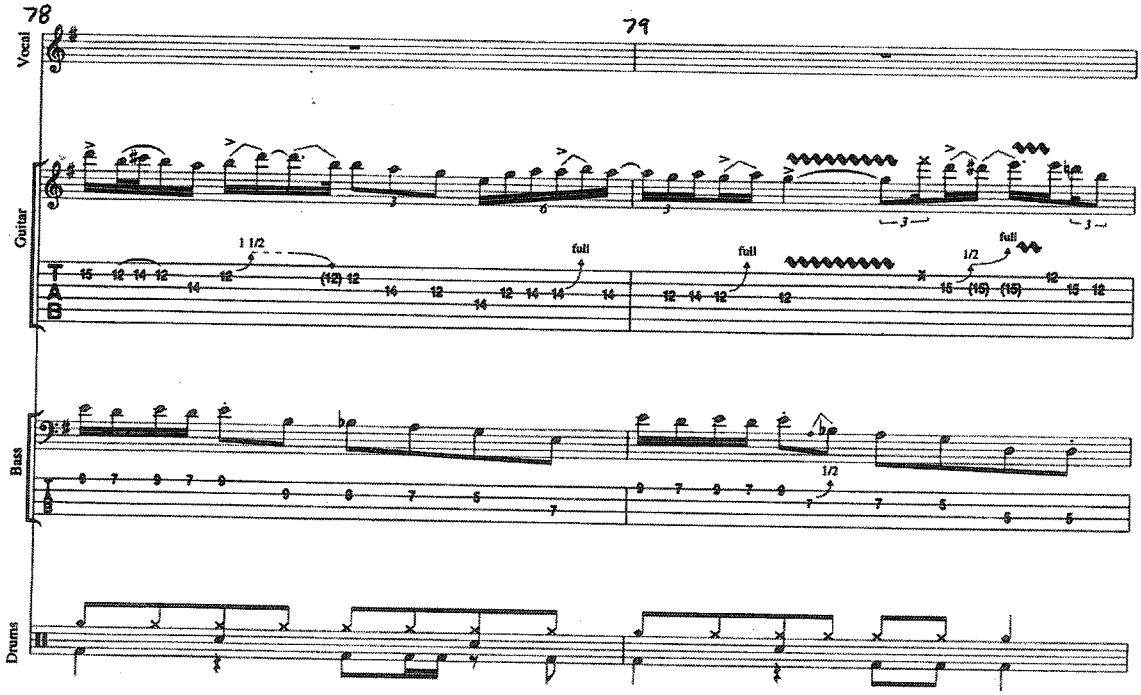

67
68
69
70
Vocal
Guitar
Bass
Drums
w/ bar
full
MG-3 and rhythmic variations
ride

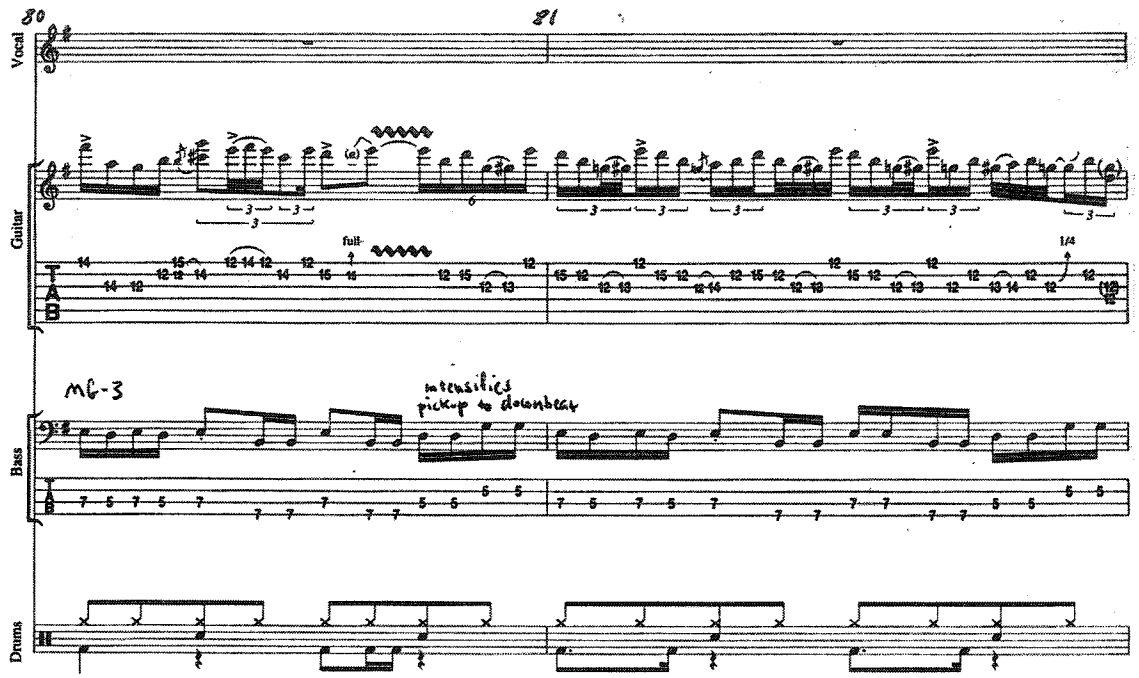

71
72
Vocal
Guitar
Bass
Drums
full
rake
1/2
Cox veers away from set patterns, mm. 72-75
climbing pattern

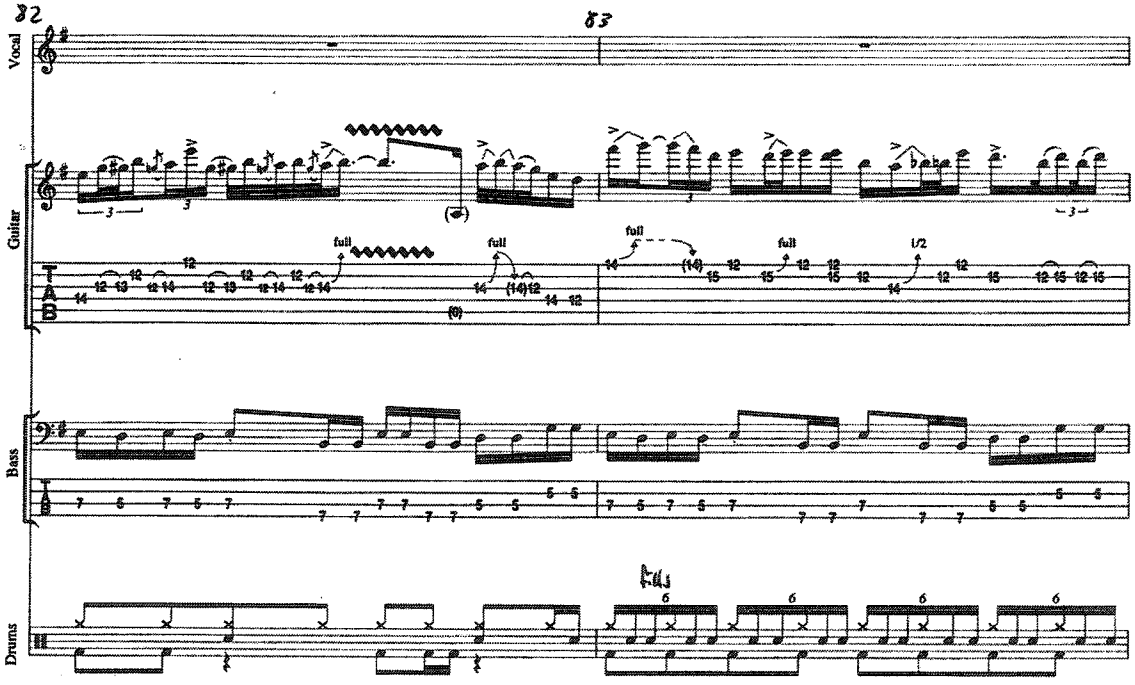

73
Vocal
Guitar
Bass
Drums
1/2
full
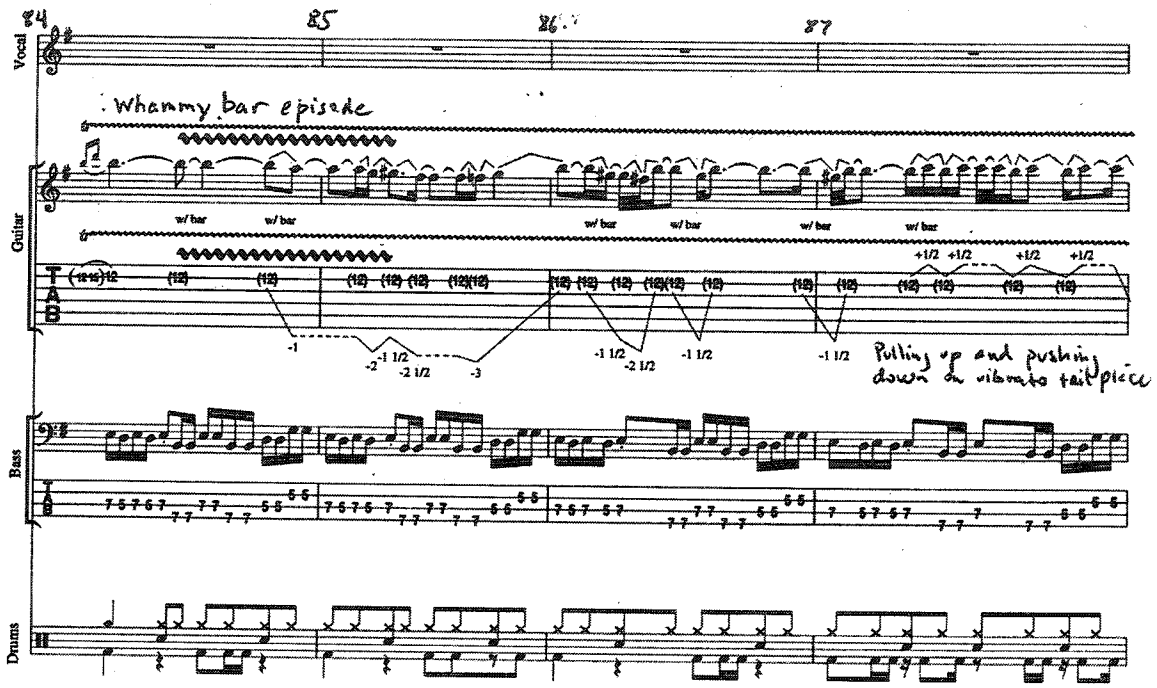

74
75
Vocal
Guitar
Bass
Drums
grad. release
rake
full
full 1/2
* Bend both notes simultaneously w/ 3rd finger.
** Played behind the beat.
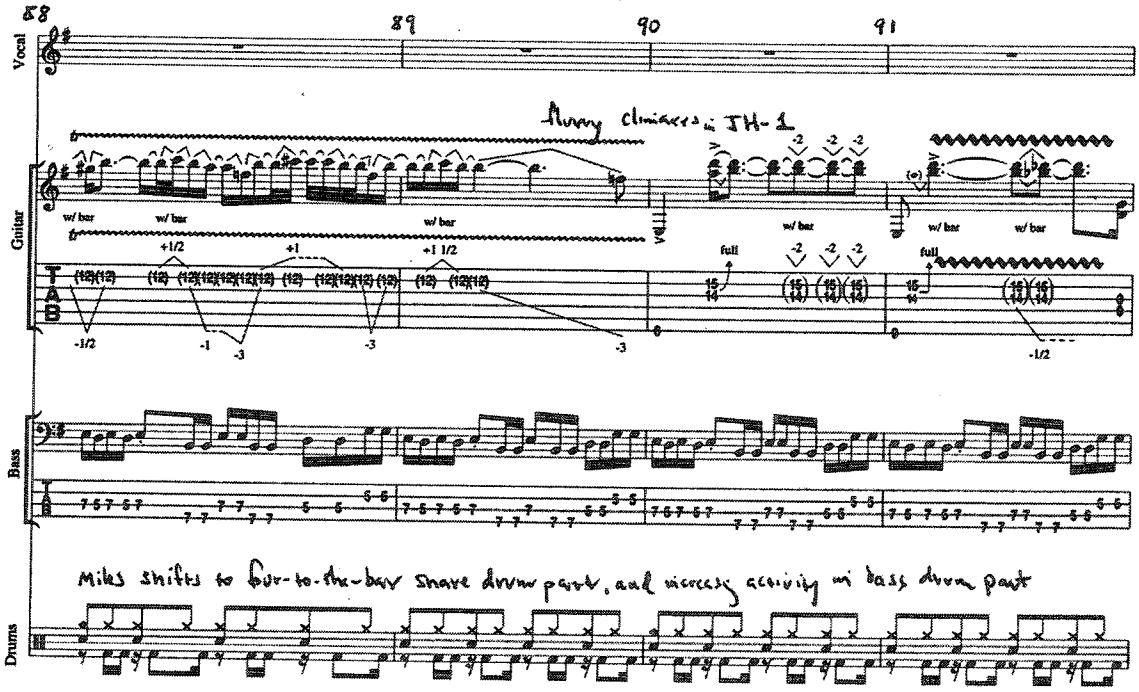

76
77
Vocal
Guitar
Bass
Drums
MG-1
full
rake
1/2

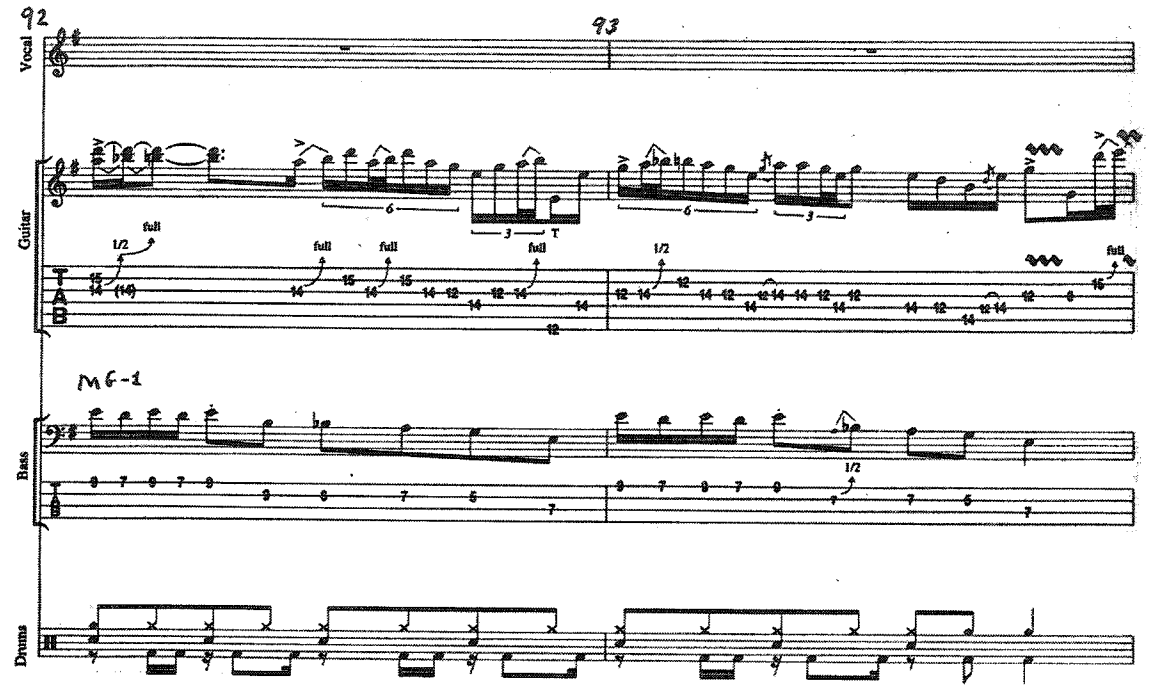

78
79
Vocal
Guitar
Bass
Drums
1 1/2
full
1/2

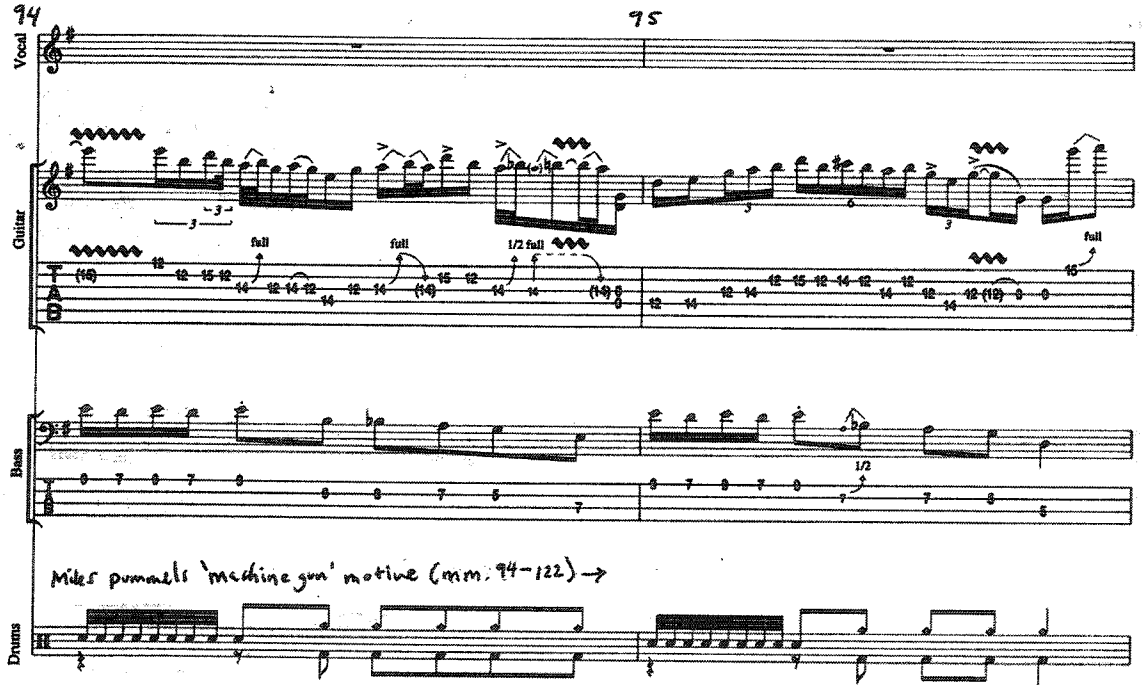

80
81
Vocal
Guitar
Bass
Drums
full
1/4
MG-3
intensifies
pickup to downbeat
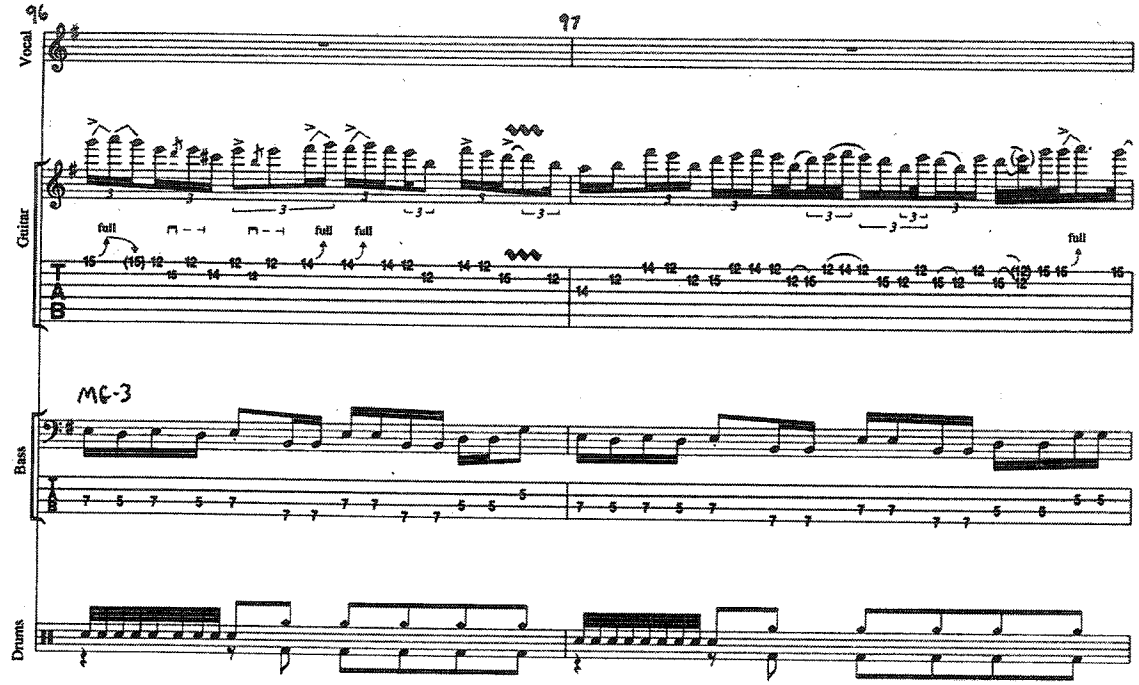

82
83
Vocal
Guitar
Bass
Drums
full
full
full
full
1/2
fills

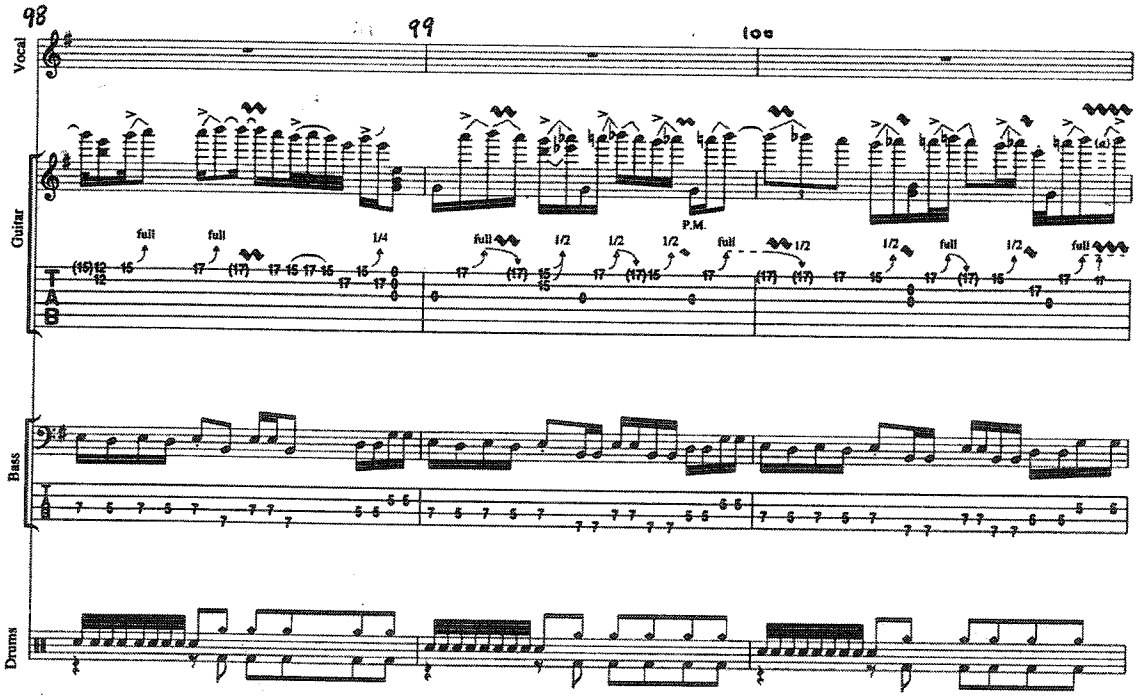

84
85
86
87
Vocal
Whammy bar episode
Guitar
w/ bar
Pulling up and pushing down on vibrato tailpiece
Bass
Drums

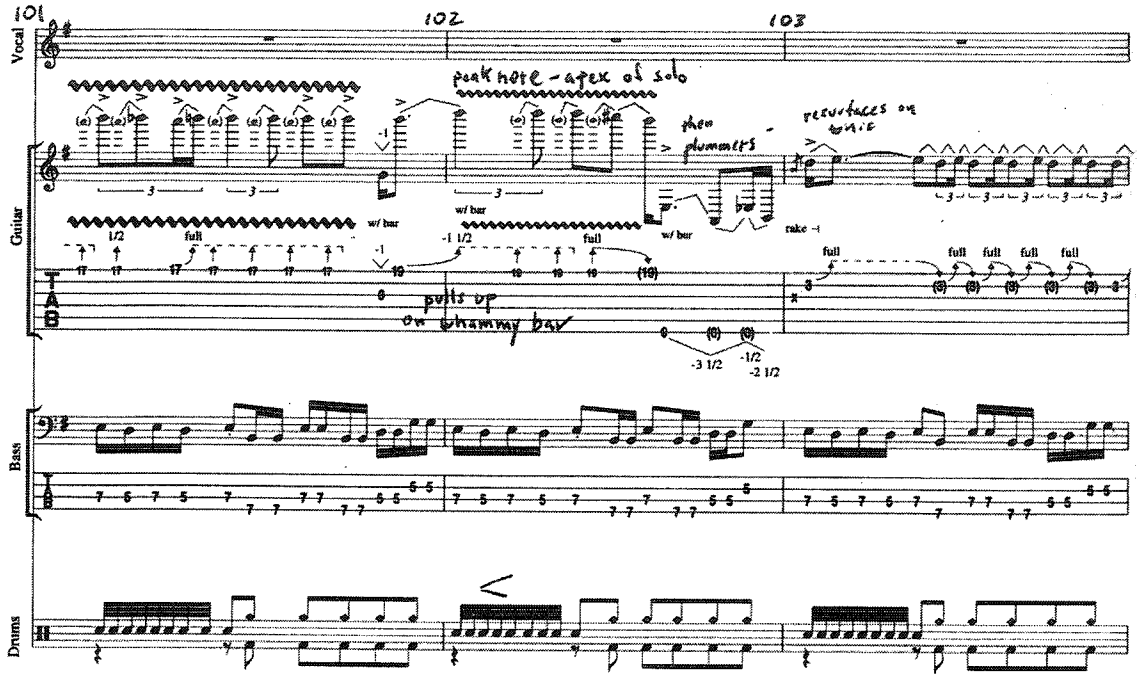

88
89
90
91
Vocal
Guitar
w/ bar
full
Bass
Mike shifts to four-to-the-bar snare drum part, and increases activity in bass drum part
Drums

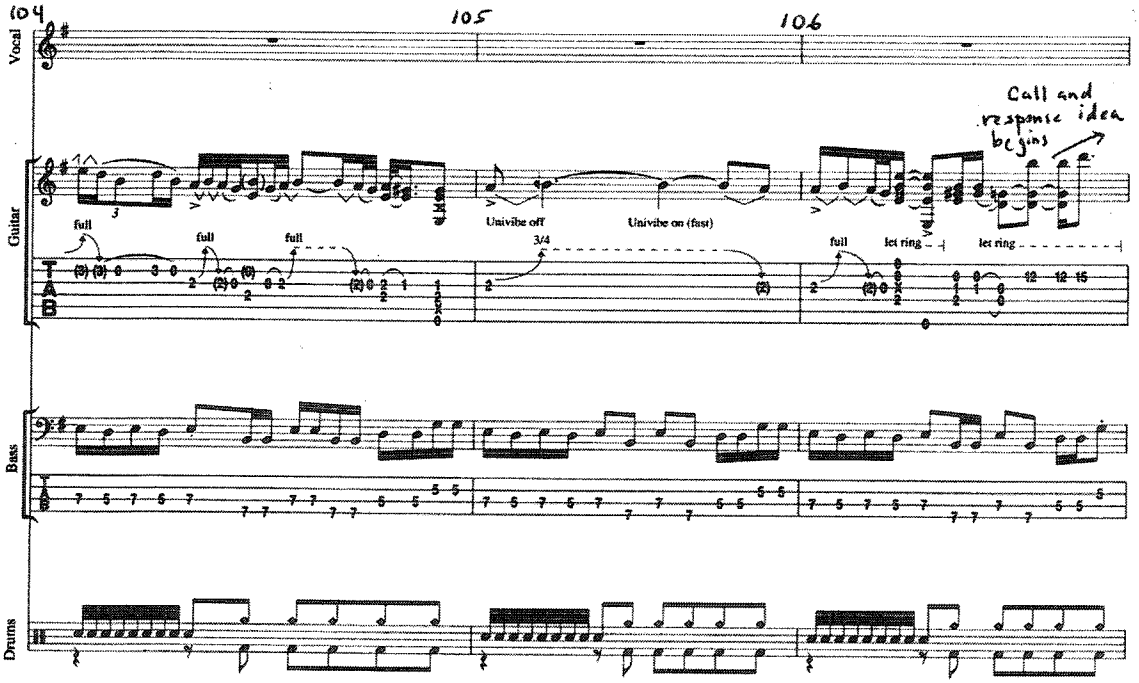

92
93
Vocal
Guitar
Bass
Drums
MG-1

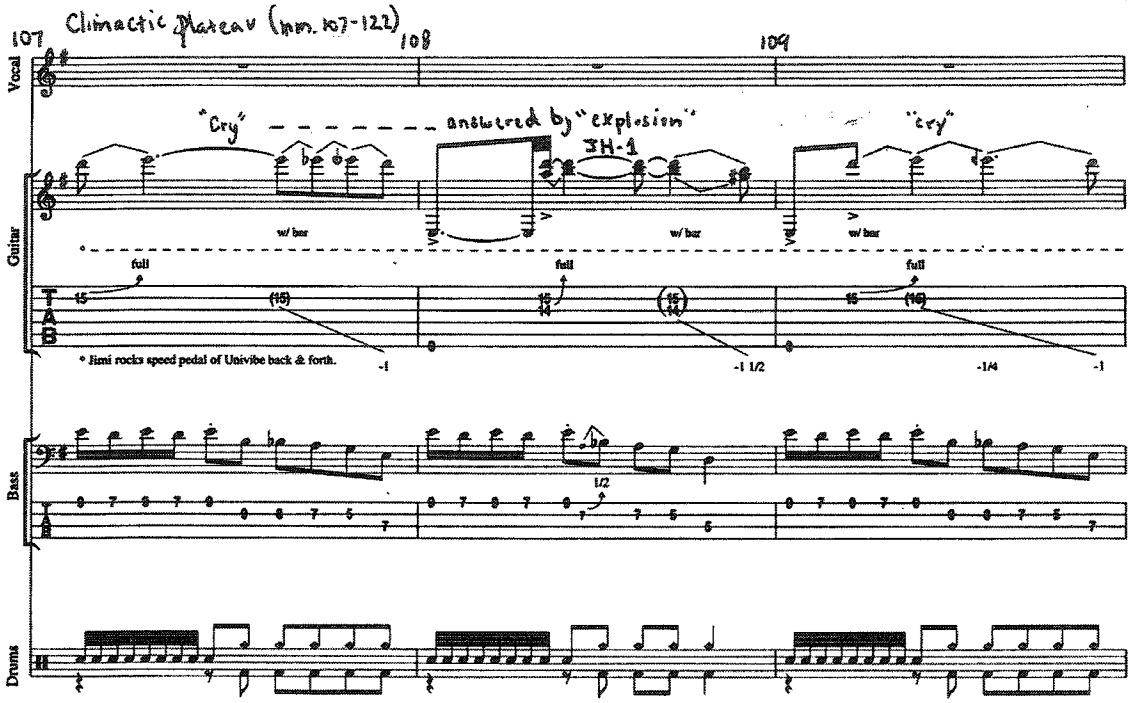

94
95
Vocal
Guitar
Bass
Drums
Mikes pumatis 'machine gun' motive (mm. 94-122) →

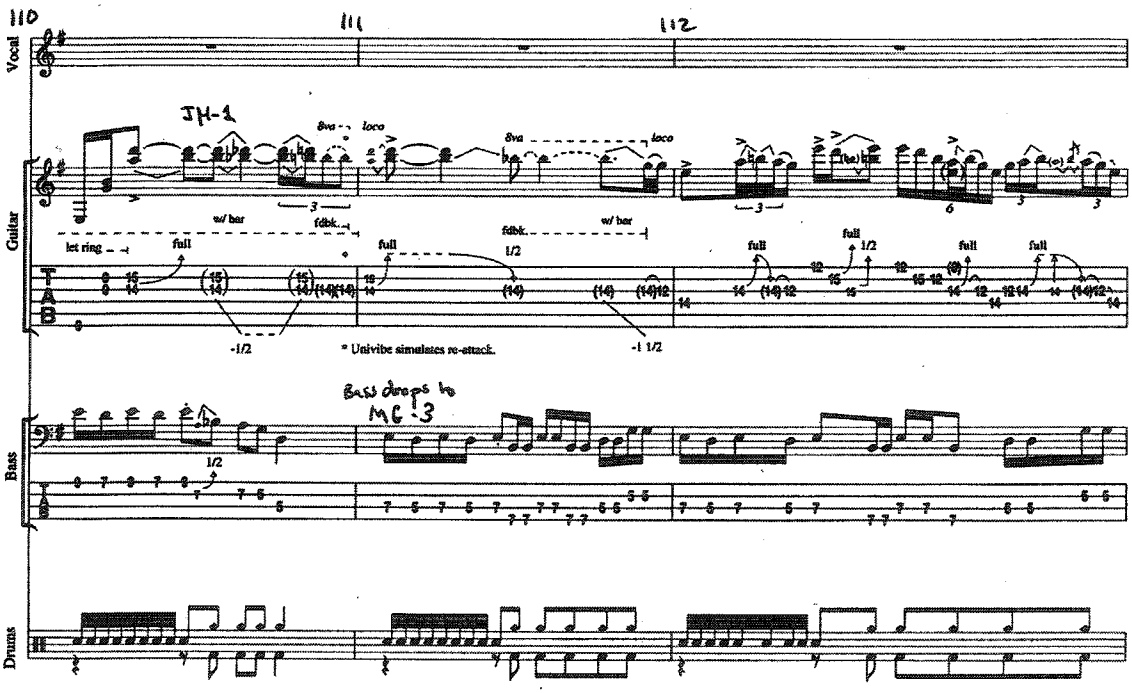

96
97
Vocal
Guitar
full
full
full
full
T
A
B
MG-3
Bass
Drums
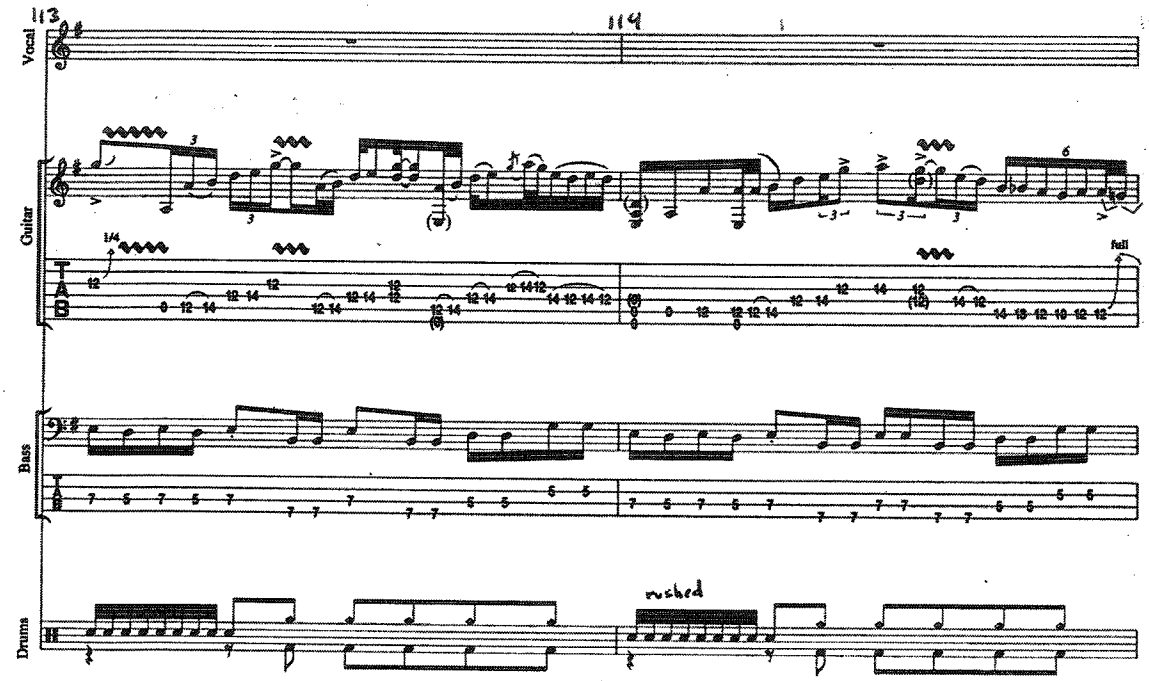

98
99
100
Vocal
Guitar
full
full
1/4
full
1/2
1/2
1/2
P.M.
full
1/2
1/2
full
1/2
full
T
A
B
Bass
Drums
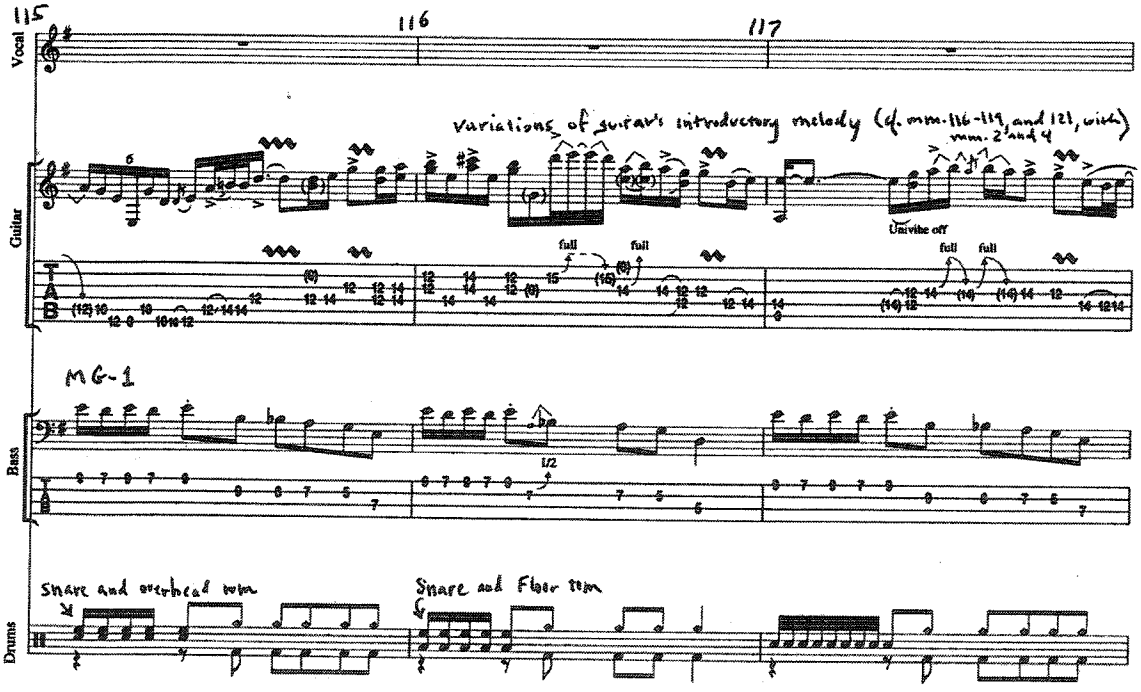

101
102
103
Vocal
Guitar
Bass
Drums
peak note - apex of solo
then plummets
recurfaces one more time
w/ bar
full
1/2
-1 1/2
rake
pulls up on whammy bar
-3 1/2
-1/2
-2 1/2

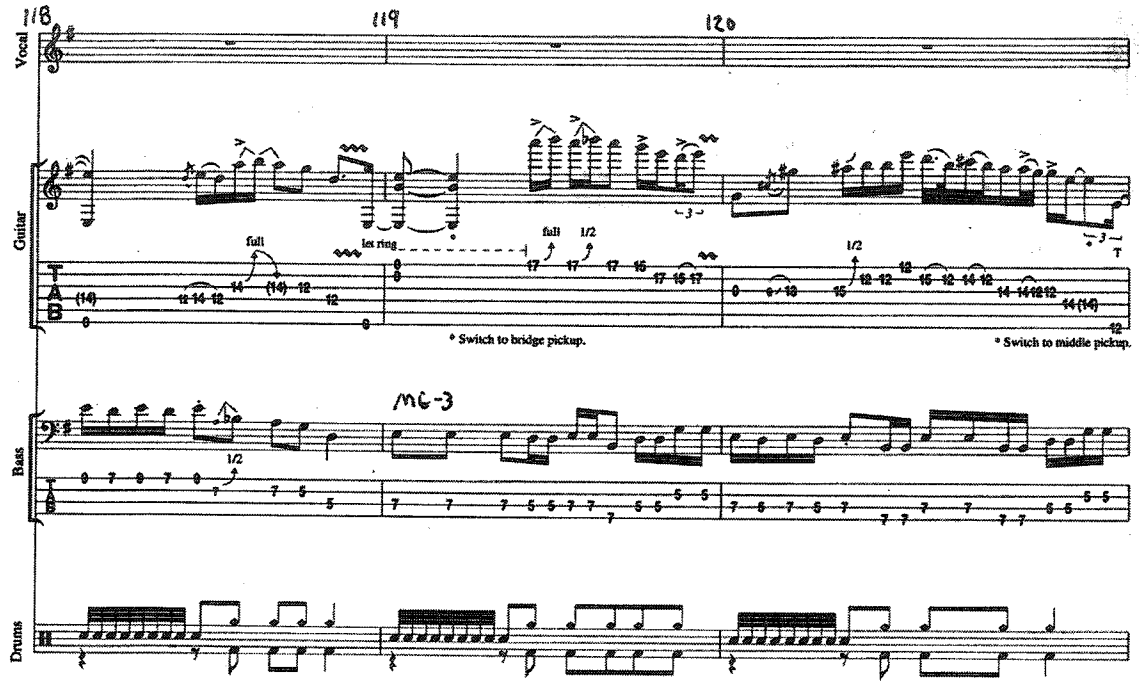

104
105
106
Vocal
Guitar
Bass
Drums
Call and response idea begins
full
Univibe off
Univibe on (fast)
3/4
let ring
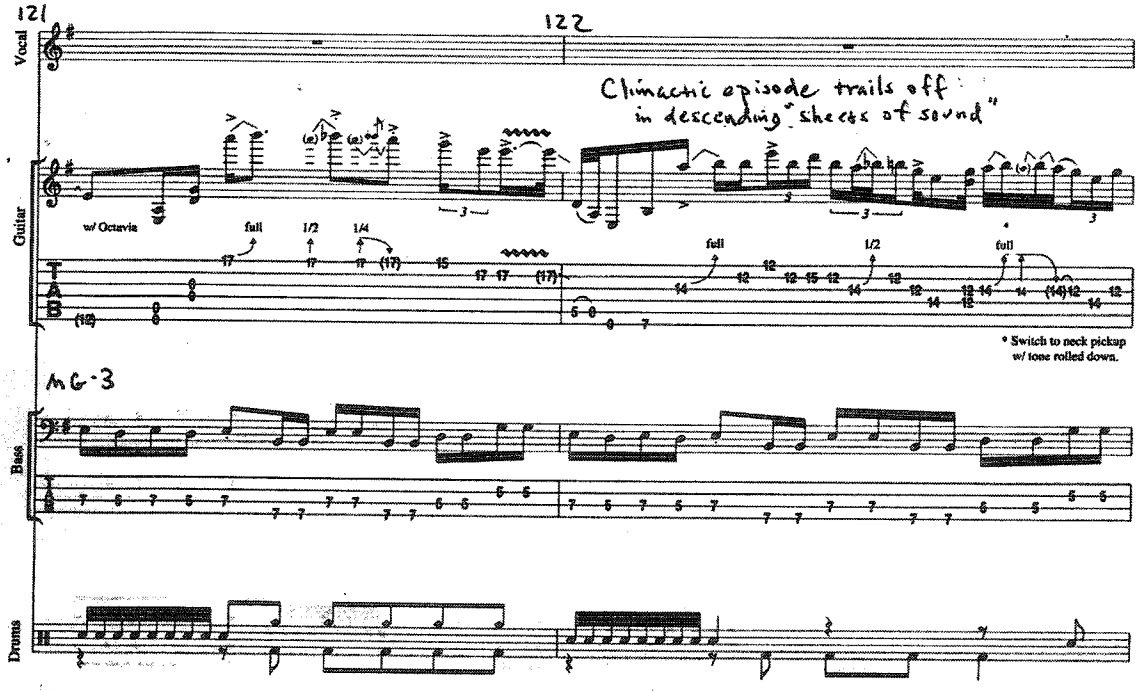

Climactic Plateau (mm. 107-122)
107
108
109
Vocal
"Cry" answered by "explosion"
"cry"
JH-1
Guitar
w/ bar
full
* Jimi rocks speed pedal of Univibe back & forth.
-1
-1 1/2
-1/4
Bass
1/2
Drums

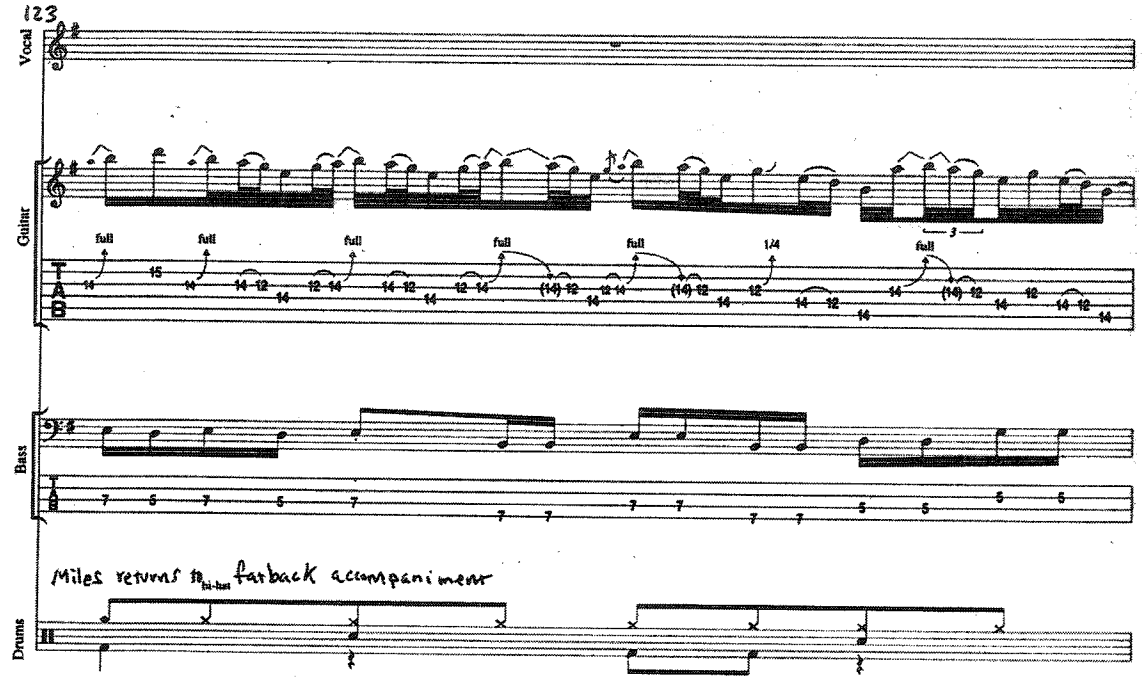

110
111
112
Vocal
JH-1
8va
loco
Guitar
w/ bar
fdbk.
let ring
full
1/2
-1/2
* Univibe simulates re-attack.
-1 1/2
Bass drops to MG 3
Bass
Drums

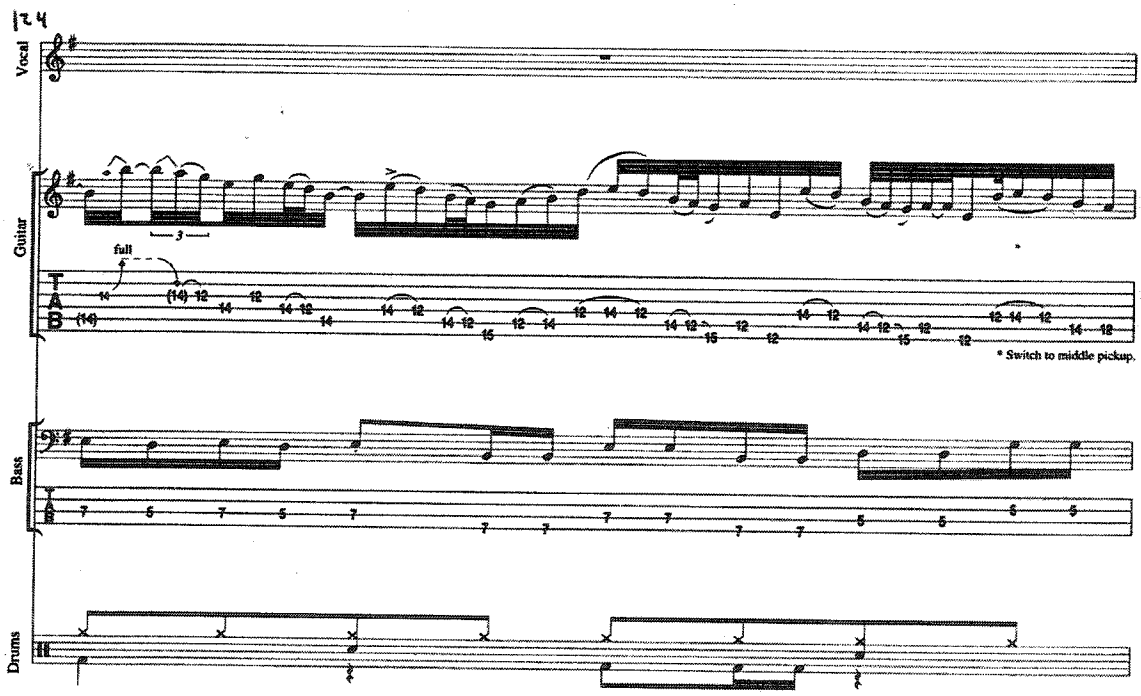

113
114
Vocal
Guitar
Bass
Drums
full
mshed

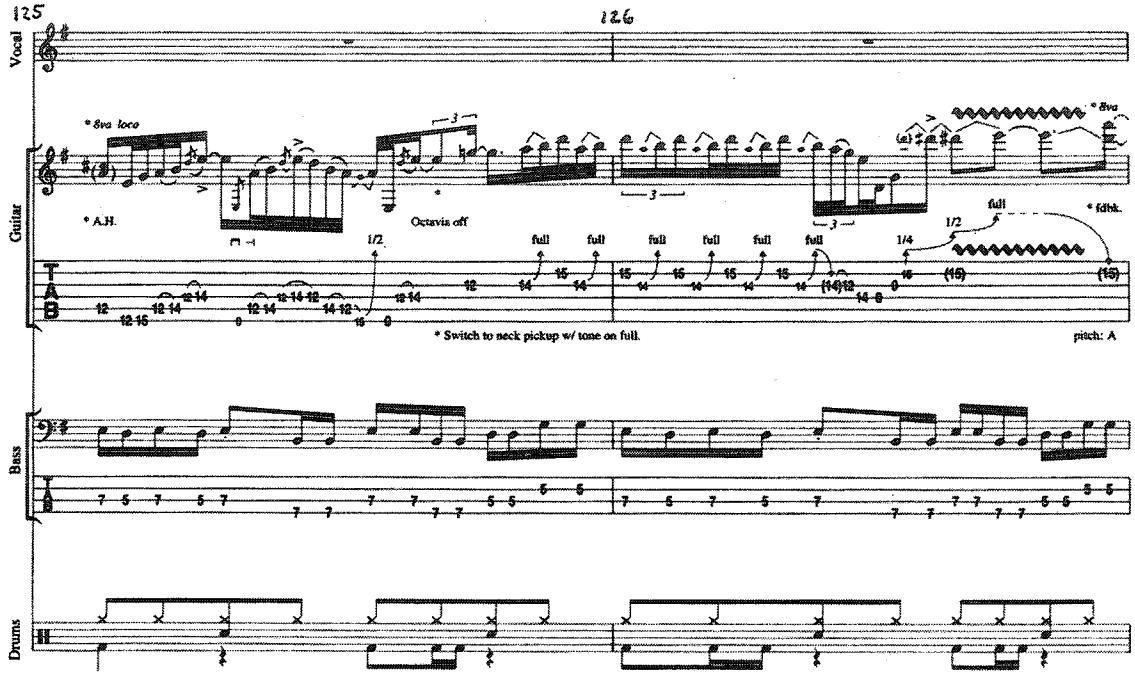

115
116
117
Vocal
Guitar
Bass
Drums
variations of guitar's introductory melody (cf. mm. 116-119, and 121, with mm. 2 and 4)
Univibe off
full
MG-1
Snare and overhead rim
Snare and Floor rim

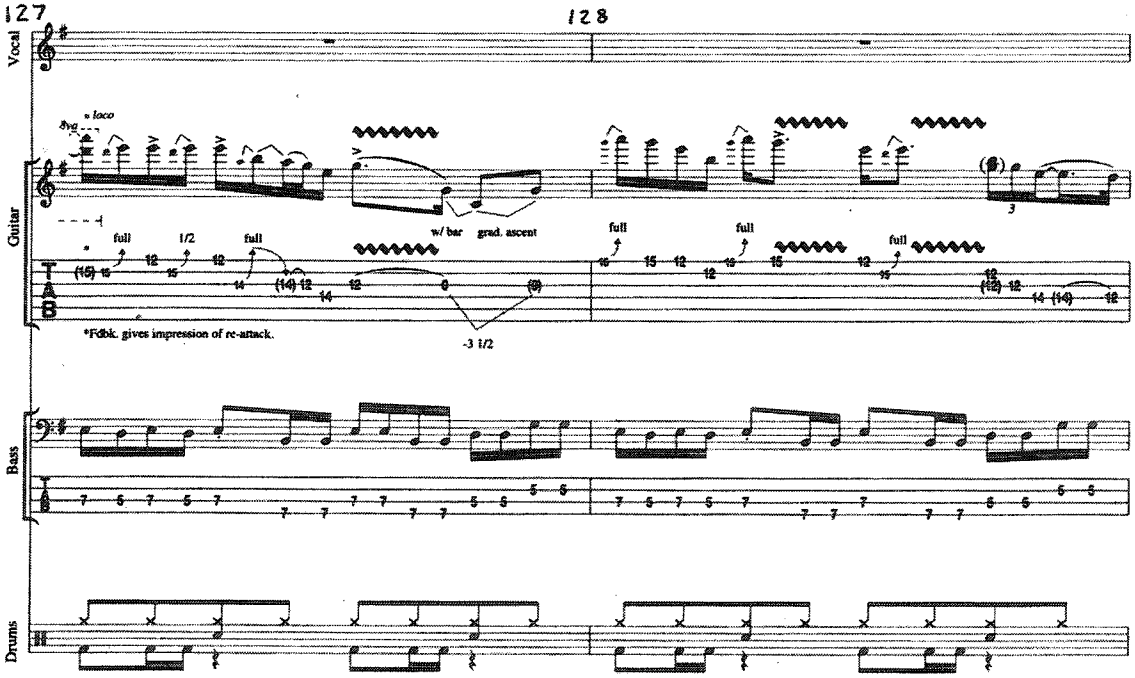

118
119
120
Vocal
Guitar
Bass
Drums
full
let ring
full
1/2
1/2
* Switch to bridge pickup.
* Switch to middle pickup.
MG-3
1/2

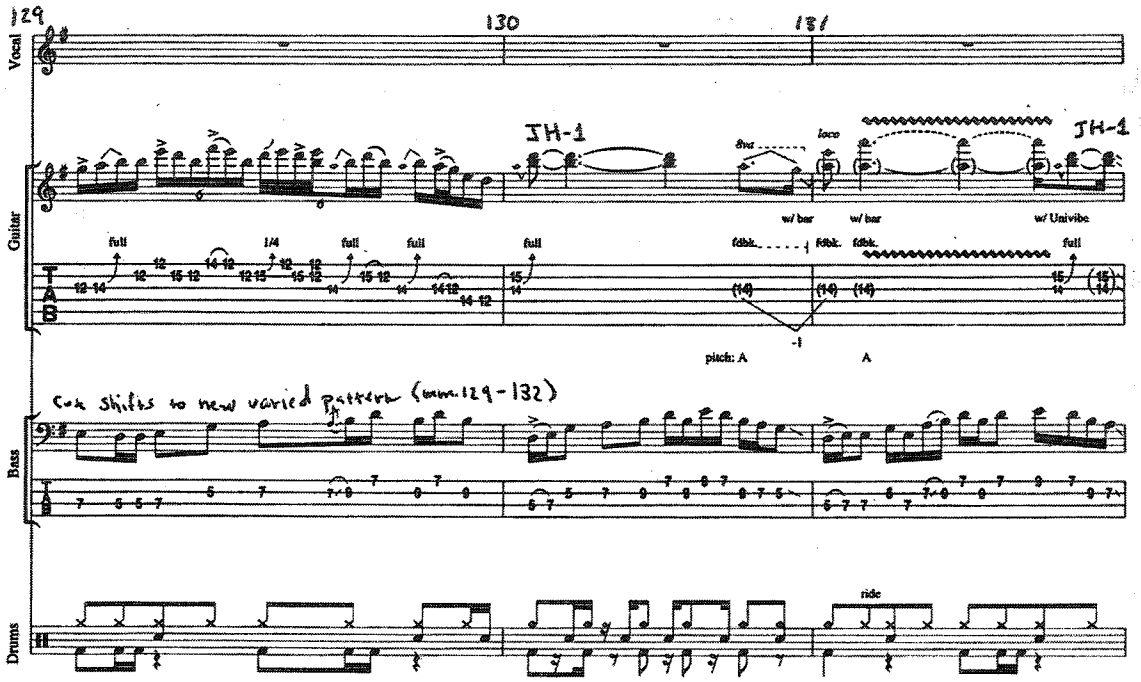

121
122
Vocal
Guitar
Bass
Drums
Climactic episode trails off in descending "sheets of sound"
w/ Octavia
full
1/2
1/4
full
1/2
full
* Switch to neck pickup w/ tone rolled down.
MG-3


123
Vocal
Guitar
Bass
Drums
full
1/4
Miles returns to bi-tus fatback accompaniment

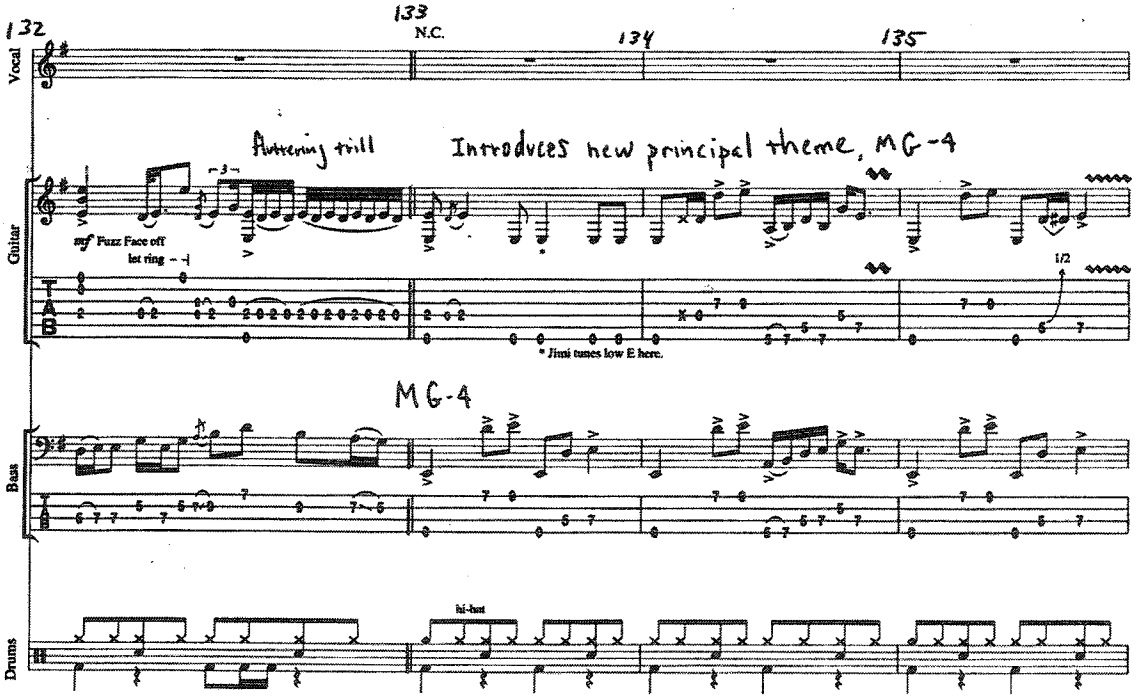

124
Vocal
Guitar
Bass
Drums
full
* Switch to middle pickup.
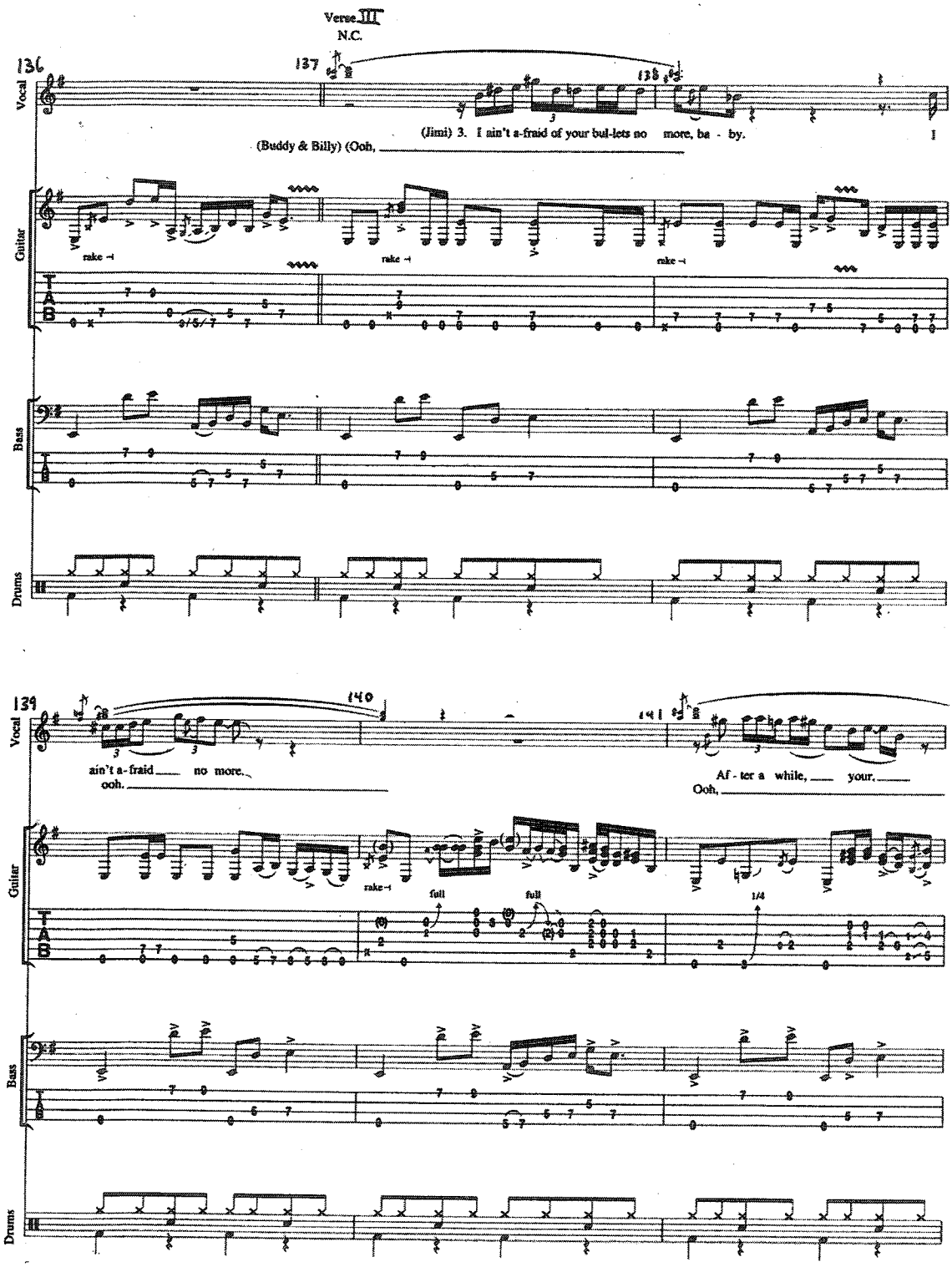

125
126
Vocal
Guitar
Bass
Drums
* 8va loco
* A.H.
Octavia off
* 8va
full
* fdbk.
1/2
1/4
* Switch to neck pickup w/ tone on full.
pitch: A
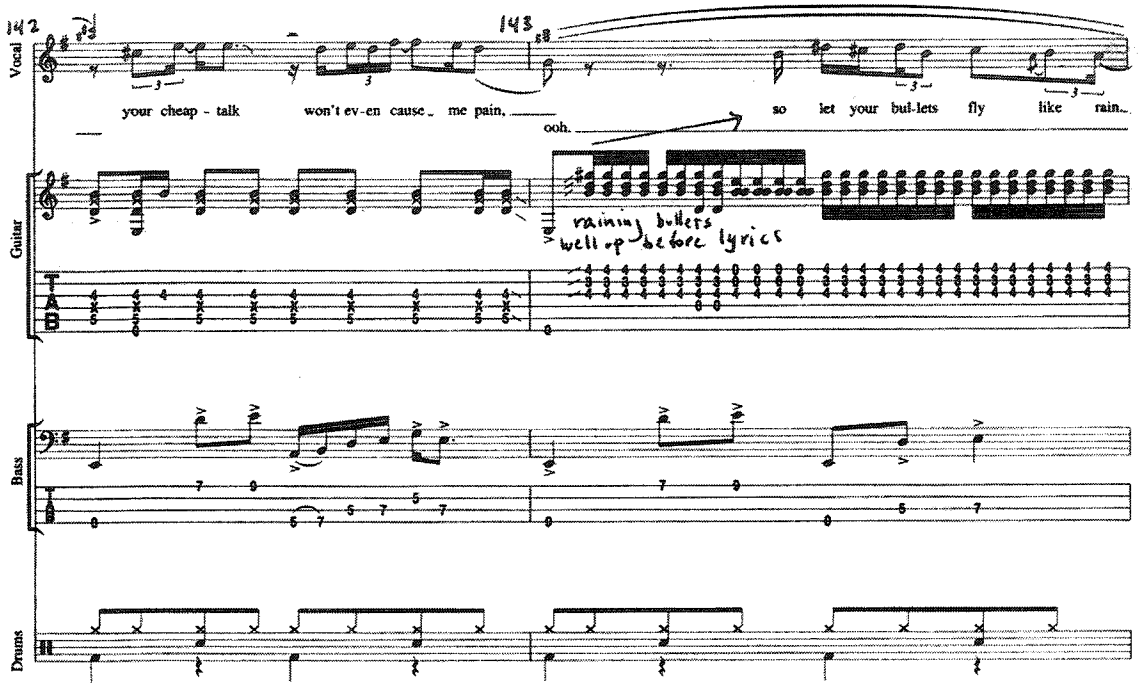

127
128
Vocal
Guitar
Bass
Drums
8va loco
full
1/2
w/ bar
grad. ascent
*Fdbk. gives impression of re-attack.
-3 1/2

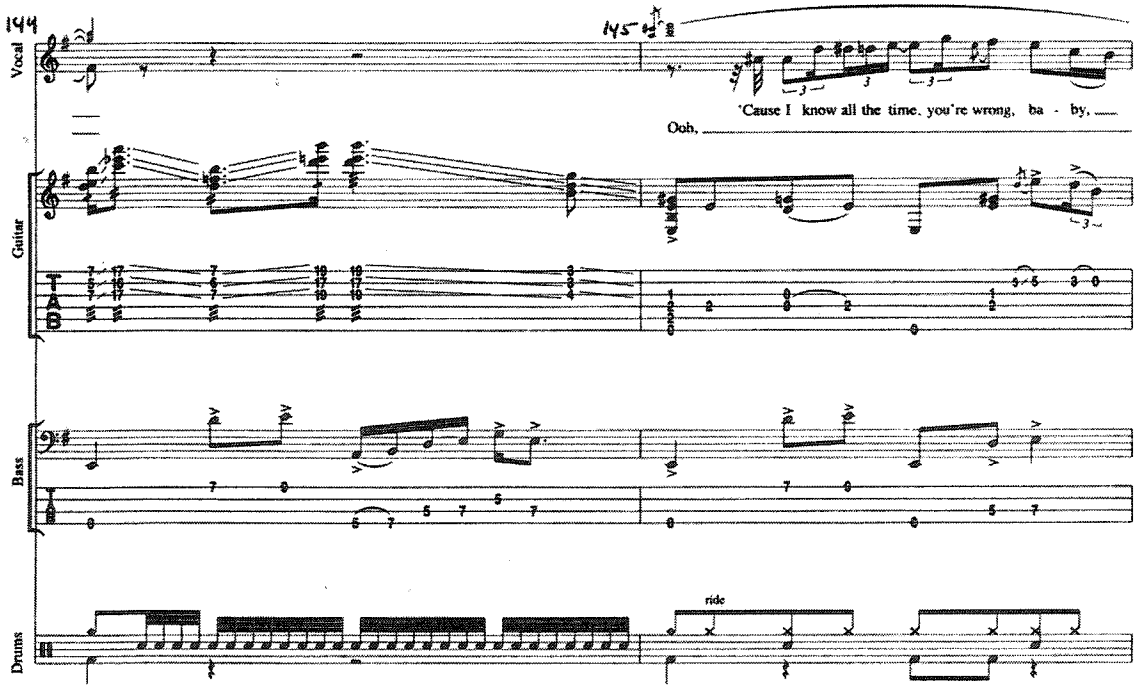

129
130
131
Vocal
Guitar
Bass
Drums
JH-1
JH-1
8va
loco
w/ bar
w/ bar
w/ Univibe
full
1/4
full
full
full
fdbk.
fdbk.
fdbk.
full
pitch: A
A
Cox shifts to new varied pattern (mm. 129-132)
ride
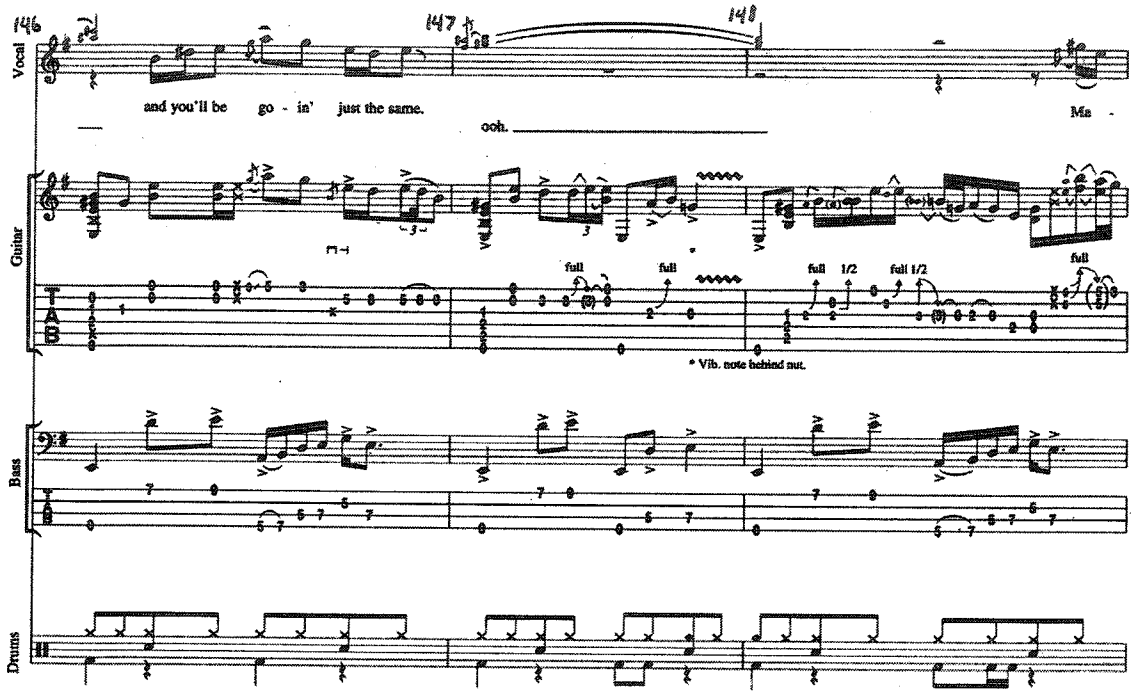
Section II
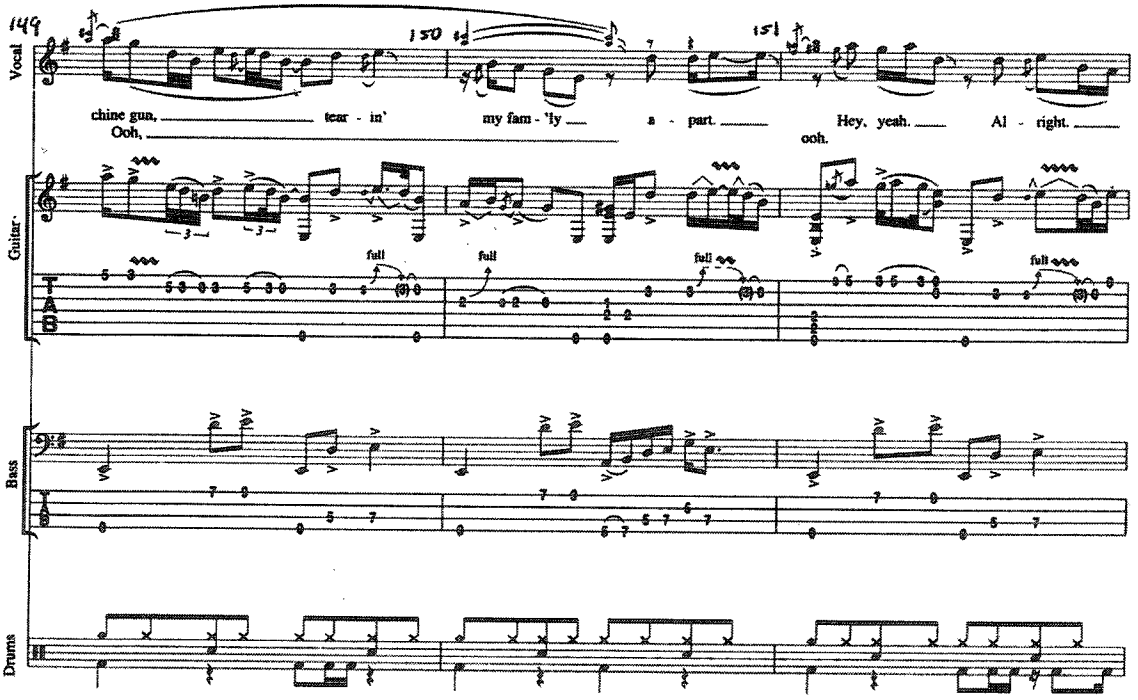

132
133
N.C.
134
135
Vocal
Guitar
Bass
Drums
Fluttering trill
Introduces new principal theme, MG-4
mf Fuzz Face off
let ring
1/2
* Jimi tunes low E here.
MG-4
hi-hat
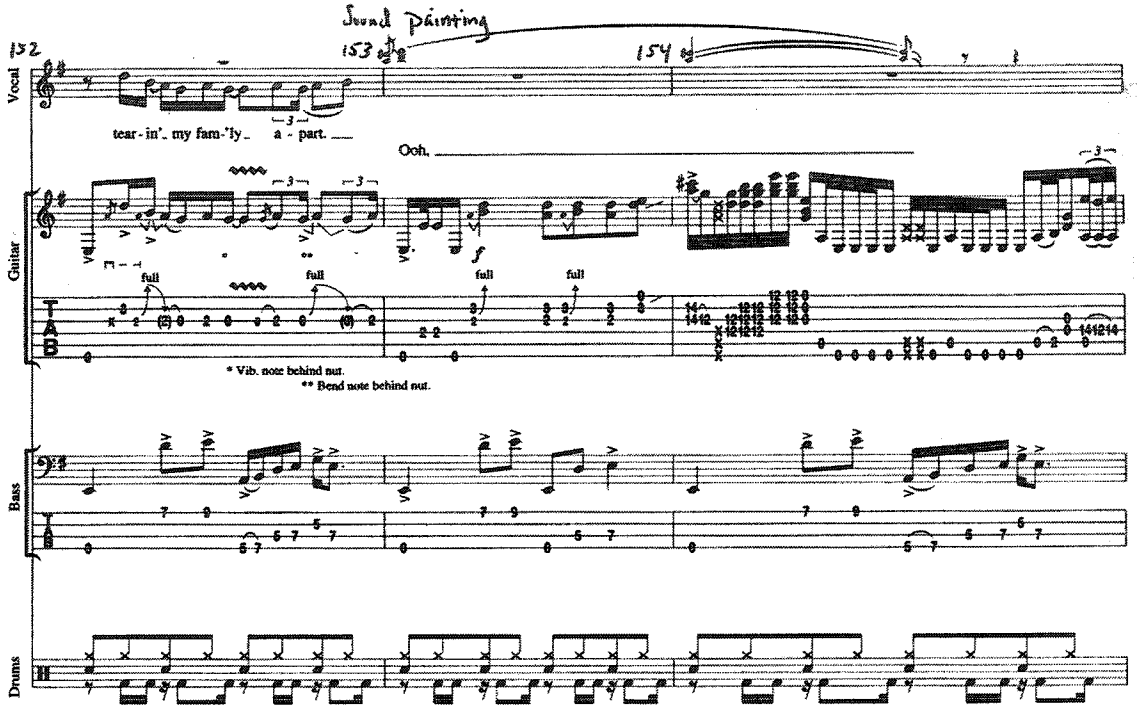

Verse III
N.C.
136
137
138
Vocal
(Jimi) 3. I ain't a-fraid of your bul-lets no more, ba - by.
(Buddy & Billy) (Ooh,
Guitar
rake
Bass
Drums
139
140
141
ain't a-fraid no more.
ooh.
Af - ter a while, your.
Ooh,
full
full
1/4

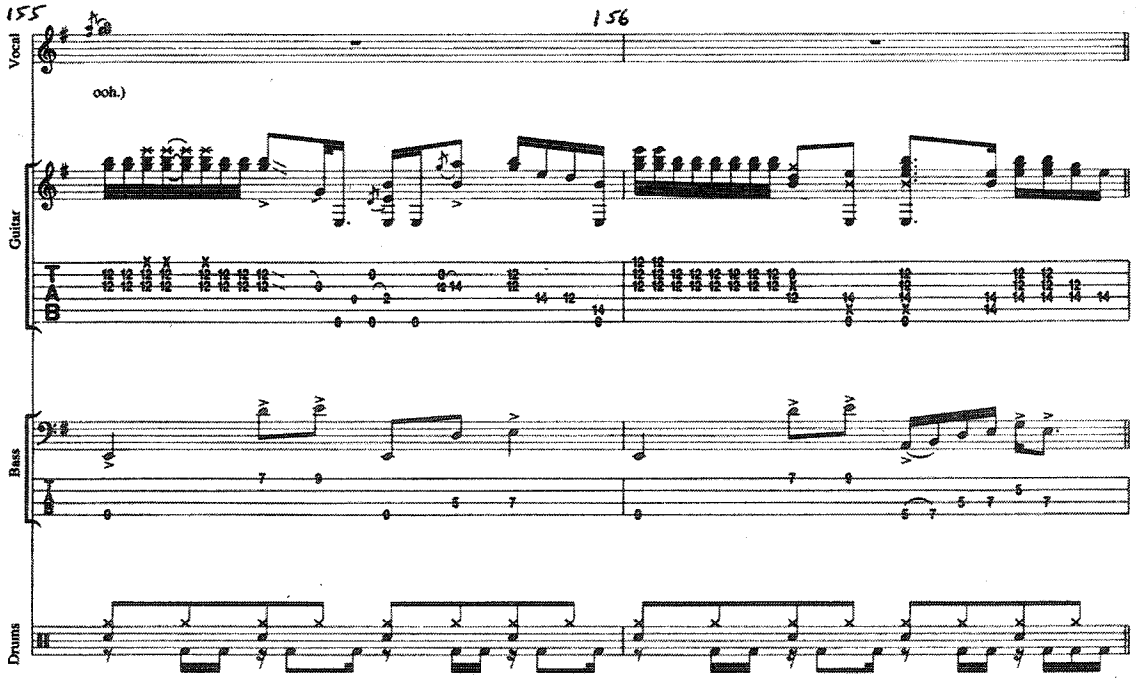

142
143
Vocal
your cheap - talk won't ev-en cause me pain,
ooh.
so let your bul-lets fly like rain.
Guitar
raining bullets
well up before lyrics
Bass
Drums
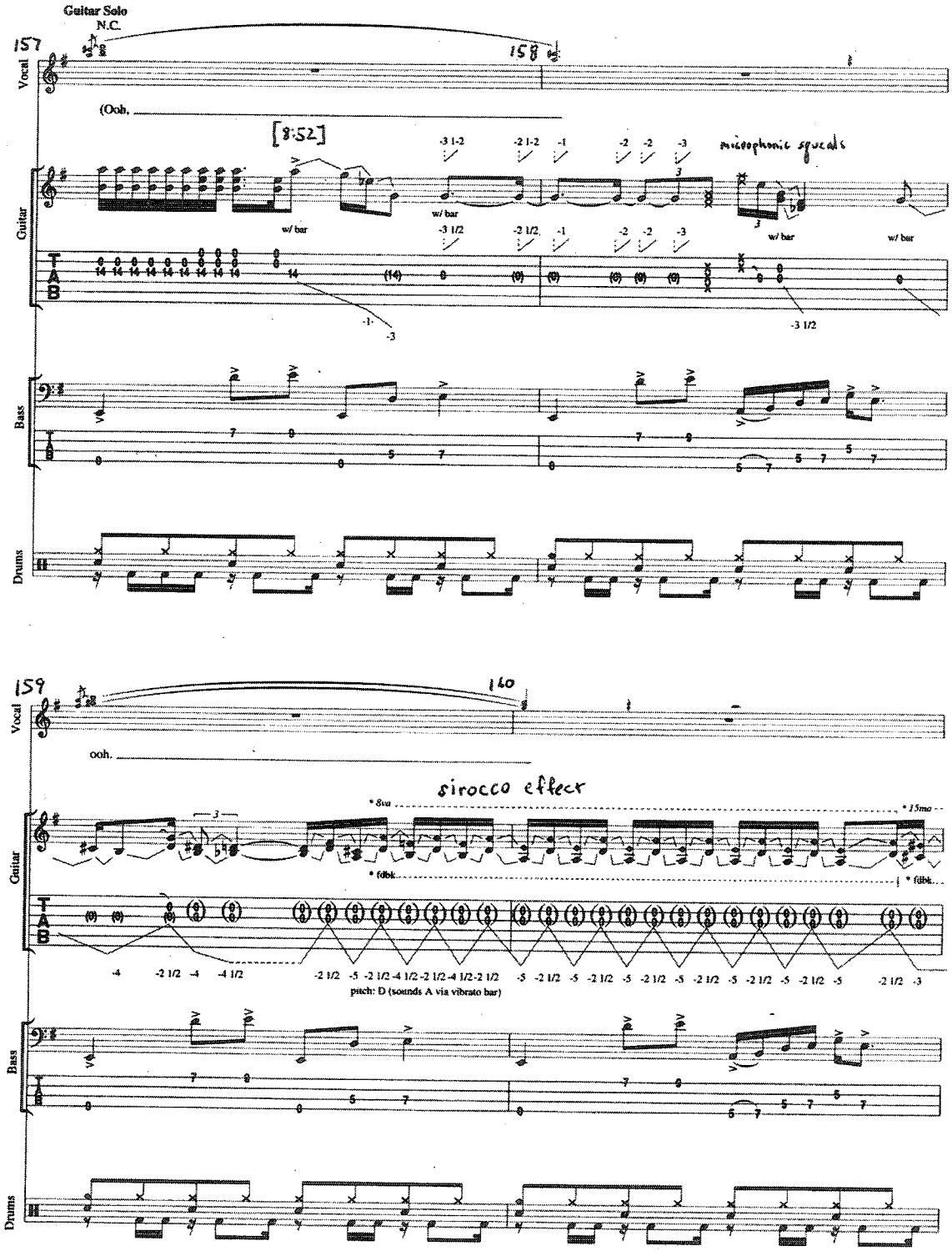

144
145
Vocal
'Cause I know all the time, you're wrong, ba - by,
Ooh,
Guitar
Bass
Drums
ride

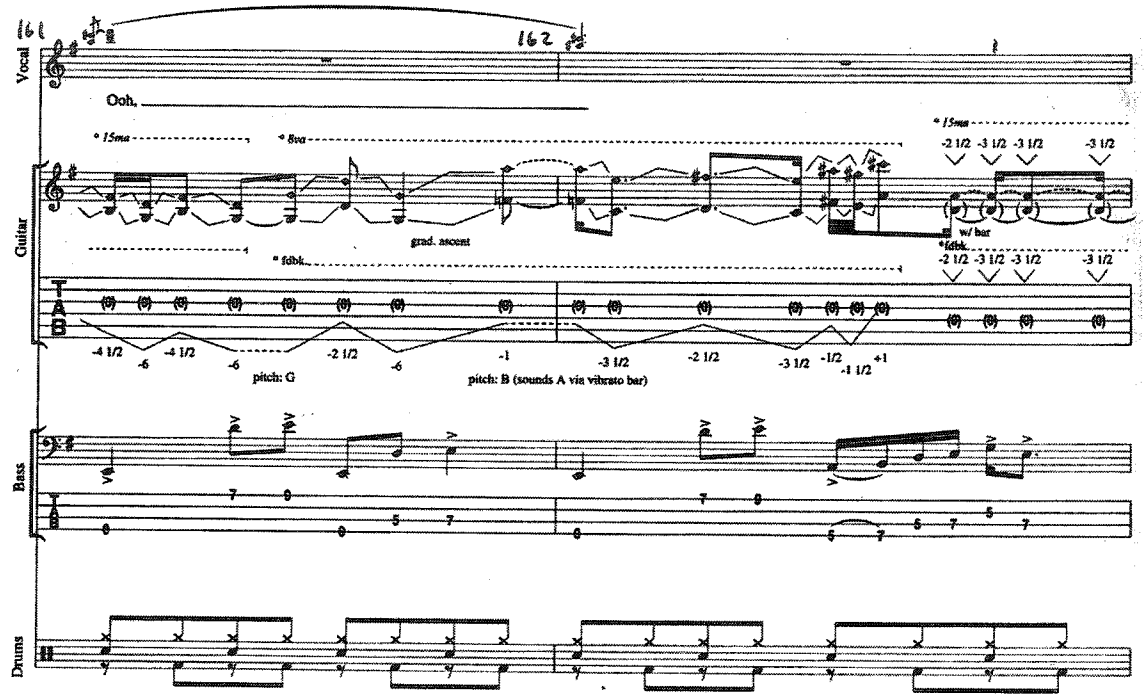

146
147
148
Vocal
and you'll be go - in' just the same.
ooh.
Ma -
Guitar
full
full
full 1/2
full 1/2
full
* Vib. note behind nut.
Bass
Drums

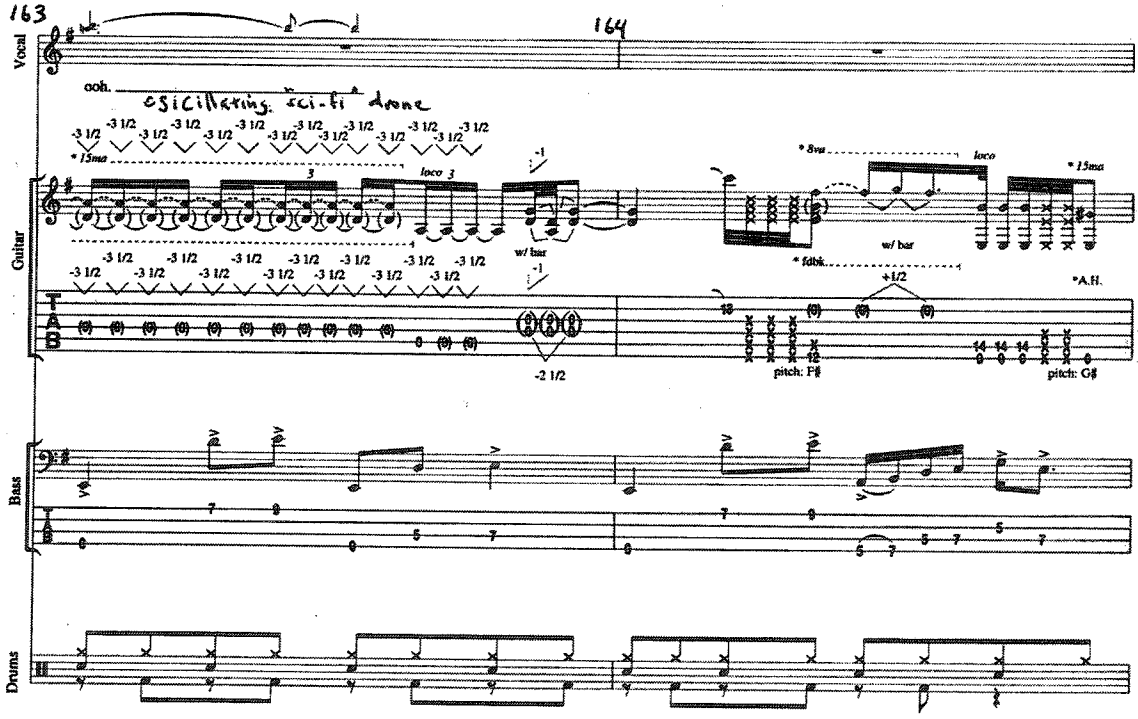

149
150
151
Vocal
chine gun, tear - in' my fam - 'ly a - part. Hey, yeah. Al - right.
Ooh,
ooh.
Guitar
full
full
full
full
Bass
Drums
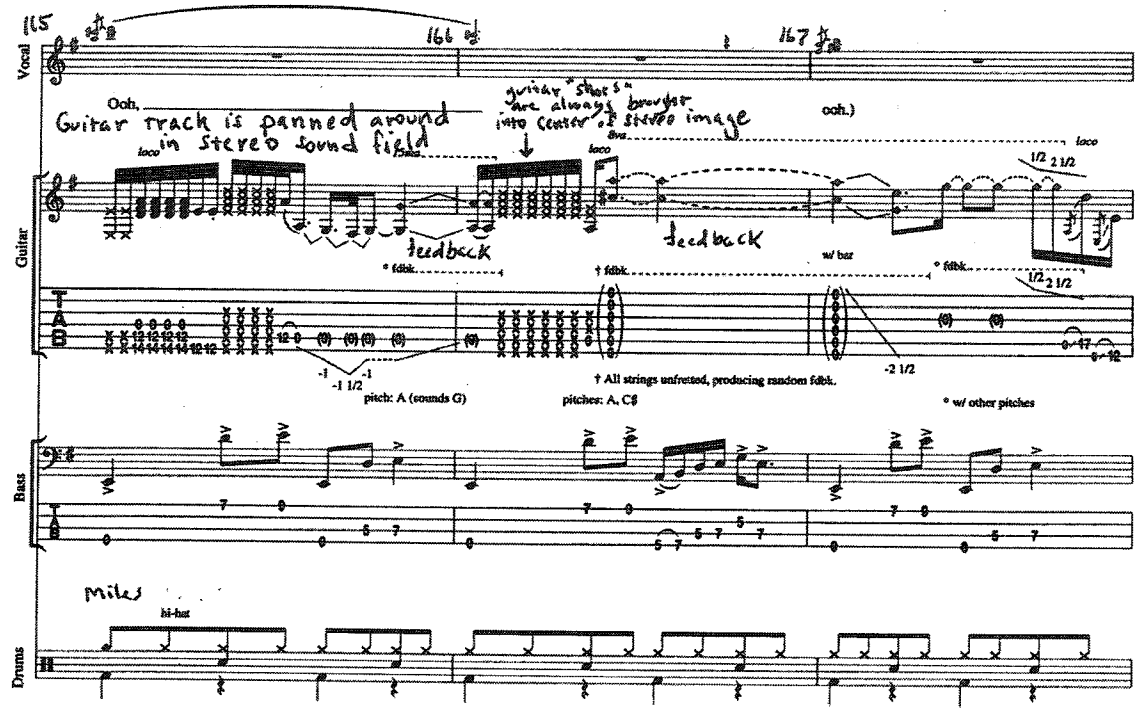

Sound painting
152
153
154
Vocal
tear - in'_ my fam - 'ly_ a - part.
Ooh.
Guitar
full
full
full
full
* Vib. note behind nut.
** Bend note behind nut.
Bass
Drums

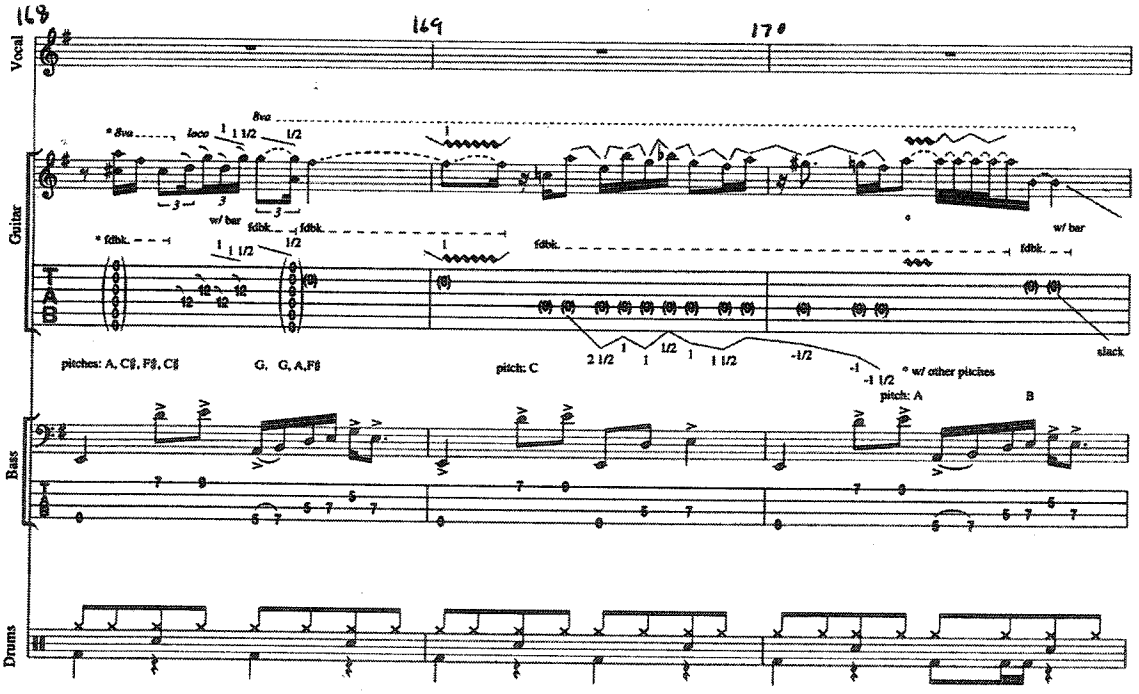

155
156
Vocal
ooh.)
Guitar
Bass
Drums

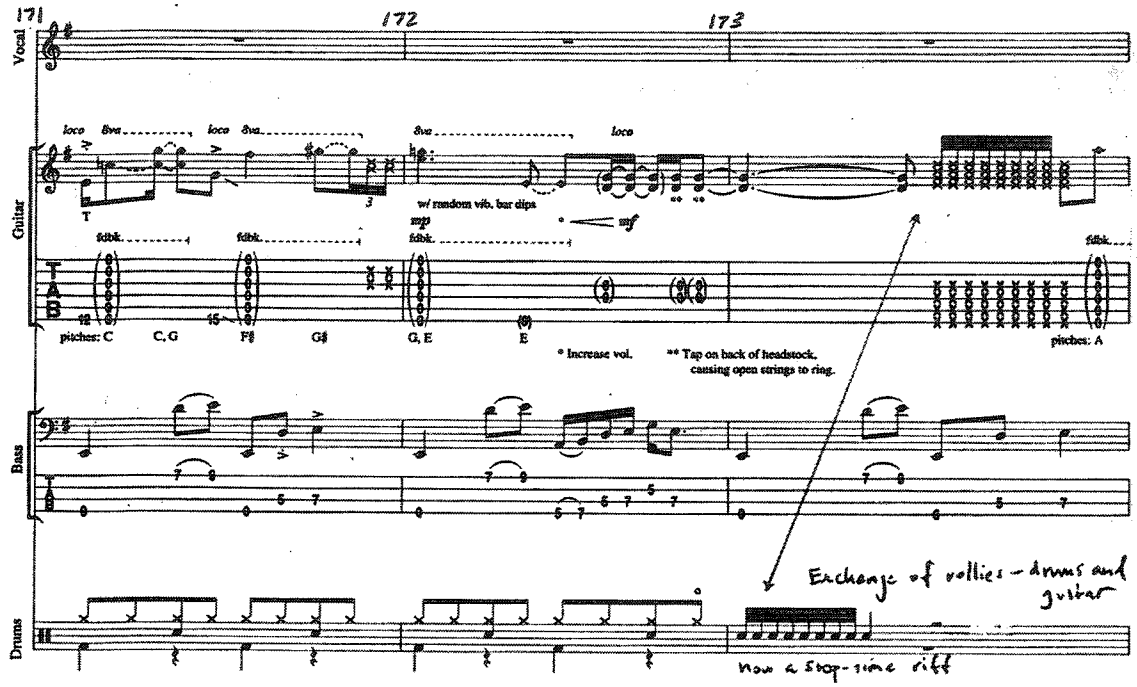

Guitar Solo
N.C.
157
158
Vocal
(Ooh,
[8:52]
microphonic squeals
w/ bar
Guitar
T
A
B
Bass
Drums
159
160
ooh.
sirocco effect
* 8va
* 15ma
* fdbk.
pitch: D (sounds A via vibrato bar)

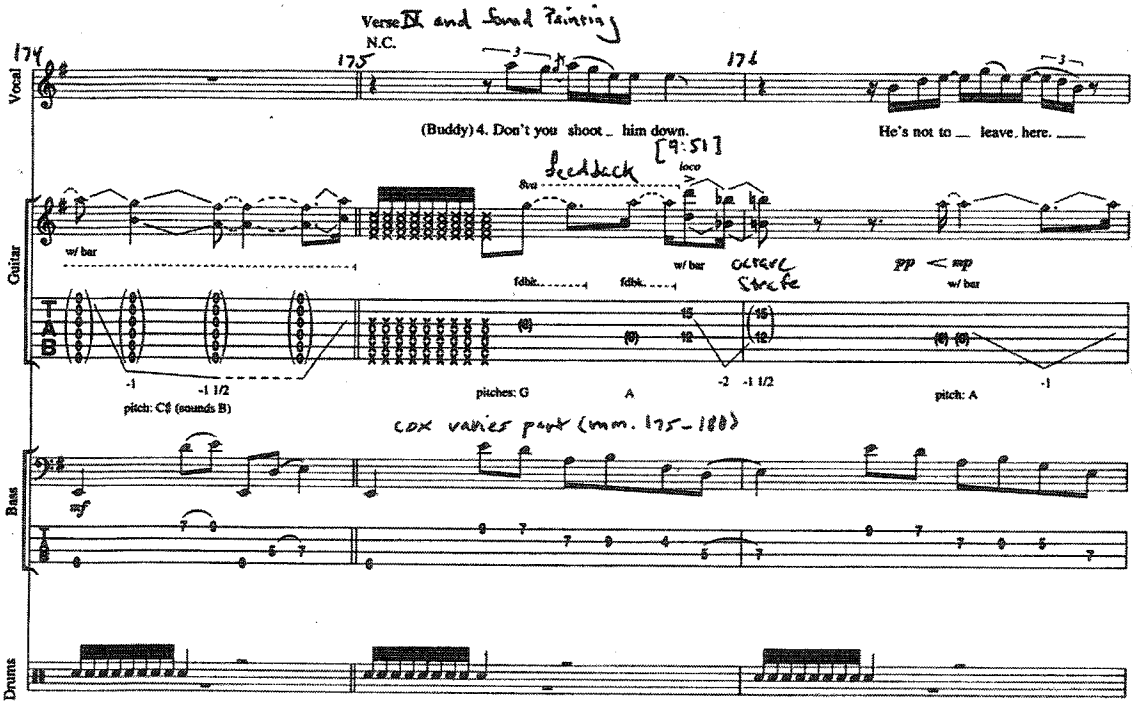

161
162
Vocal
Ooh.
Guitar
* 15ma
* 8va
grad. ascent
* fdbk.
w/ bar
pitch: G
pitch: B (sounds A via vibrato bar)
Bass
Drums

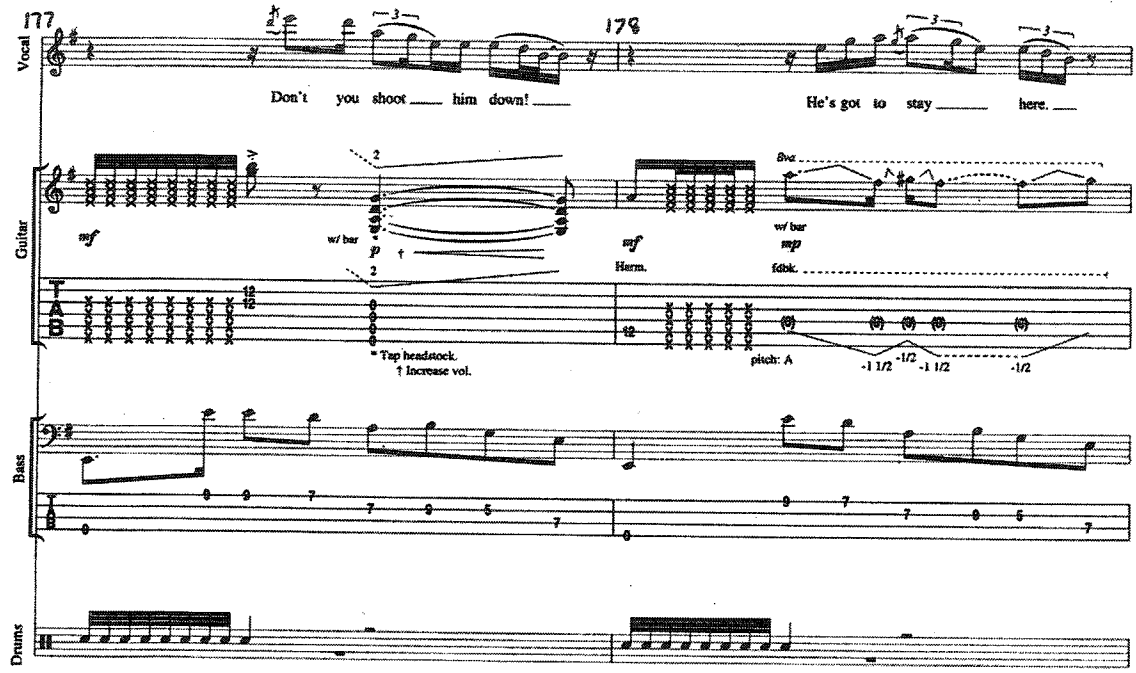

163
164
Vocal
ooh.
oscillating, sci-fi drone
Guitar
* 15ma
loco 3
w/ bar
* 8va
loco
* fdbk.
*A.H.
pitch: F♯
pitch: G♯
Bass
Drums

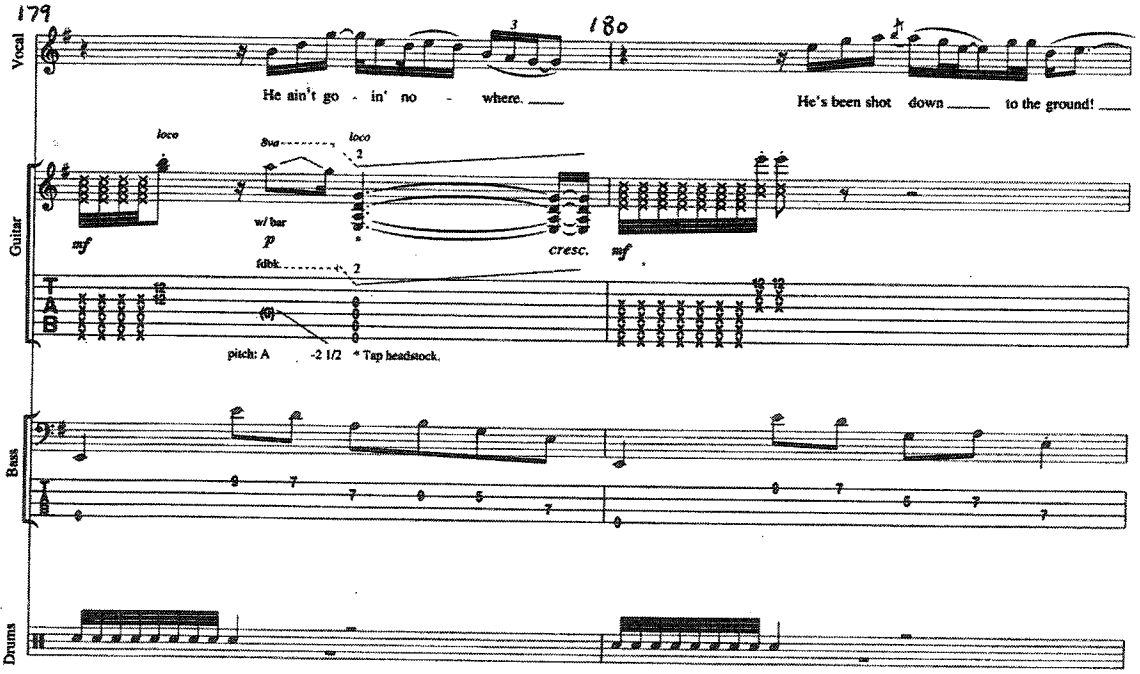

165
166
167
Vocal
Ooh,
Guitar track is panned around in stereo sound field
guitar "shots" are always brought into center of stereo image
ooh.)
Guitar
loco
8va
feedback
w/ bar
* fdbk.
† fdbk.
° fdbk.
† All strings unfretted, producing random fdbk.
pitch: A (sounds G)
pitches: A, C♯
° w/ other pitches
Bass
Drums
Miles
hi-hat

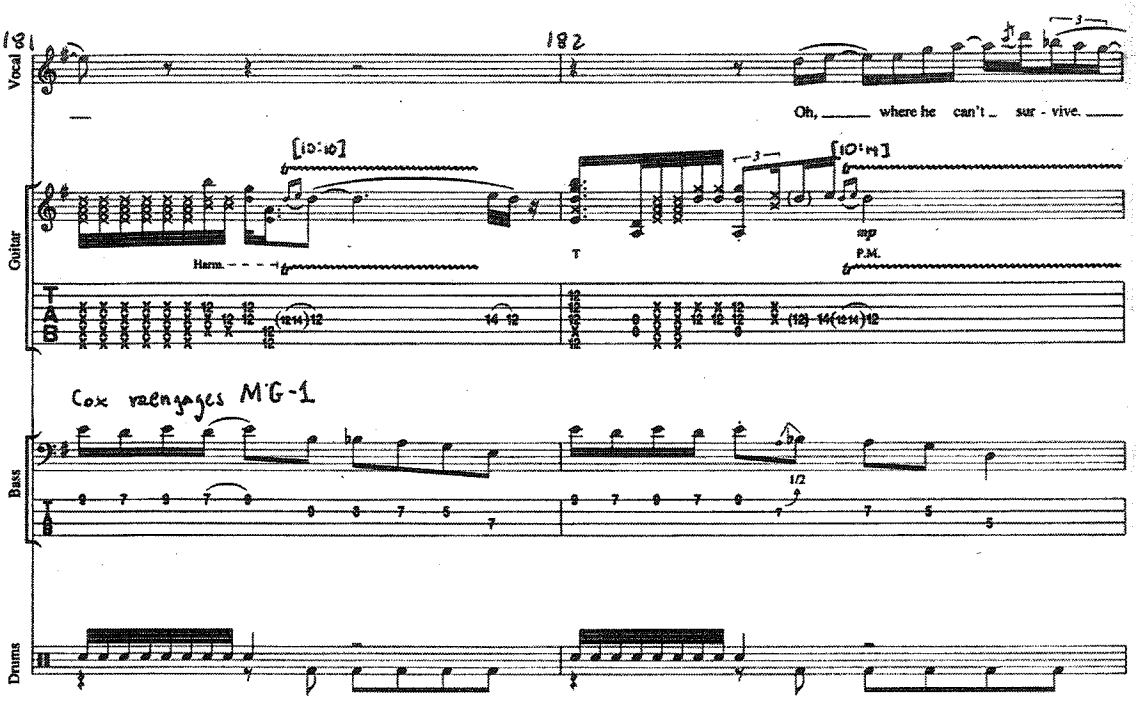

168
169
170
Vocal
Guitar
8va
loco
w/ bar
fdbk.
pitches: A, C♯, F♯, C♯
G, G, A, F♯
pitch: C
° w/ other pitches
slack
pitch: A
B
Bass
Drums

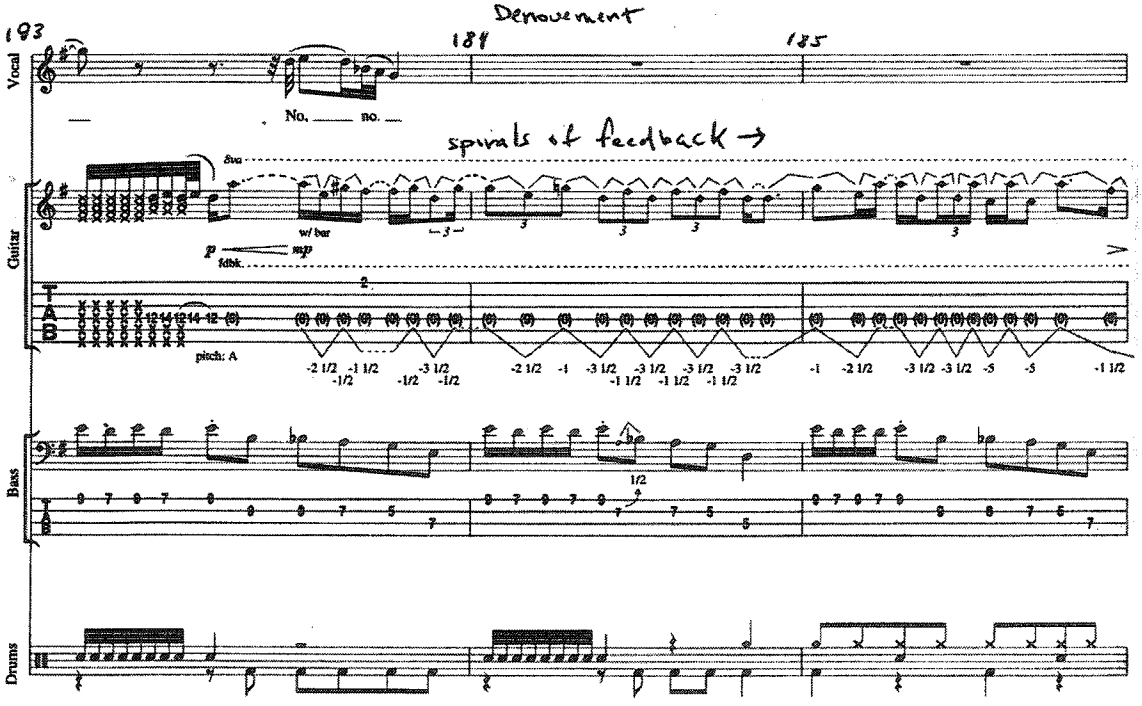

171
172
173
Vocal
Guitar
Bass
Drums
loco 8va
w/ random vib. bar dips
mp
mf
fdbk.
pitches: C
C, G
F♯
G♯
G, E
E
pitches: A
* Increase vol.
** Tap on back of headstock, causing open strings to ring.
Exchange of rollies - drums and guitar
now a stop-time riff
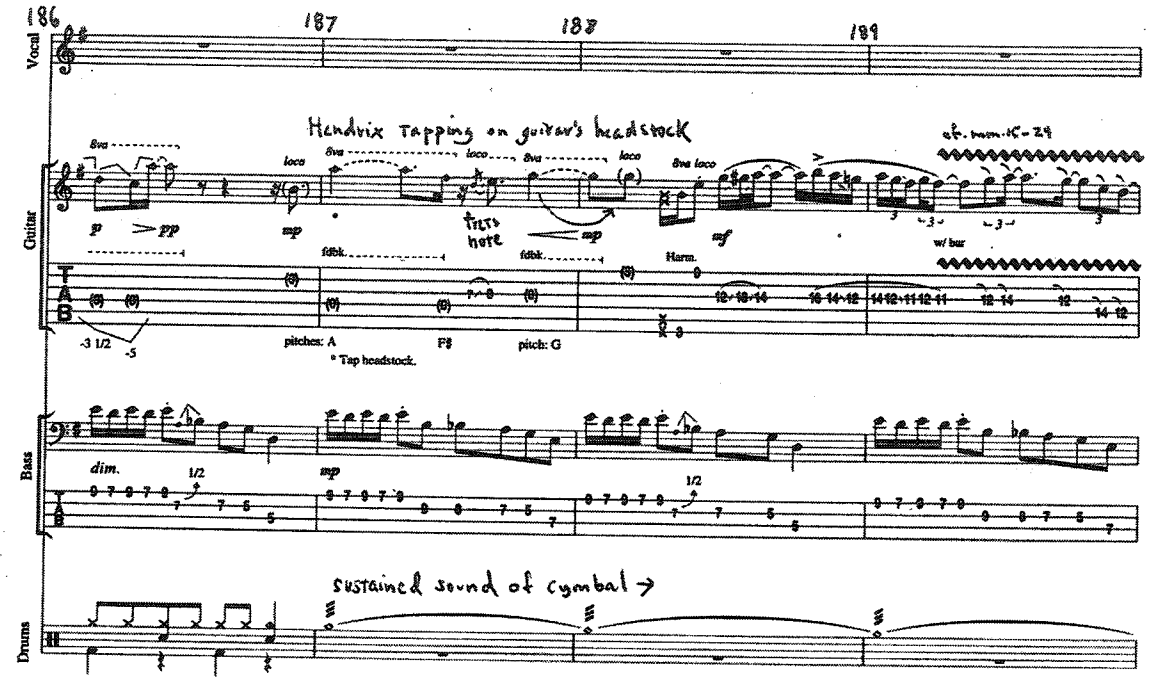

Verse IX and Sound Painting
174
175
176
N.C.
(Buddy) 4. Don't you shoot him down.
He's not to leave here.
feedback
[9:51]
loco
8va
w/ bar
fdbk.
octave
Starts
pp < mp
pitch: C♯ (sounds B)
pitches: G
A
pitch: A
CDX varies part (mm. 175-188)
mf

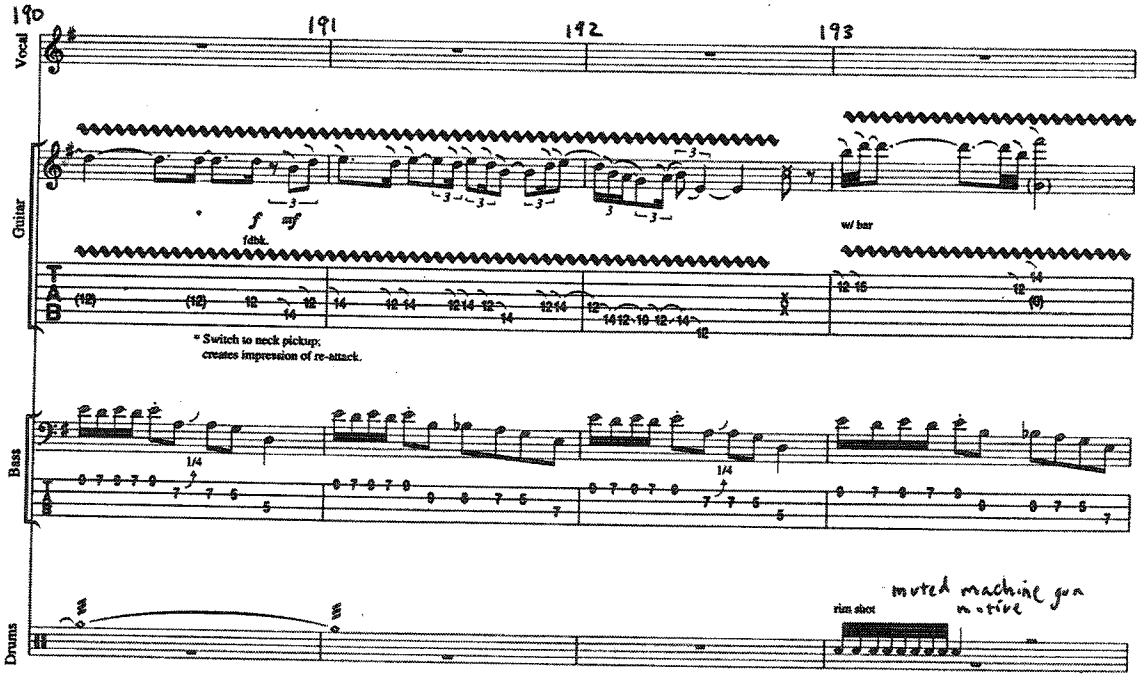

177
178
Vocal
Don't you shoot him down!
He's got to stay here.
Guitar
mf
w/ bar
p
mf
Harm.
8va
w/ bar
mp
fdbk.
* Tap headstock.
† Increase vol.
pitch: A
-1 1/2
-1/2
-1 1/2
-1/2
Bass
Drums
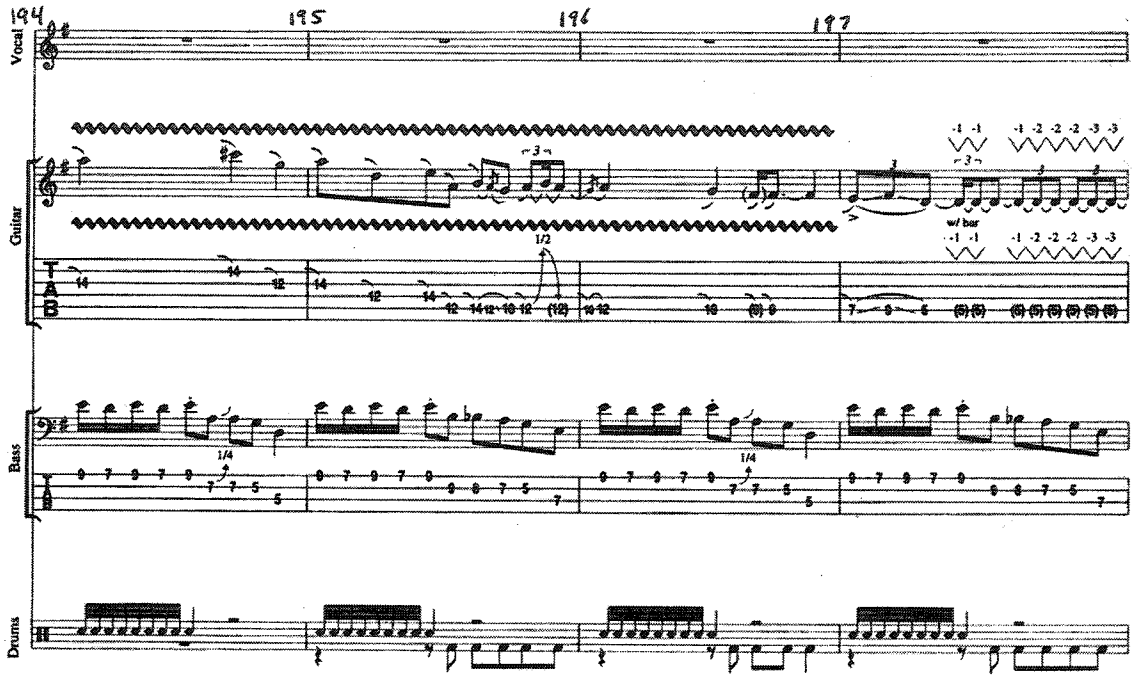

179
180
Vocal
He ain't go - in' no - where.
He's been shot down to the ground!
Guitar
loco
8va
loco
mf
w/ bar
p
cresc.
mf
fdbk.
pitch: A
-2 1/2
* Tap headstock.
Bass
Drums

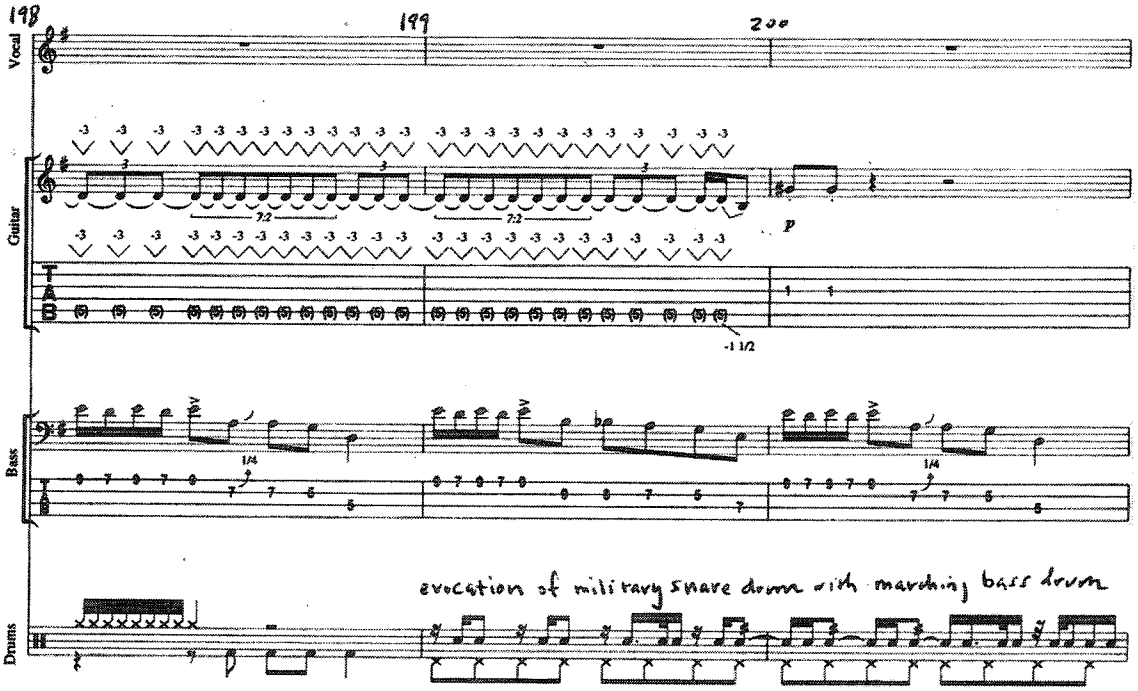

182
Vocal
Oh, ____ where he can't ... sur - vive. ____
Guitar
[10:10]
Harm. - - - -
T
[10:11]
mp
P.M.
Cox reengages M'G-1
Bass
1/2
Drums

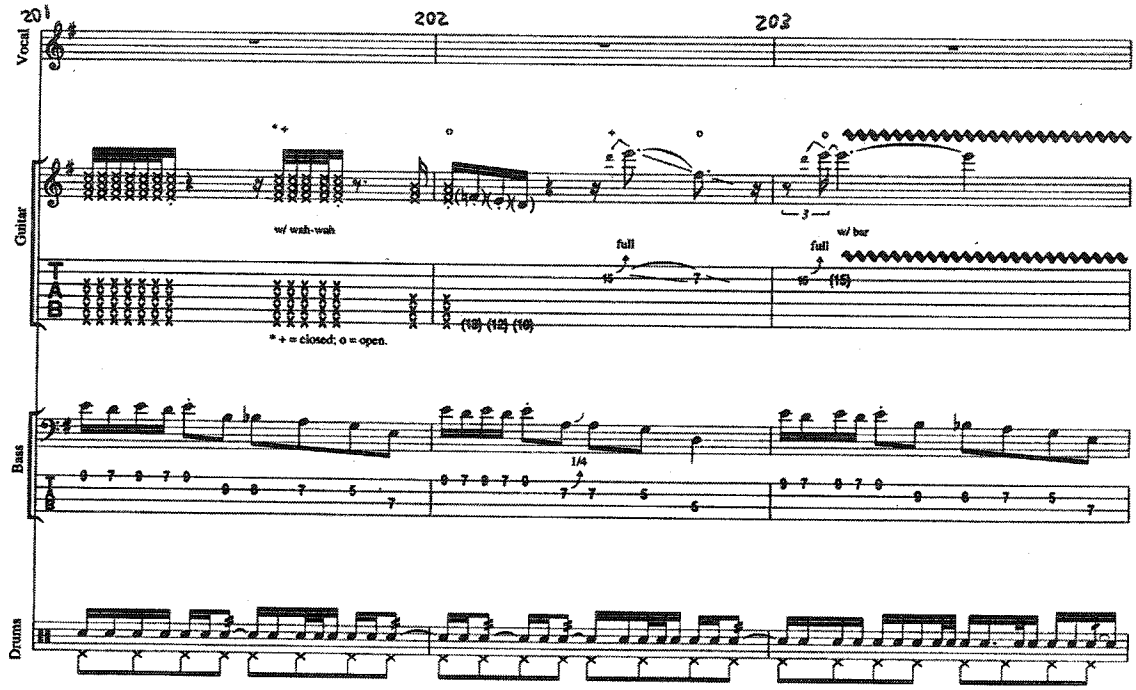

193
Denouement
184
185
Vocal
No. ____ no. ____
spirals of feedback →
Guitar
8va
w/ bar
p
mp
fdbk.
pitch: A
-2 1/2 -1 1/2 -1/2 -3 1/2 -1/2 -2 1/2 -1 -3 1/2 -1 1/2 -3 1/2 -1 1/2 -3 1/2 -1 1/2 -1 -2 1/2 -3 1/2 -3 1/2 -5 -5 -1 1/2
Bass
1/2
Drums

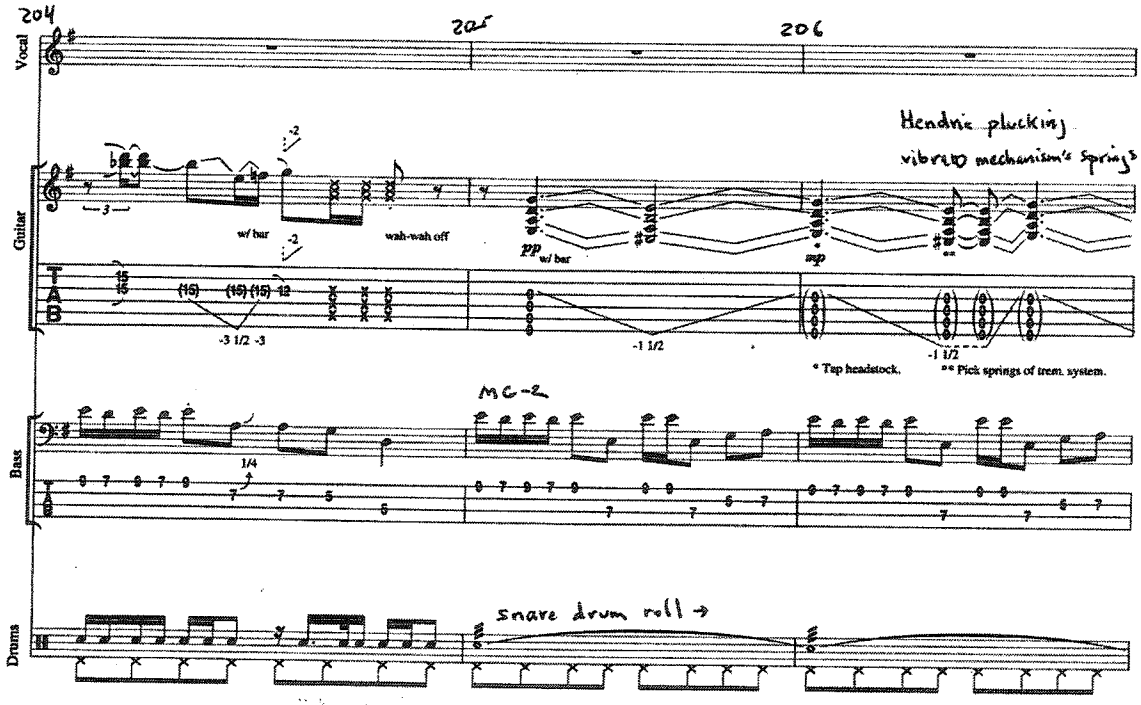

186
187
188
189
Vocal
Guitar
Bass
Drums
Hendrix tapping on guitar's headstock
8va
loco
p
pp
mp
fdbk.
first note
mf
Harm.
w/ bar
pitches: A
F♯
pitch: G
* Tap headstock.
dim.
1/2
sustained sound of cymbal →

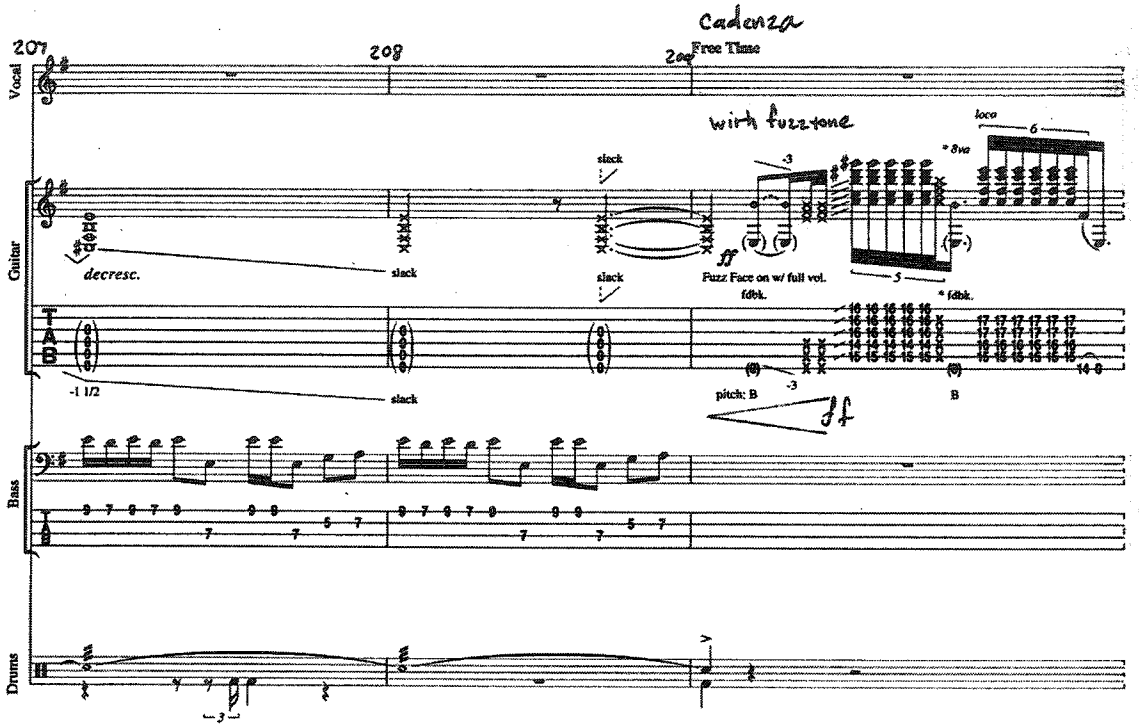

190
191
192
193
Vocal
Guitar
Bass
Drums
f
mf
fdbk.
w/ bar
* Switch to neck pickup;
creates impression of re-attack.
1/4
muted machine gun
motive
rim shot

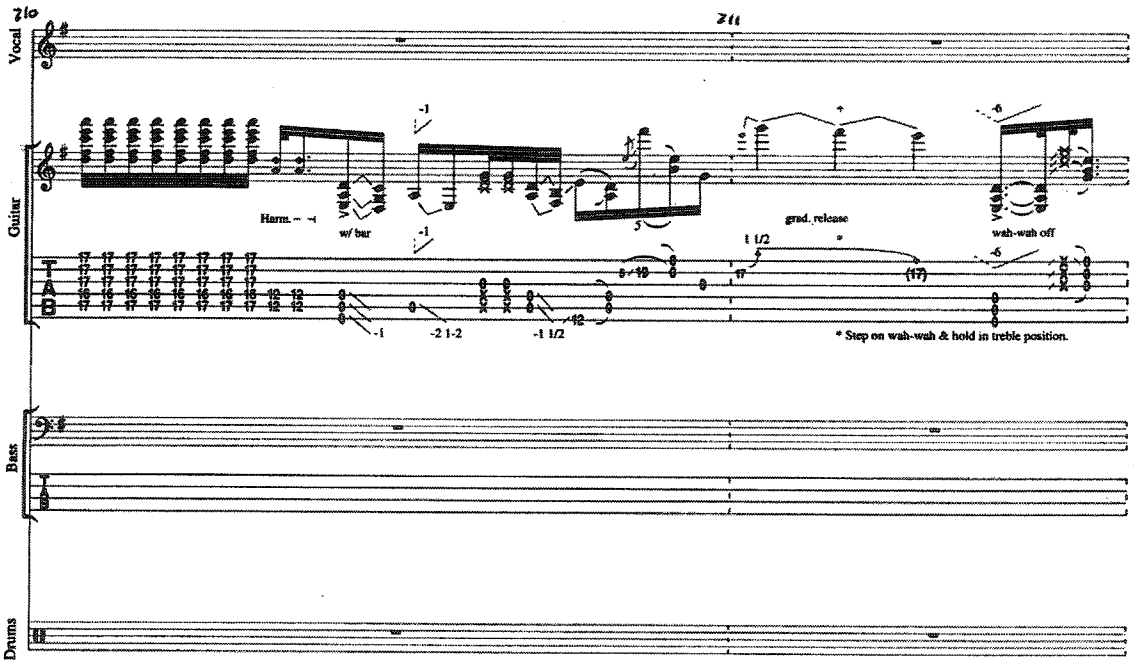

194
195
196
197
Vocal
Guitar
Bass
Drums
w/ bar

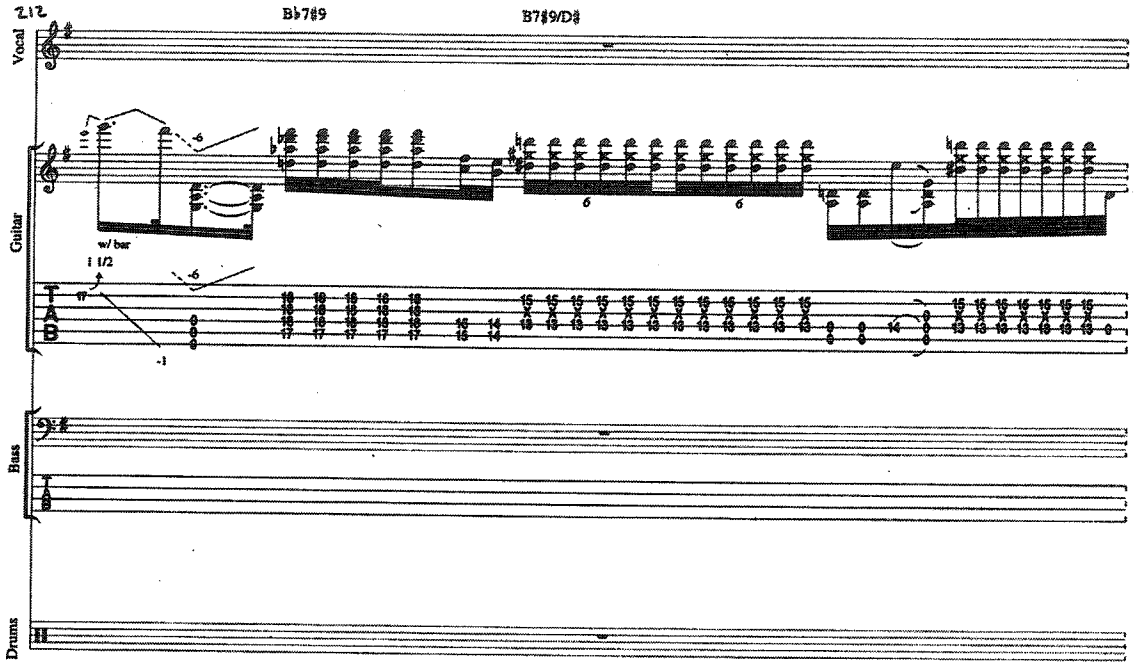

198
199
200
Vocal
Guitar
Bass
Drums
p
evocation of military snare drum with marching bass drum

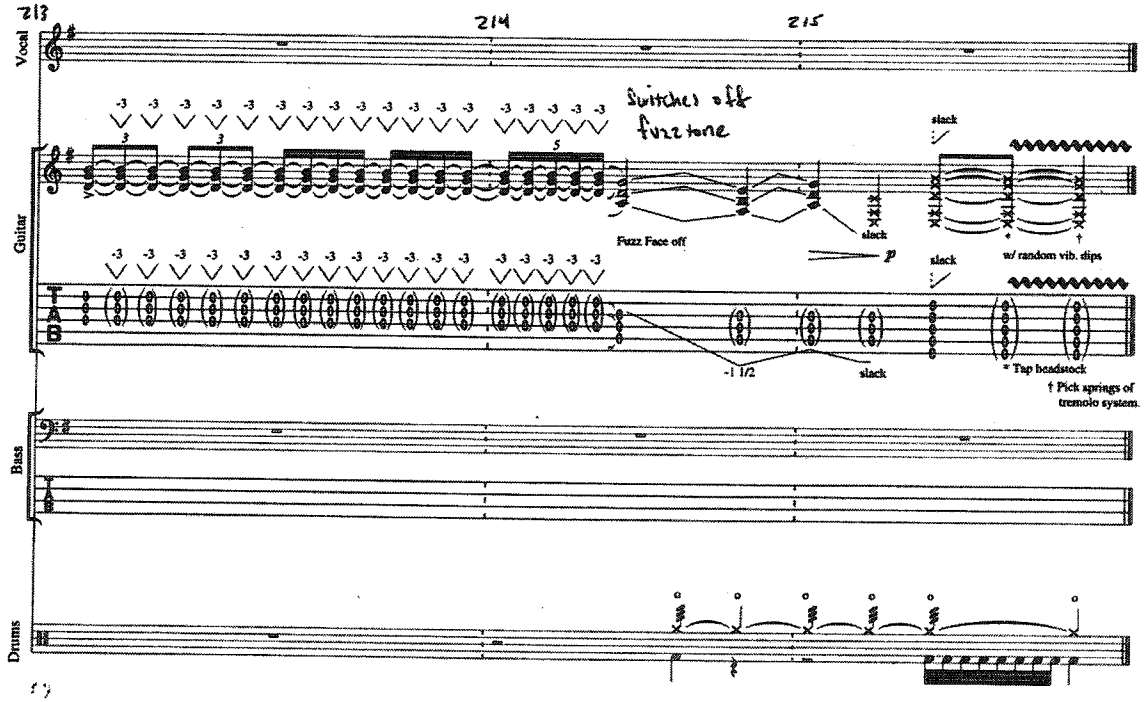

201
202
203
Vocal
Guitar
w/ wah-wah
full
w/ bar
* + = closed; o = open.
Bass
1/4
Drums


204
205
206
Vocal
Hendrix plucking
vibrato mechanism's springs
Guitar
w/ bar
wah-wah off
pp w/ bar
mp
-3 1/2 -3
-1 1/2
-1 1/2
* Tap headstock.
** Pick springs of trem. system.
MC-2
Bass
1/4
Drums
snare drum roll →


Cadenza
207
208
209
Free Time
Vocal
Guitar
Bass
Drums
with fuzztone
loco
* 8va
slack
-3
decresc.
slack
slack
slack
ff
Fuzz Face on w/ full vol.
fdbk.
5
* fdbk.
-1 1/2
pitch: B
-3
B
ff


210
211
Vocal
Guitar
Bass
Drums
Harm.
w/ bar
-1
5
grad. release
wah-wah off
t 1/2
-6
-1
-2 1-2
-1 1/2
* Step on wah-wah & hold in treble position.


212
B♭7#9
B7#9/D♯
Vocal
Guitar
w/ bar
1 1/2
Bass
Drums


213
214
215
Vocal
Guitar
Switched off fuzz tone
Fuzz Face off
slack
w/ random vib. dips
-1 1/2
* Tap headstock
† Pick springs of tremolo system.
Bass
Drums

APPENDIX D: Chapter V Examples

EXAMPLE V-1: Formal Design of "Power to Love"

Introduction (mm. 1–7): stop-time introduction; guitar quotes Ray Charles's "Mary Ann" in mm. 5–6 (tape edit at m. 7.5 deletes thirty measures from the live performance)

Guitar solo/thematic exposition/modulating sequence (mm. 8–30): series of bass ostinati forms basic structure of the solo/exposition:

PTL-1: B key center; pattern based on "Mary Ann" (4 mm.)
PTL-2: C-sharp key center (2 mm.)
PTL-3: E key center (2 mm.)
PTL-4: A key center (15 mm.; open ended section)

Main theme (mm. 31–34): guitar and bass perform main theme in key of B: prime form of theme comprises two-measure phrase (9/8 + 7/8));

Vamp (mm. 35–36); sets up arrival of Verse I

Verse I (mm. 37–48): Hendrix—*Shoot down some of those airplanes*; common time version of main theme functions as answering riff to Hendrix's singing phrases

Main theme (mm. 49–52): tutti statement of main theme functions as ritornello linking first verse and first chorus sections

Chorus I (mm. 53–56): Miles and Cox—*With the power of soul*

Guitar solo II (mm. 57–82): abridged repeat of modulating sequence and instrumental themes (PTL-2-4)

Verse II (mm. 83–105): A key center; Hendrix—*Fly so much with one toy babe, . . . old jelly fish . . .* ; irregular and open-ended stanzaic form
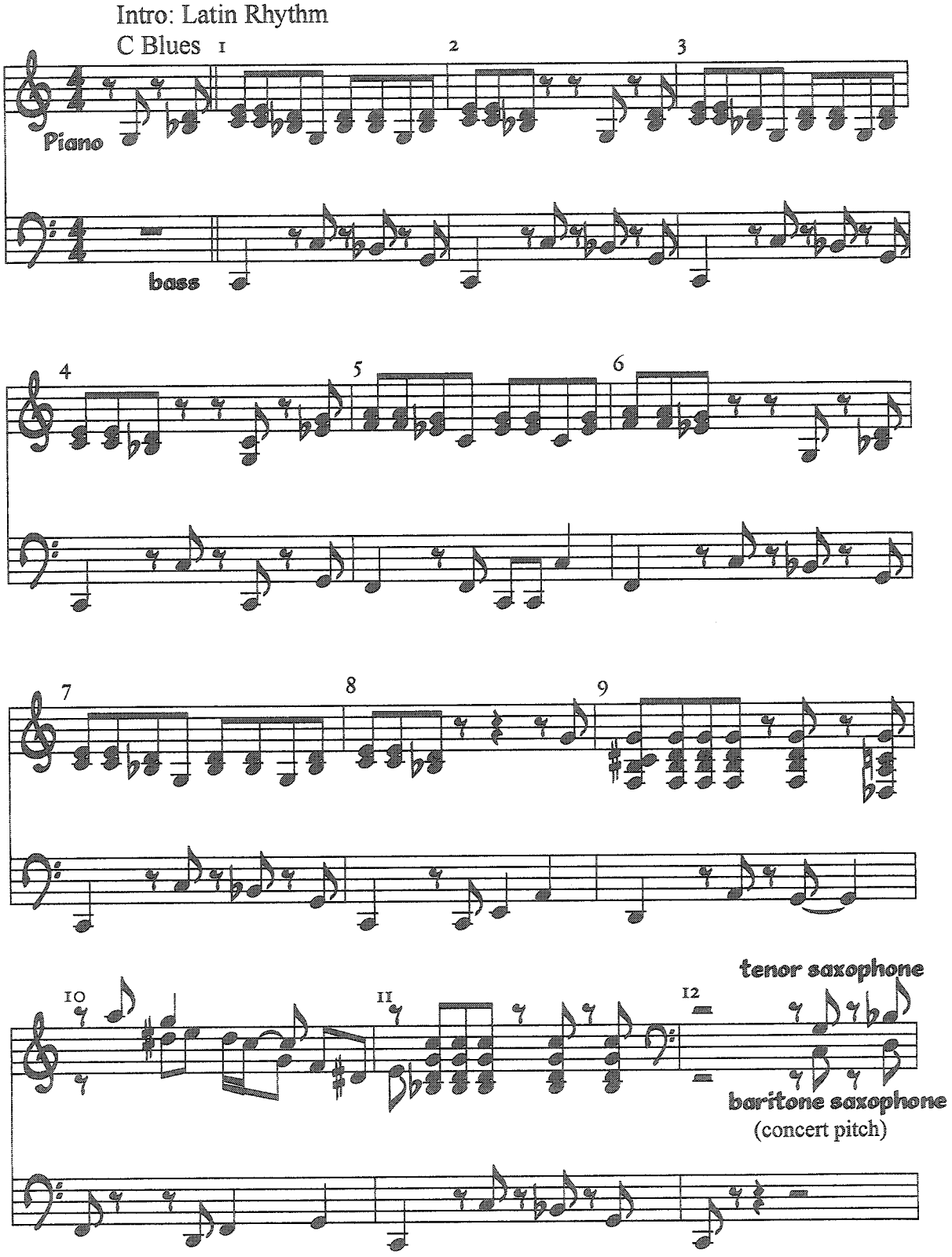
Vamp and jamming (mm. 106–113): band "idling" before beginning the retransition (tape edit corresponding to the last beat of m. 196 deletes several mm. from live performance)

Retransition from key center A to key center B (mm. 114–116)

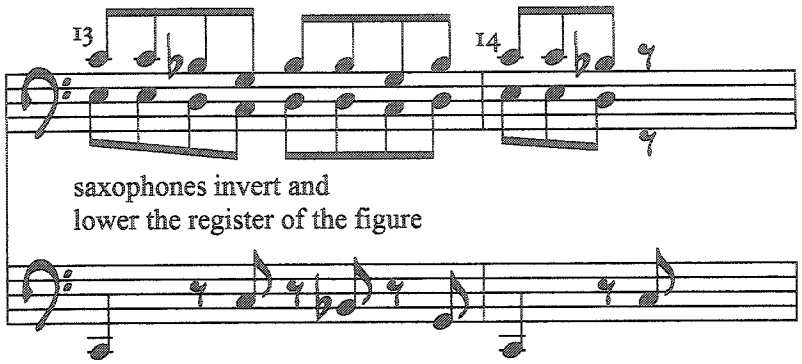
Restatement of main theme (mm. 117–120)

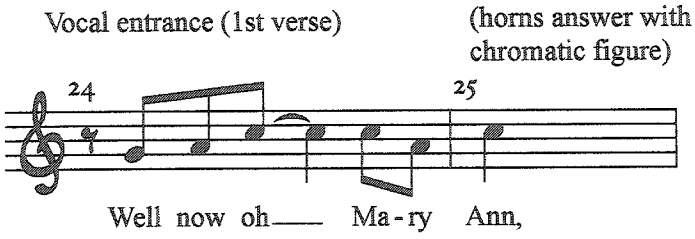
Chorus II (mm. 121–136): expanded chorus section

Main theme/coda (mm. 137–143)


Intro: Latin Rhythm
C Blues
Piano
bass
tenor saxophone
baritone saxophone
(concert pitch)
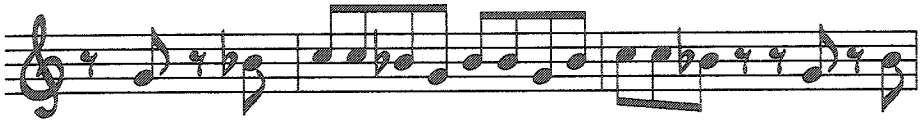
EX. V - 2 cont'd
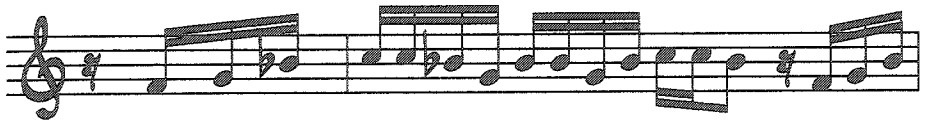




EX. V - 3 (a-g)
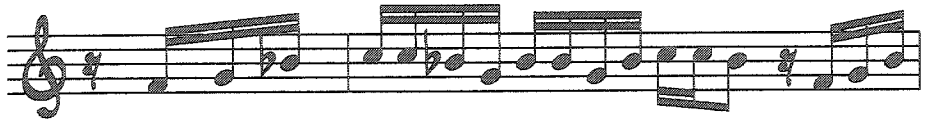
A: "Mary Ann" - tenor part
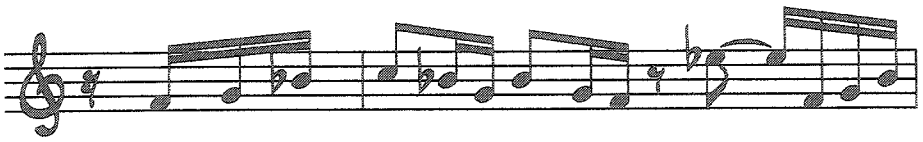


B: "Power to Love" - gtr. mm. 5-7



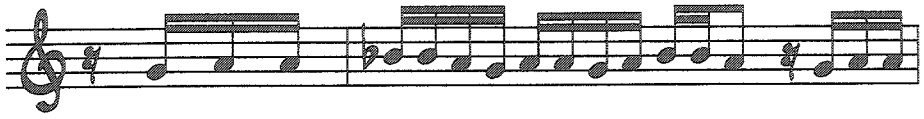
C: PTL-1



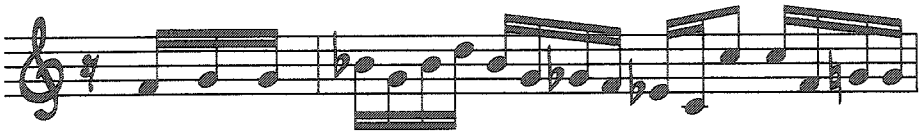
D: PTL-2



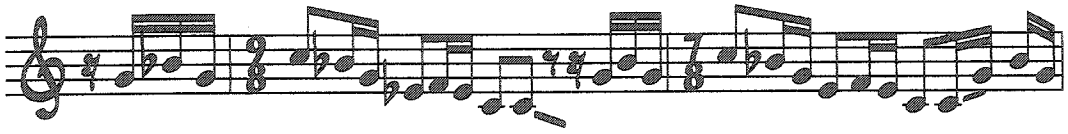
E: PTL-3
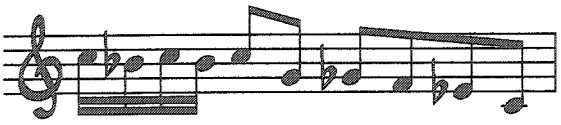


F: PTL-4



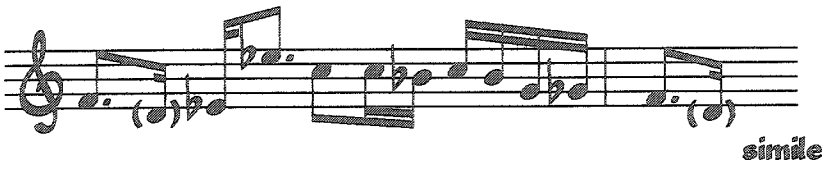
G: Main theme



EX. V - 4a "Machine Gun" - first subphrase of principal theme (**MG-1**)

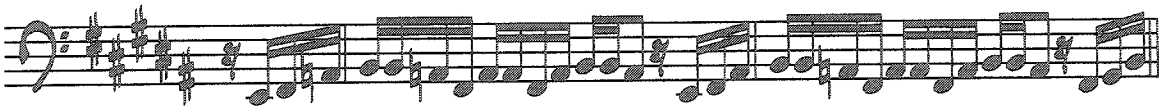


EX. V - 4b "Who Knows" - main theme in principal form



EX. V - 5 "Power to Love"
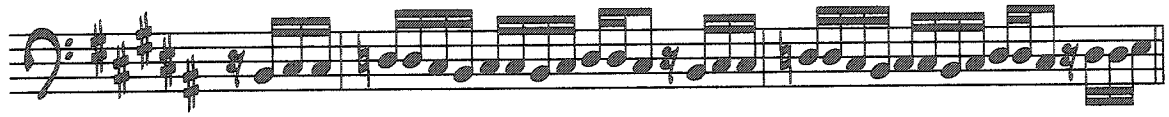
PTL-1 PTL-2→



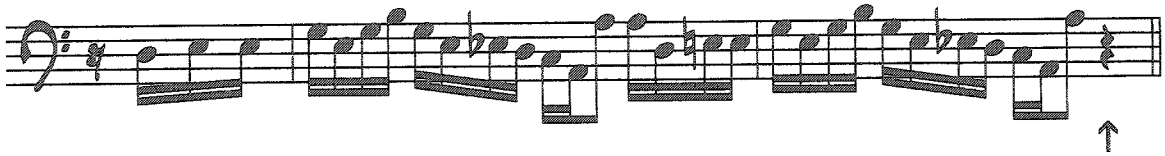
PTL-2 (C# key center) PTL-3→



PTL-3 (E key center) PTL-4 →
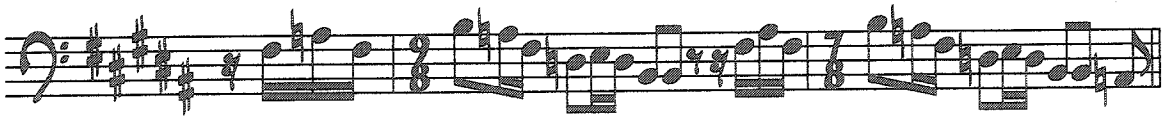


PTL-4 (A key center)



for the last cycle of PTL-4 series,
the bass rests and guitar plays pick-up
to main theme (see e.g., m. 30)
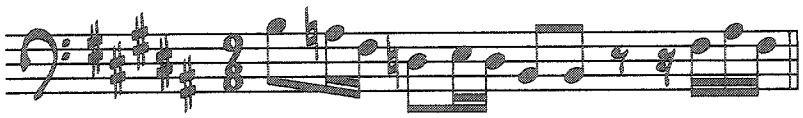
Main Theme



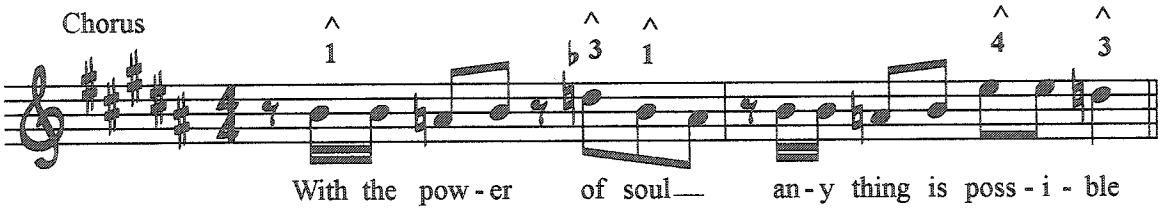
EX. V - 6

Main Theme ^1 ^♭3 ^1

^1 -♭3 - ^1
projected over an octave

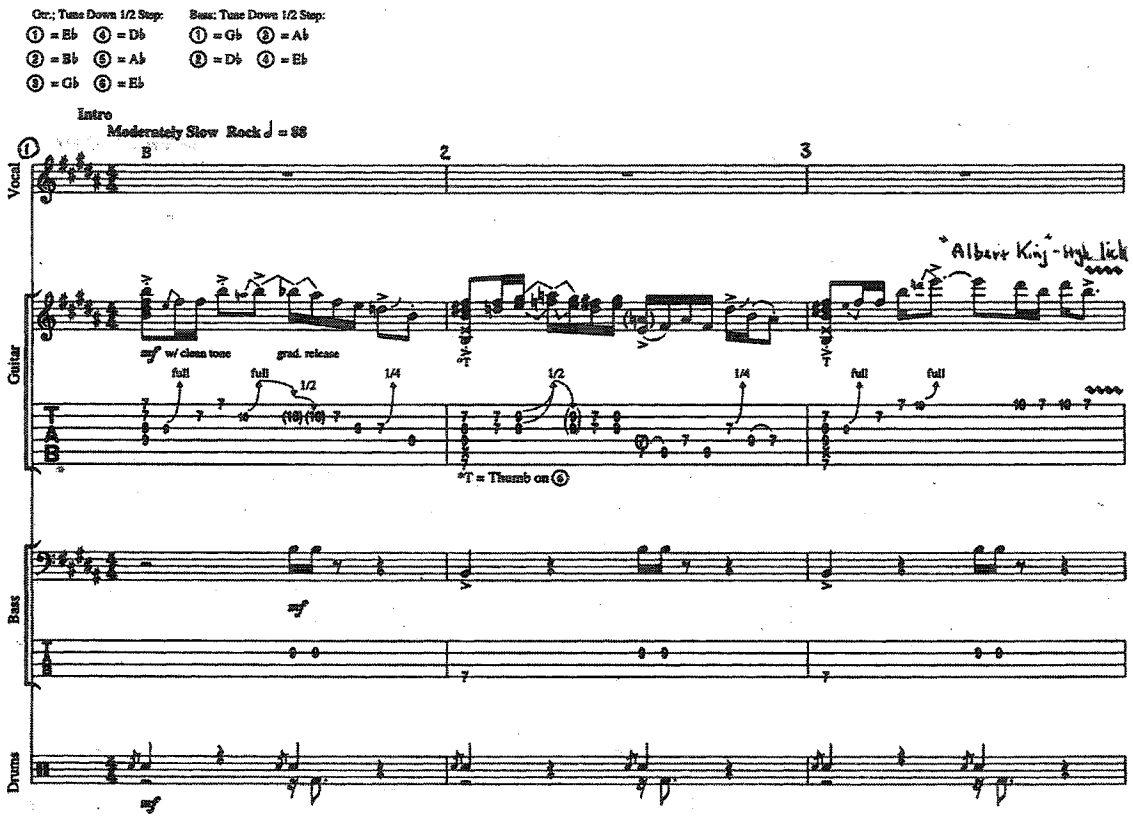


Chorus
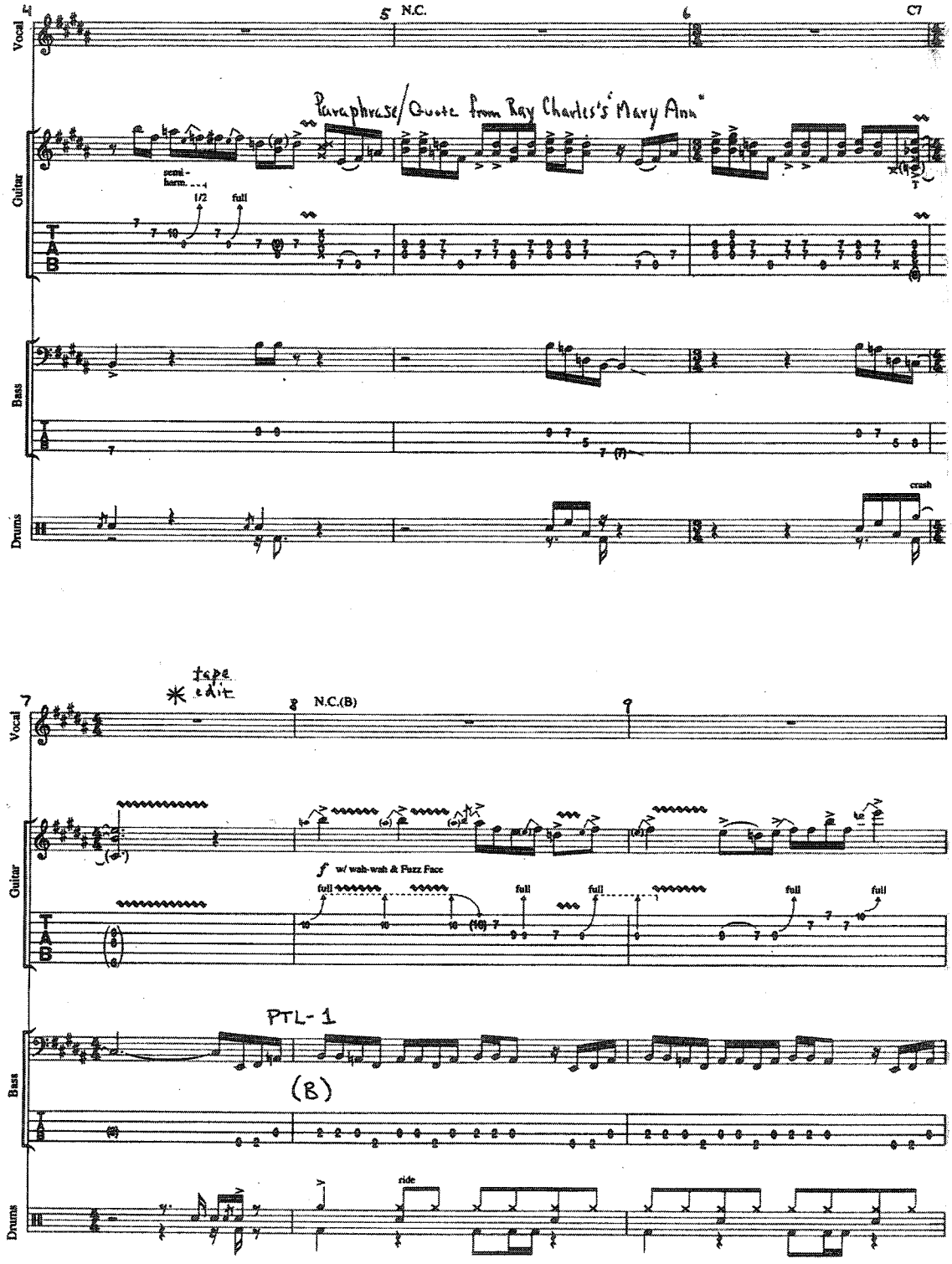


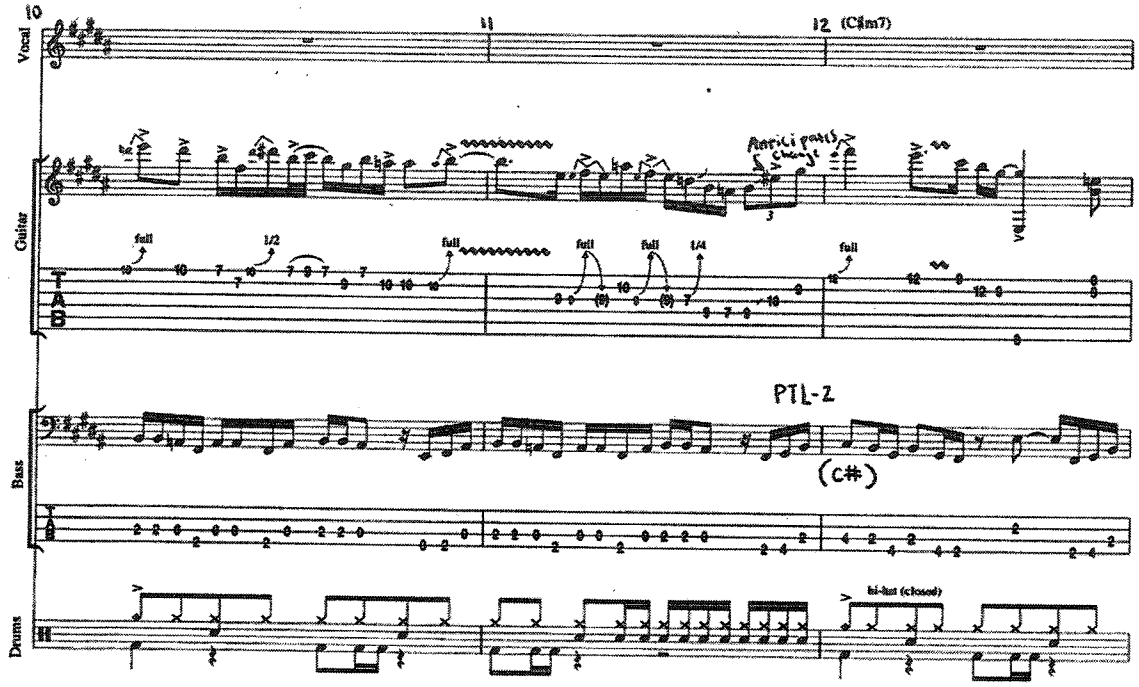
Power to Love

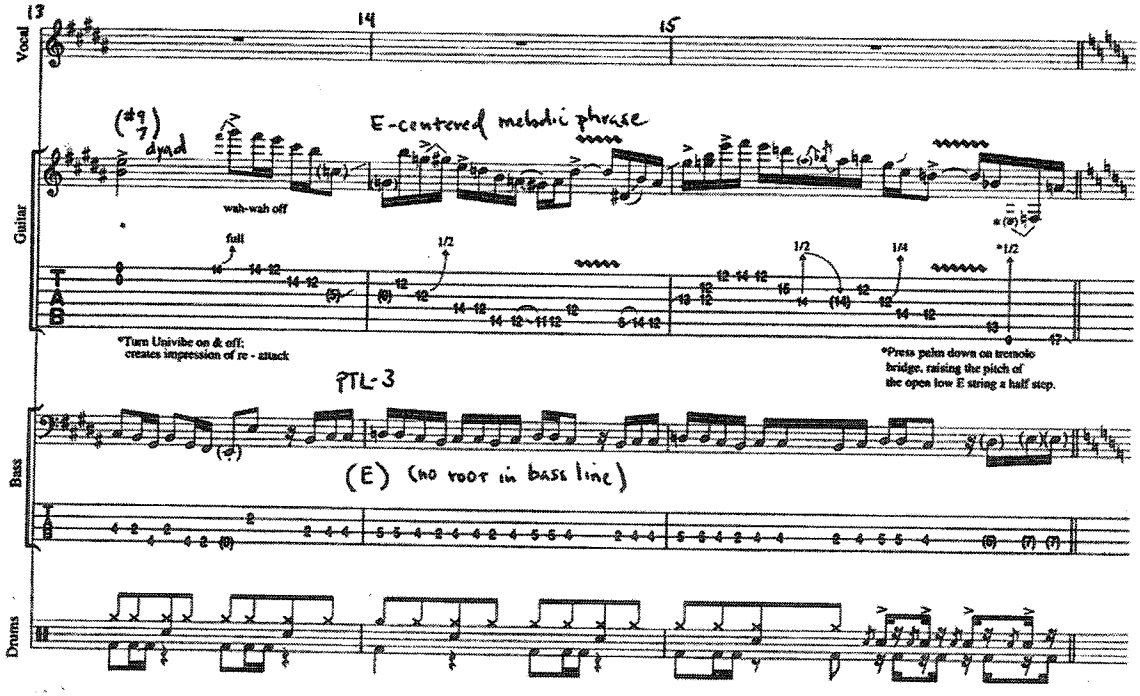
Words and Music by Jimi Hendrix

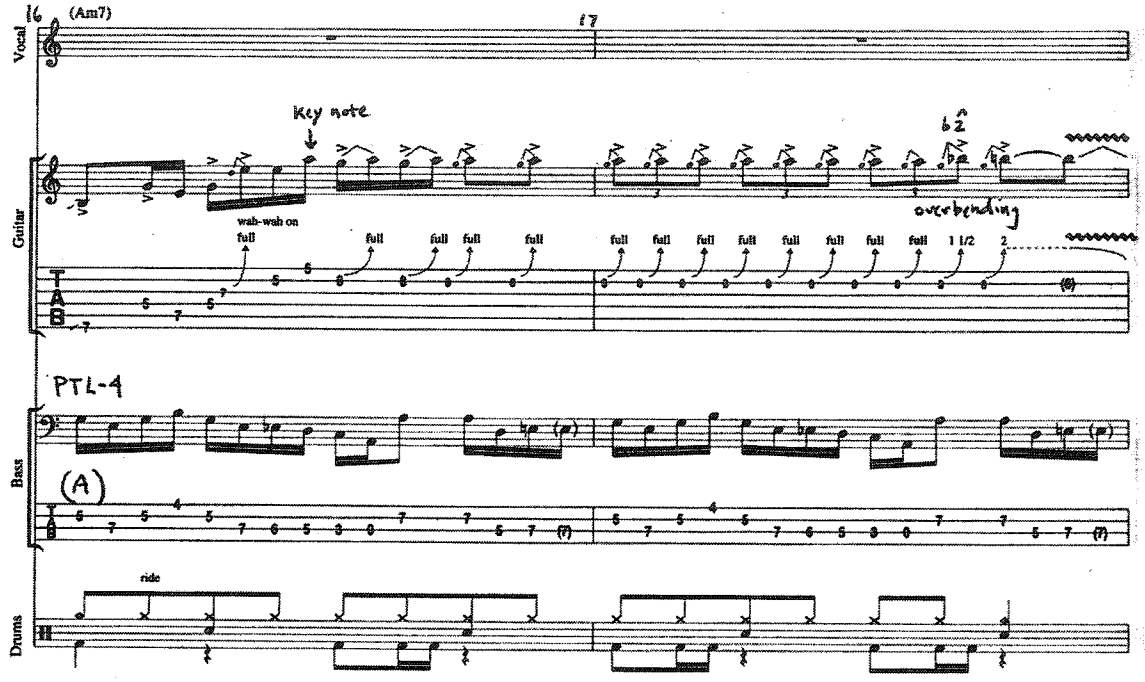


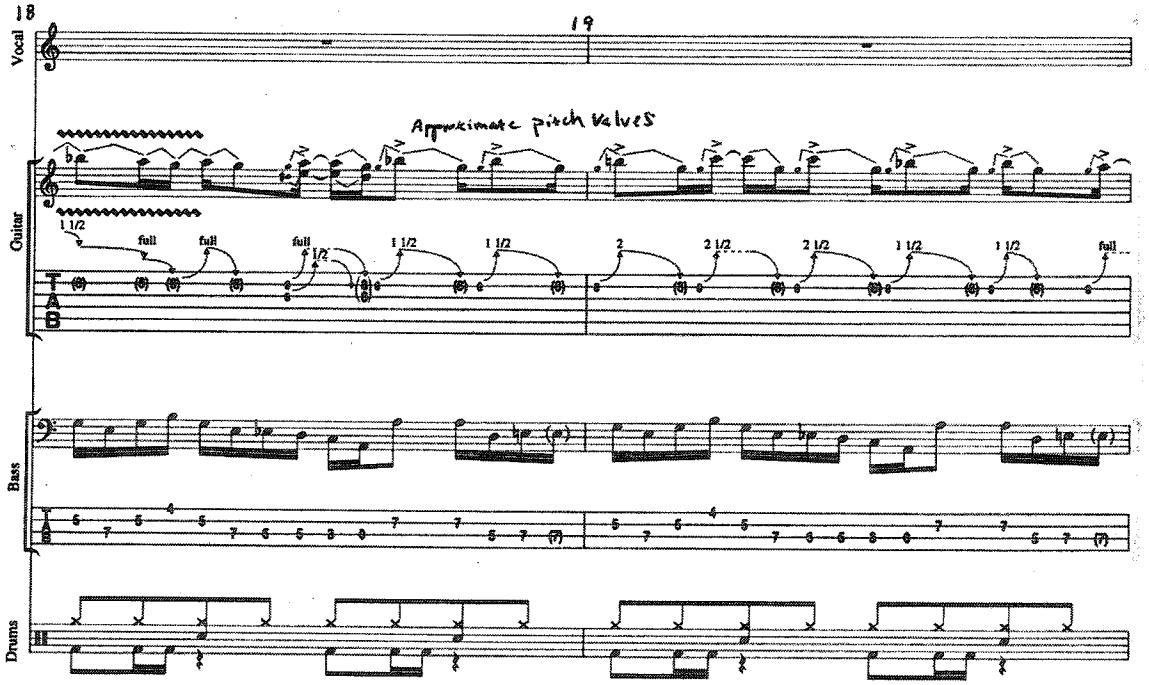
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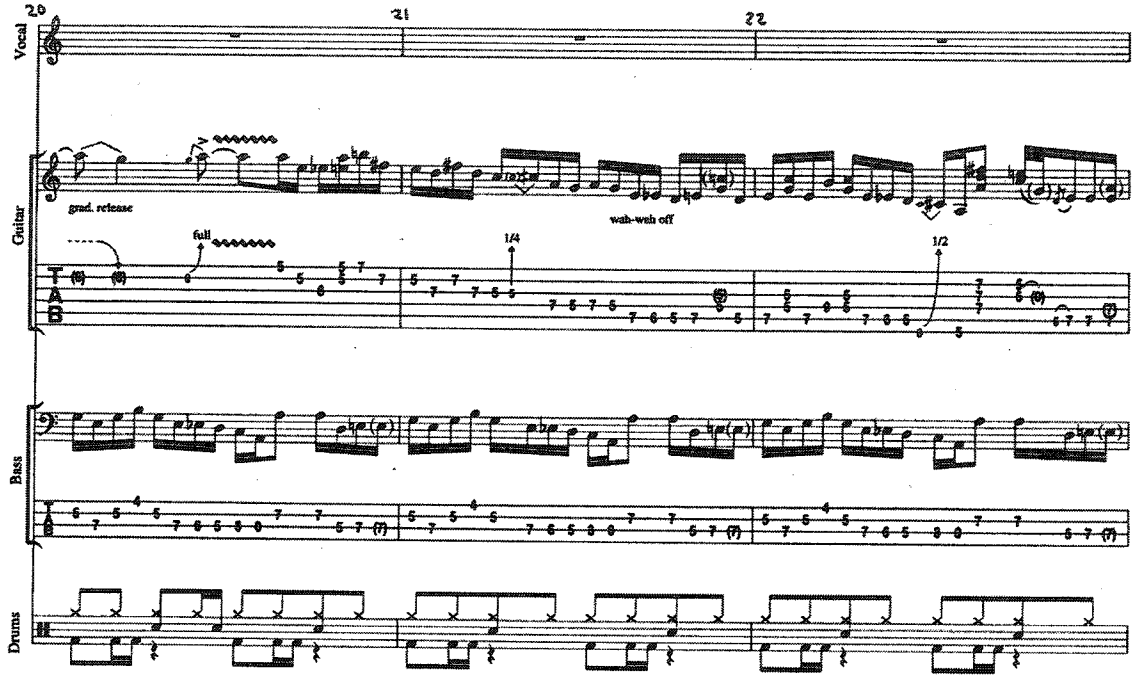

5 N.C.
6 C7
Vocal
Guitar
Paraphrase/Quote from Ray Charles's "Mary Ann"
semi-harm.
1/2
full
T
A
B
Bass
Drums
crush
7
tape edit
8 N.C.(B)
9
f w/ wah-wah & Fuzz Face
full
(10)
PTL-1
(B)
ride
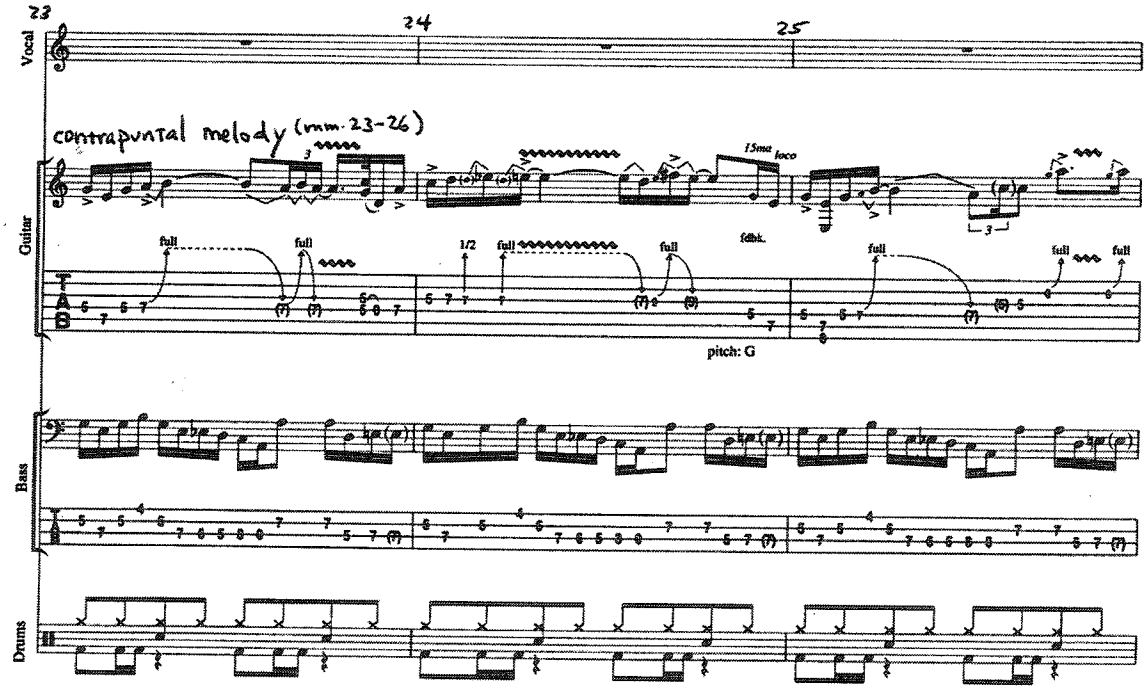

10
11
12 (C#m7)
Vocal
Guitar
Bass
Drums
Plastici parts
PTL-2
(C#)
hi-hat (closed)
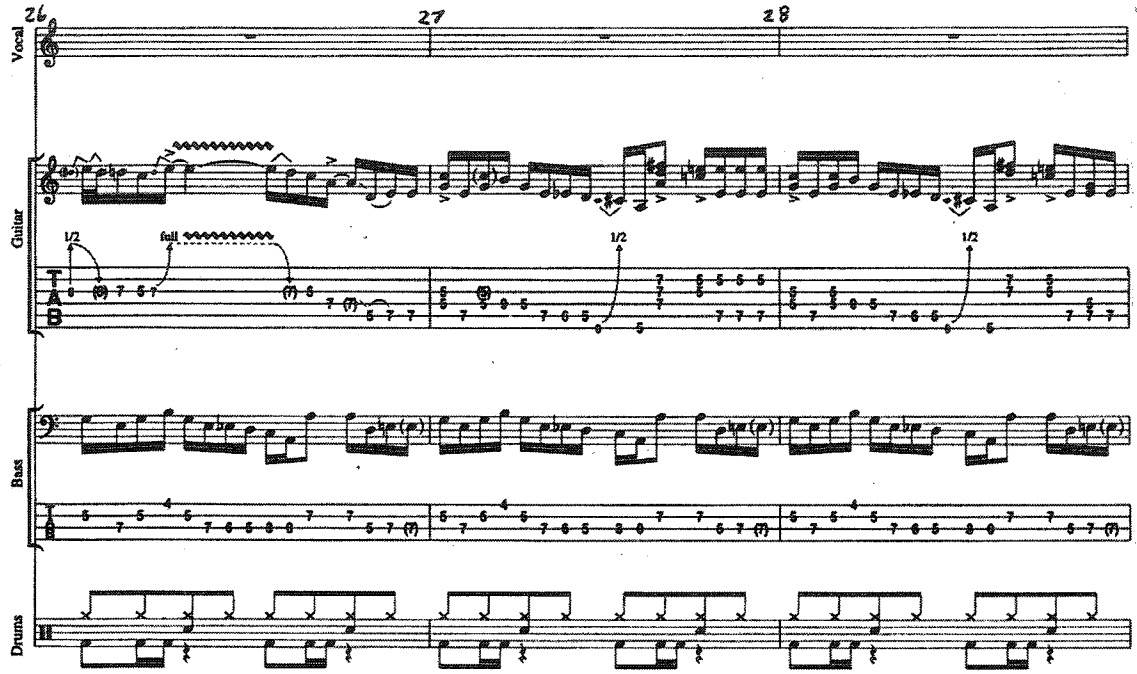

13
14
15
Vocal
Guitar
Bass
Drums
dyad
E-centered melodic phrase
wah-wah off
*Turn Univibe on & off:
creates impression of re - attack
*Press palm down on tremolo
bridge, raising the pitch of
the open low E string a half step.
PTL-3
(E) (no root in bass line)
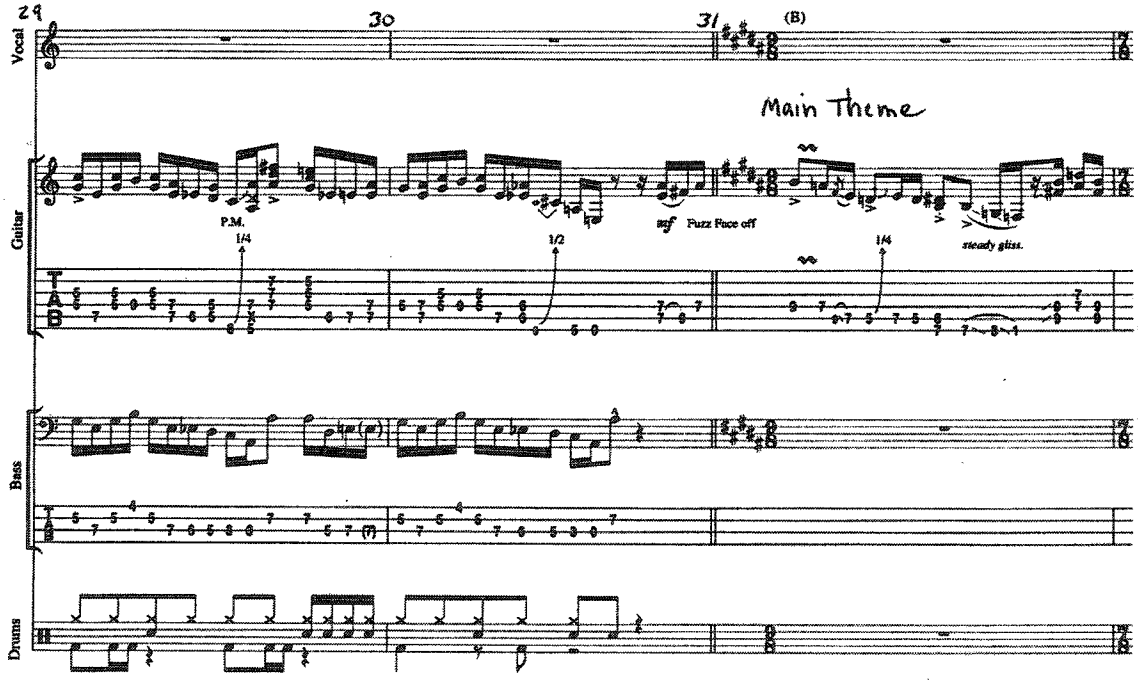

16
(Am7)
17
Vocal
Key note
b2
overbending
wah-wah on
full
1 1/2
2
Guitar
T
A
B
PTL-4
Bass
(A)
ride
Drums
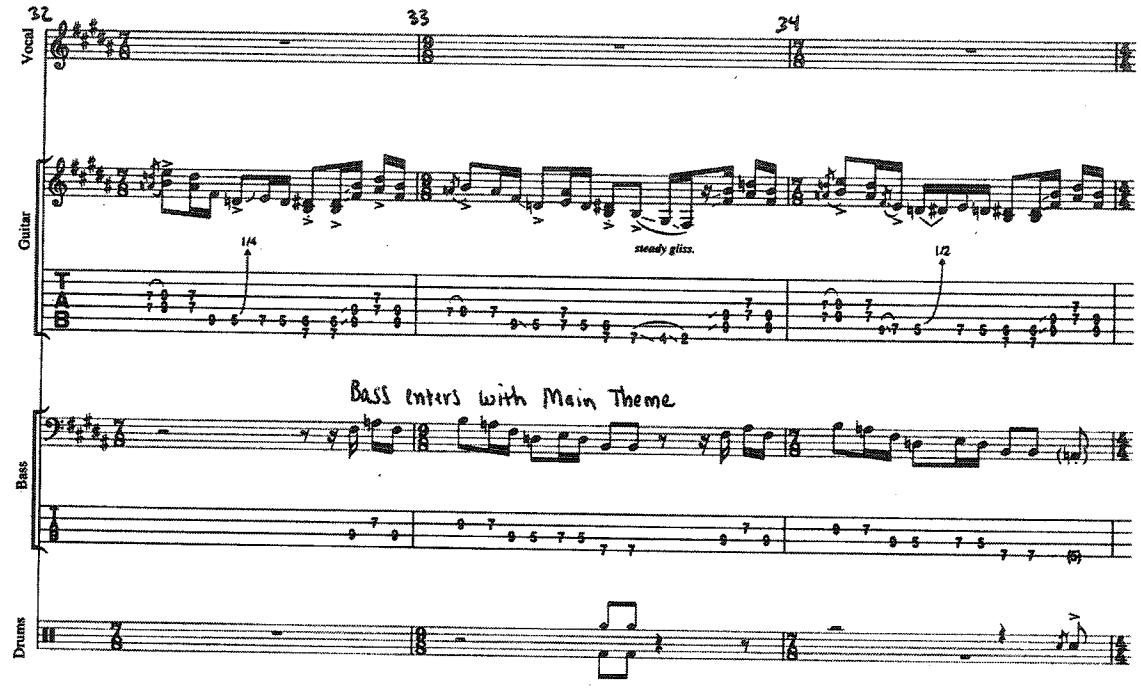

18
19
Vocal
Approximate pitch values
Guitar
1 1/2
full
2
2 1/2
T
A
B
Bass
Drums
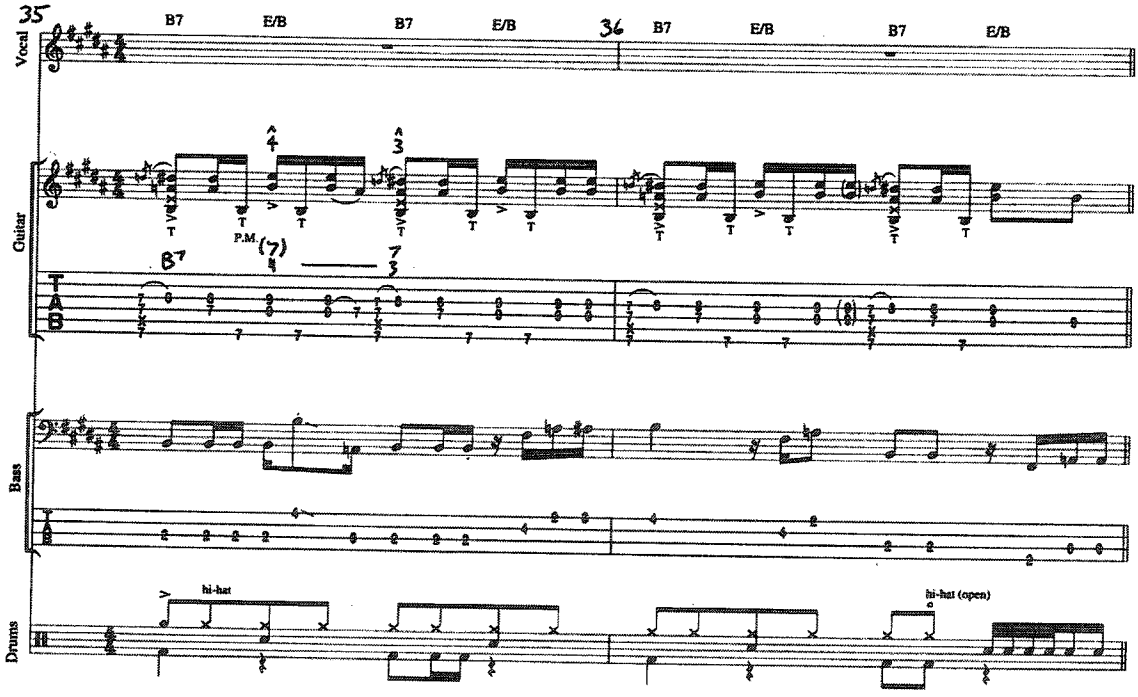

20
21
22
Vocal
Guitar
grad. release
wah-wah off
full
1/4
1/2
Bass
Drums
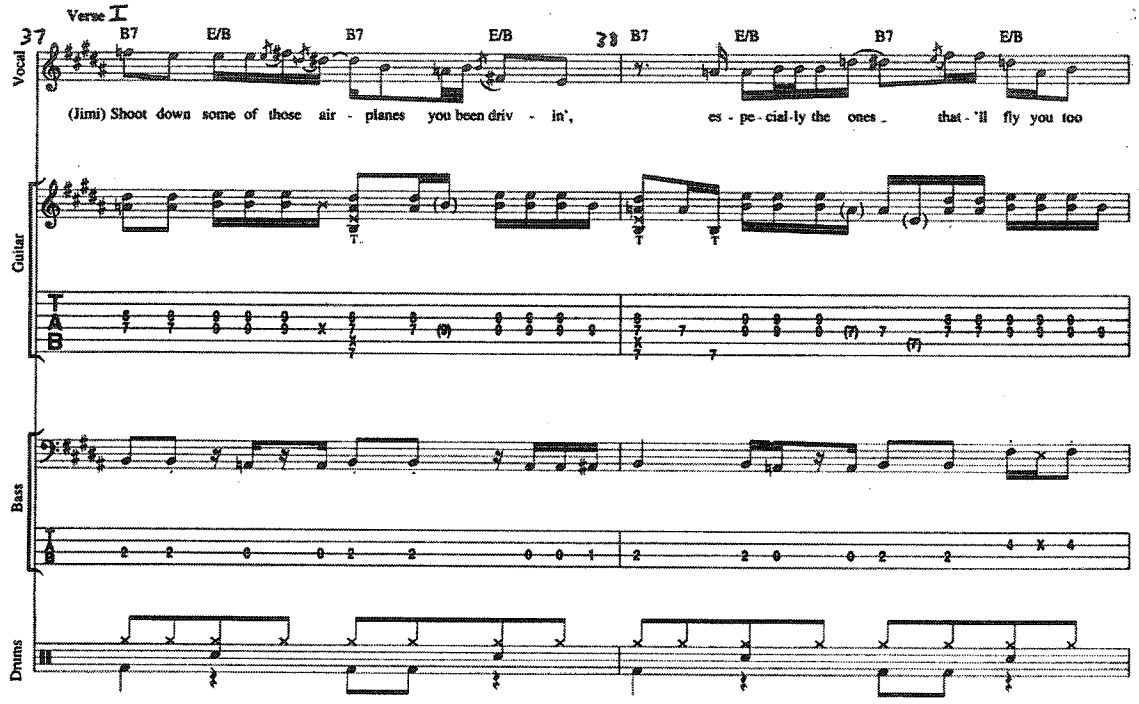

23
24
25
Vocal
contrapuntal melody (mm. 23-26)
Guitar
15ma loco
fdbk.
full
1/2
pitch: G
Bass
Drums
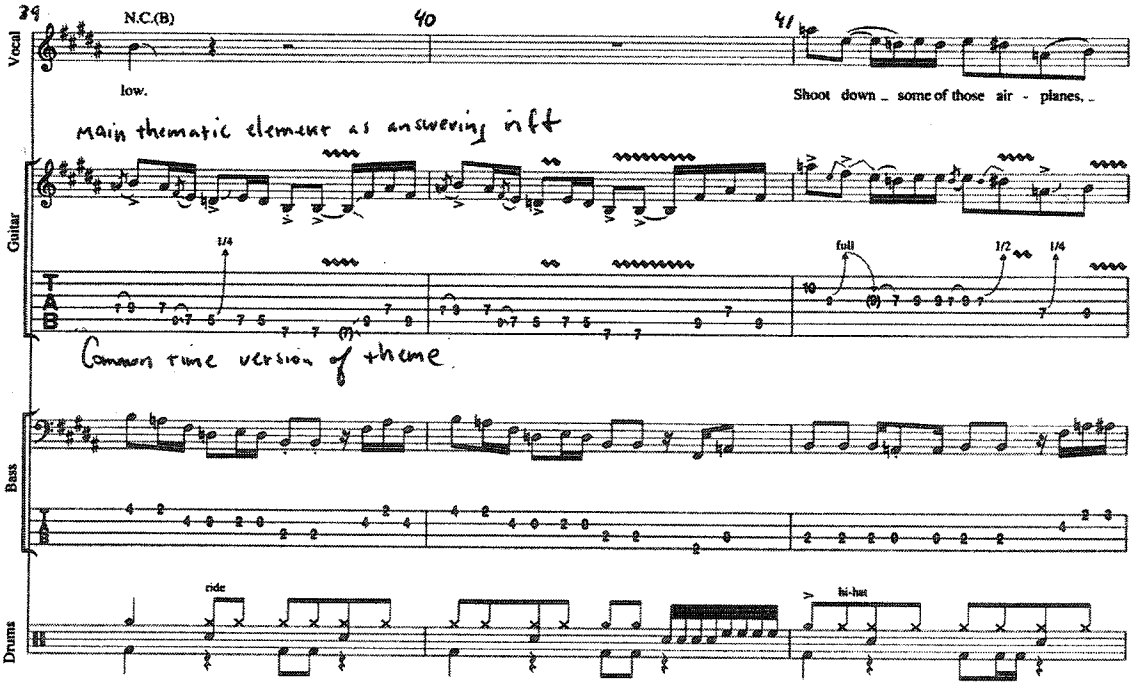

26
27
28
Vocal
Guitar
Bass
Drums
1/2
full
1/2
1/2
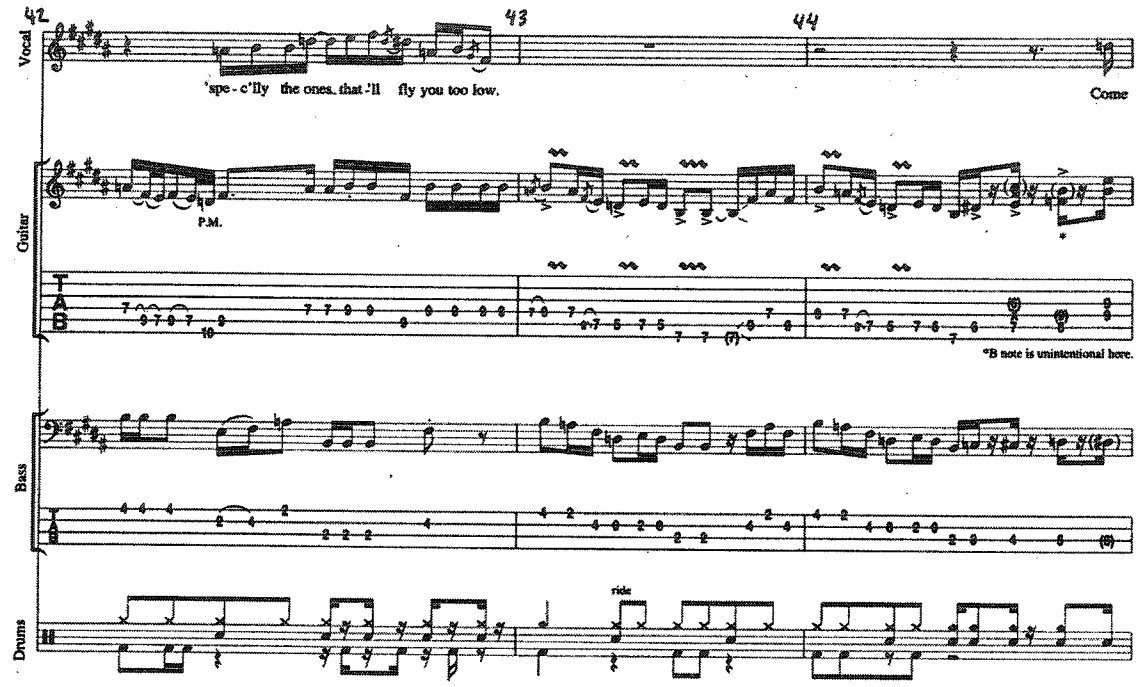

29
30
31
(B)
Main Theme
Vocal
Guitar
Bass
Drums
P.M.
1/4
1/2
mf Fuzz Face off
1/4
steady gliss.
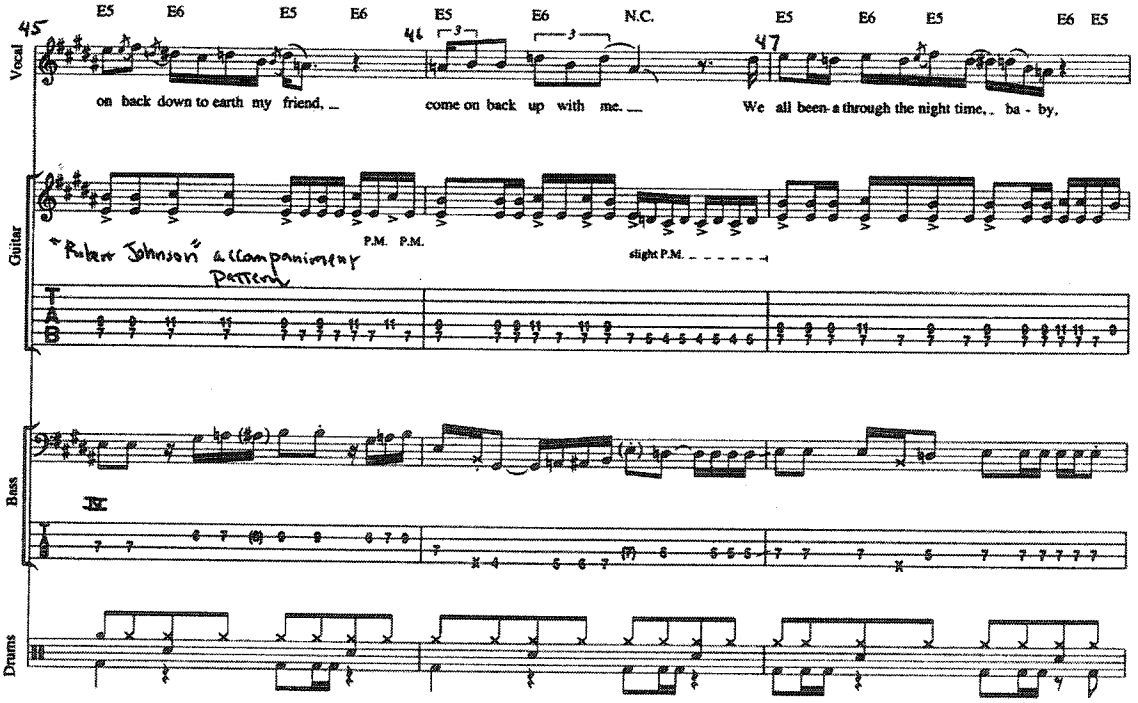

32
33
34
Vocal
Guitar
1/4
steady gliss.
1/2
Bass enters with Main Theme
Bass
Drums
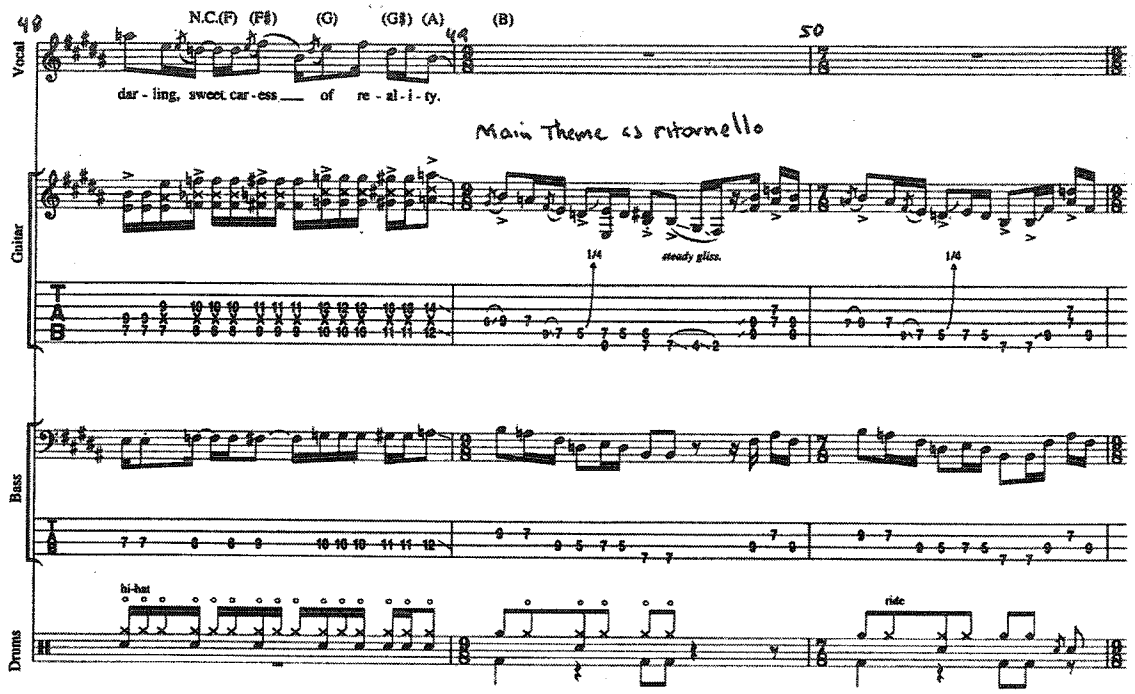

35
B7
E/B
B7
E/B
36
B7
E/B
B7
E/B
Vocal
Guitar
P.M.
B7
Bass
hi-hat
hi-hat (open)
Drums
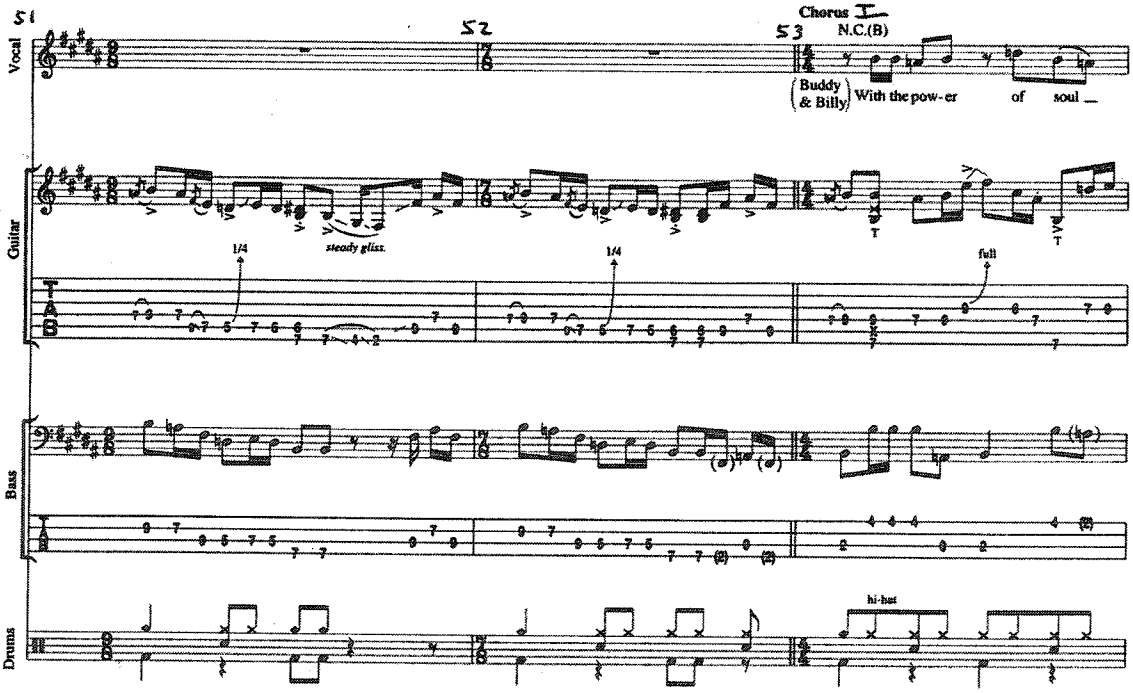

Verse I
37
B7
E/B
B7
E/B
38
B7
E/B
B7
E/B
Vocal
(Jimi) Shoot down some of those air - planes you been driv - in',
es - pe - cial - ly the ones that - 'll fly you too
Guitar
T
A
B
Bass
Drums
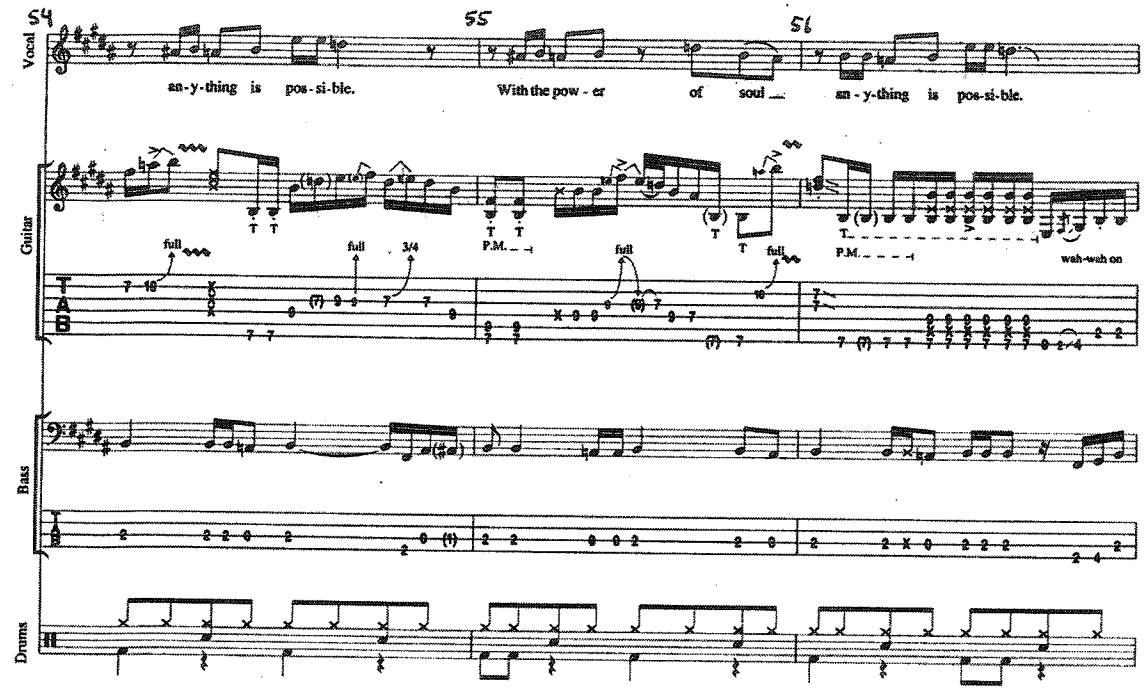

39
N.C.(B)
40
41
Vocal
low.
Shoot down some of those air - planes,
main thematic element as answering ift
Guitar
1/4
full
1/2
1/4
Common time version of theme
Bass
Drums
ride
hi-hat
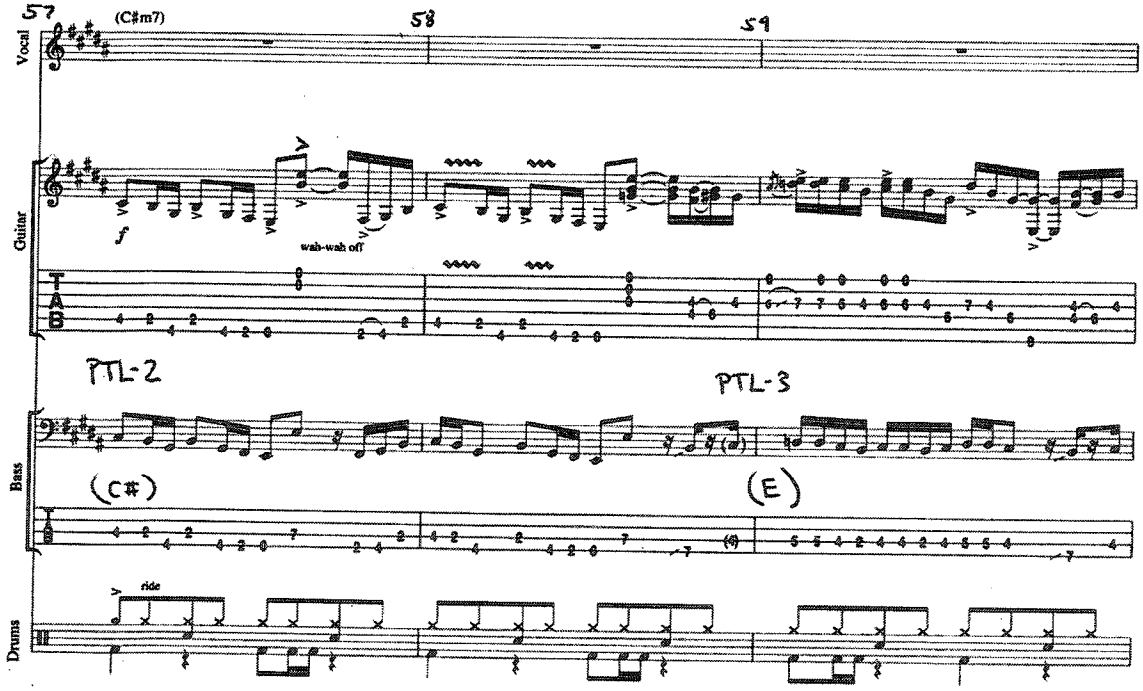

42
43
44
Vocal
'spe - c'lly the ones that'll fly you too low.
Come
Guitar
P.M.
*B note is unintentional here.
Bass
Drums
ride

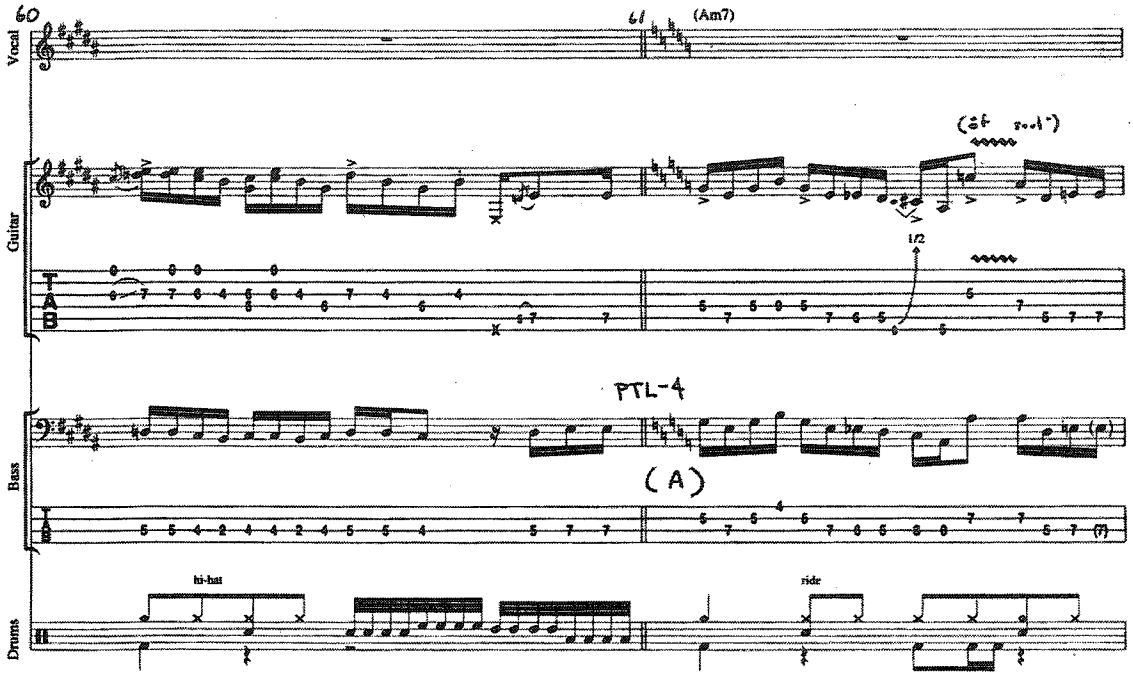

E5 E6 E5 E6 E5 E6 N.C. E5 E6 E5 E6 E5
45
46
47
Vocal
on back down to earth my friend, come on back up with me. We all been a through the night time, ba - by,
Guitar
P.M. P.M.
slight P.M.
*Robert Johnson's accompaniment pattern
Bass
Drums
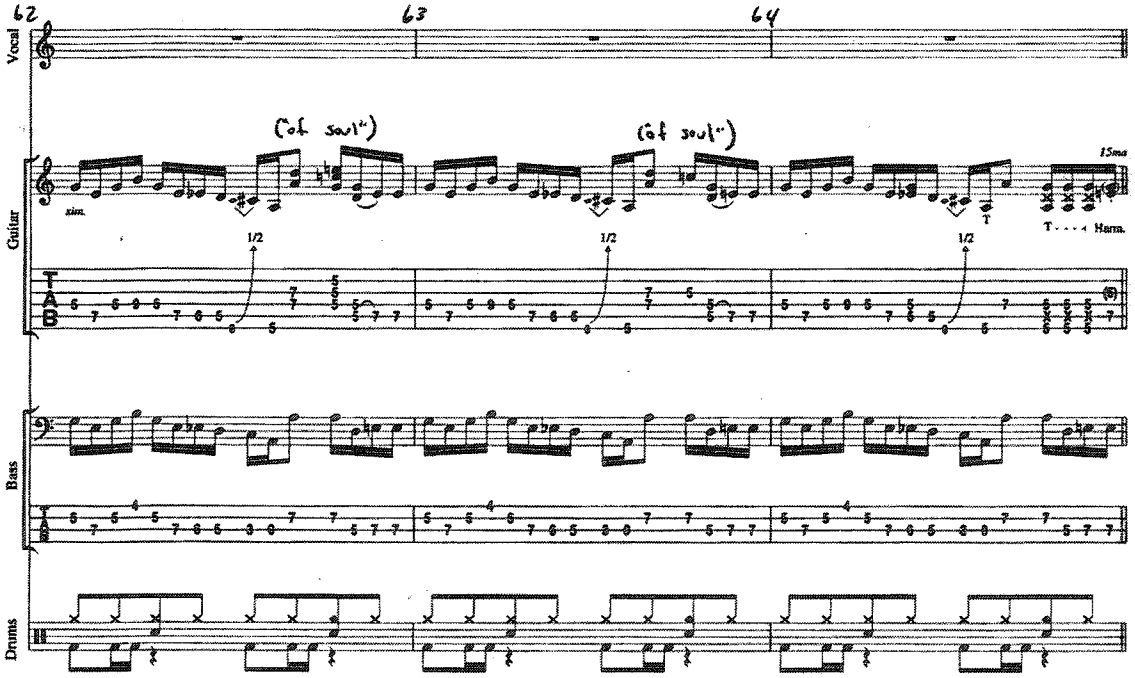

48
N.C.(F) (F♯) (G) (G♯) (A) (B)
49
50
dar - ling, sweet car - ess ___ of re - al - i - ty.
Main Theme as ritornello
Vocal
Guitar
Bass
Drums
steady gliss.
1/4
hi-hat
ride
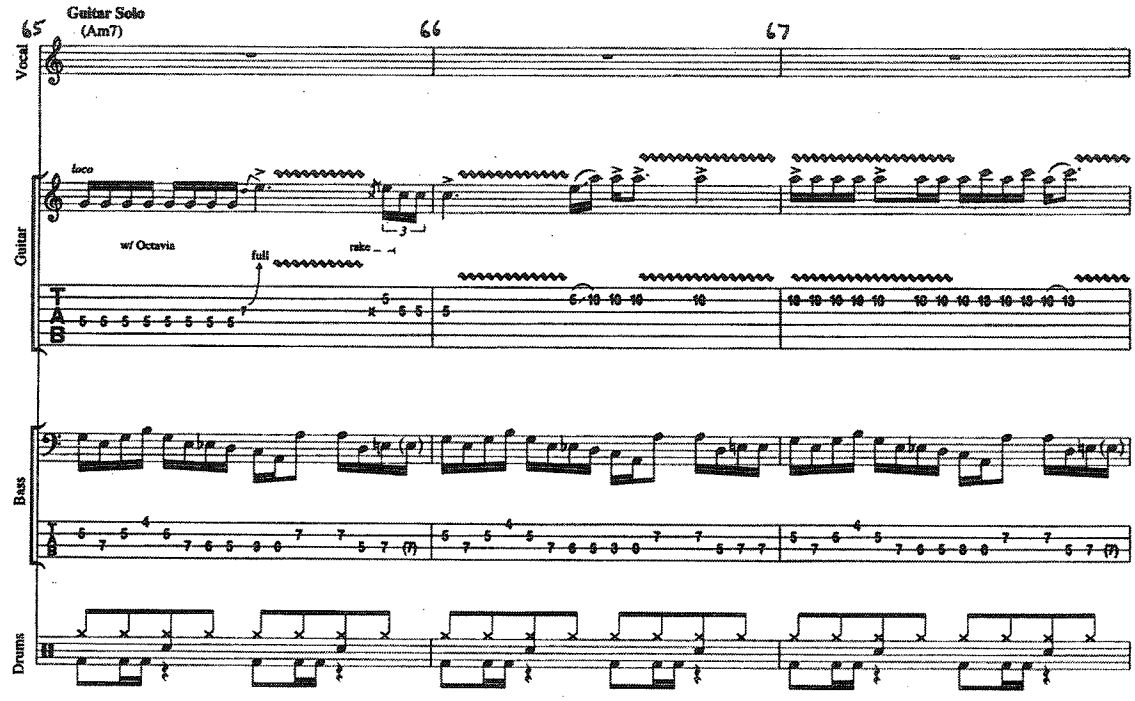

51
52
53
Chorus I
N.C.(B)
(Buddy & Billy)
With the pow - er of soul ___
Vocal
Guitar
Bass
Drums
steady gliss.
1/4
full
hi-hat
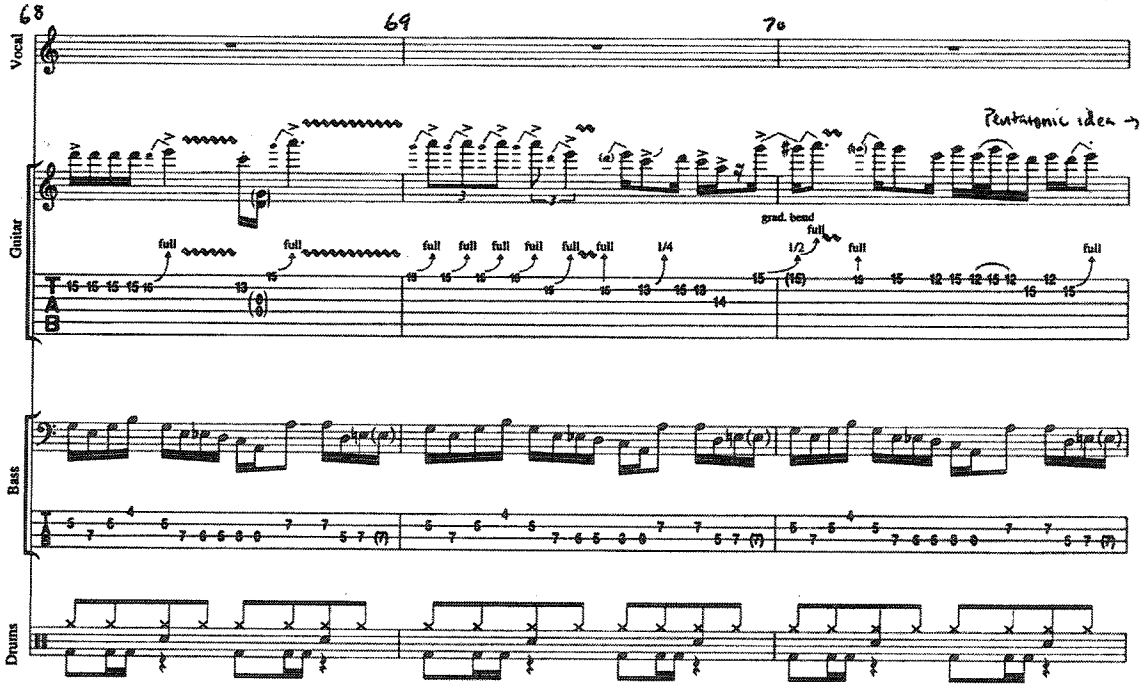

54
55
56
Vocal
an-y-thing is pos-si-ble.
With the pow-er of soul
an-y-thing is pos-si-ble.
Guitar
full
full
3/4
P.M.
full
full
P.M.
wah-wah on
T
A
B
Bass
Drums
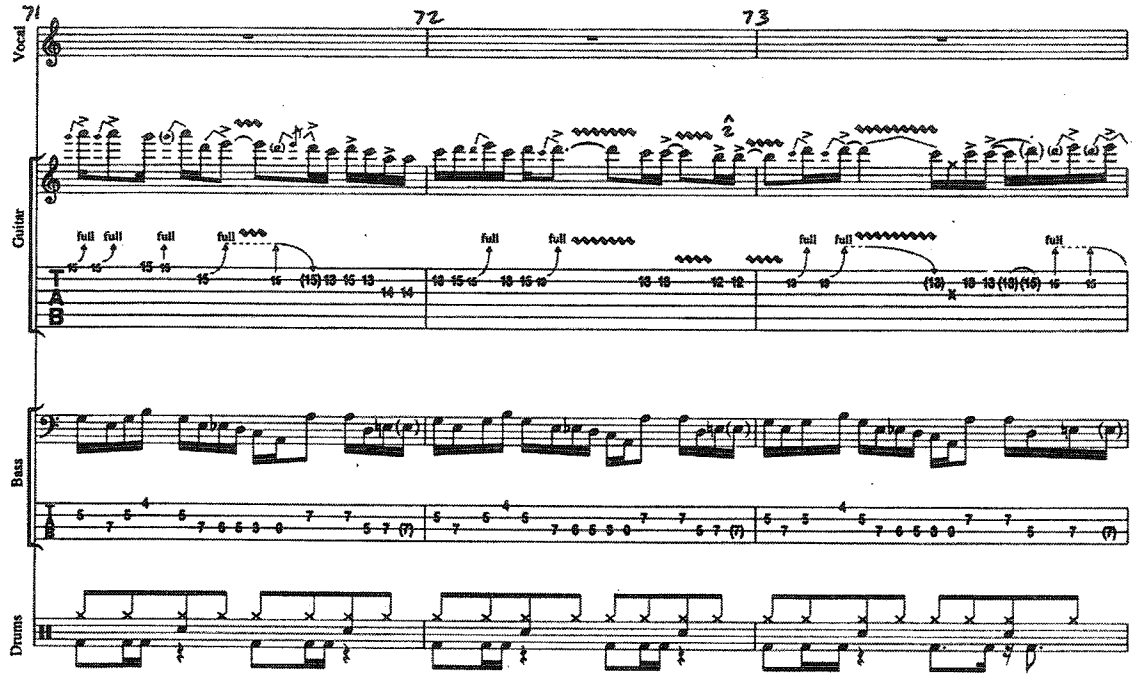

57
(C♯m7)
58
59
Vocal
f
wah-wah off
Guitar
T
A
B
PTL-2
PTL-3
Bass
(C♯)
(E)
ride
Drums
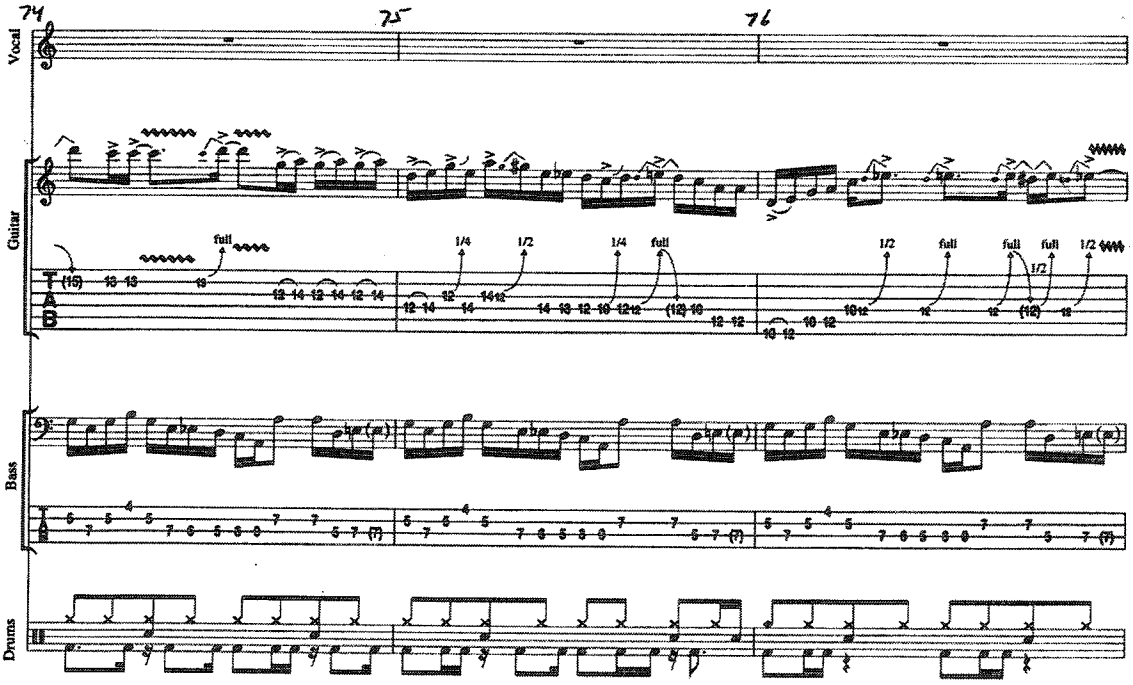

60
61
(Am7)
Vocal
Guitar
("of soul")
1/2
T
A
B
PTL-4
Bass
(A)
hi-hat
ride
Drums

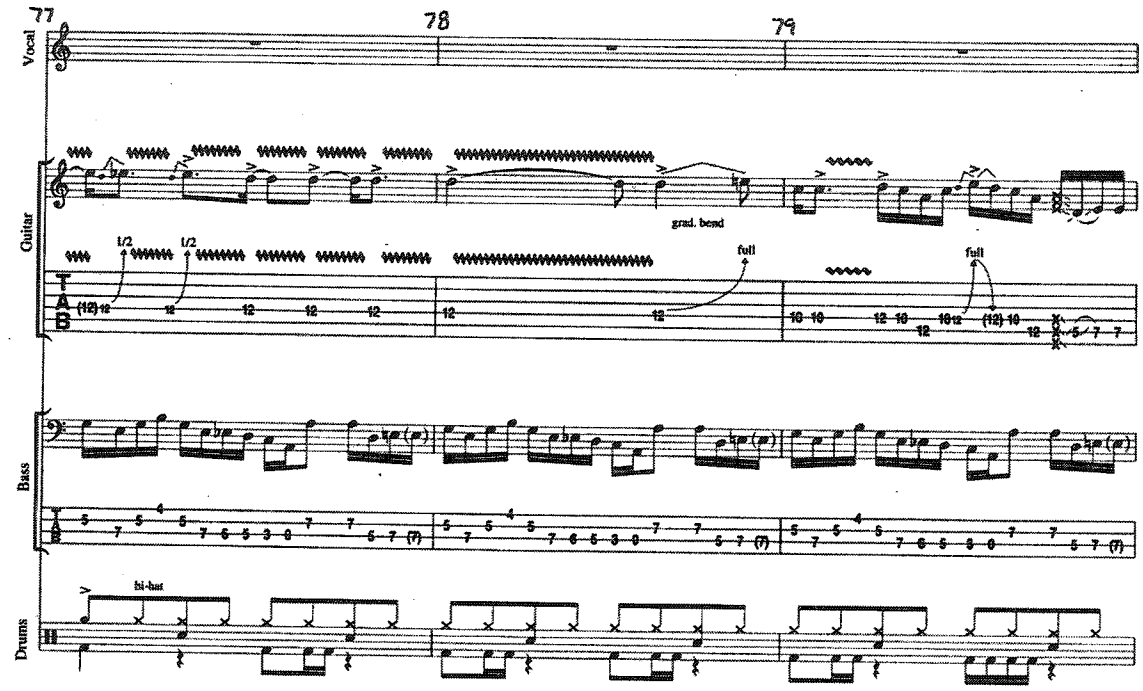

62
63
64
Vocal
Guitar
("of soul")
("of soul")
15ma
xim.
T
T . . . . Harm.
1/2
1/2
1/2
T
A
B
Bass
Drums
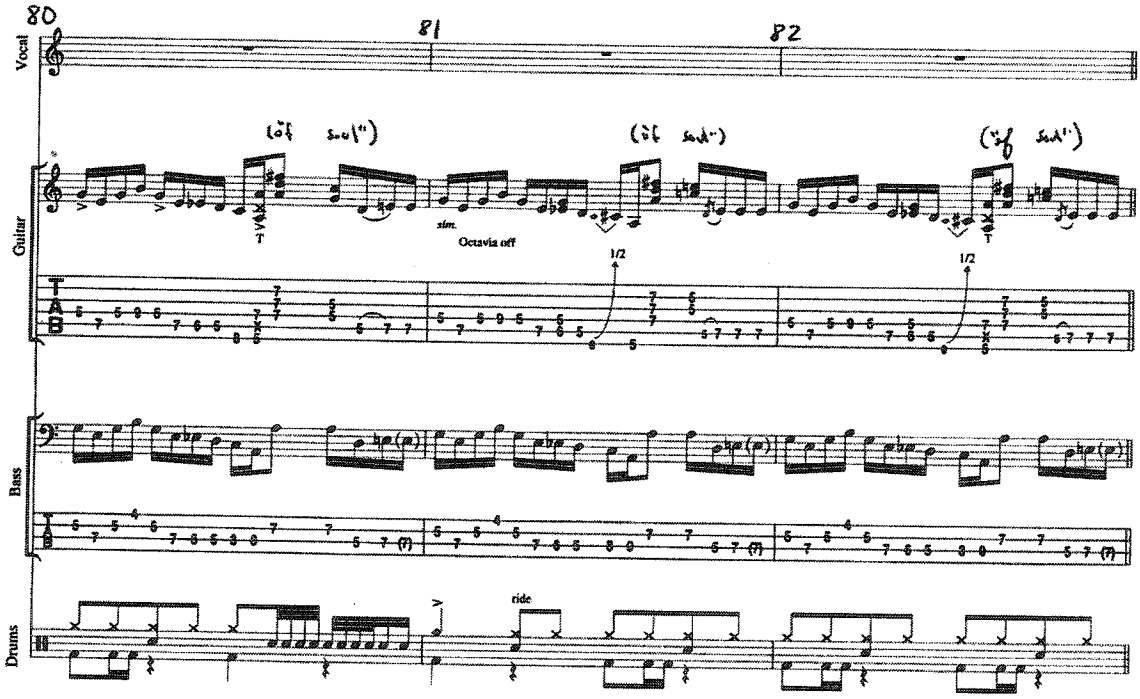

65
Guitar Solo
(Am7)
66
67
Vocal
Guitar
loco
w/ Octavia
full
rake
Bass
Drums

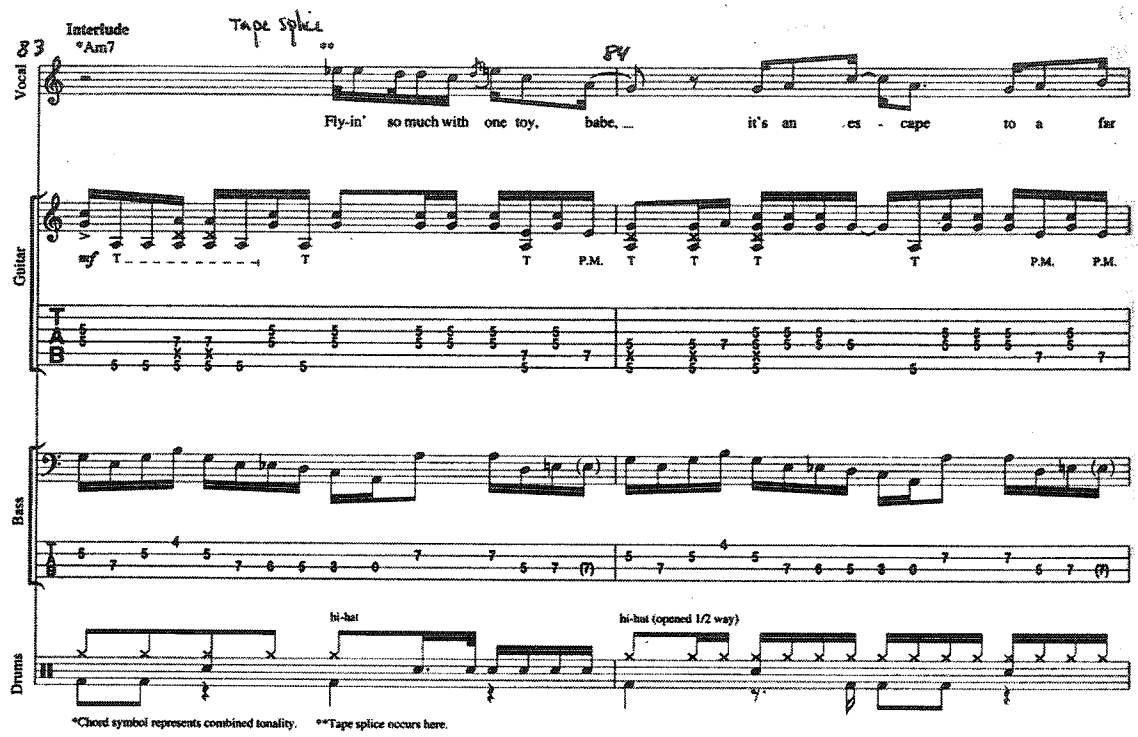

68
69
70
Vocal
Guitar
Pentatonic idea
full
grad. bend
1/4
1/2
Bass
Drums
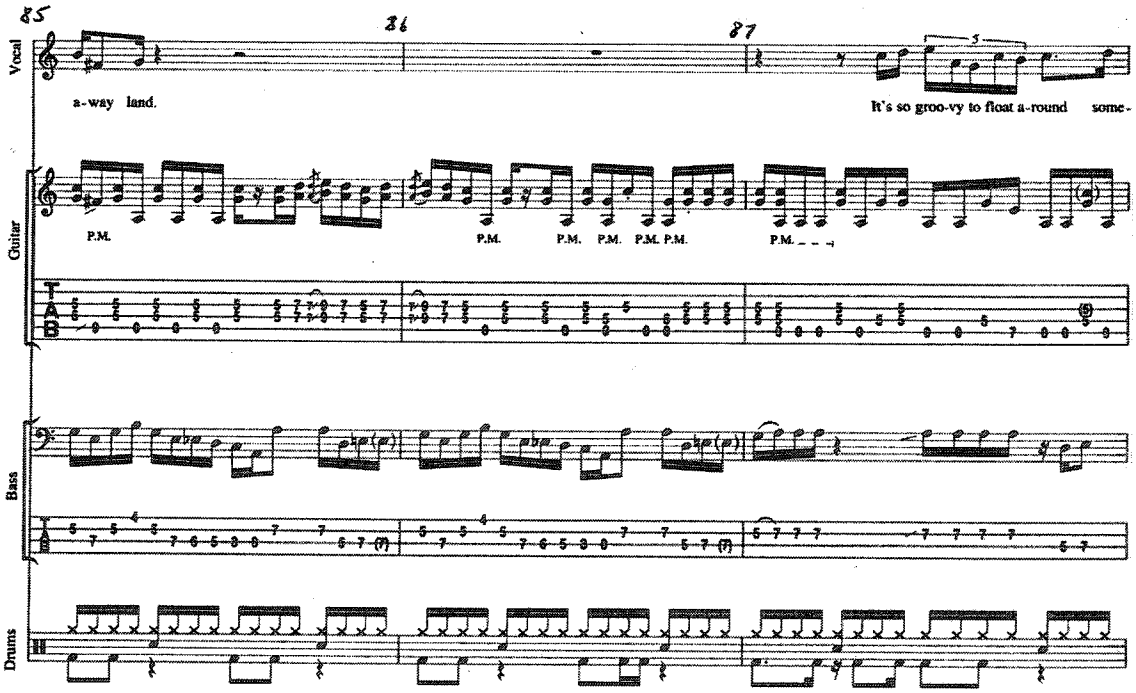

71
72
73
Vocal
Guitar
Bass
Drums
full
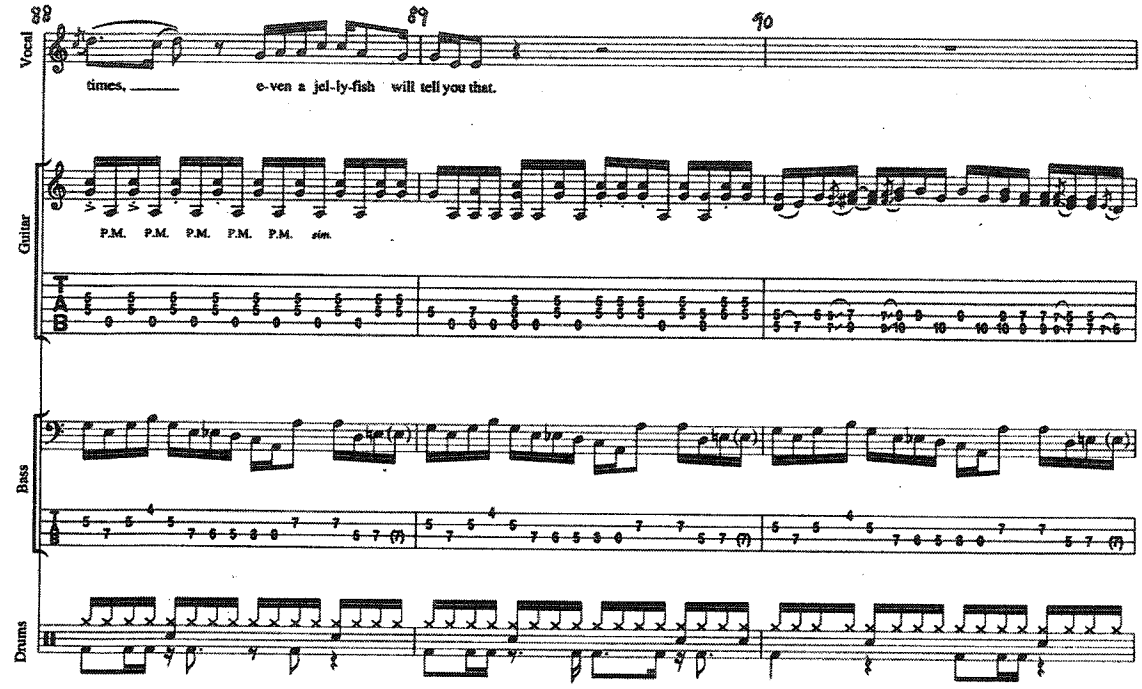

74
75
76
Vocal
Guitar
Bass
Drums
full
1/4
1/2
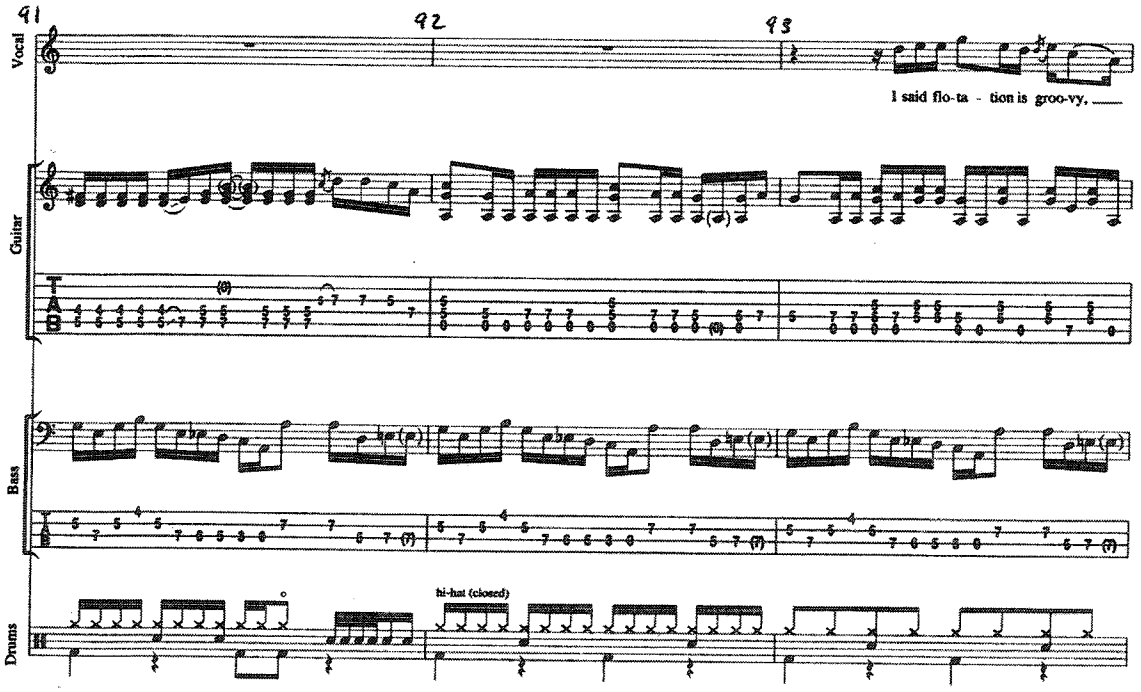

77
78
79
Vocal
Guitar
grad. bend
1/2
1/2
full
full
Bass
Drums
hi-hat
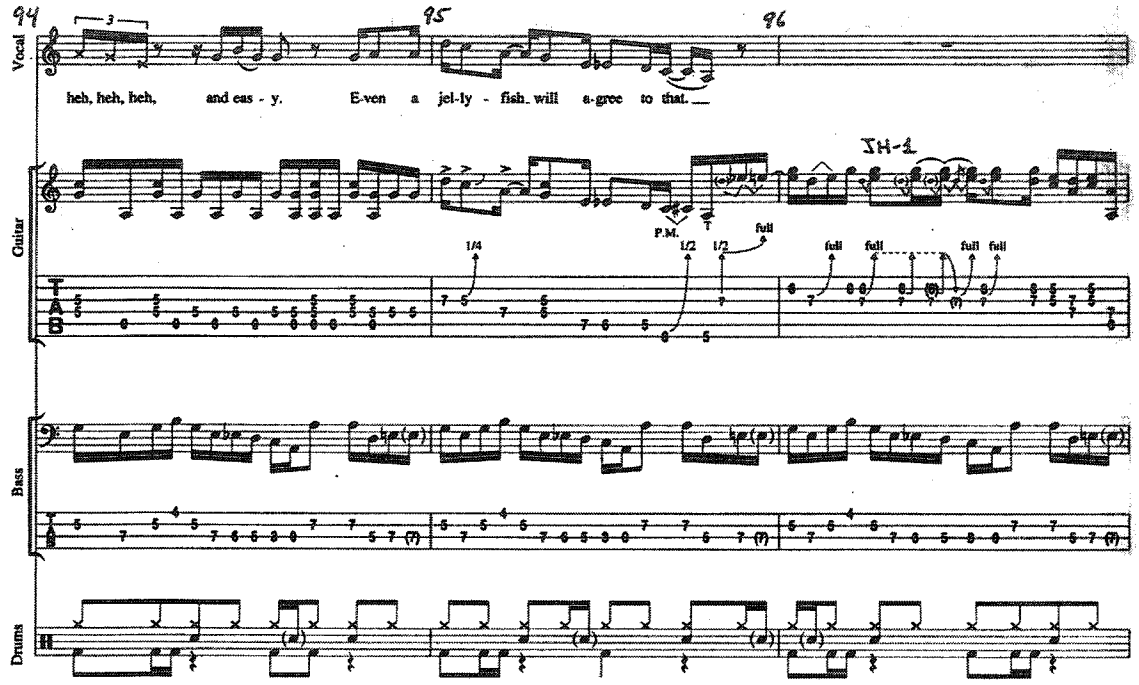

80
81
82
Vocal
Guitar
sim.
Octavia off
1/2
1/2
Bass
Drums
ride
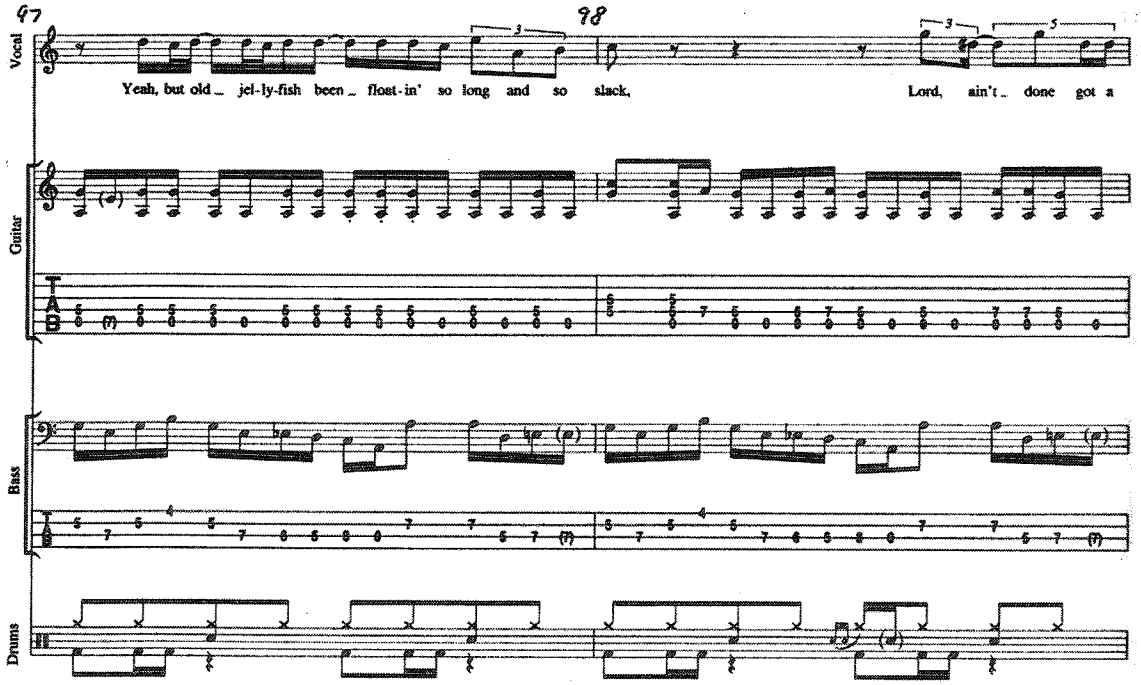

Interlude
*Am7
Tape Splice
**
83
84
Vocal
Fly-in' so much with one toy, babe, ... it's an es - cape to a far
Guitar
mf
P.M.
Bass
Drums
hi-hat
hi-hat (opened 1/2 way)
*Chord symbol represents combined tonality.
**Tape splice occurs here.
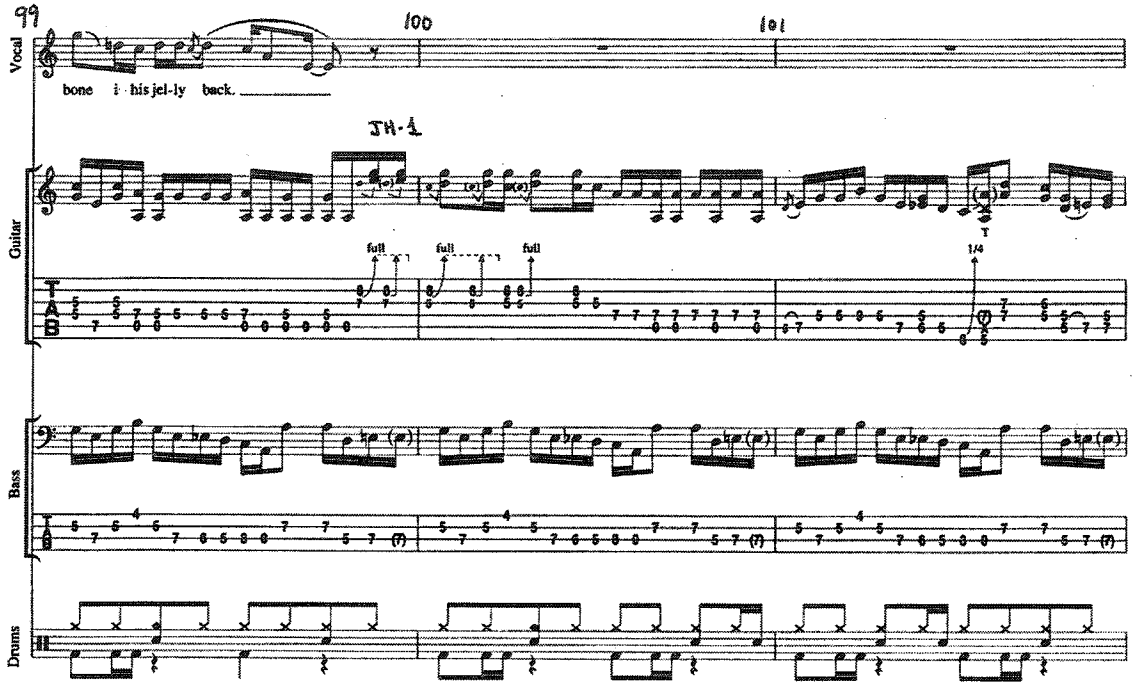

85
86
87
Vocal
a-way land.
It's so groo-vy to float a-round some-
Guitar
P.M.
Bass
Drums
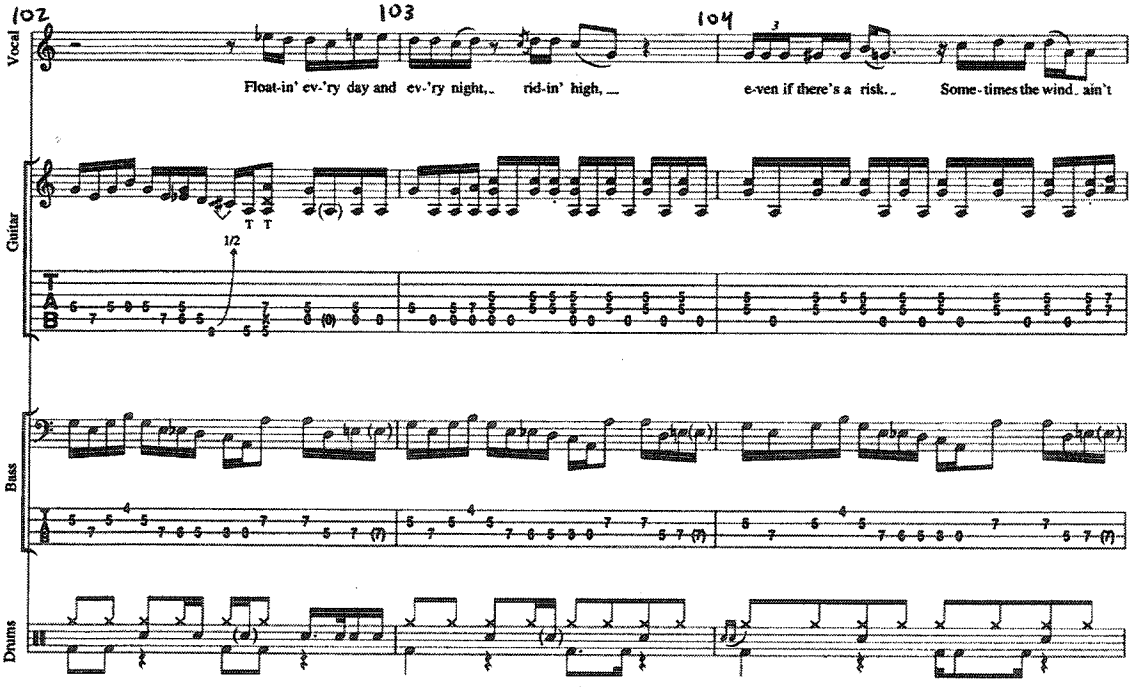

88
89
90
Vocal
times, ____ e-ven a jel-ly-fish will tell you that.
Guitar
P.M. P.M. P.M. P.M. P.M. sim.
T
A
B
Bass
Drums

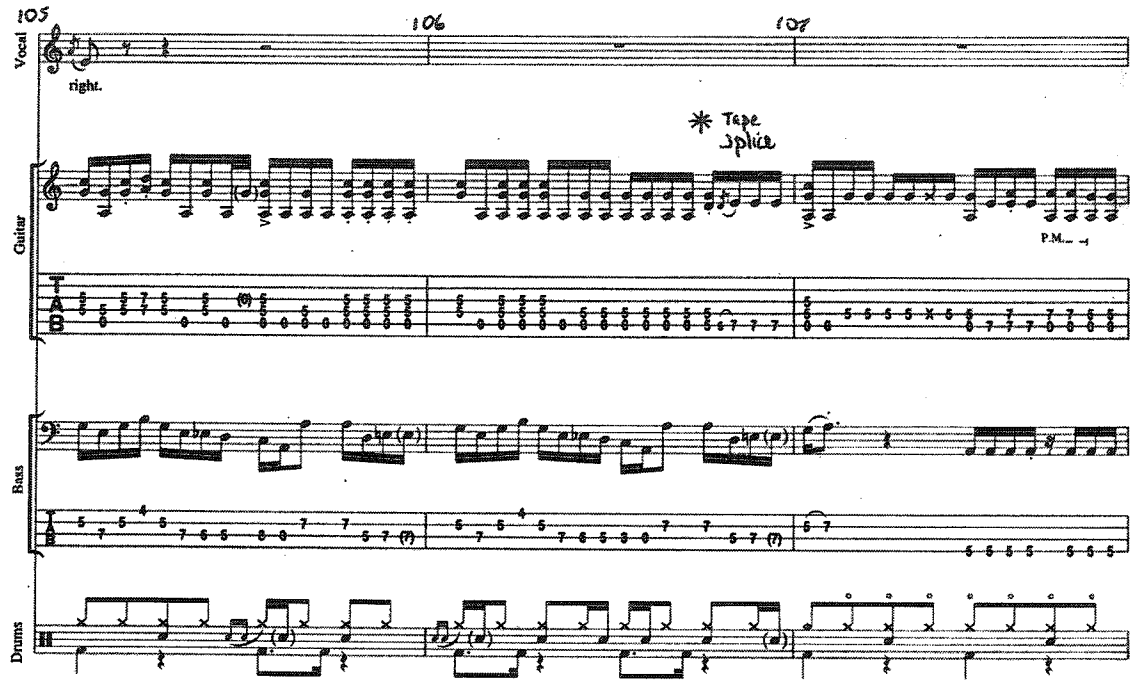

91
92
93
Vocal
I said flo-ta - tion is groo-vy, ____
Guitar
T
A
B
Bass
hi-hat (closed)
Drums
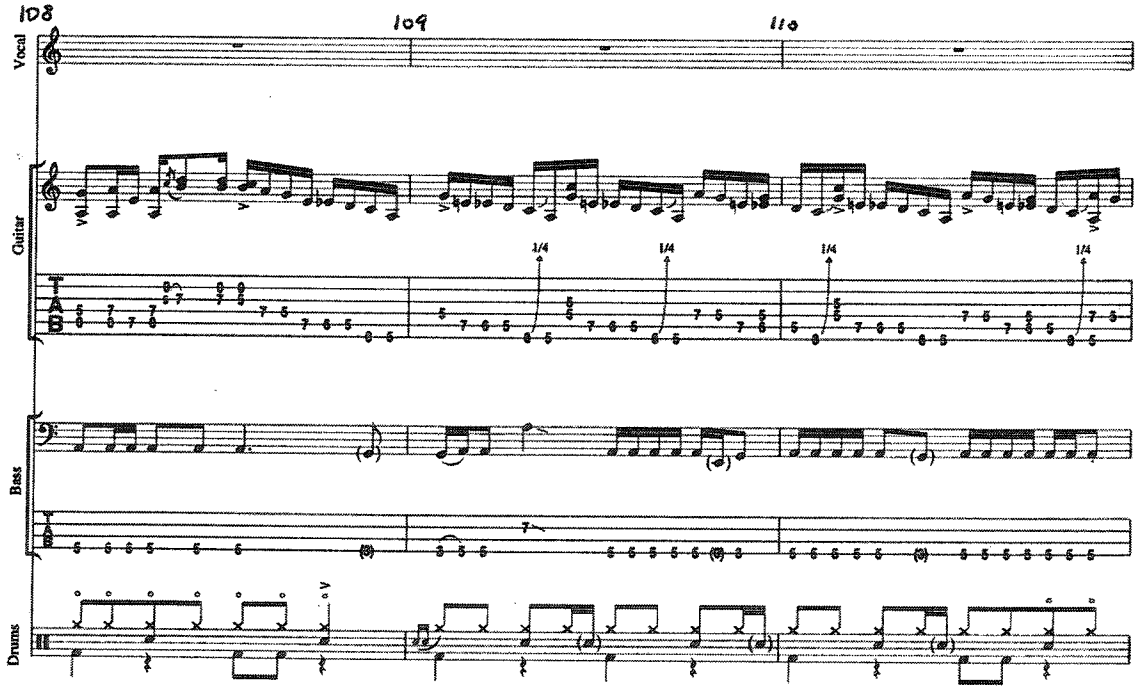

94
95
96
Vocal
heh, heh, heh, and eas - y. E-ven a jel-ly - fish will a-gree to that.
Guitar
1H-1
P.M.
T
1/4
1/2
1/2
full
full
full
full
full
full
Bass
Drums

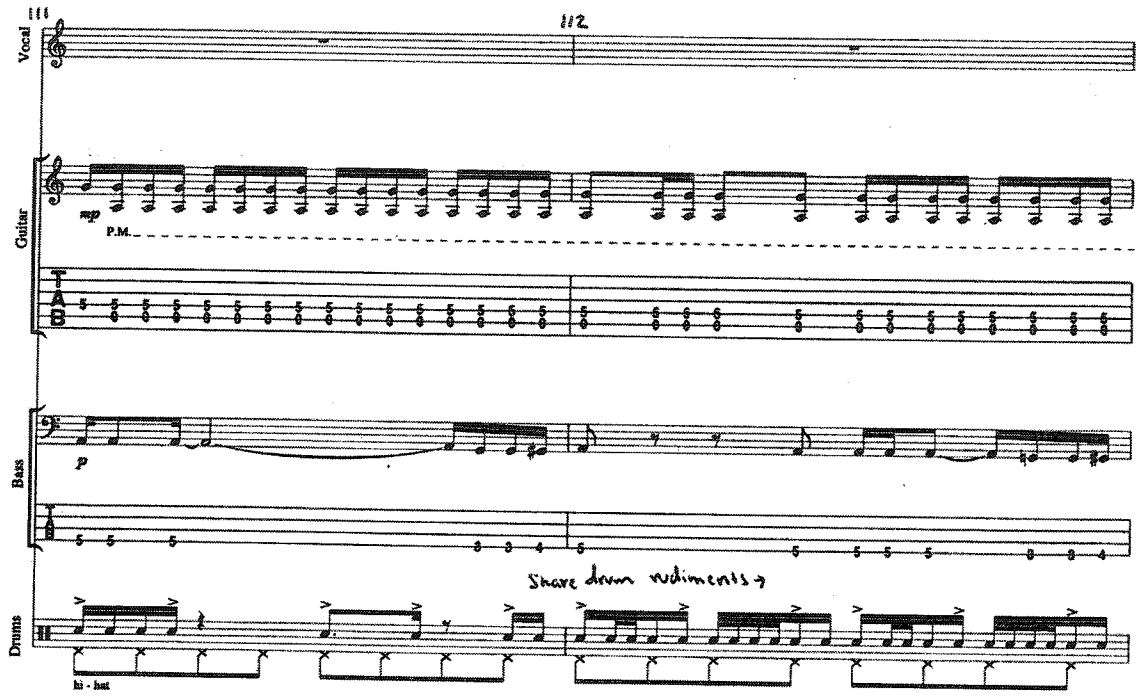

97
98
Vocal
Yeah, but old jel-ly-fish been float-in' so long and so slack, Lord, ain't done got a
Guitar
Bass
Drums
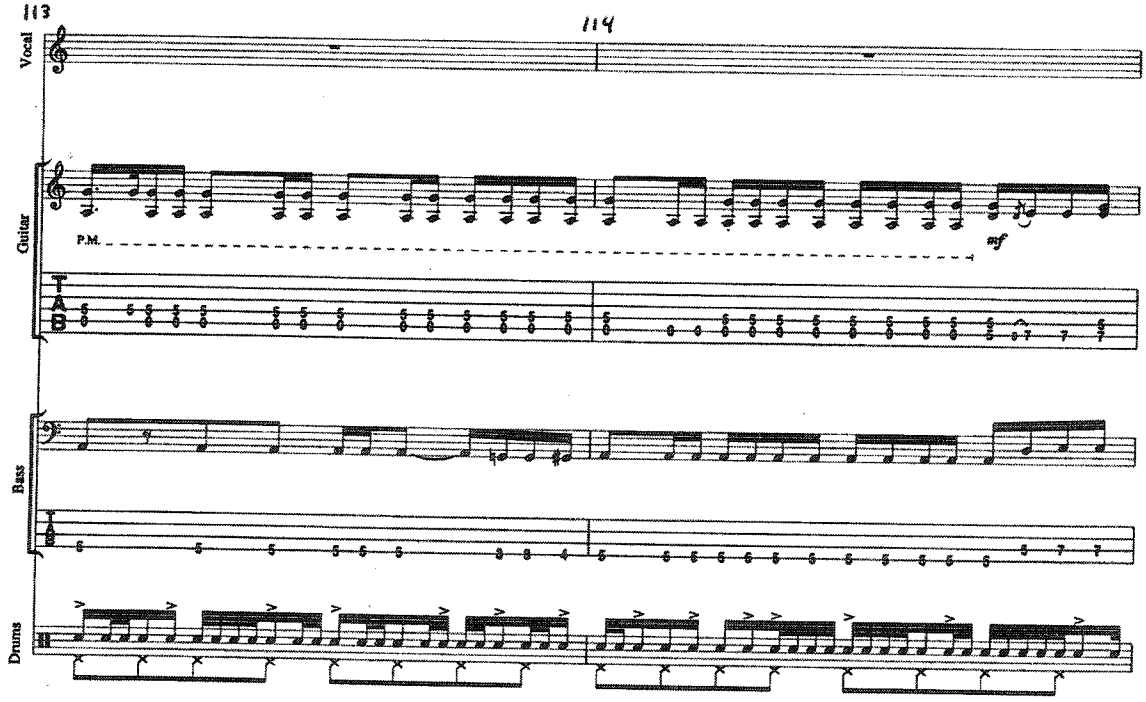

99
100
101
Vocal
bone i his jel-ly back.
JH-1
Guitar
full
full
full
1/4
T
Bass
Drums
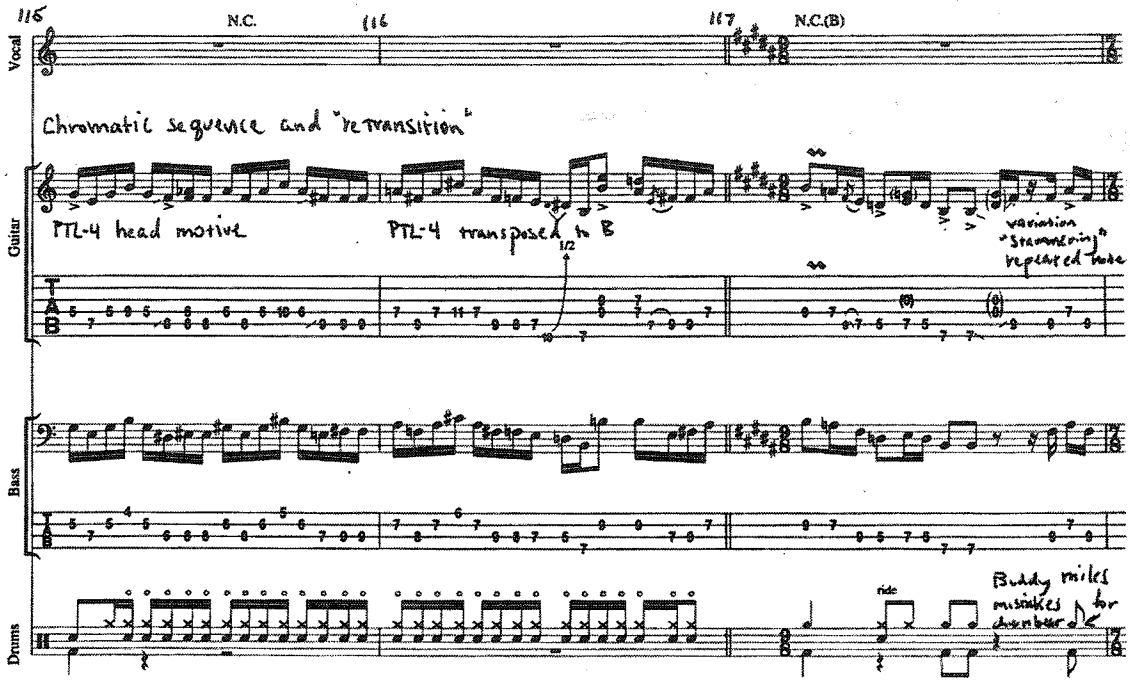

102
103
104
Vocal
Float-in' ev-'ry day and ev-'ry night, rid-in' high, e-ven if there's a risk. Some-times the wind ain't
Guitar
T T
1/2
Bass
Drums
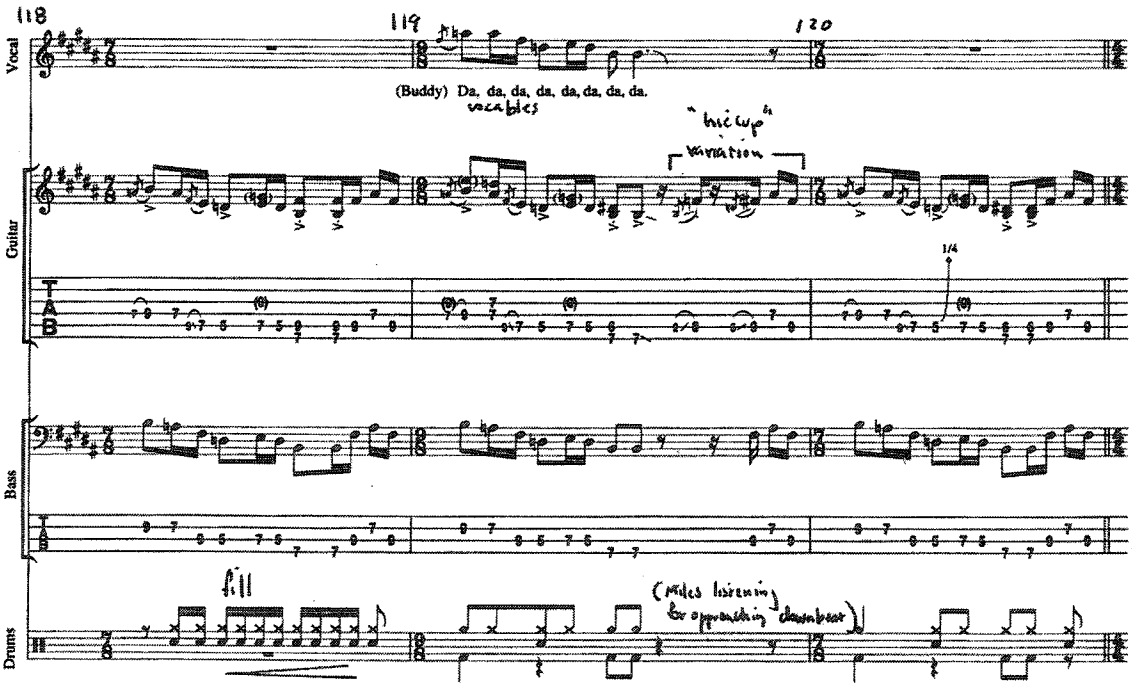

105
106
107
Vocal
right.
Tape Splice
Guitar
P.M.
Bass
Drums
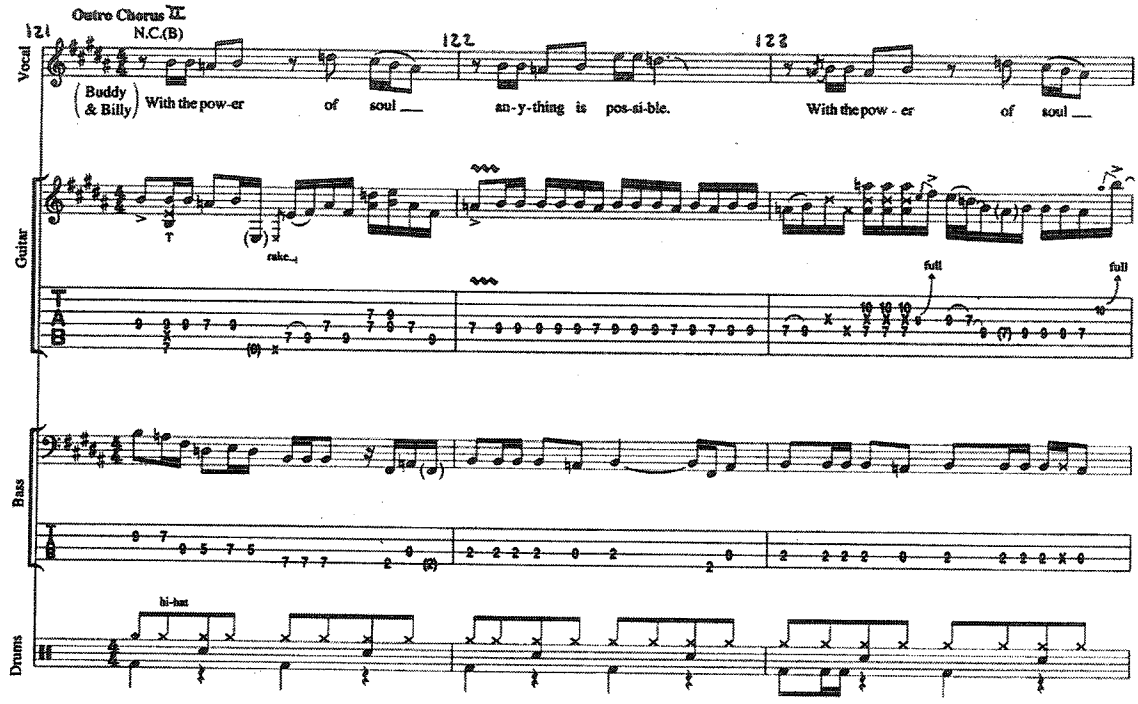

108
109
110
Vocal
Guitar
1/4
1/4
1/4
1/4
Bass
Drums
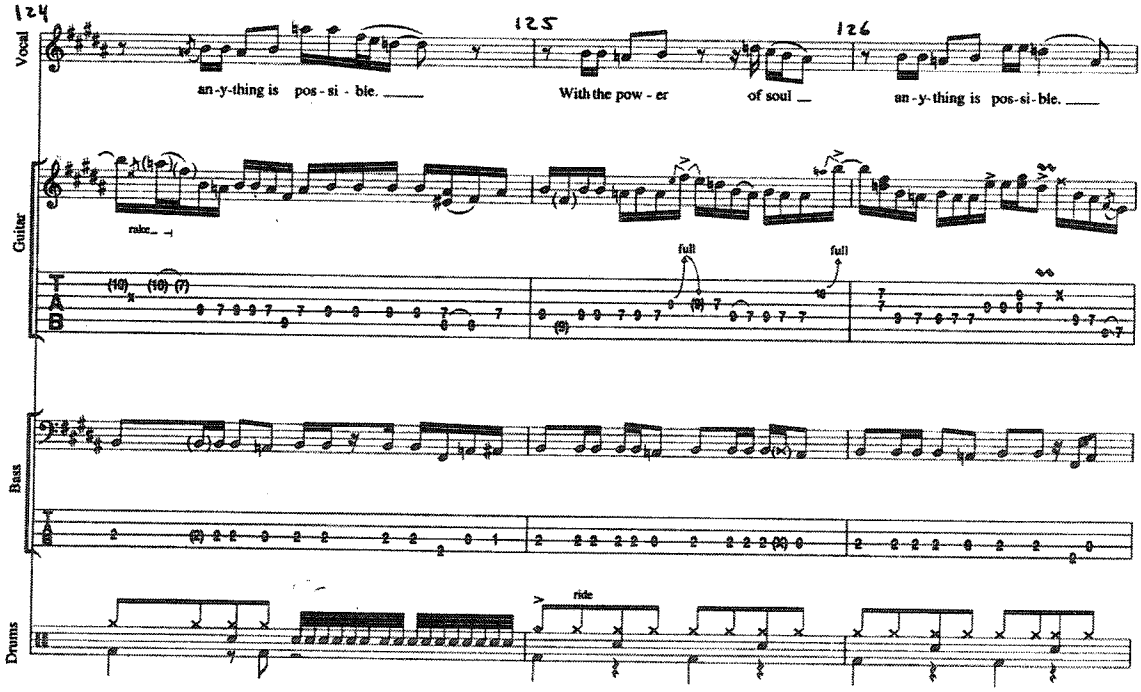

111
112
Vocal
Guitar
mp
P.M.
Bass
p
Share drum rudiments
Drums
hi - hat
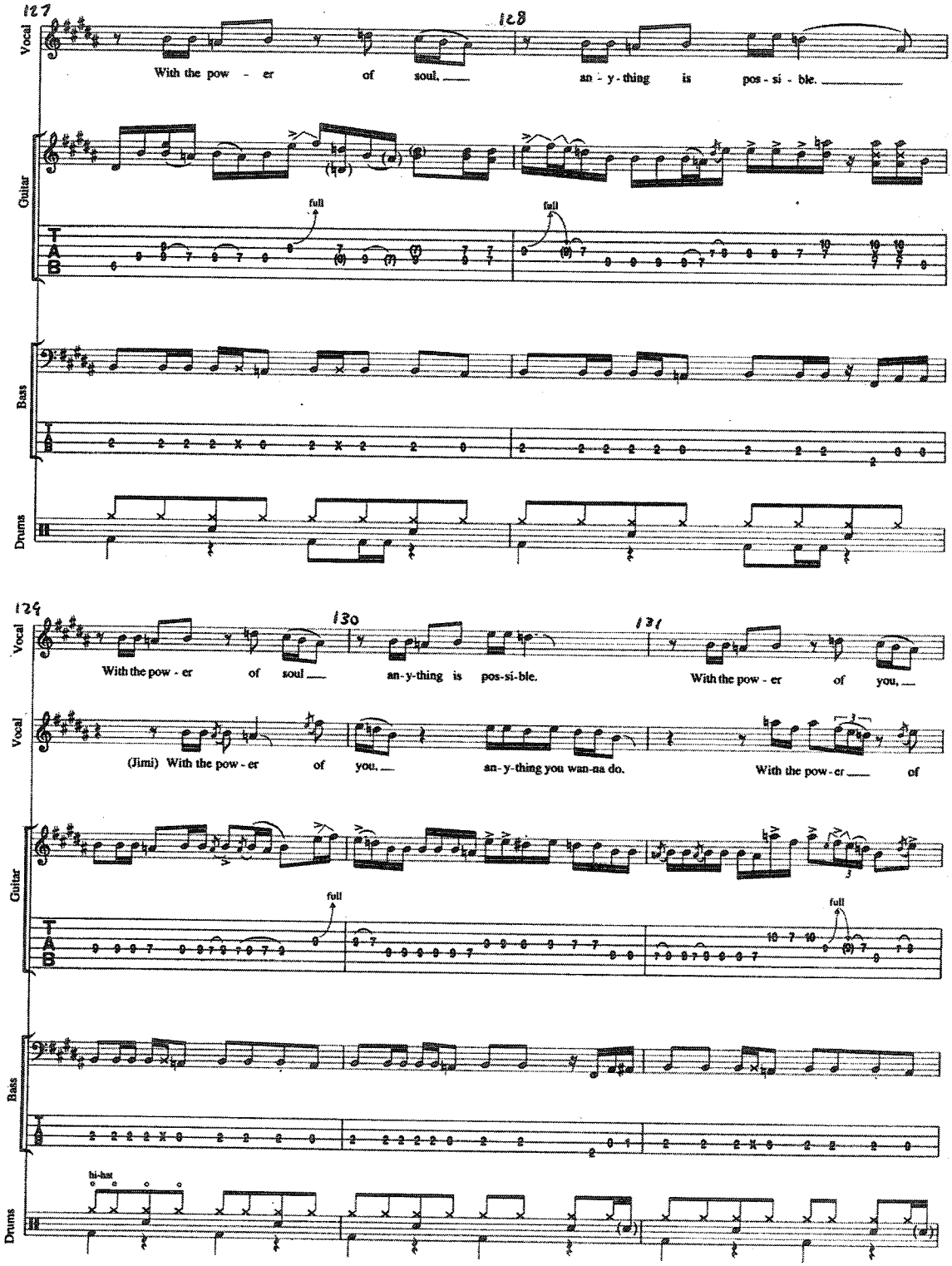

113
114
Vocal
Guitar
P.M.
mf
Bass
Drums
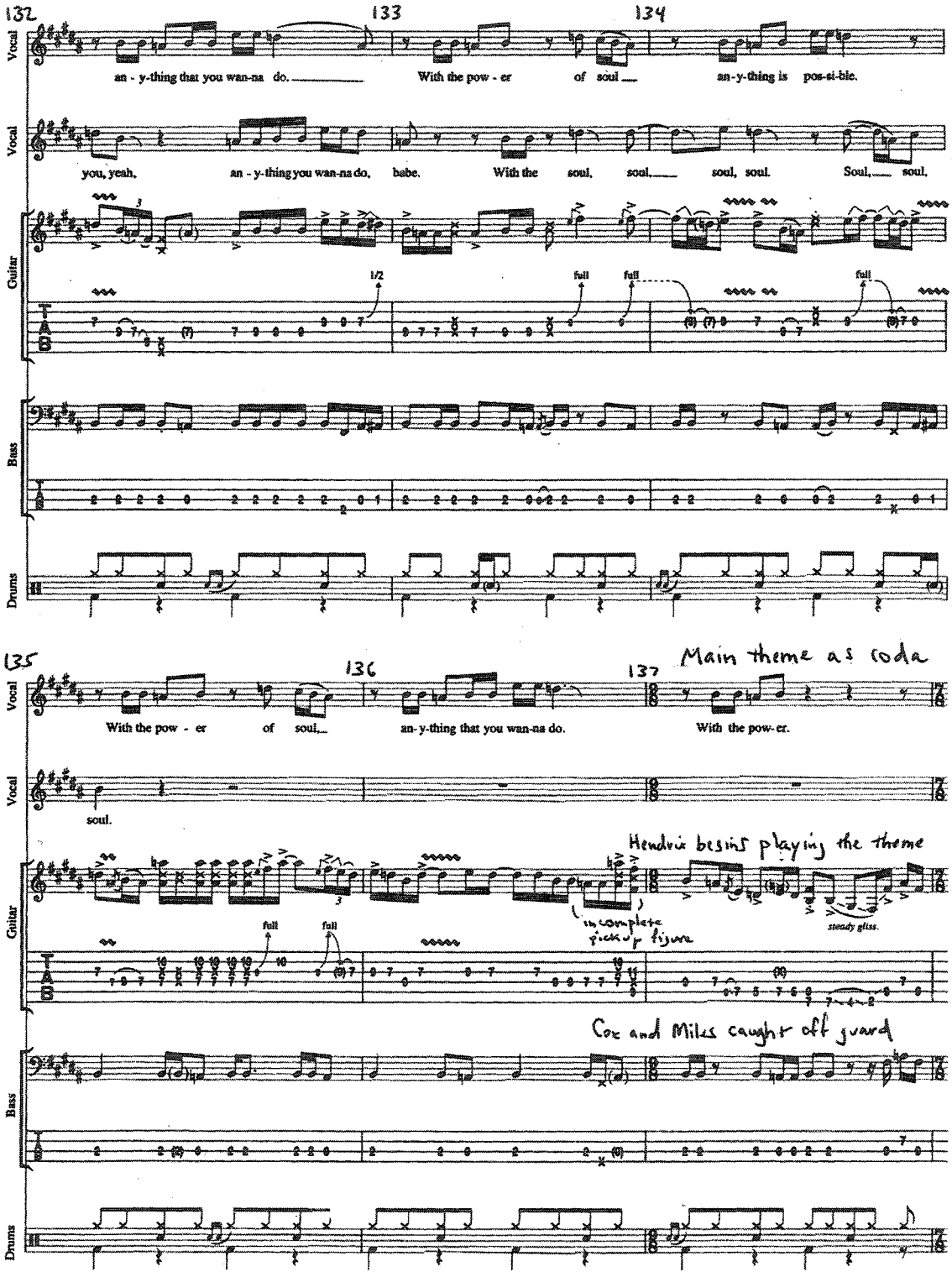

116
N.C.
116
117
N.C.(B)
Vocal
Chromatic sequence and "retransition"
Guitar
PTL-4 head motive
PTL-4 transposed to B
1/2
variation "Stammering" repeated note
Bass
Drums
ride
Buddy misses mistakes for drumbeat
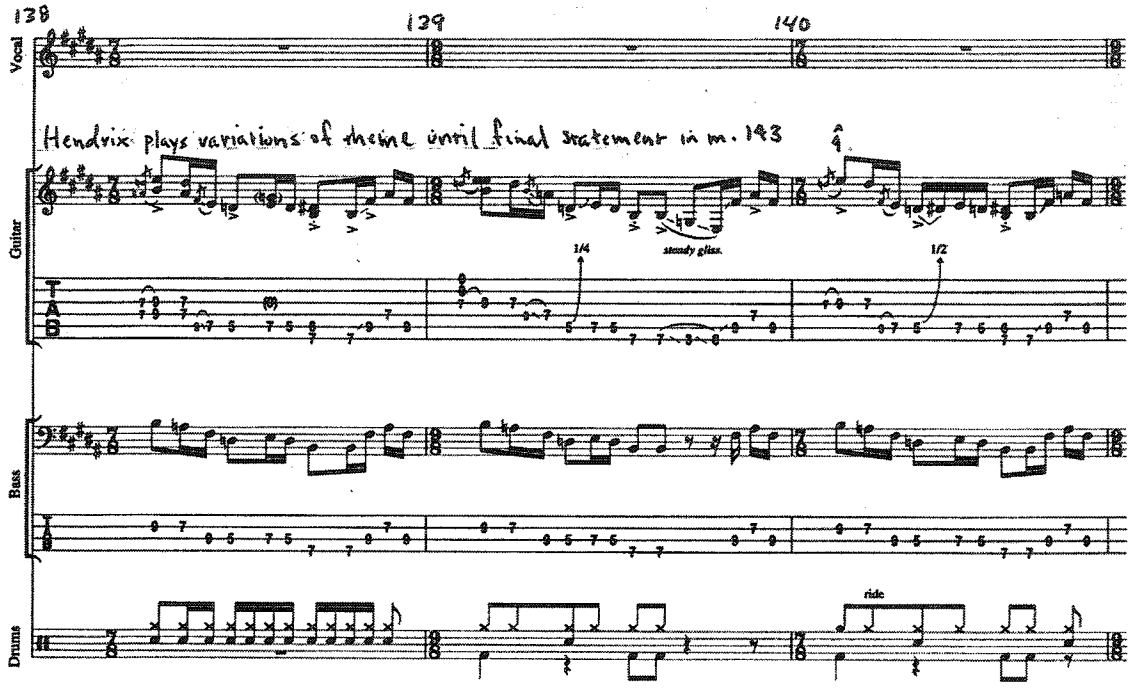

118
119
120
Vocal
(Buddy) Da, da, da, da, da, da, da, da.
vocables
"hiccup" variation
Guitar
1/4
Bass
fill
Drums
(Miles listening for approaching drumbeat)
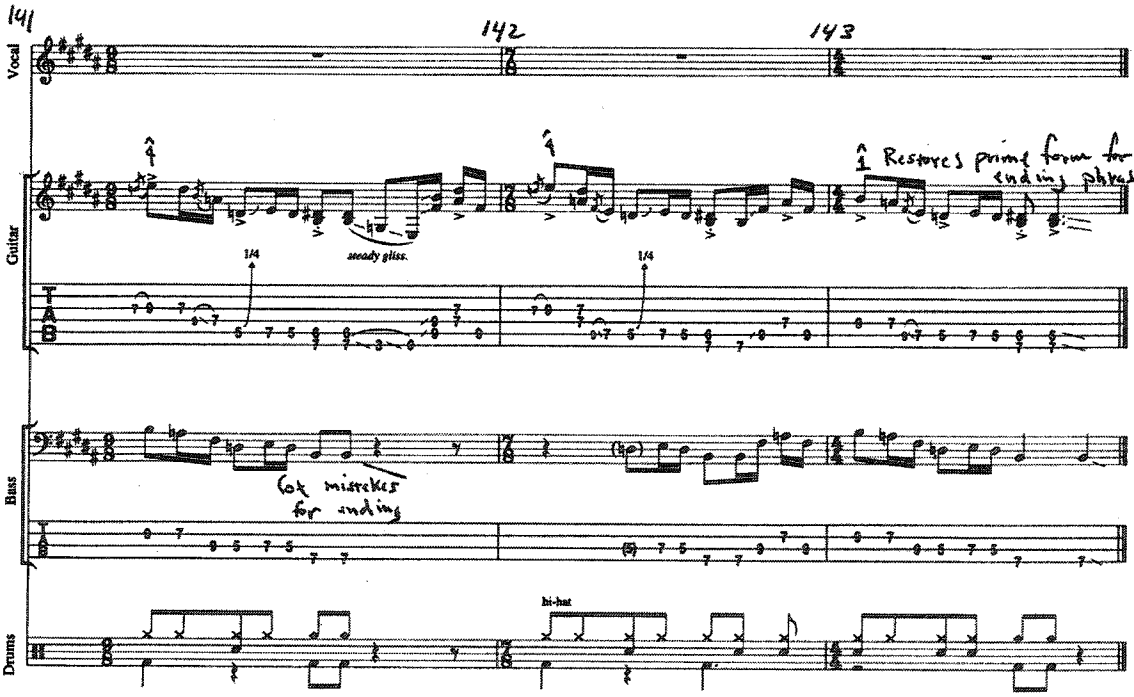

Outro Chorus
N.C.(B)
121
122
123
Vocal
(Buddy & Billy) With the pow-er of soul an-y-thing is pos-si-ble. With the pow - er of soul
Guitar
rake
full
full
Bass
Drums
hi-hat


124
125
126
Vocal
an-y-thing is pos - si - ble. With the pow - er of soul an-y-thing is pos-si-ble.
Guitar
rake
full
full
Bass
Drums
ride


127
128
Vocal
With the pow - er of soul, an - y - thing is pos - si - ble.
Guitar
full
full
T
A
B
Bass
Drums
129
130
131
Vocal
With the pow - er of soul an - y - thing is pos-si-ble. With the pow - er of you,
Vocal
(Jimi) With the pow - er of you, an - y - thing you wan-na do. With the pow - er of
Guitar
full
full
Bass
hi-hat
Drums


132
133
134
Vocal
an - y-thing that you wan-na do.
With the pow - er of soul
an-y-thing is pos-si-ble.
Vocal
you, yeah,
an - y-thing you wan-na do, babe.
With the soul, soul.
soul, soul.
Soul,
soul,
Guitar
1/2
full
full
full
Bass
Drums
135
136
137
Main theme as coda
Vocal
With the pow - er of soul,
an-y-thing that you wan-na do.
With the pow-er.
Vocal
soul.
Hendrix begins playing the theme
Guitar
full
full
incomplete pick-up figure
steady gliss.
Cox and Miles caught off guard
Bass
Drums


138
139
140
Vocal
Hendrix plays variations of theme until final statement in m. 193
Guitar
1/4
steady gliss.
1/2
T
A
B
Bass
Drums
ride


141
142
143
Vocal
Guitar
1/4
steady gliss.
1/4
Restores prime form for ending phrase
T
A
B
Bass
Cat mistakes for ending
Drums
hi-hat

APPENDIX E: Chapter VI Examples

VI-1: Formal Design of "Message to Love"

Introduction (mm. 1–4): interlocking guitar and bass parts ascend in sequential chromatic patterns

Section A, main thematic area and Verse I (mm. 5–12):

> Main theme and motive MTL-1 (mm. 5–9); guitar and bass in counterpoint
> Verse I (mm. 9–12): Hendrix—*Well I travel at the speed . . .*

Section B (mm. 13–16): theme MTL-2

Section A' and Verse II (mm. 17–20): Hendrix—*I said a message of love . . .*

Section C (mm. 17–24): theme MTL-3

Section D and Verse III (mm. 25–32): Hendrix—*Well I am, what I am—Thank God*

Guitar Solo I (mm. 33–72): Cox adheres closely to pattern MTL-1 in support of Hendrix's solo: climactic passage of solo unfolds in mm. 53–68

Section A'' and Verse IV (mm. 73–92): guitar and bass restate MTL-1 theme (mm. 73–76), functioning to both close the solo section and to preface the fourth verse (mm. 77–92); Hendrix—*Here comes a woman, wrapped up in chain . . .*

Section C' (mm. 93–96): reprise of MTL-3 instrumental theme

Section E (mm. 97–113): breakdown to guitar and drums accompanying Hendrix and Miles—*Everybody come alive . . . hear my message!*
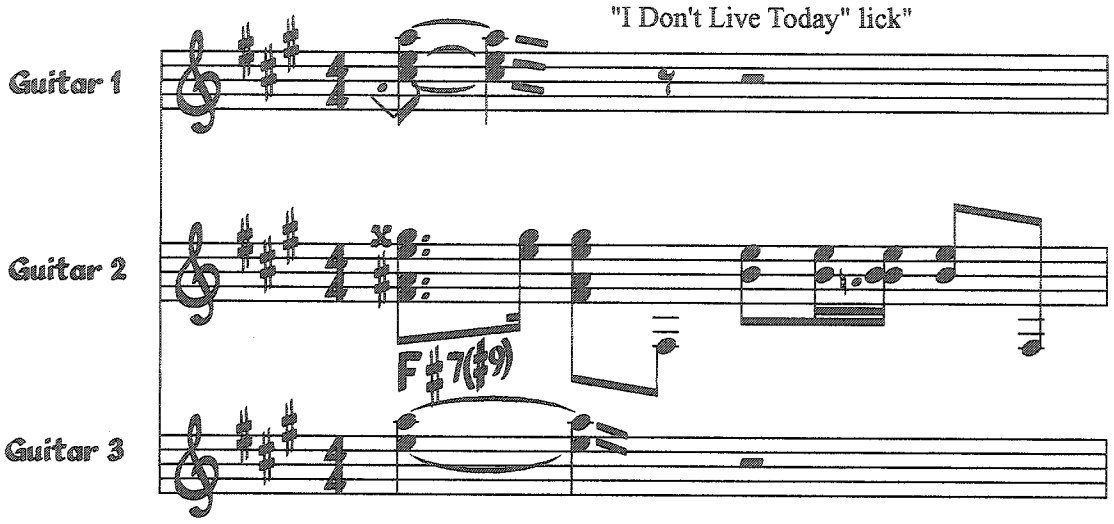
Varied reprise of theme MTL-1 (mm. 114–117): tutti reprise prefaces guitar solo

Guitar Solo II (mm. 118–137): Cox plays variations of MTL-1 in support of Hendrix's improvised guitar solo

Section C'' (mm. 139–149): varied reprise of Introduction; rising bass line summits on E-centered ostinato

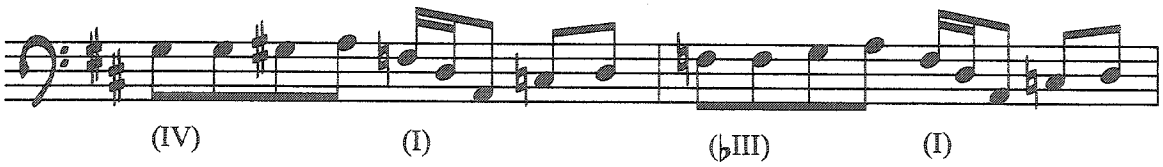
Cadenza (mm. 150–154): guitar's closing melodic phrase is "elevated' to E key center (tape edit deletes the guitar's segue leading into a performance of "Machine Gun")

EX. VI - 2 **"House BurningDown"** (Electric Ladyland)



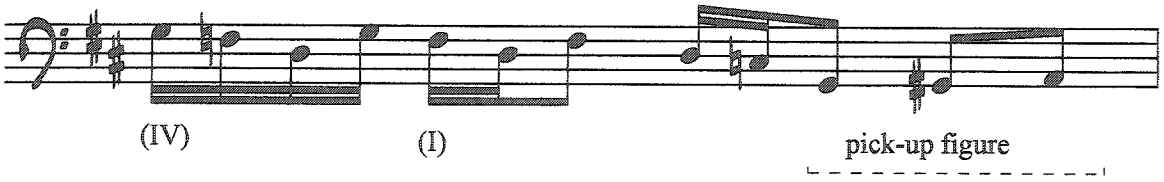
EX. VI - 3

MTL-2
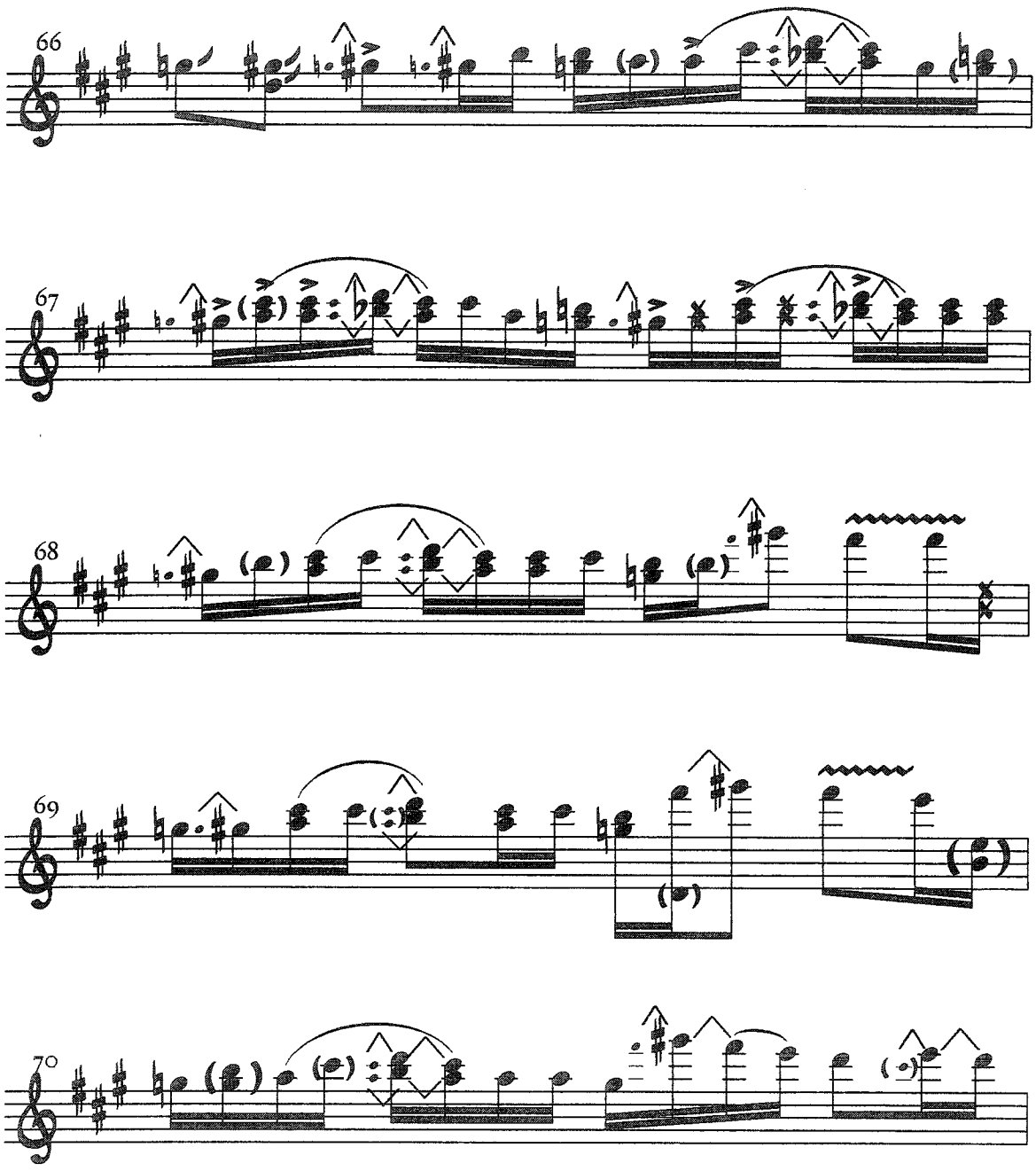


EX. VI - 4

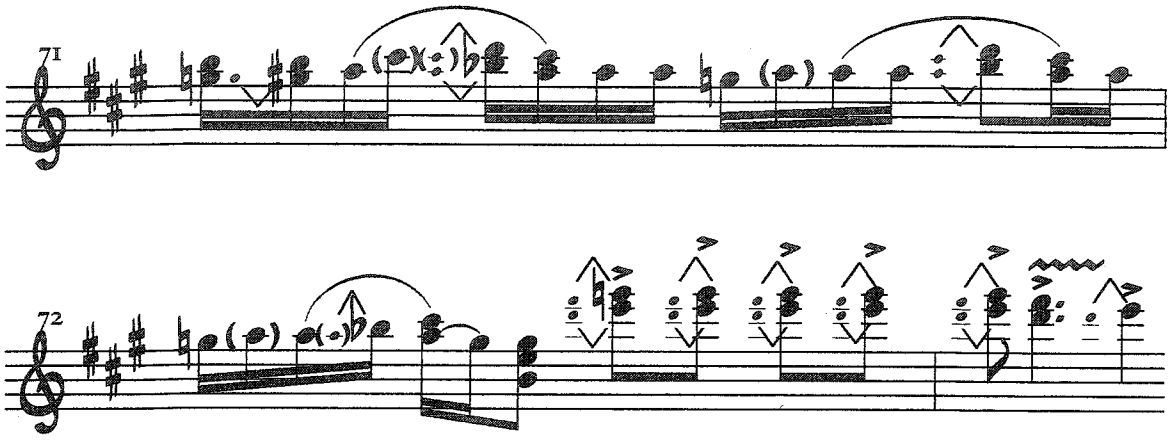
MTL-3



EX. VI - 5 "Them Changes" - Guitar solo: mm. 66-73 (2:22 - 2:36)

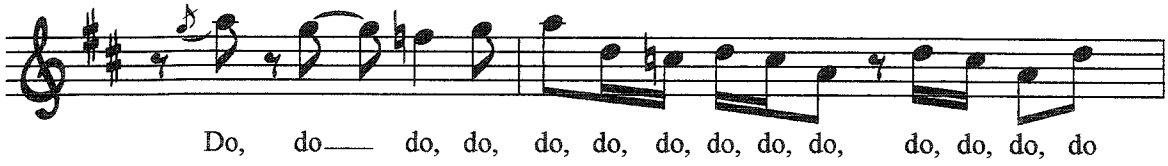


EX. VI - 5 cont'd
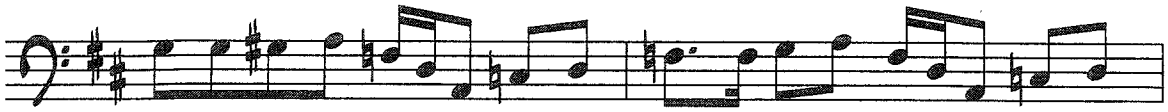


EX. VI - 6 Comparisons of motivic components in section E vocal melody of instrumental themes MTL-2 & MTL-3

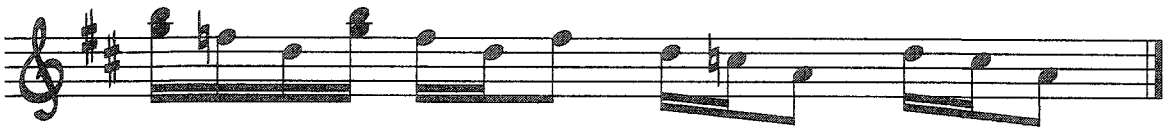
Section E vocal melody mm. 99-100



Bass: MTL-3; m.13 (0:32)



Guitar: MTL-3; m. 21 (0:49)



Message of (to) Love

Words and Music by Jimi Hendrix
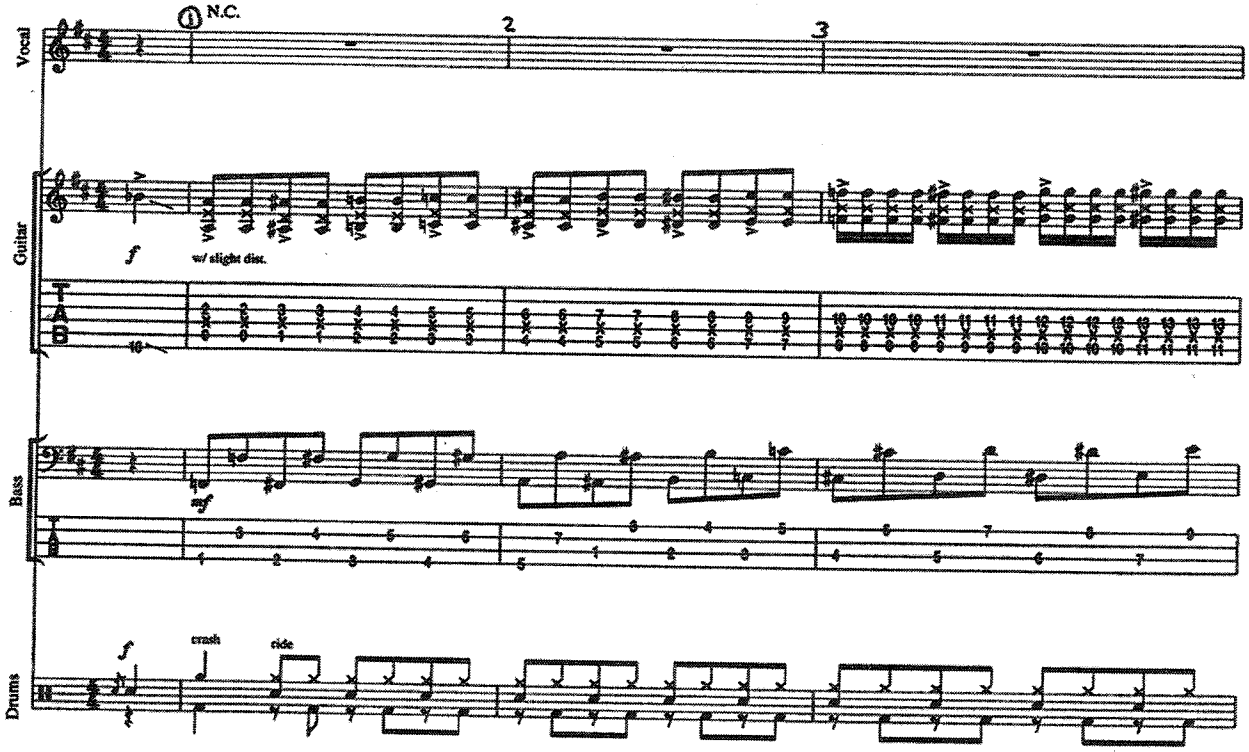
Spoken: "Jimi's gonna do a thing that he...he wrote called "Message of Love.'"

Gtr.: Tune Down 1/2 Step:
① = E♭ ④ = D♭
② = B♭ ⑤ = A♭
③ = G♭ ⑥ = E♭
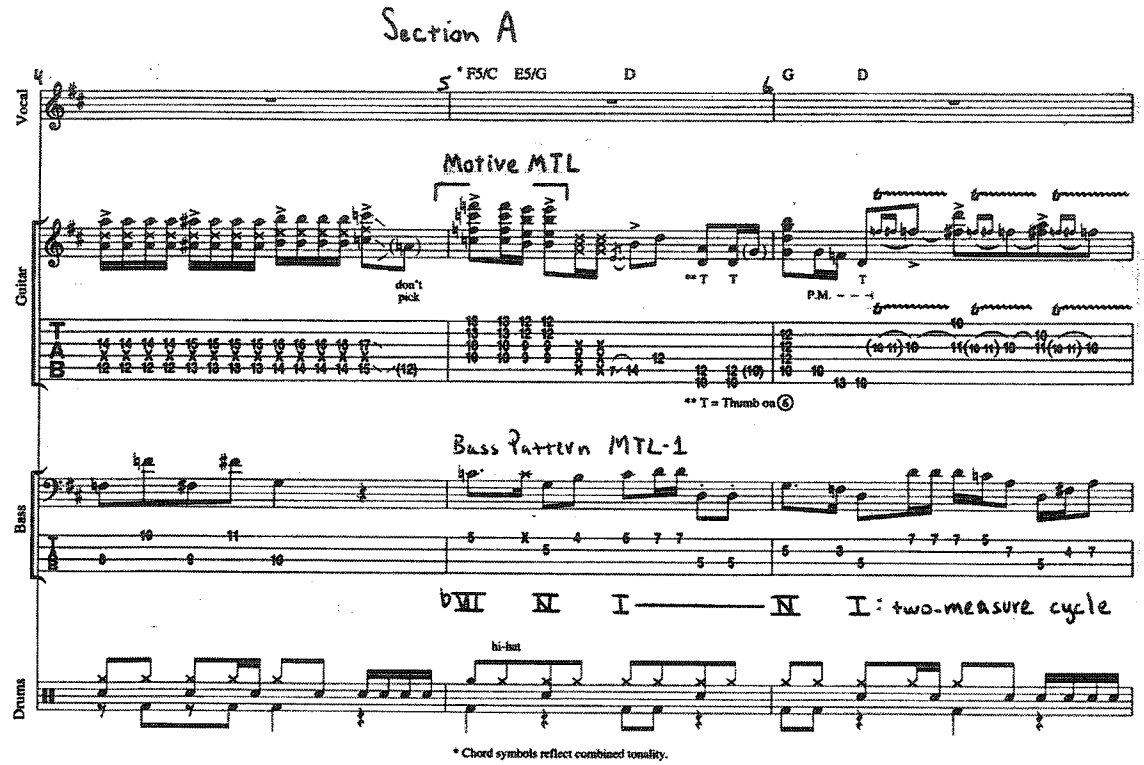
Bass: Tune Down 1/2 Step:
① = G♭ ③ = A♭
② = D♭ ④ = E♭
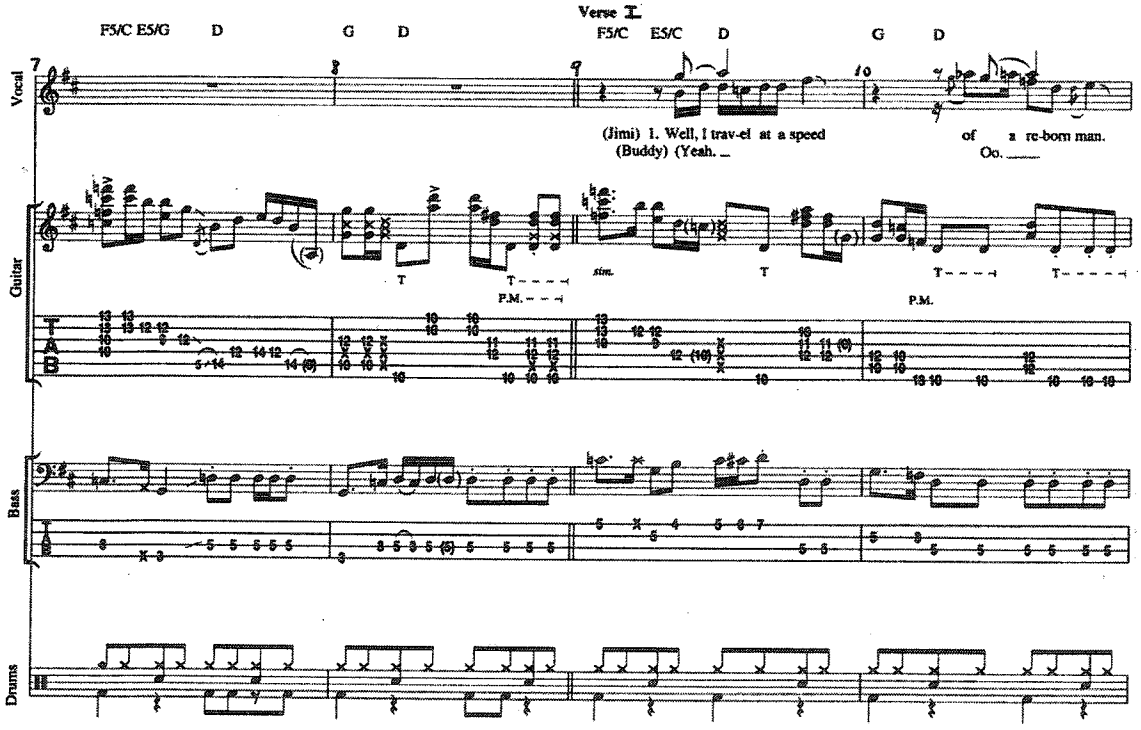
Intro
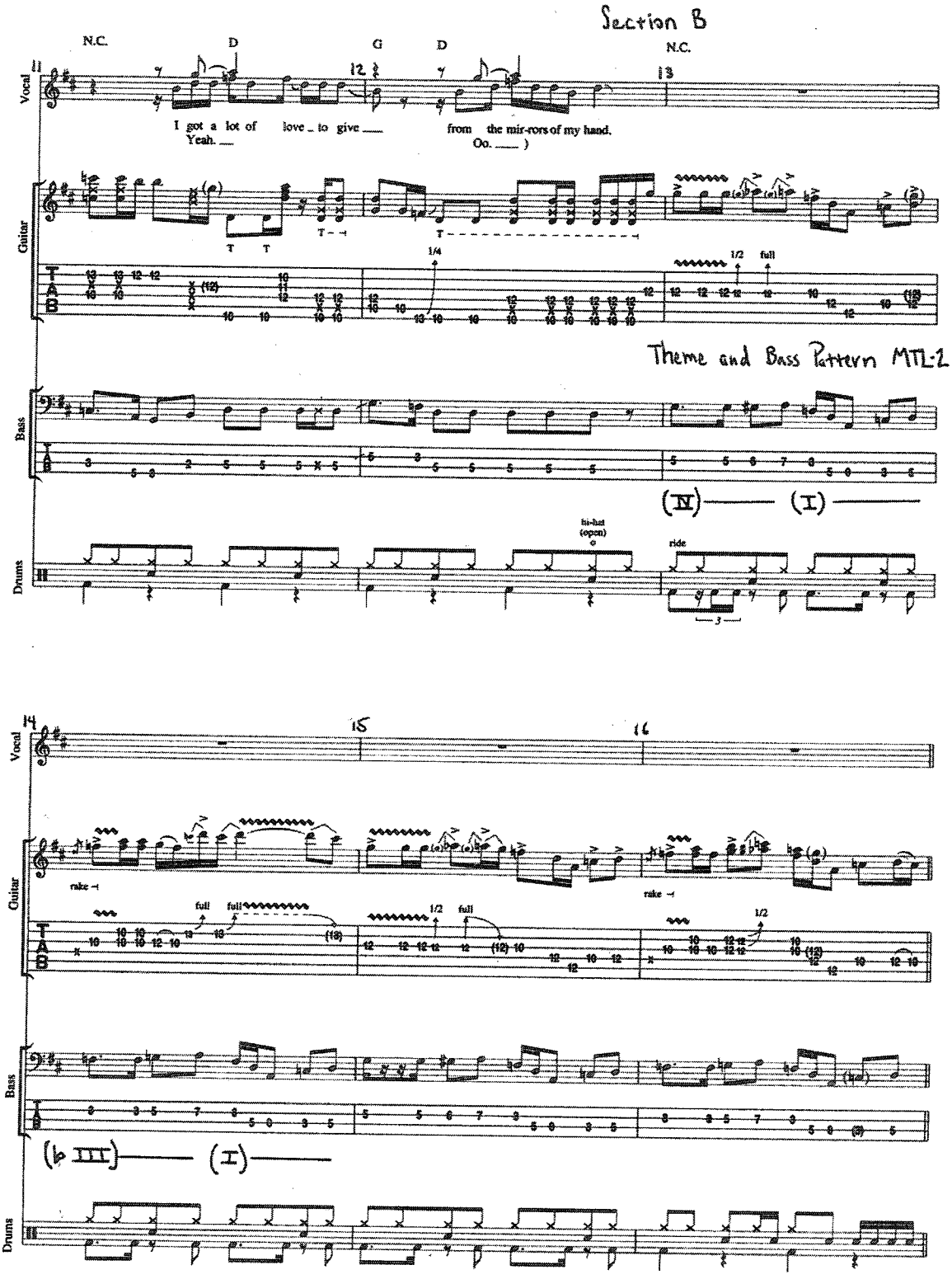
Moderate Rock ♩ = 112
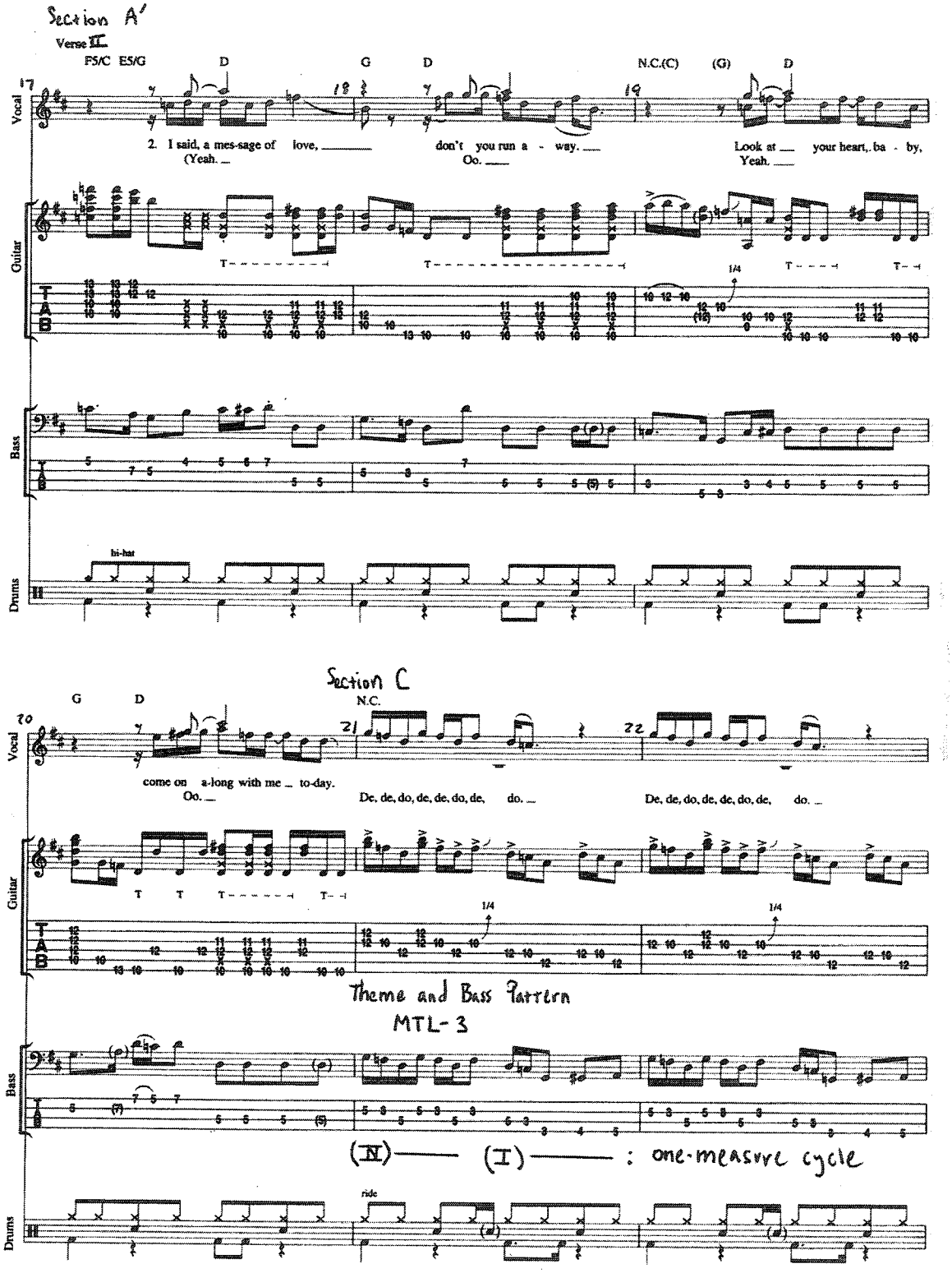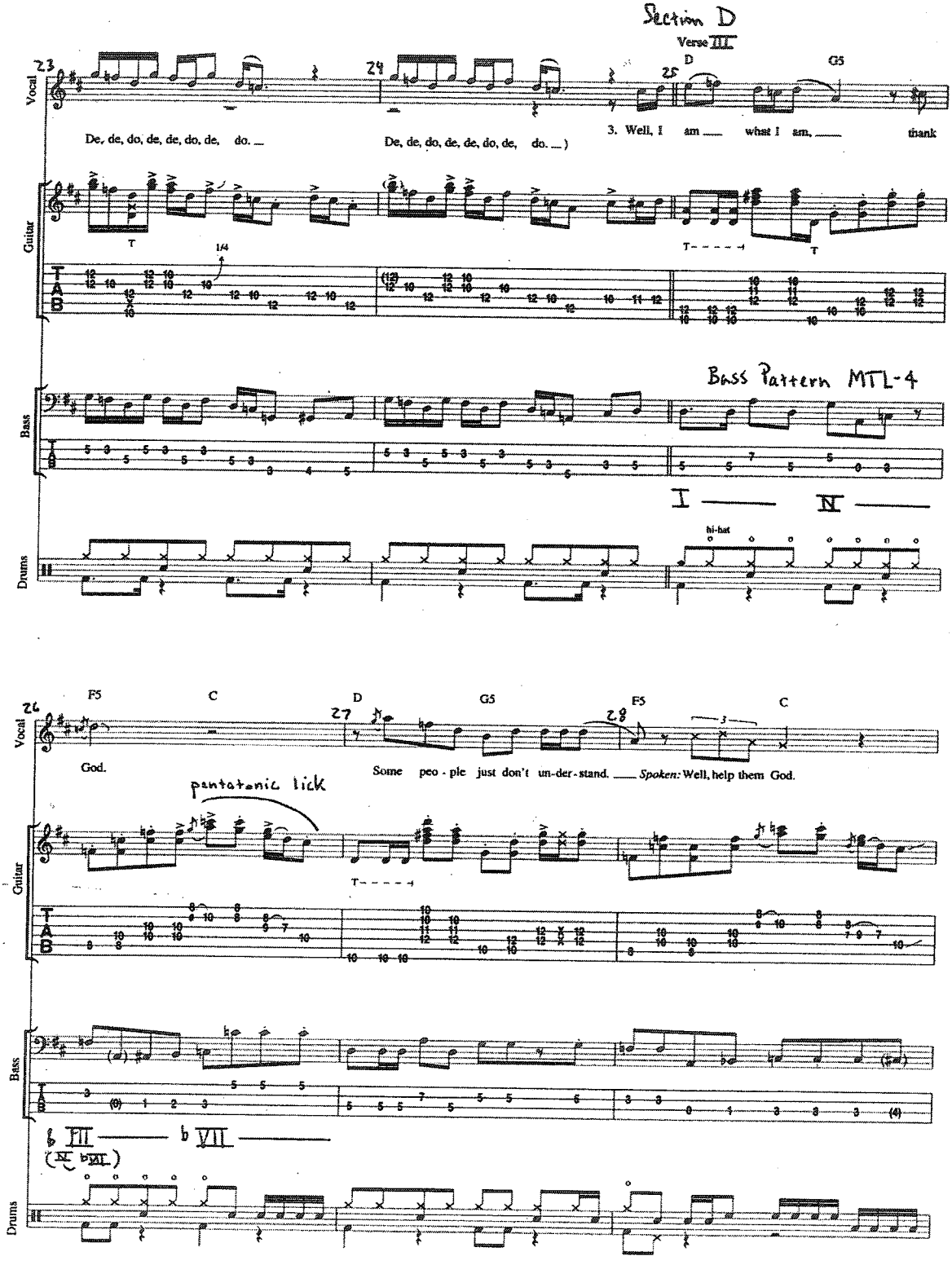


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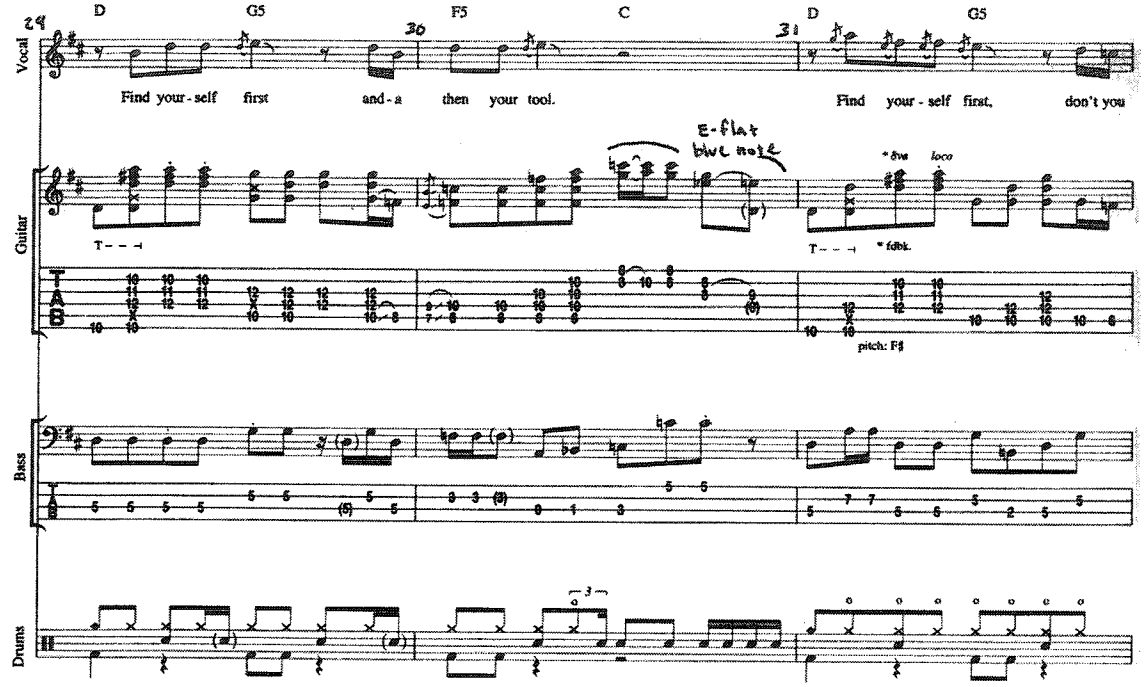

Section A
F5/C E5/G D G D
Motive MTL
don't pick
** T T
P.M.
** T = Thumb on 6
Bass Pattern MTL-1
♭VII N I N I: two-measure cycle
hi-hat
* Chord symbols reflect combined tonality.
Vocal
Guitar
Bass
Drums
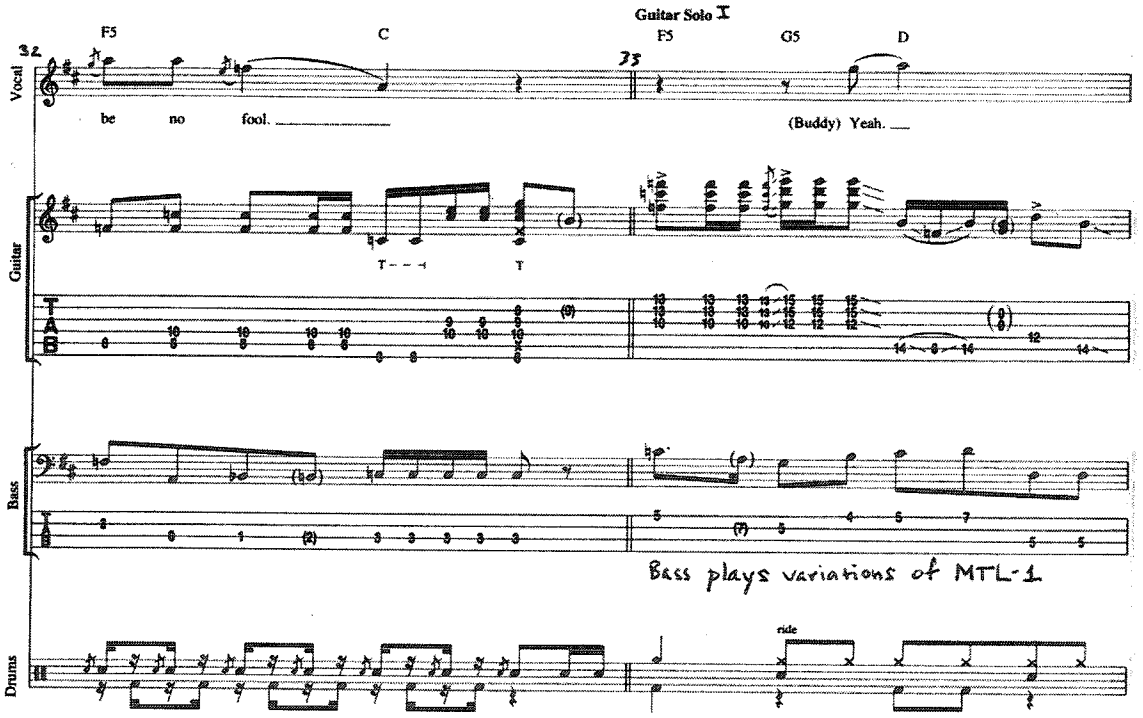

Verse I
F5/C E5/G D G D
F5/C E5/C D G D
(Jimi) 1. Well, I trav-el at a speed of a re-born man.
(Buddy) (Yeah. Oo.
sim.
P.M.
Vocal
Guitar
Bass
Drums
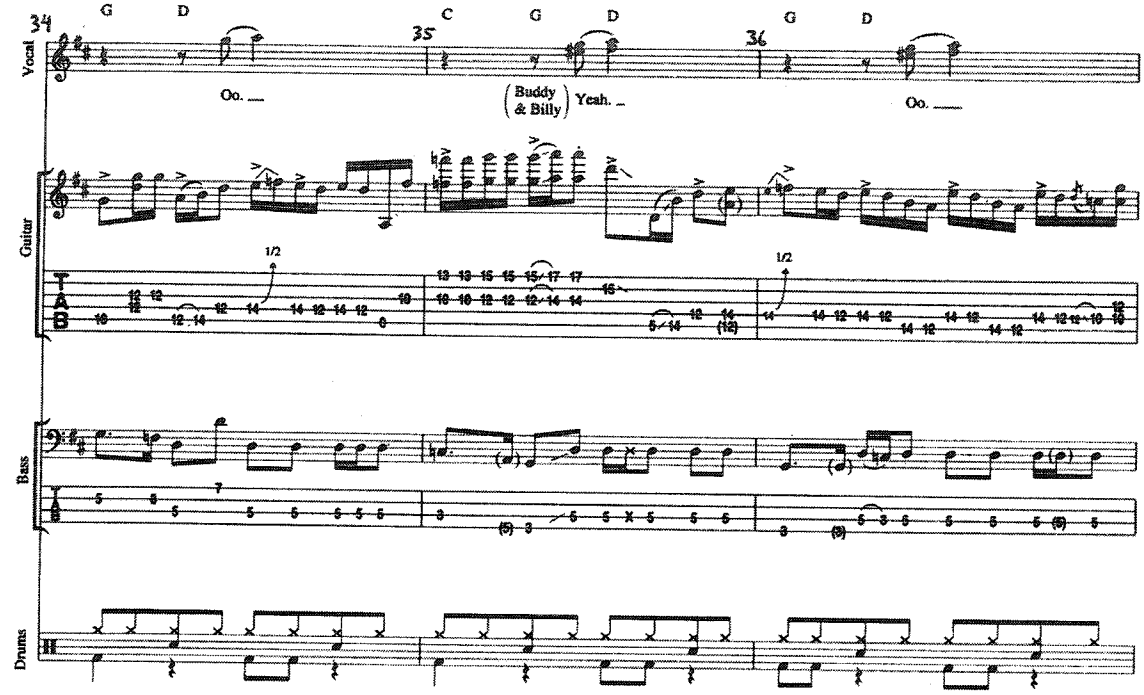

Section B
N.C.
D
G
D
N.C.
11
12
13
Vocal
I got a lot of love to give from the mir-rors of my hand.
Yeah. Oo.
Guitar
T
1/4
1/2
full
Theme and Bass Pattern MTL-2
Bass
(IV) (I)
Drums
hi-hat (open)
ride
14
15
16
rake
full
(♭III) (I)
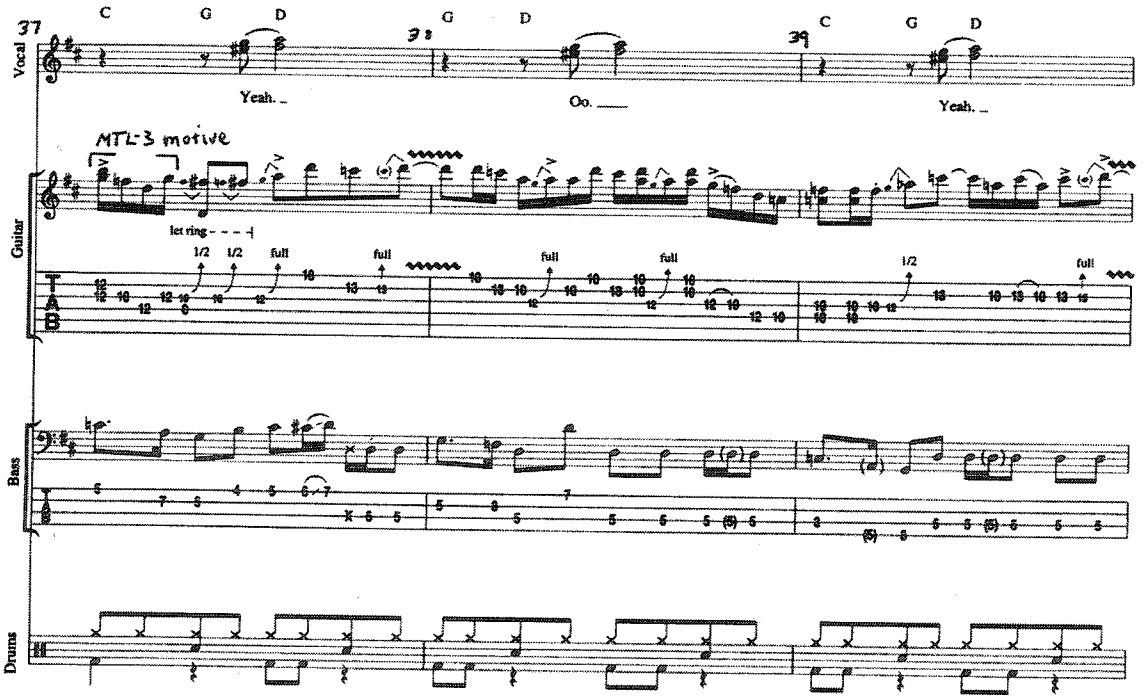

Section A'
Verse II
F5/C E5/G
D
G
D
N.C.(C)
(G)
D
Vocal
Guitar
Bass
Drums
2. I said, a mes-sage of love,
(Yeah.
don't you run a - way.
Oo.
Look at your heart, ba - by,
Yeah.
bi-hat
Section C
G
D
N.C.
come on a-long with me to-day.
Oo.
De, de, do, de, de, do, de, do.
De, de, do, de, de, do, de, do.
Theme and Bass Pattern
MTL-3
(I) (I) : one-measure cycle
ride
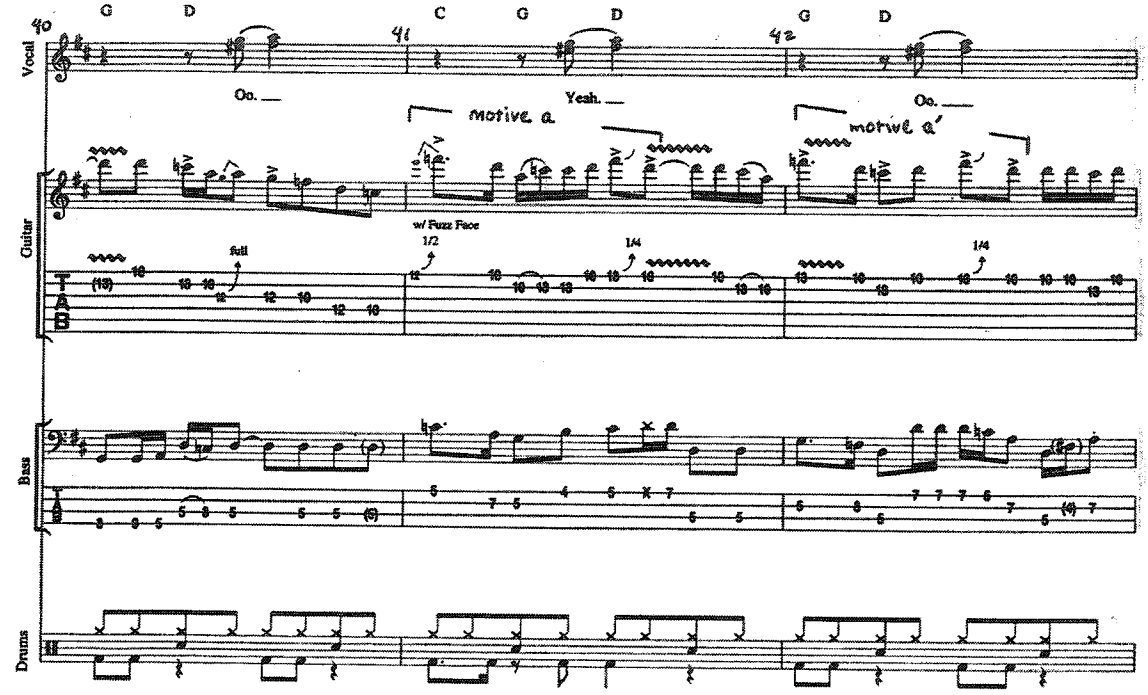

Section D
Verse III
Vocal
Guitar
Bass
Drums
23
24
25
D
G5
De, de, do, de, de, do, de, do. _
De, de, do, de, de, do, de, do. _)
3. Well, I am _ what I am, _ thank
T
1/4
T- - - -
T
Bass Pattern MTL-4
I
IV
hi-hat
26
27
28
F5
C
D
G5
F5
C
God.
Some peo - ple just don't un-der-stand. _ Spoken: Well, help them God.
pantatonic lick
T- - - -
♭ III
♭ VII
(IV bVII)
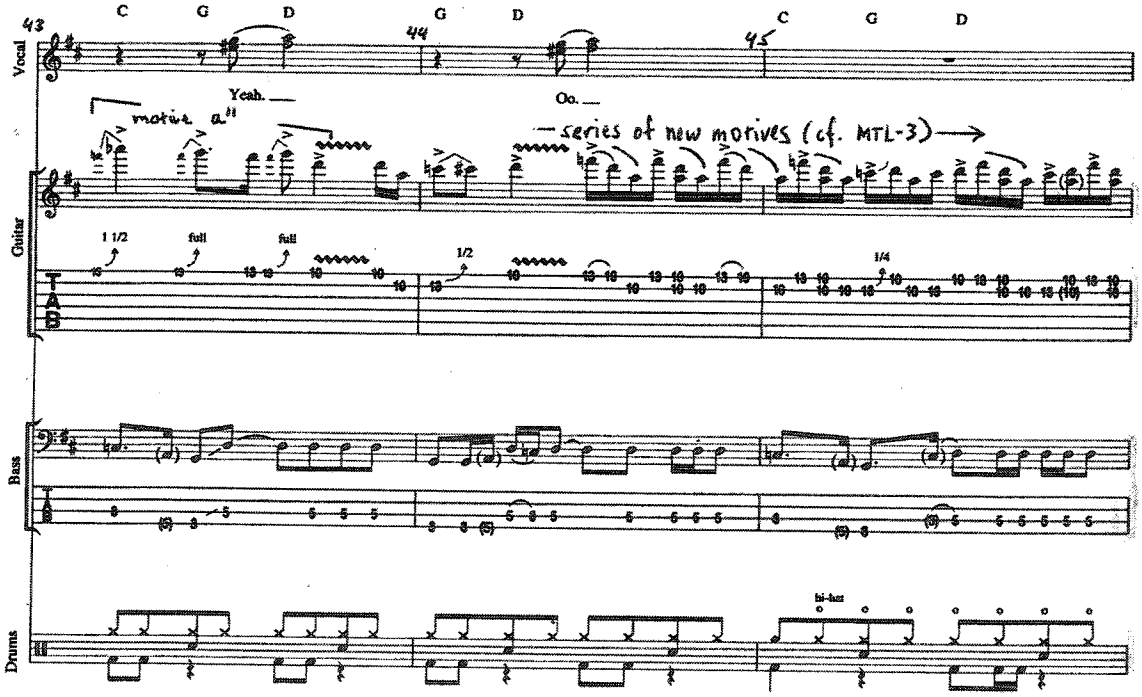

D
G5
F5
C
D
G5
Vocal
Find your - self first and - a then your tool.
Find your - self first, don't you
E-flat blue note
Guitar
T
A
B
pitch: F♯
Bass
Drums

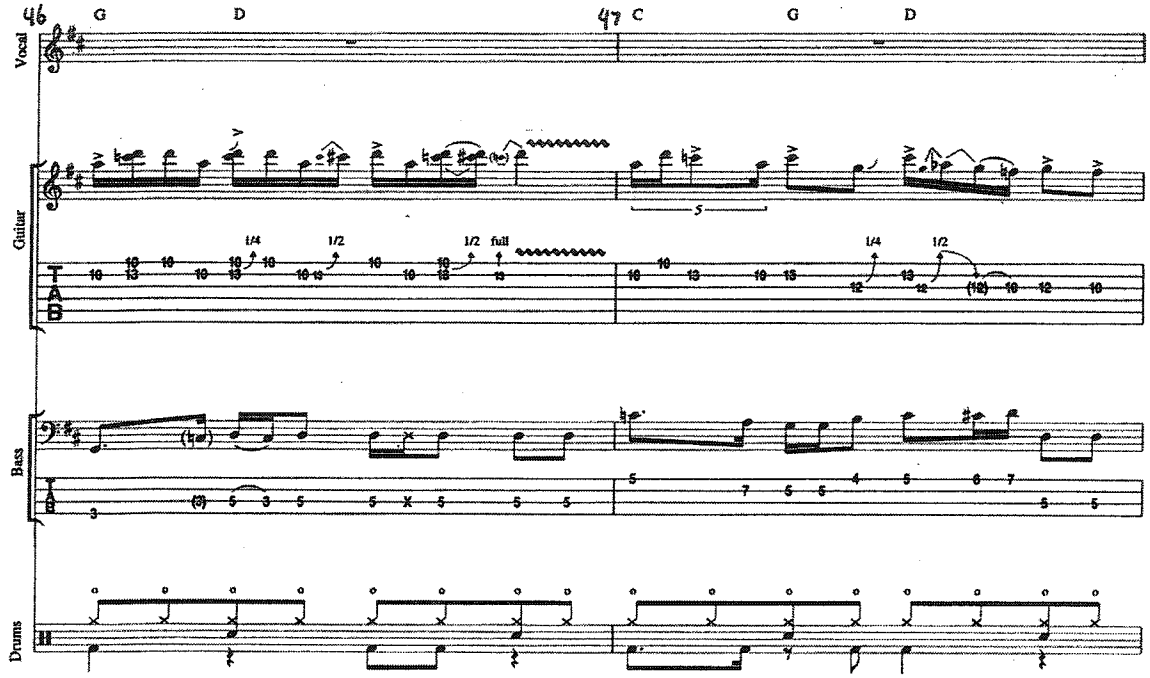

Guitar Solo I
F5
C
F5
G5
D
Vocal
be no fool.
(Buddy) Yeah.
Guitar
T
A
B
Bass
Bass plays variations of MTL-1
Drums
ride

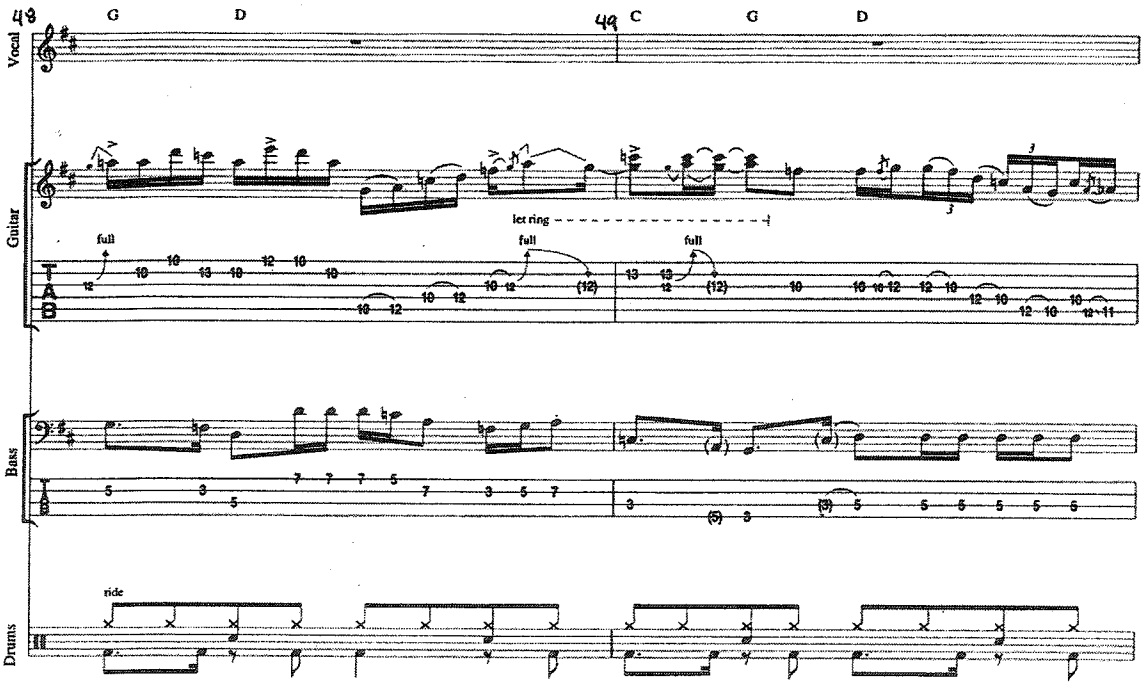

34
G
D
35
C
G
D
36
G
D
Vocal
Oo.
(Buddy & Billy) Yeah.
Oo.
Guitar
1/2
1/2
Bass
Drums
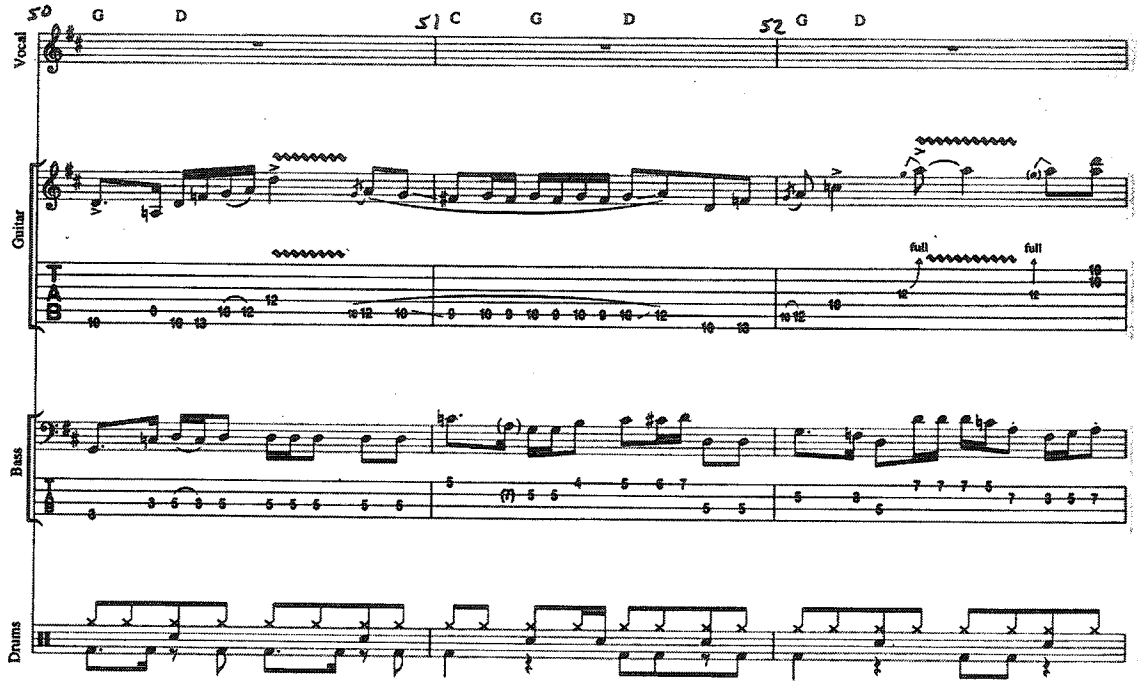

37
C
G
D
38
G
D
39
C
G
D
Vocal
Yeah.
Oo.
Yeah.
MTL-3 motive
let ring
1/2
1/2
full
full
full
full
full
1/2
full
Guitar
Bass
Drums


40
41
42
G
D
C
G
D
G
D
Vocal
Oo.
Yeah.
Oo.
motive a
motive a'
Guitar
w/ Fuzz Face
full
1/2
1/4
1/4
T
A
B
Bass
Drums
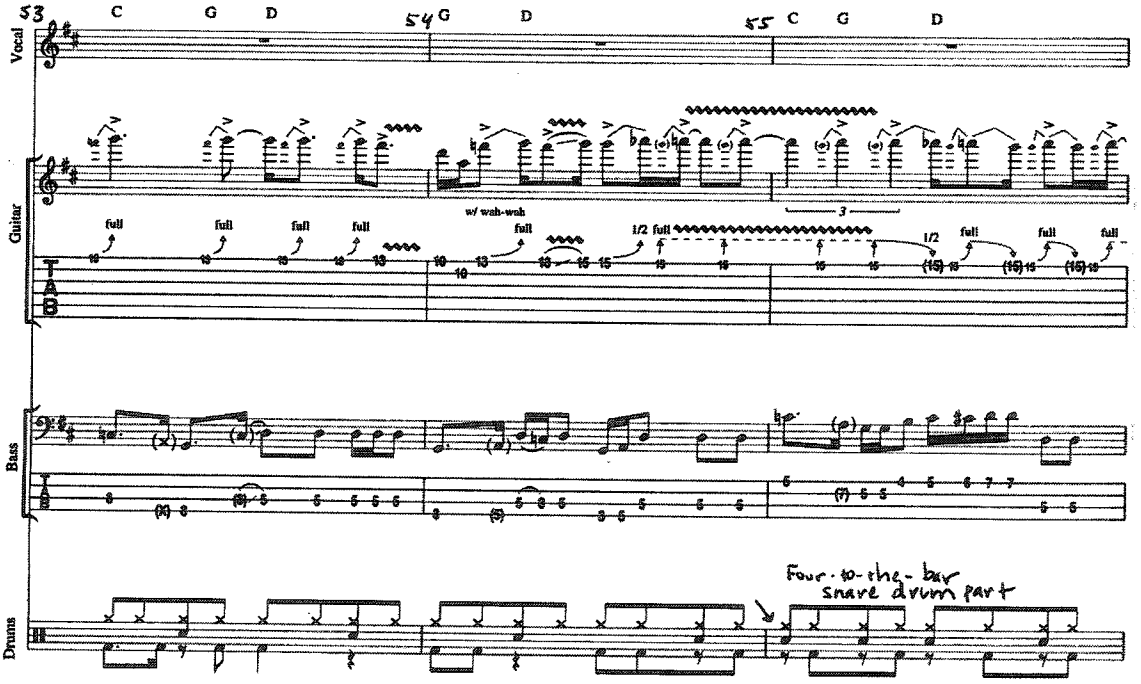

43
44
45
C
G
D
G
D
C
G
D
Vocal
Yeah.
Oo.
motive a''
— series of new motives (cf. MTL-3) →
Guitar
1 1/2
full
full
1/2
1/4
T
A
B
Bass
Drums
hi-hat
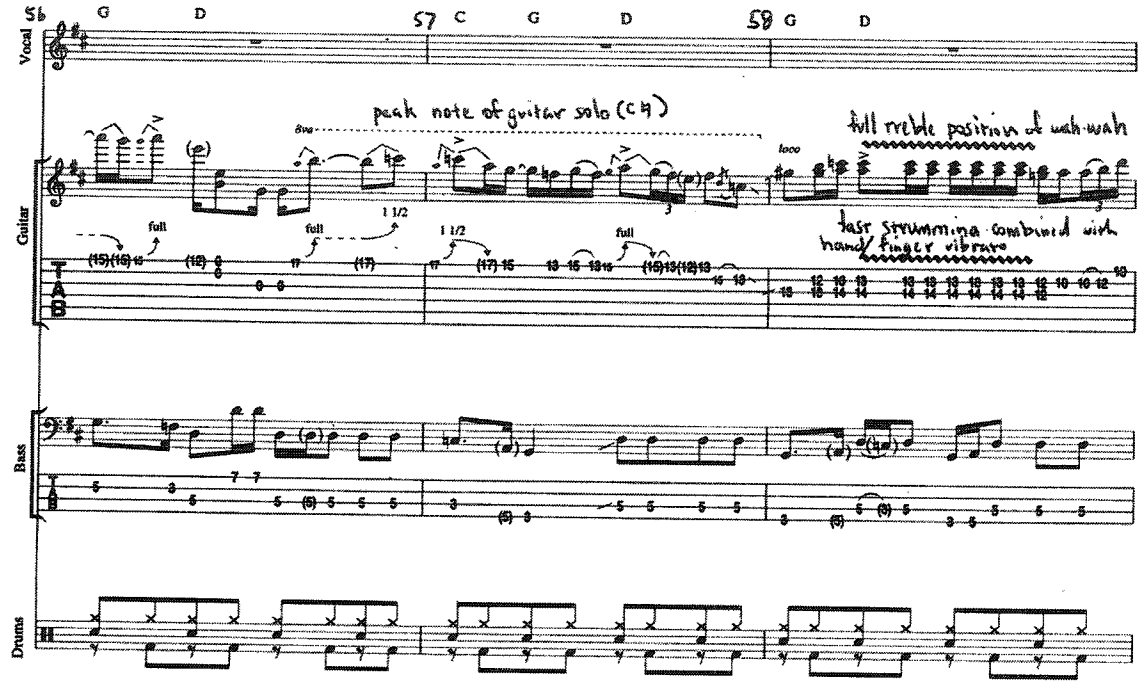

46
G
D
47
C
G
D
Vocal
Guitar
Bass
Drums
1/4
1/2
1/2
full
1/4
1/2
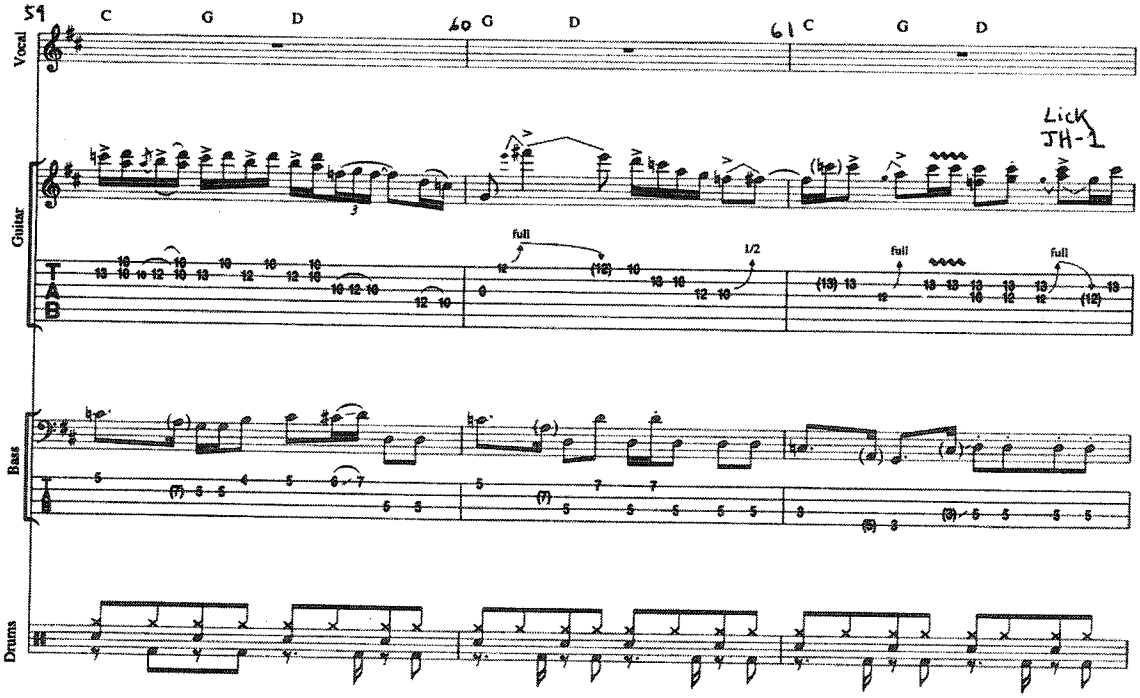

48
G
D
49
C
G
D
Vocal
Guitar
Bass
Drums
let ring
full
full
full
ride
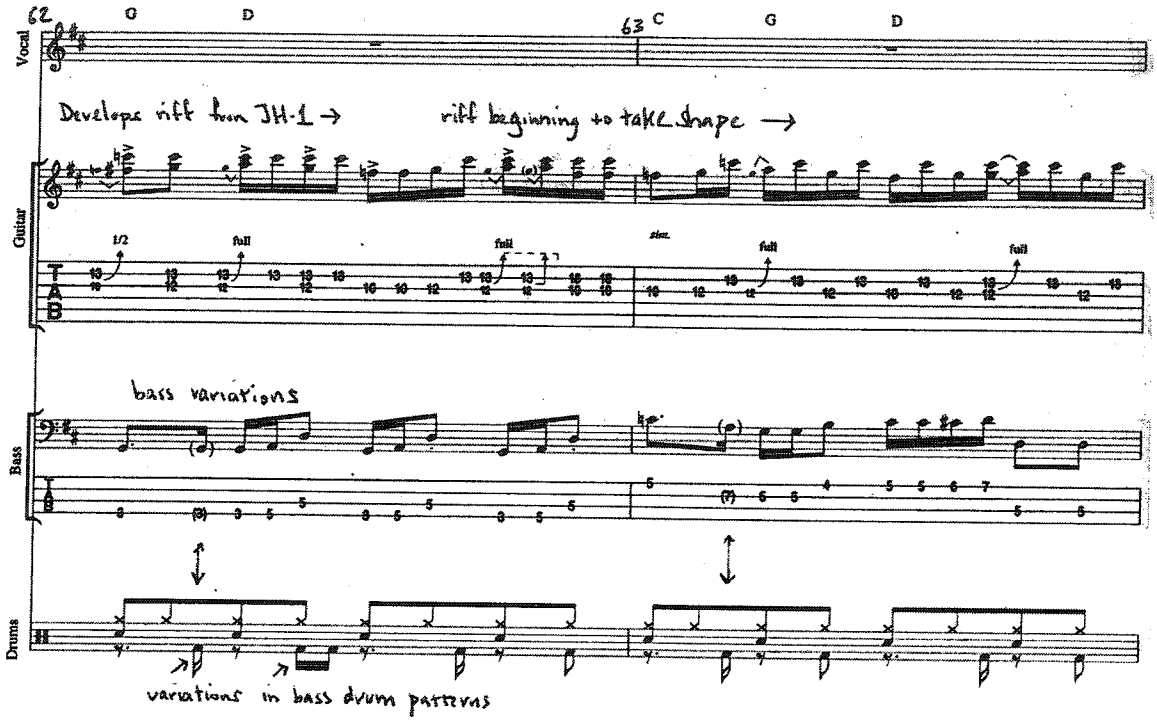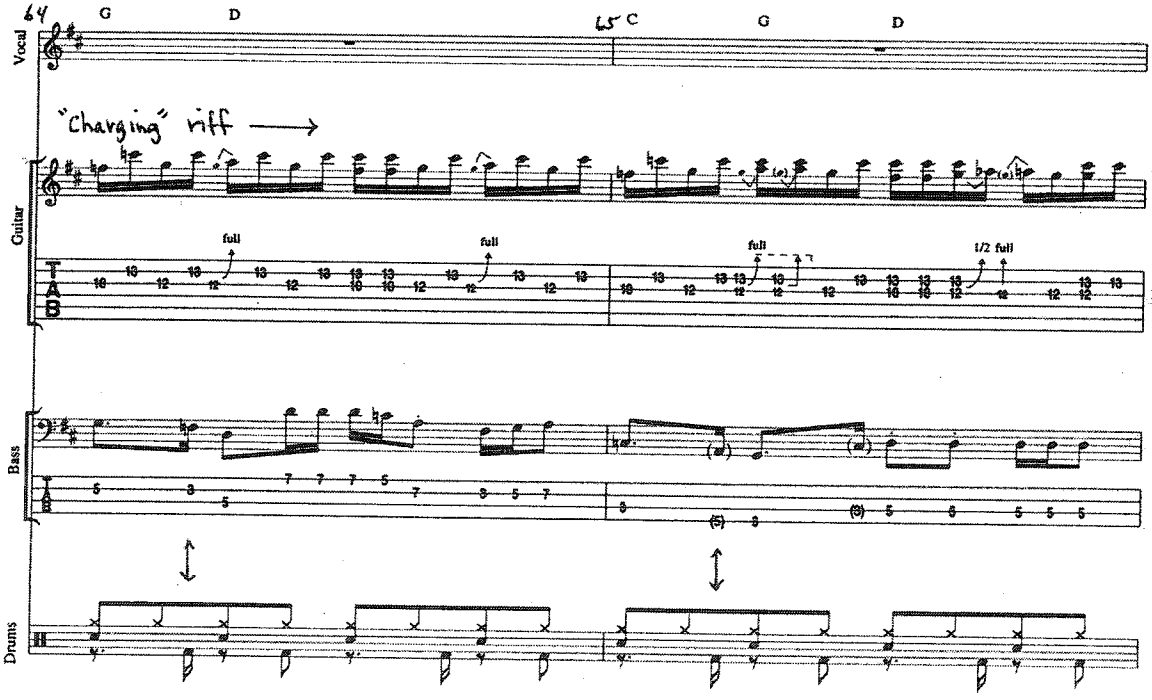


Climactic Plateau of Sólo Section → (mm. 53-68)
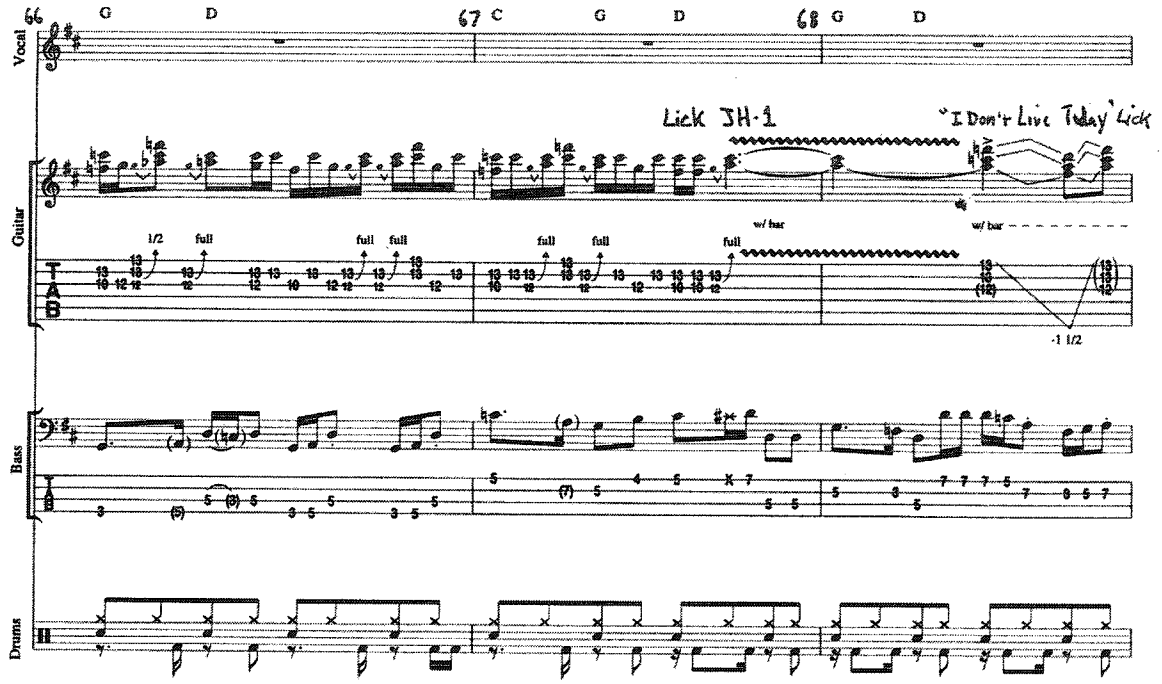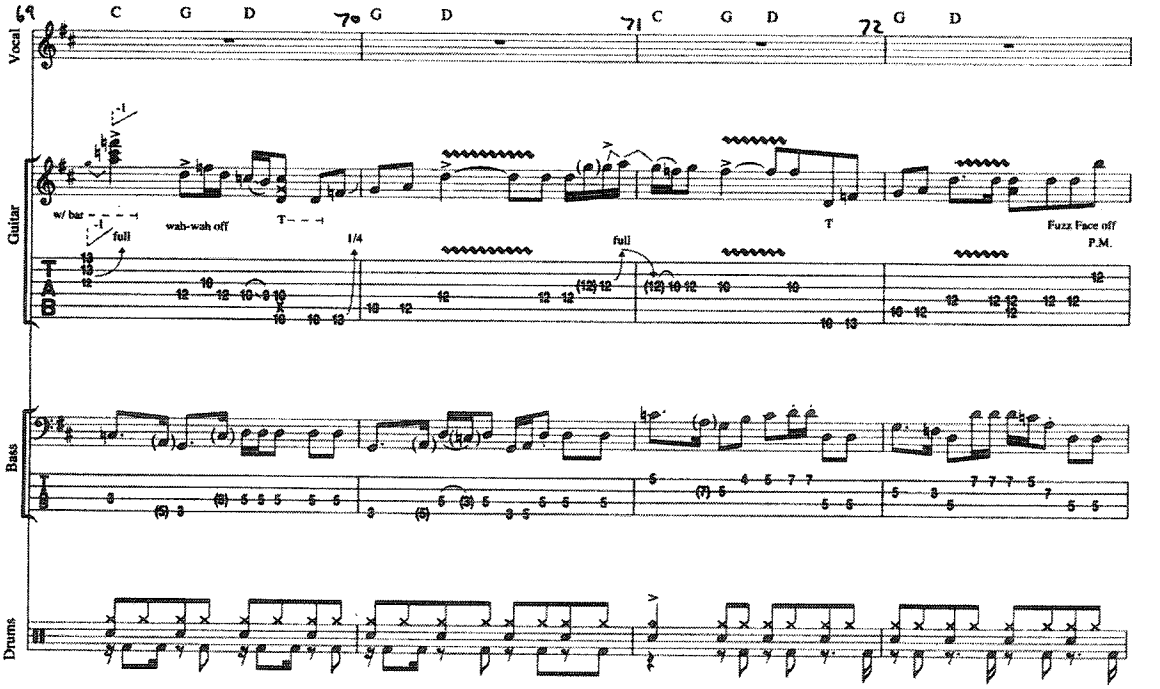



56
G
D
57
C
G
D
58
G
D
Vocal
Guitar
Bass
Drums
peak note of guitar solo (C#)
full treble position at wah-wah
fast strumming combined with hand/finger vibrato
full
1 1/2
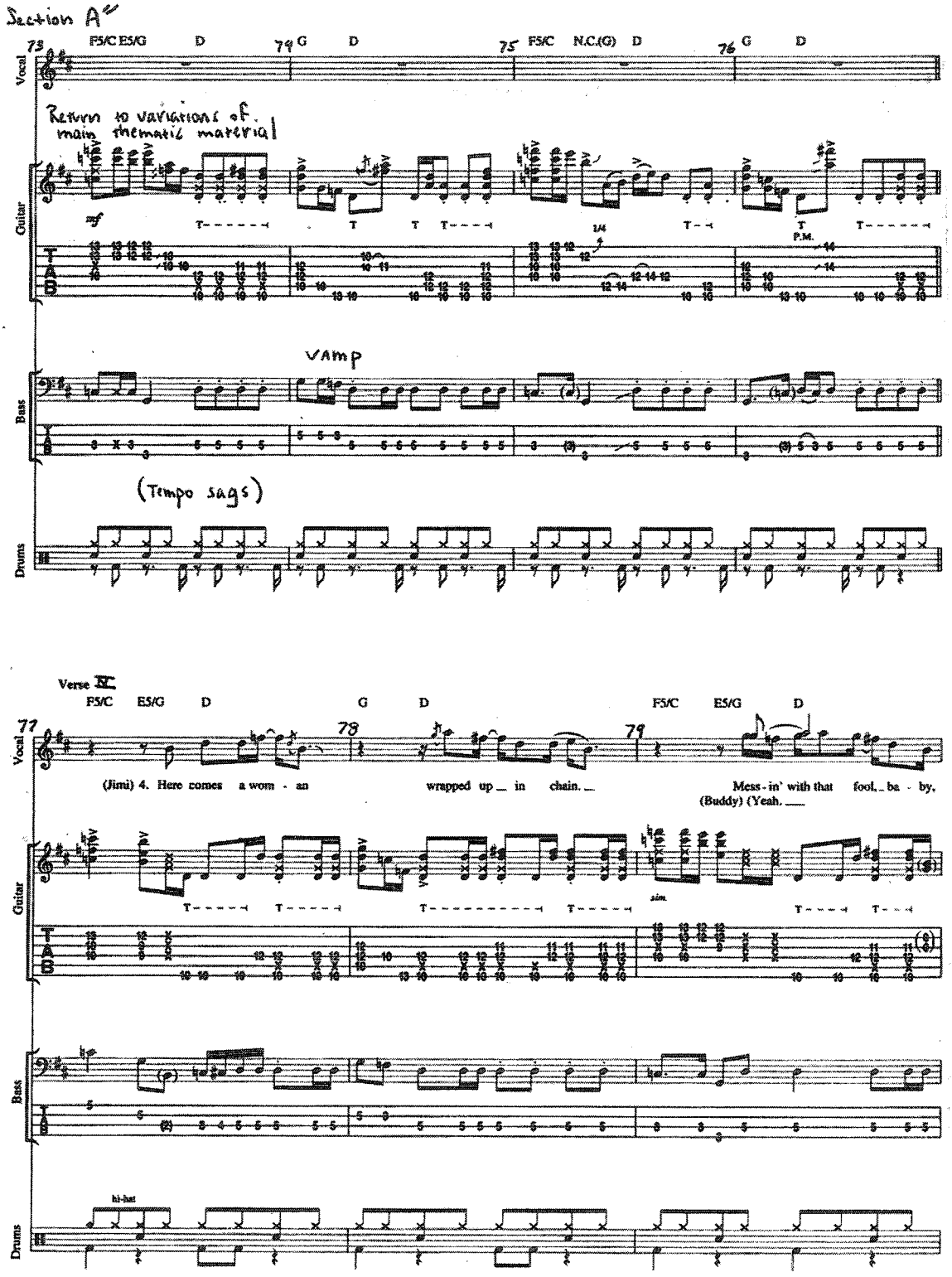

59
C
G
D
60
G
D
61
C
G
D
Vocal
Guitar
Bass
Drums
Lick JH-1
full
1/2
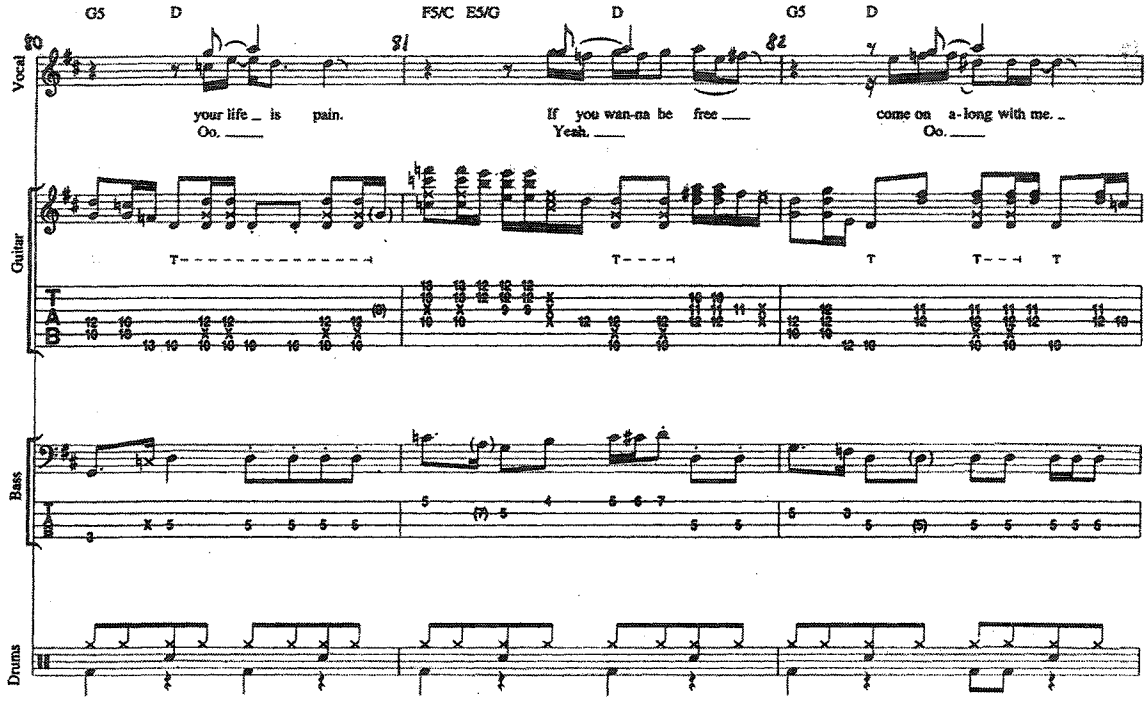

62
G
D
63
C
G
D
Vocal
Develope riff from JH-1 →
riff beginning to take shape →
Guitar
1/2
full
full
full
T
A
B
bass variations
Bass
Drums
variations in bass drum patterns
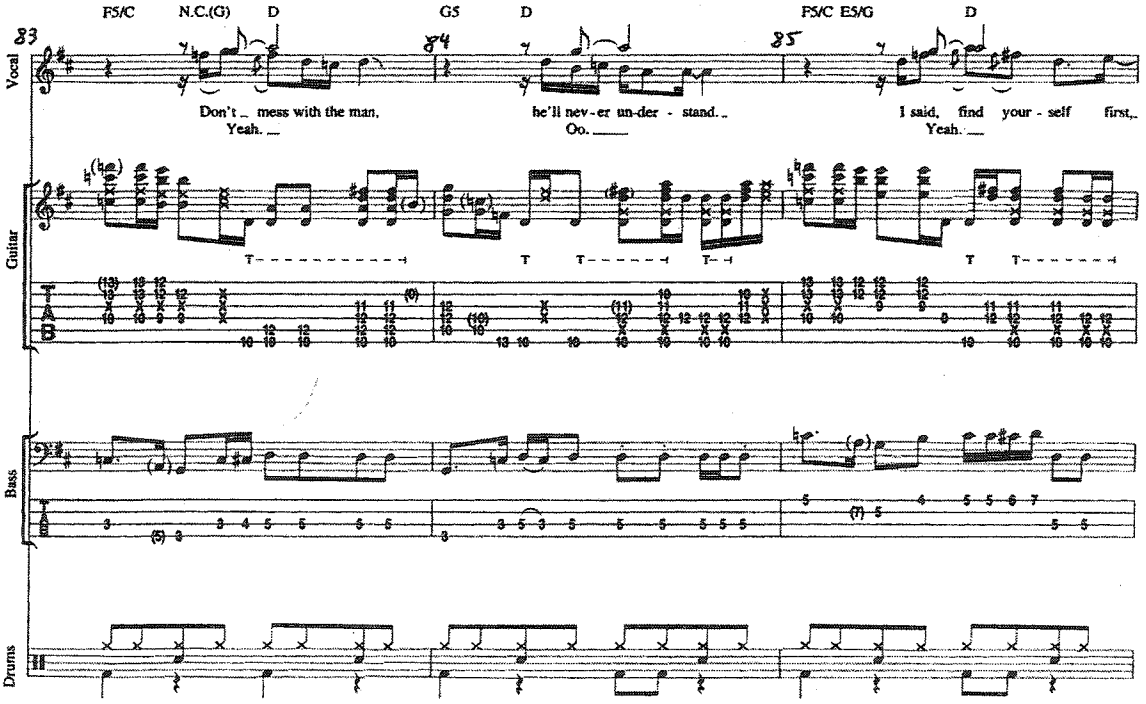

64
G
D
65
C
G
D
Vocal
"Charging" riff →
Guitar
full
full
full
1/2 full
T
A
B
Bass
Drums

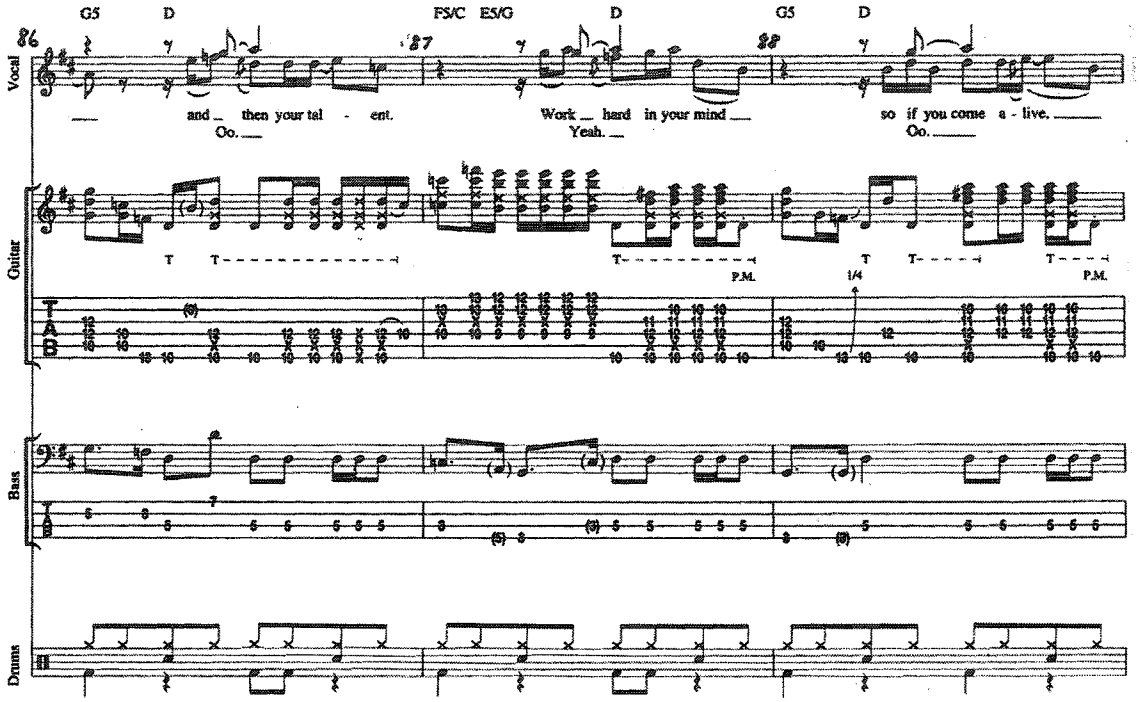

66
G
D
67
C
G
D
68
G
D
Lick JH-1
"I Don't Live Today" Lick
Vocal
Guitar
Bass
Drums
1/2
full
w/ bar
-1 1/2
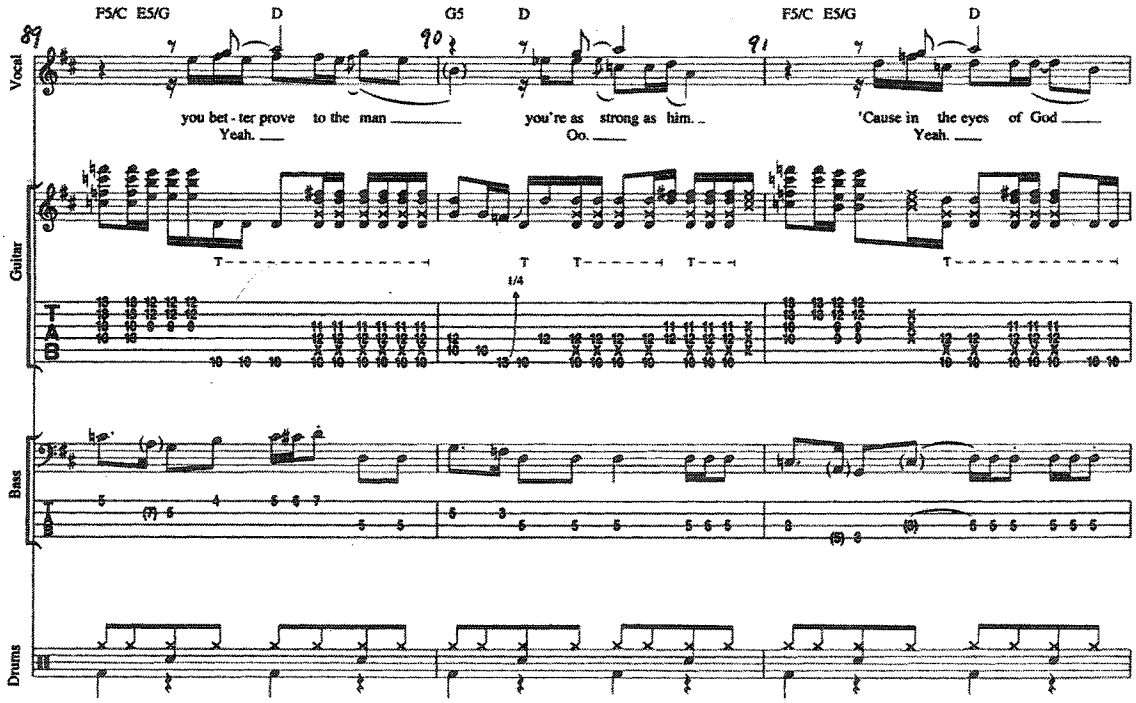

69
C
G
D
70
G
D
71
C
G
D
72
G
D
Vocal
Guitar
Bass
Drums
w/ bar
wah-wah off
full
1/4
Fuzz Face off
P.M.

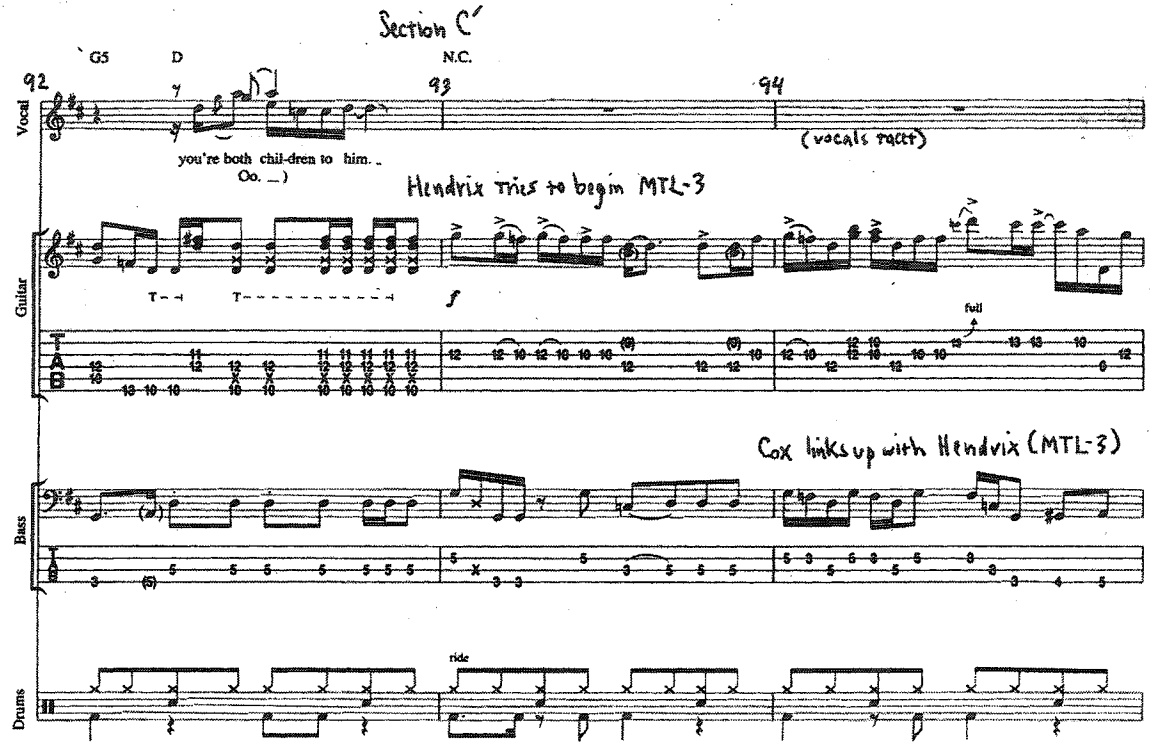

Section A''
73
F5/C E5/G
D
74
G
D
75
F5/C
N.C.(G)
D
76
G
D
Vocal
Return to variations of main thematic material
Guitar
mf
1/4
P.M.
Bass
vamp
(Tempo sags)
Drums
Verse
77
F5/C
E5/G
D
78
G
D
79
F5/C
E5/G
D
(Jimi) 4. Here comes a wom - an
wrapped up in chain.
Mess - in' with that fool, ba - by,
(Buddy) (Yeah.
sim.
hi-hat
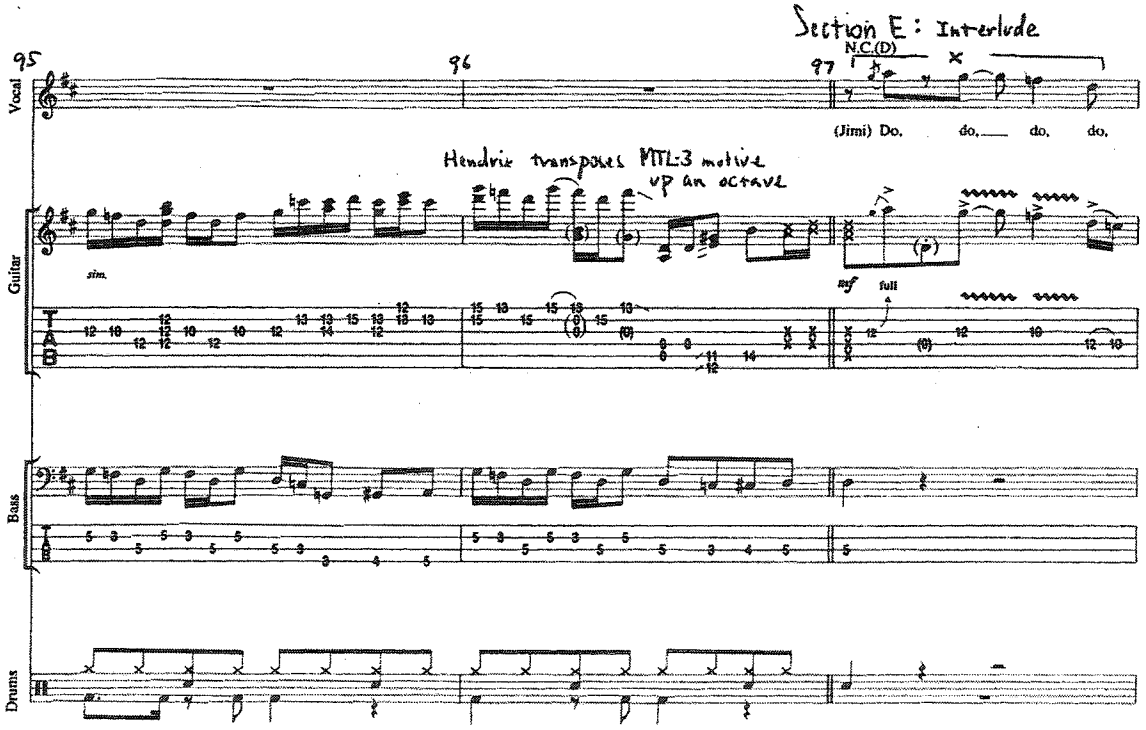

G5
D
F5/C
E5/G
D
G5
D
80
81
82
Vocal
your life _ is pain.
Oo. _____
If you wan-na be free ____
Yeah. ____
come on a-long with me. _
Oo. _____
Guitar
Bass
Drums
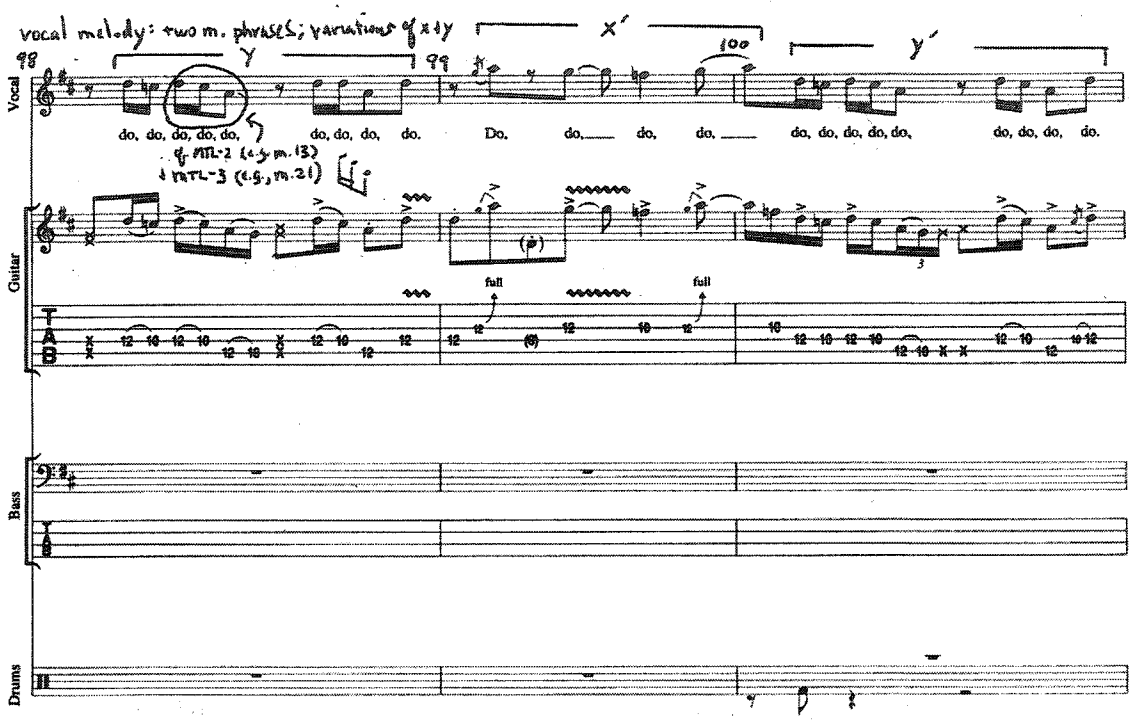

F5/C
N.C.(G)
D
G5
D
F5/C
E5/G
D
83
84
85
Vocal
Don't _ mess with the man,
Yeah. __
he'll nev-er un-der - stand. _
Oo. _____
I said, find your - self first, _
Yeah. __
Guitar
Bass
Drums
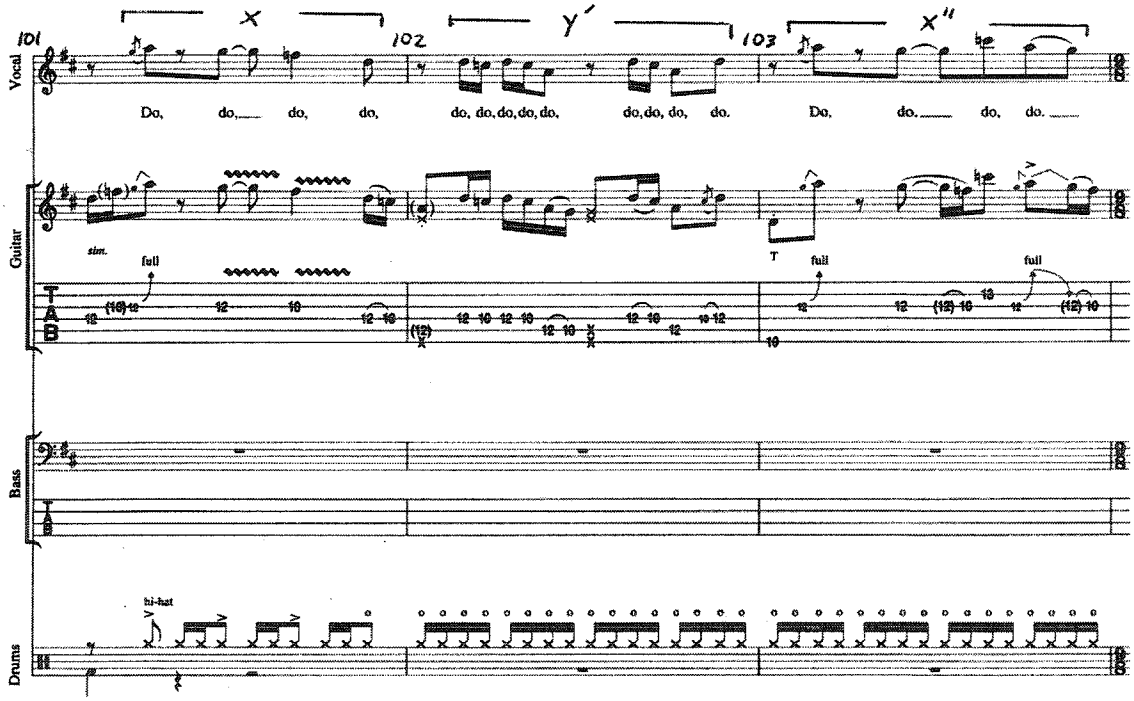

G5 D F5/C E5/G D G5 D
86 87 88
Vocal
and then your tal - ent.
Oo.
Work hard in your mind
Yeah.
so if you come a - live.
Oo.
Guitar
P.M.
1/4
P.M.
Bass
Drums
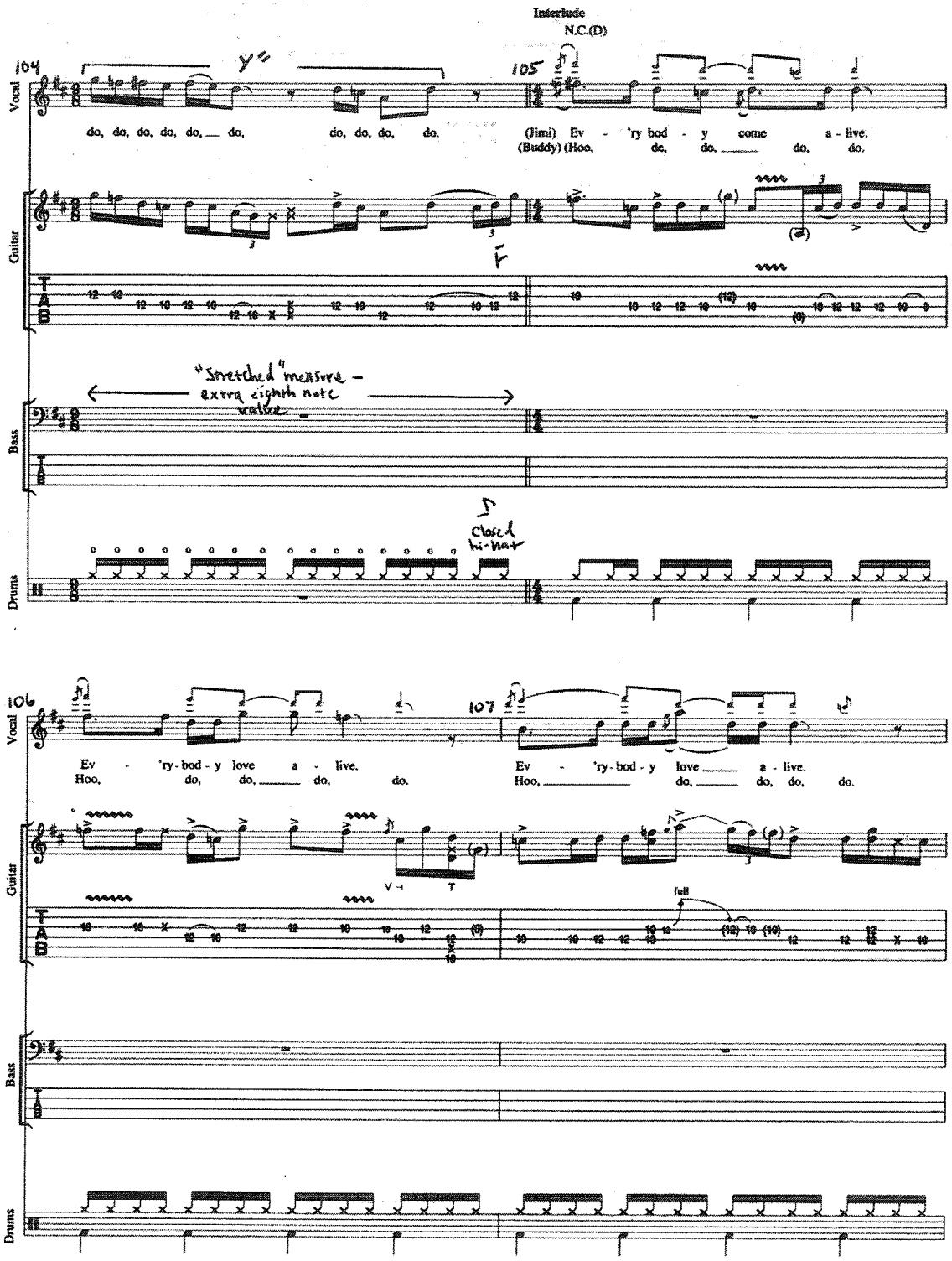

F5/C E5/G D G5 D F5/C E5/G D
89 90 91
Vocal
you bet - ter prove to the man
Yeah.
you're as strong as him.
Oo.
'Cause in the eyes of God
Yeah.
Guitar
1/4
Bass
Drums
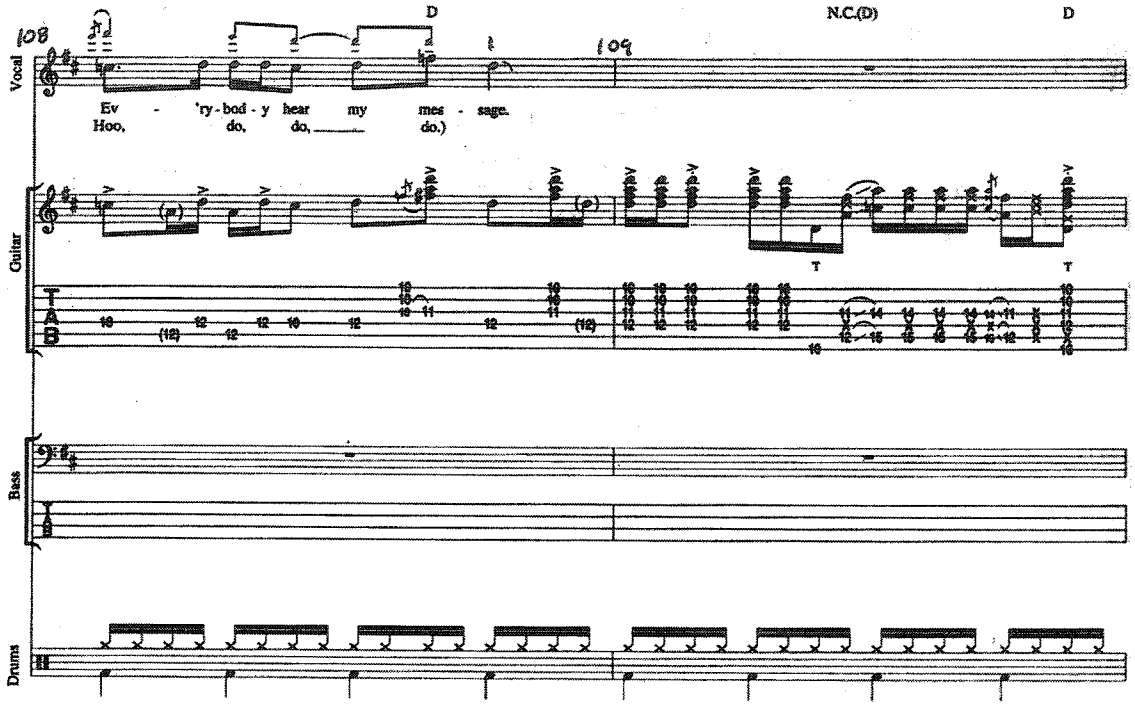

Section C'
G5
D
N.C.
92
93
94
Vocal
you're both chil-dren to him. _
Oo. _)
(vocals react)
Hendrix tries to begin MTL-3
Guitar
T
A
B
full
Cox links up with Hendrix (MTL-3)
Bass
Drums
ride

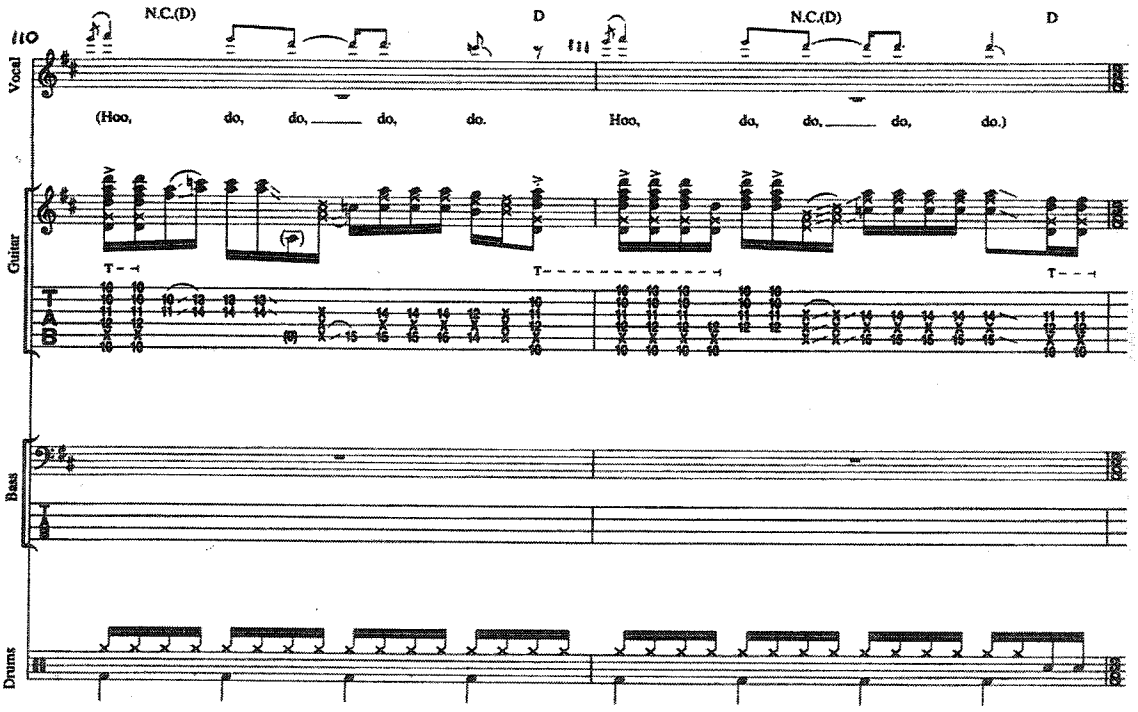

Section E: Interlude
N.C.(D)
95
96
97
Vocal
(Jimi) Do, do, ___ do, do,
Hendrix transposes MTL-3 motive up an octave
Guitar
sim.
mf
full
Bass
Drums
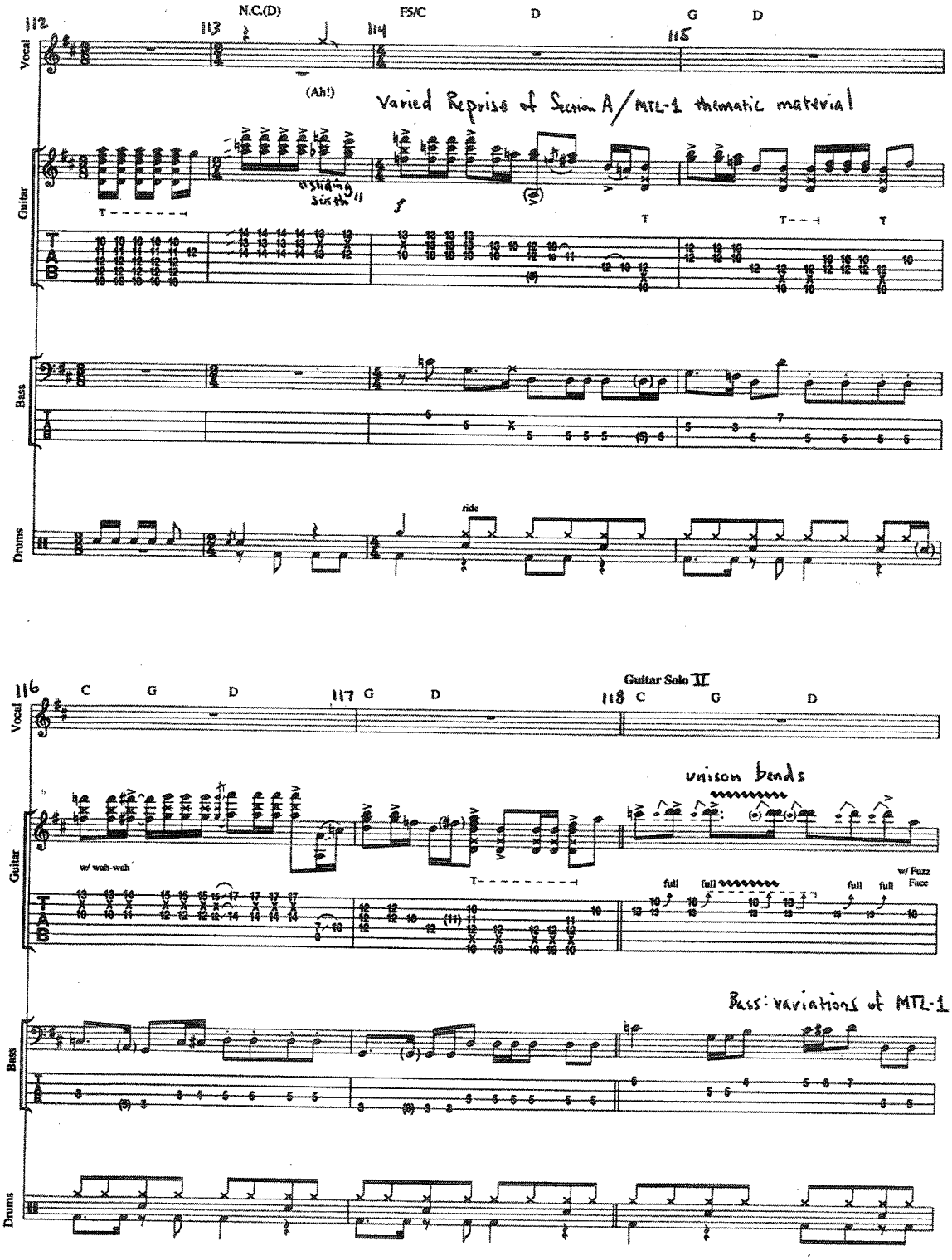

vocal melody: two m. phrases; variations of x + y
x
y
x'
y'
98
99
100
Vocal
do, do, do, do, do, do, do, do, do.
Do, do, do, do.
do, do, do, do, do, do, do, do, do.
Guitar
Bass
Drums

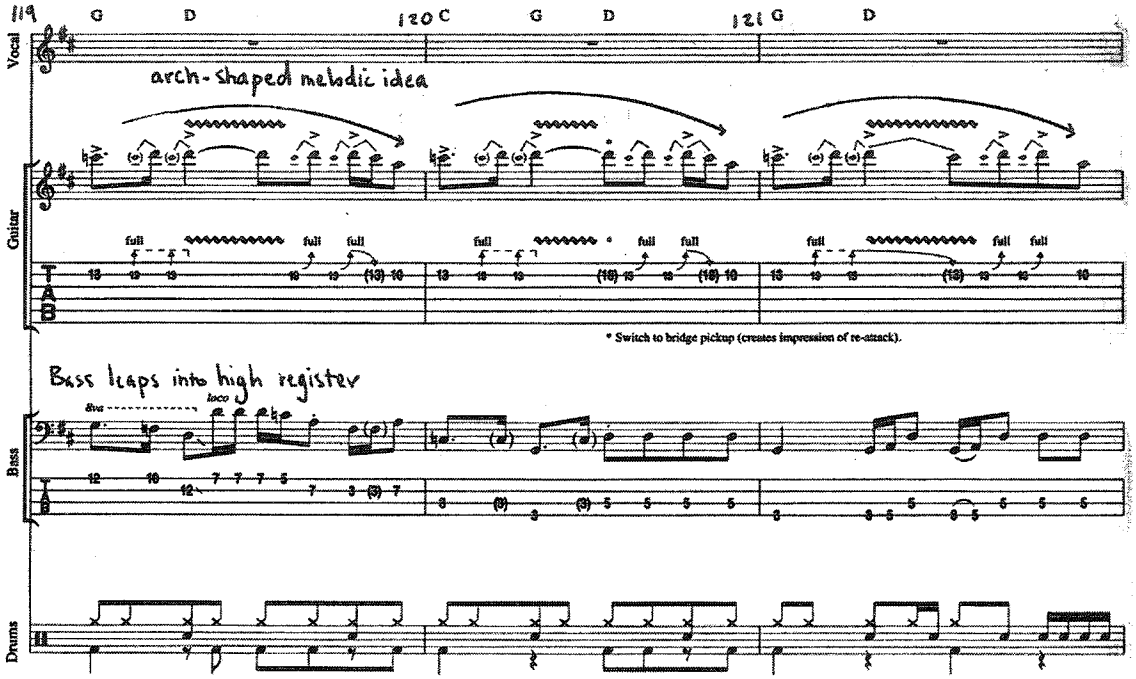

x
y'
x''
101
102
103
Vocal
Do, do, do, do, do, do, do, do, do, do, do, do, do, do, do.
Guitar
sim.
full
T
Bass
Drums
hi-hat
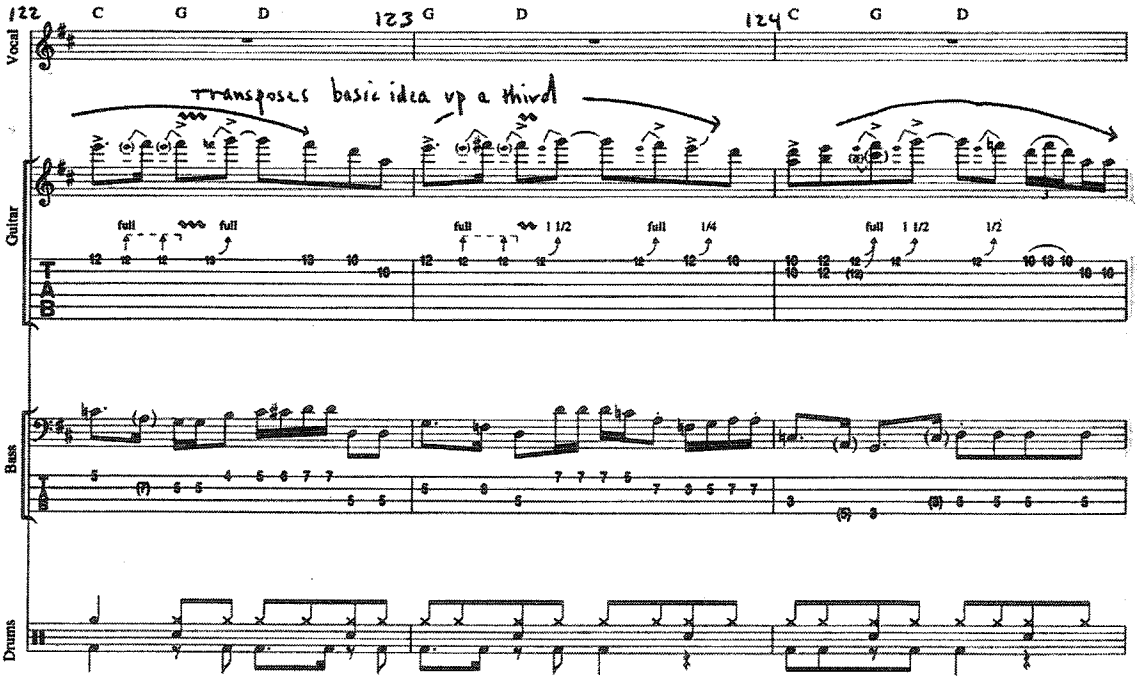

Interlude
N.C.(D)
104
105
Vocal
do, do, do, do, do, do, do, do, do, do.
(Jimi) Ev - 'ry bod - y come a - live.
(Buddy) (Hoo, de, do, do, do.
Guitar
T A B
"Stretched" measure - extra eighth note value -
Bass
Drums
closed hi-hat
106
107
Ev - 'ry - bod - y love a - live.
Hoo, do, do, do, do.
Ev - 'ry - bod - y love a - live.
Hoo, do, do, do, do.
full
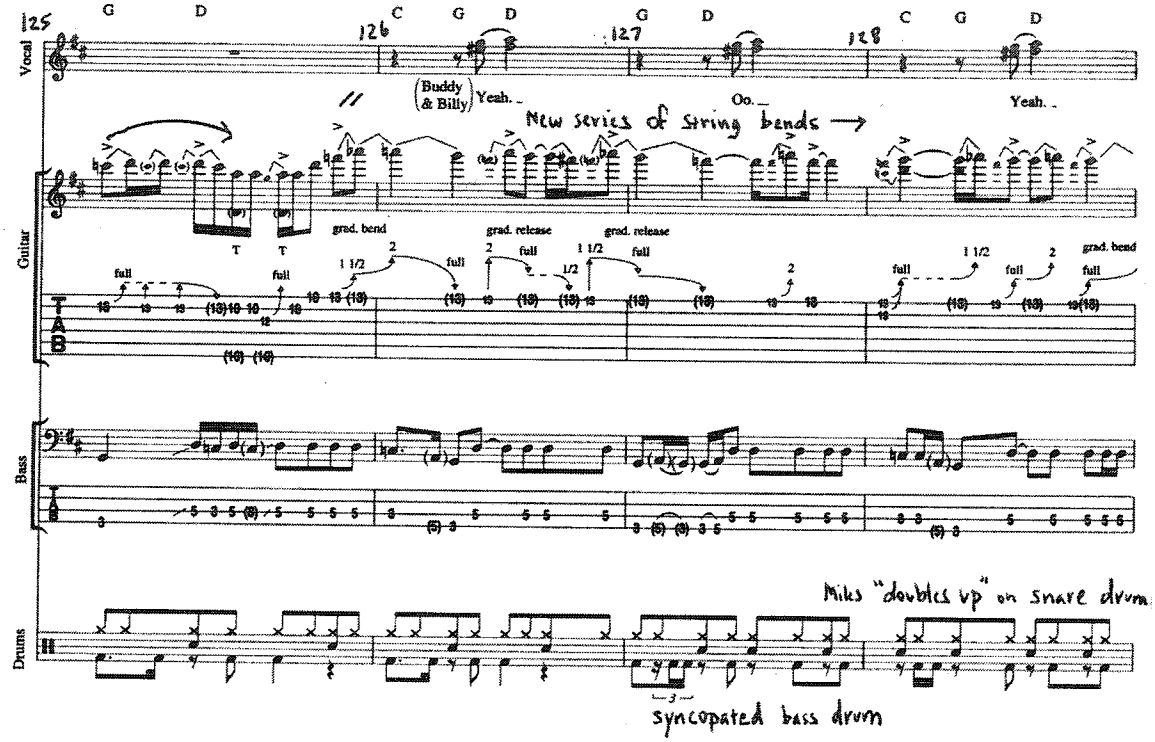

108
D
N.C.(D)
D
109
Vocal
Ev - 'ry - bod - y hear my mes - sage.
Hoo, do, do, ___ do.)
Guitar
T
T
Bass
Drums
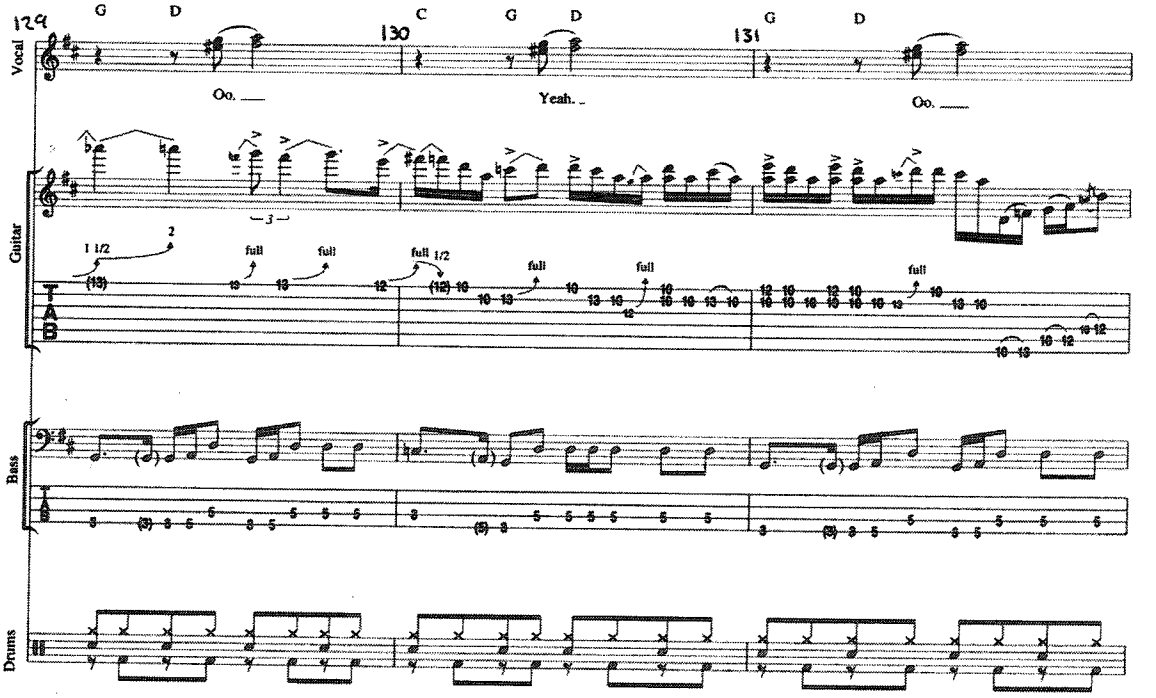

110
N.C.(D)
D
111
N.C.(D)
D
Vocal
(Hoo, do, do, ___ do, do.
Hoo, do, do, ___ do, do.)
Guitar
T
T
T
Bass
Drums
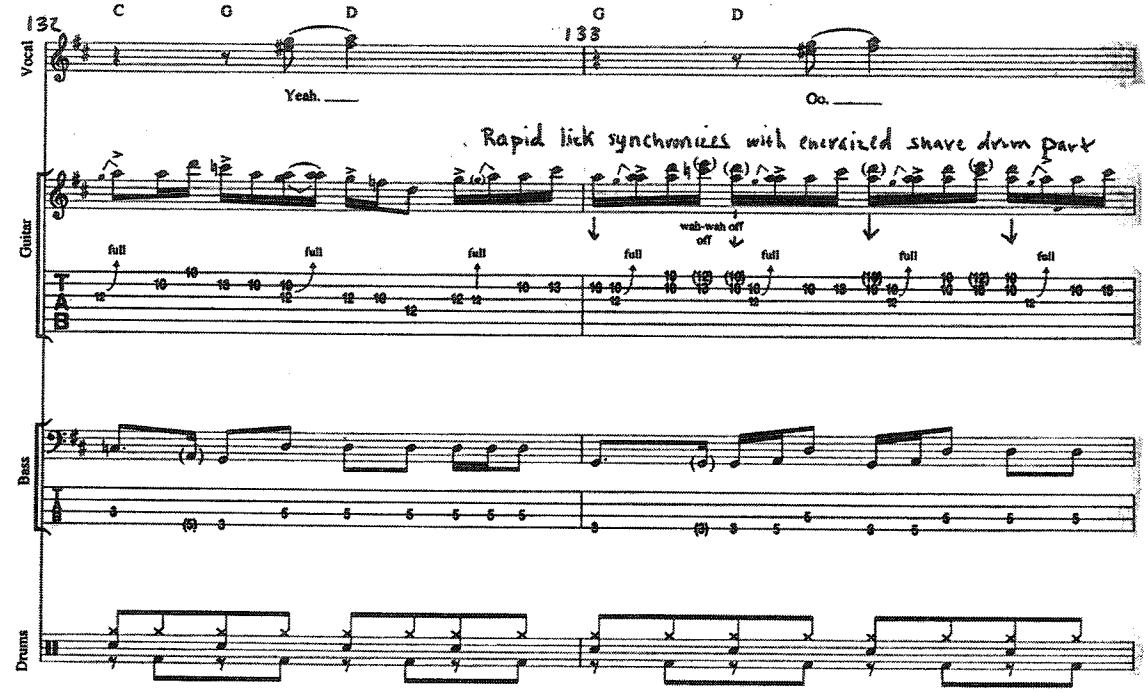

112
113
N.C.(D)
114
F5/C
D
115
G
D
Vocal
(Ah!)
Varied Reprise of Section A/MTL-1 thematic material
Guitar
sliding sixth
Bass
ride
Drums
116
C
G
D
117
G
D
118
C
G
D
Guitar Solo II
unison bends
w/ wah-wah
full
full
full
full
w/ Fuzz Face
Bass: variations of MTL-1
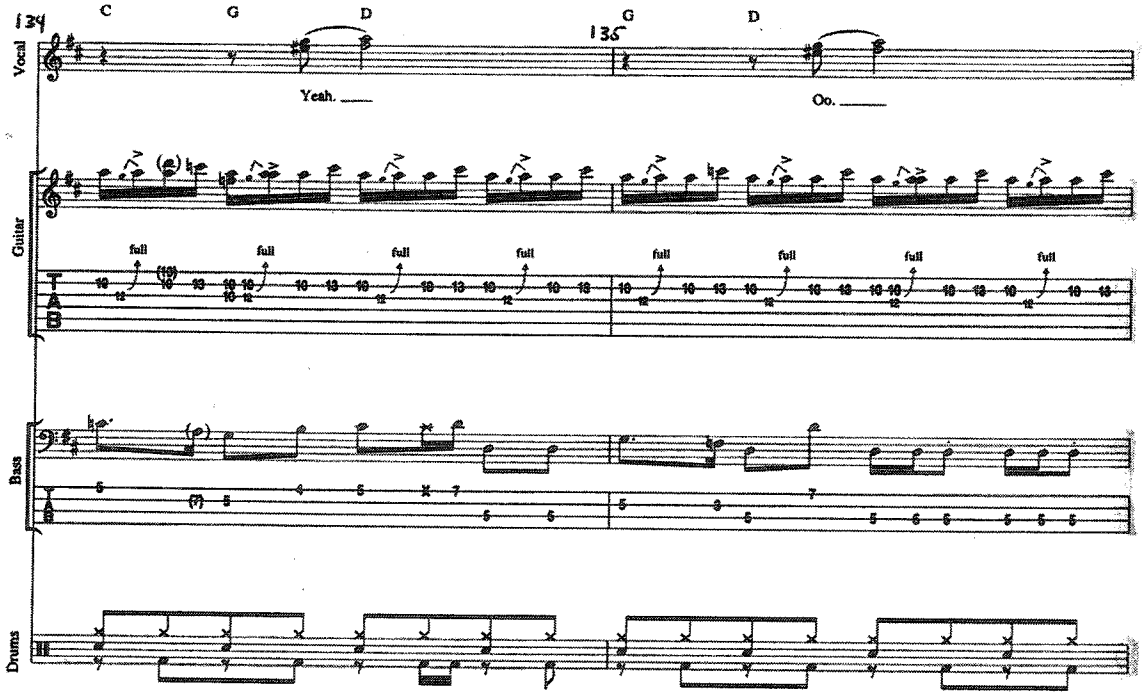

119
G
D
120
C
G
D
121
G
D
Vocal
arch-shaped melodic idea
Guitar
full
* Switch to bridge pickup (creates impression of re-attack).
Bass leaps into high register
8va
loco
Bass
Drums

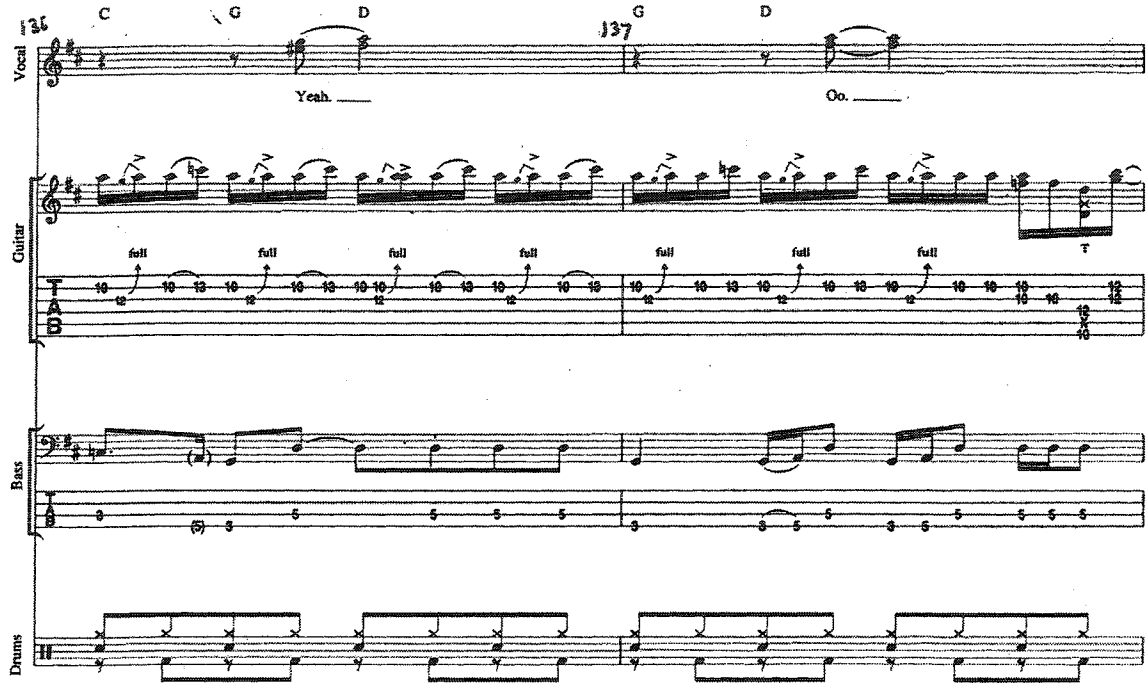

122
C
G
D
123
G
D
124
C
G
D
Vocal
transposes basic idea up a third
Guitar
full
1 1/2
1/4
Bass
Drums

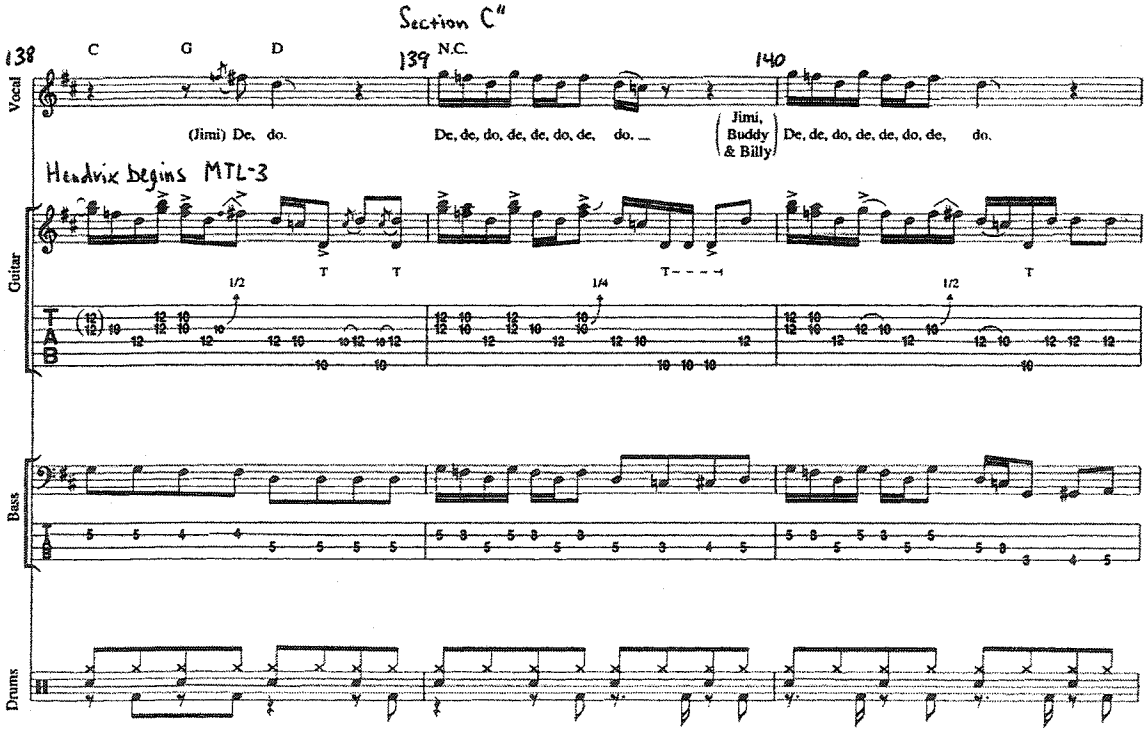

125
126
127
128
G D C G D G D C G D
Vocal
Guitar
Bass
Drums
(Buddy & Billy) Yeah.
Oo.
Yeah.
New series of string bends →
grad. bend
grad. release
grad. release
grad. bend
full
1 1/2
1/2
T A B
Miks "doubles up" on snare drum
syncopated bass drum
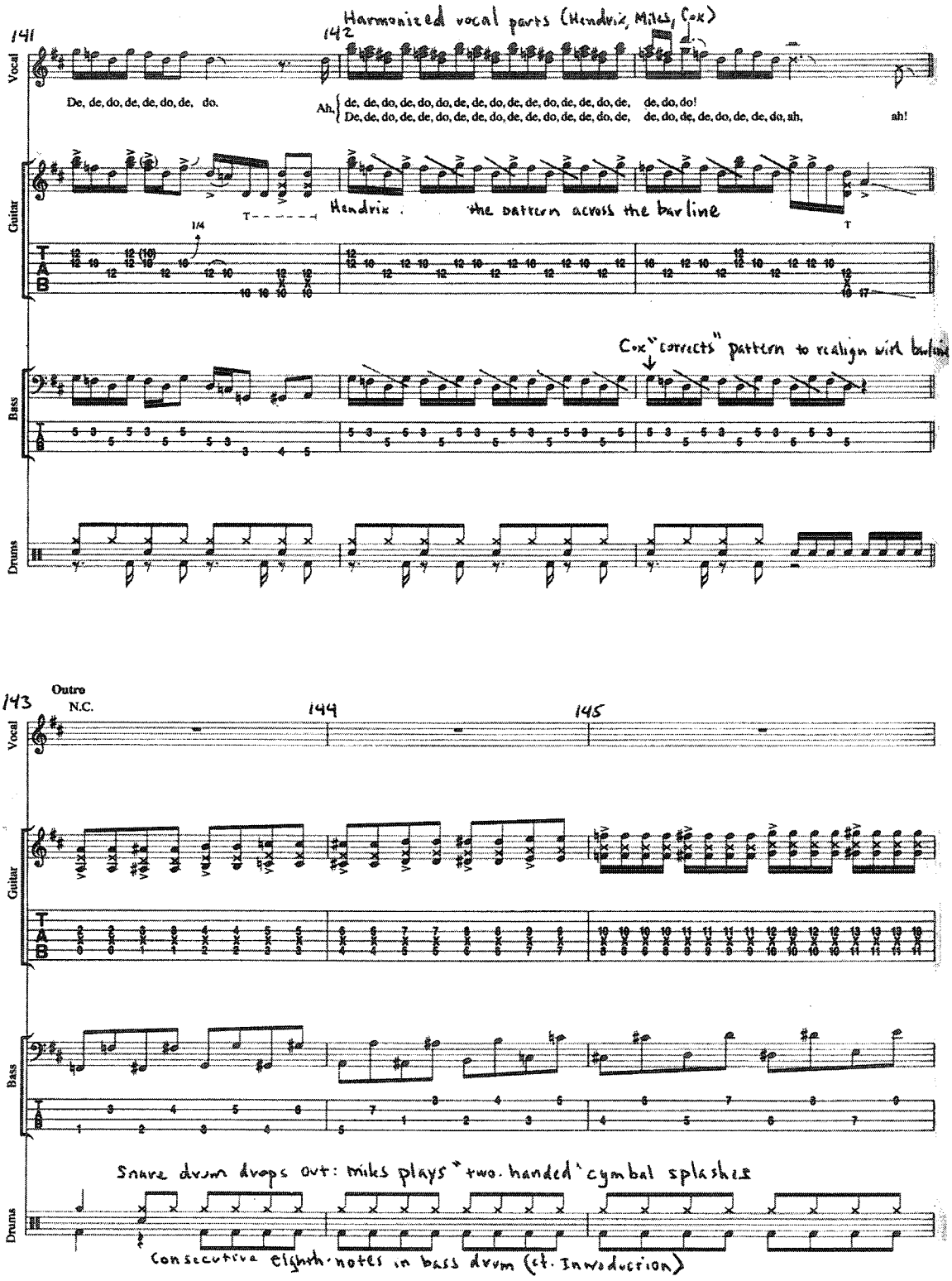

129
130
131
G D C G D G D
Vocal
Guitar
Bass
Drums
Oo.
Yeah.
Oo.
full
1 1/2
T A B

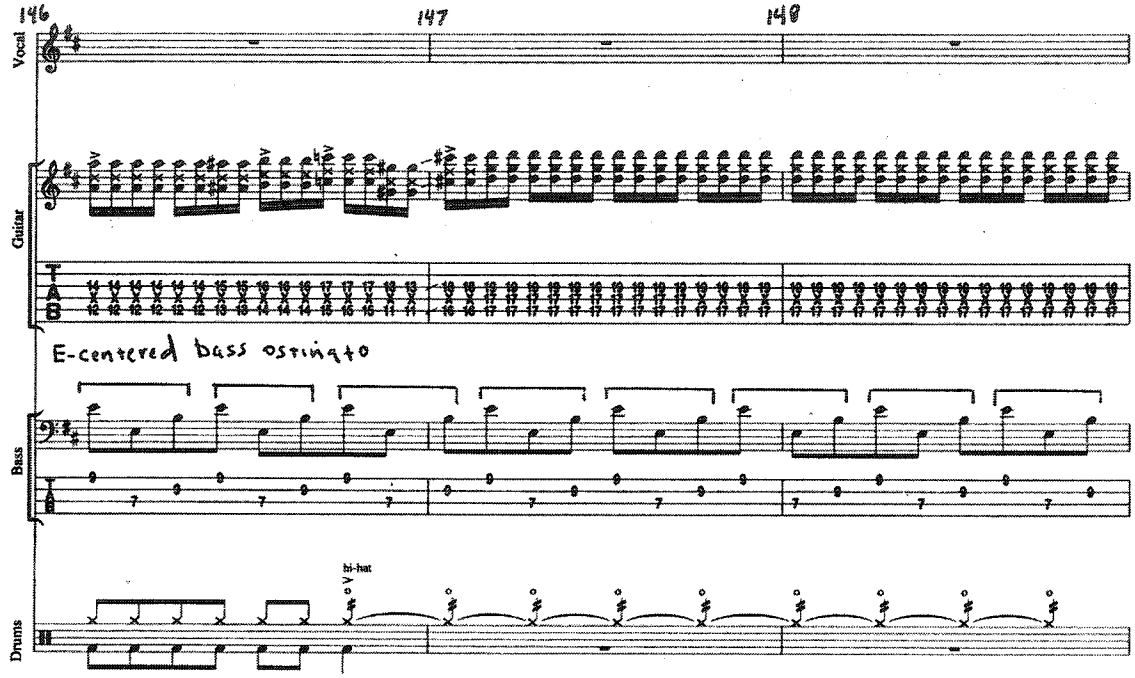

132
C
G
D
133
G
D
Vocal
Yeah.
Oo.
Rapid lick synchronizes with energized snare drum part
Guitar
wah-wah off
off
full
Bass
Drums

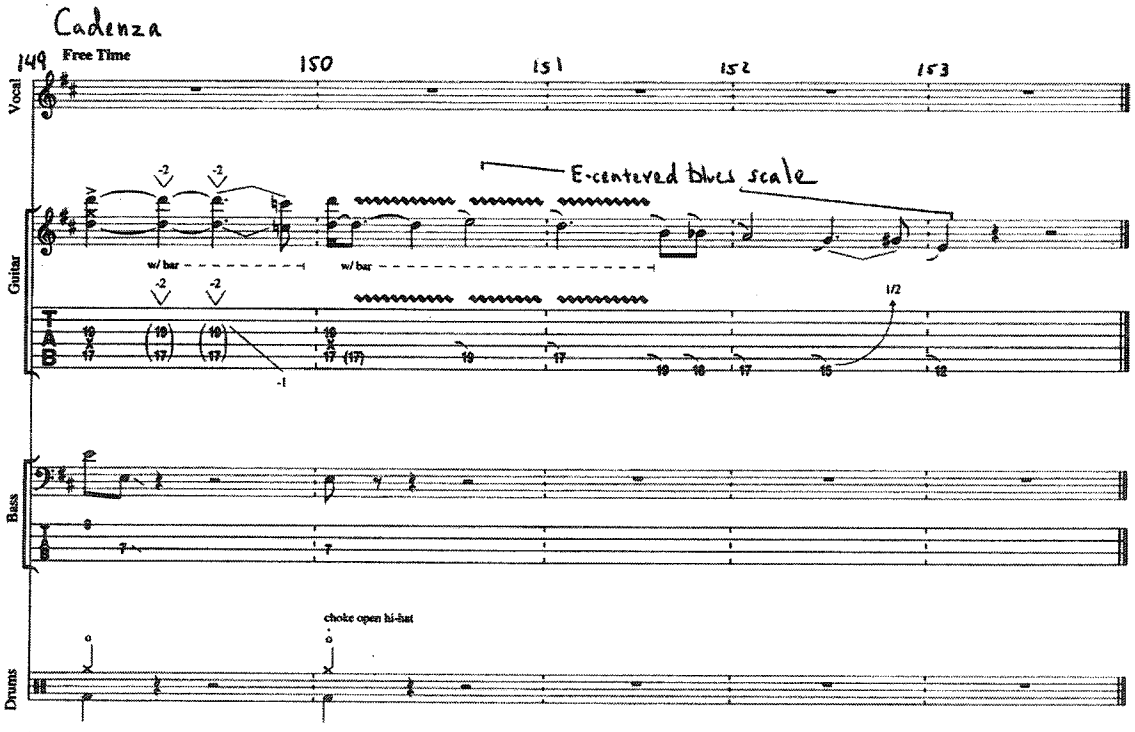

134
C
G
D
135
G
D
Vocal
Yeah.
Oo.
Guitar
full
Bass
Drums


135
C
G
D
137
G
D
Vocal
Yeah.
Oo.
Guitar
full
T
Bass
Drums


Section C"
138
C
G
D
139
N.C.
140
Vocal
(Jimi) De, do.
De, de, do, de, de, do, de, do.
Jimi, Buddy & Billy
De, de, do, de, de, do, de, do.
Hendrix begins MTL-3
Guitar
1/2
1/4
T
Bass
Drums


141
142
Harmonized vocal parts (Hendrix, Miles, Cox)
Vocal
De, de, do, de, de, do, de, do.
Ah.
de, de, do, de, de, do, do, de, de, do, de, de, do, de, de, do, de, de, do, do!
De, de, do, de, de, do, de, de, do, de, de, do, de, de, do, de, de, do, de, de, do, de, de, do, ah,
ah!
Guitar
Hendrix.
the pattern across the barline
1/4
T
Bass
Cox "corrects" pattern to realign with barline
Drums
143
Outro
N.C.
144
145
Snare drum drops out: Miles plays "two-handed" cymbal splashes
Consecutive eighth-notes in bass drum (cf. Introduction)


146
147
148
Vocal
Guitar
E-centered bass ostinato
Bass
hi-hat
Drums


Cadenza
149
Free Time
150
151
152
153
Vocal
E-centered blues scale
w/ bar
w/ bar
Guitar
1/2
Bass
choke open hi-hat
Drums

Vita

John Cavanaugh Hanford

Education:

University of Washington (1997-2003)
Degree Program: Doctor of Musical Arts in Historical Musicology, December 2003

University of Washington (1992-1997)
Degree: Master of Arts in Historical Musicology, March 1997
Recipient of Elizabeth Kerr Macfarland Scholarship in the Humanities, 1994

University of Washington (1970-1974) Bachelor of Arts in History, March 1974

Roosevelt High School, Seattle (1965-1968), June 1968

Professional Experience and Other Biographical Information:

John C. Hanford (1949-) is from Seattle, Washington. As a young musician he studied piano with instructors Harlan Rugg and Corey Celli. He began performing popular music in 1965. A self-taught guitarist, John studied jazz improvisation, composition, and arranging with pianist Jerome Gray and bassist/composer Gary Peacock during the 1970s and 1980s. In the 1990s, John renewed classical piano studies, taking instruction from Gloria Parnitski.

John Hanford has been a professional musician since 1974, performing and recording with various rock, rhythm and blues, and country bands. As a graduate student in the Historical Musicology program at the University of Washington, John taught music courses on classical and popular music at both the Seattle and Bothell campuses. In 1997 he wrote his Master's thesis "Realties Altered and Redefined: Sound, Style and Meaning in Jimi Hendrix's 'Purple Haze' and 'The Star Spangled Banner.'" In December 2000, the Experience Experience Project invited John to be a guest speaker at the first annual Innovators Series, an event held in commemoration of the birthday anniversary of Jimi Hendrix.