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Ellingtonia: the reciprocal and symbiotic relationship between Duke Ellington and his musicians.

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The reciprocal and symbiotic relationship between Duke Ellington and his musicians

Contents

Musical scores of *In a Mellotone*, *Cottontail* and *Reflections in D* are bound in a separate volume.

Introduction

In the years that followed Ellington's 1930 recording of *Mood Indigo,* many writers and researchers have attempted to analyse and understand Duke Ellington's unique approach to harmony and tonal colouring.[1] This research has largely been hampered by the fact that for decades it was believed that there were no manuscripts to study. This belief was understandable, as the musicians in Ellington's orchestra often performed without music, having memorised or created their own parts, and Ellington himself created a smokescreen to sustain the mystery. In addition, Ellington's musicians, friends and relatives retold anecdotes so many times, in interviews for media and later oral history projects, that the tales often became exaggerated and interwoven with invention. The belief that all surviving manuscripts were lost[2] has resulted in much of the

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1 R.D. Darrell, 'Black Beauty' (1932); Roger Pryor Dodge, 'Harpsichords and Jazz Trumpets' (1934); André Hodeir, 'A Masterpiece: Concerto for Cootie' (1954); Priestley and Cohen, 'Black, Brown and Beige' (1974); Gunther Schuller, 'Early Jazz' (1968), 'Ellington in the Pantheon' (1974) and 'The Swing Era' (1989). All are included in Mark Tucker, *The Duke Ellington Reader* (New York: Oxford University Press, 1993).

2 The widespread belief that all the original manuscripts were lost is described in a number of accounts. Derek Jewell wrote in 1974: 'I don't know just how many works he has written, to tell the truth. It can't be anything under 2,000; it might be as many as 5,000. The chilling truth is that perhaps ninety per cent of it has not been preserved in manuscript. For decades it was locked in the heads of his musicians, consciously or sub-consciously. "You see," Ellington once told me in a hotel room, "our scores disappear. People wrap their lunch in them" ' ('Duke Ellington: The Age and the Man. The Age of Ellington', album liner notes, prepared for *The Sunday Times* by RCA Records & Tapes, 1974). Gunther Schuller wrote, also in 1974: 'Pieces as original, as perfect, as imaginative, as beautiful as Ellington's best just cannot be buried in the past. They must survive; they must be heard. And something must be done about it before more of Ellington's music, scores and parts, disappear. Perhaps more exists than one can ascertain at this time, so soon after his death. I do know that in trying to obtain the parts for a

analysis of Ellington's work being based on audio recordings. This is clearly unsatisfactory as, despite the phenomenal ability of some transcribers, inevitably certain sections will contain inaccuracies. Even if the transcription were completely accurate, how then would a researcher identify a 'wrong' note or copying error?

This research project was born out of many years' work attempting to transcribe the work of Duke Ellington for performance by various bands and orchestras. This process often followed the same pattern. Once the transcription was complete, the piece would be performed. Although it was possible to create a very accurate copy of the original, there often appeared to be subtle differences between the transcription and the original. The process of amending and refining the work would then begin; this regularly involved *removing* notes rather than adding them. Discussions with other transcribers revealed that they had experienced similar problems. Complex harmonic structures that had originally been scored using six or seven voices could be reduced, often to as few as three or four voices. Clearly there was something exceptional in Ellington's approach to harmony, both in his piano playing and his writing for orchestra, but it was very difficult to assess this accurately without access to original source material.

This all changed in 1988 when the Smithsonian Institution in Washington, DC established the Duke Ellington Collection in the National Museum of American History, Archive Center. Six hundred cubic feet of music manuscript (scores and parts), photographs, press cuttings, correspondence, financial records, scrapbooks, posters and programmes were acquired from Duke's son Mercer

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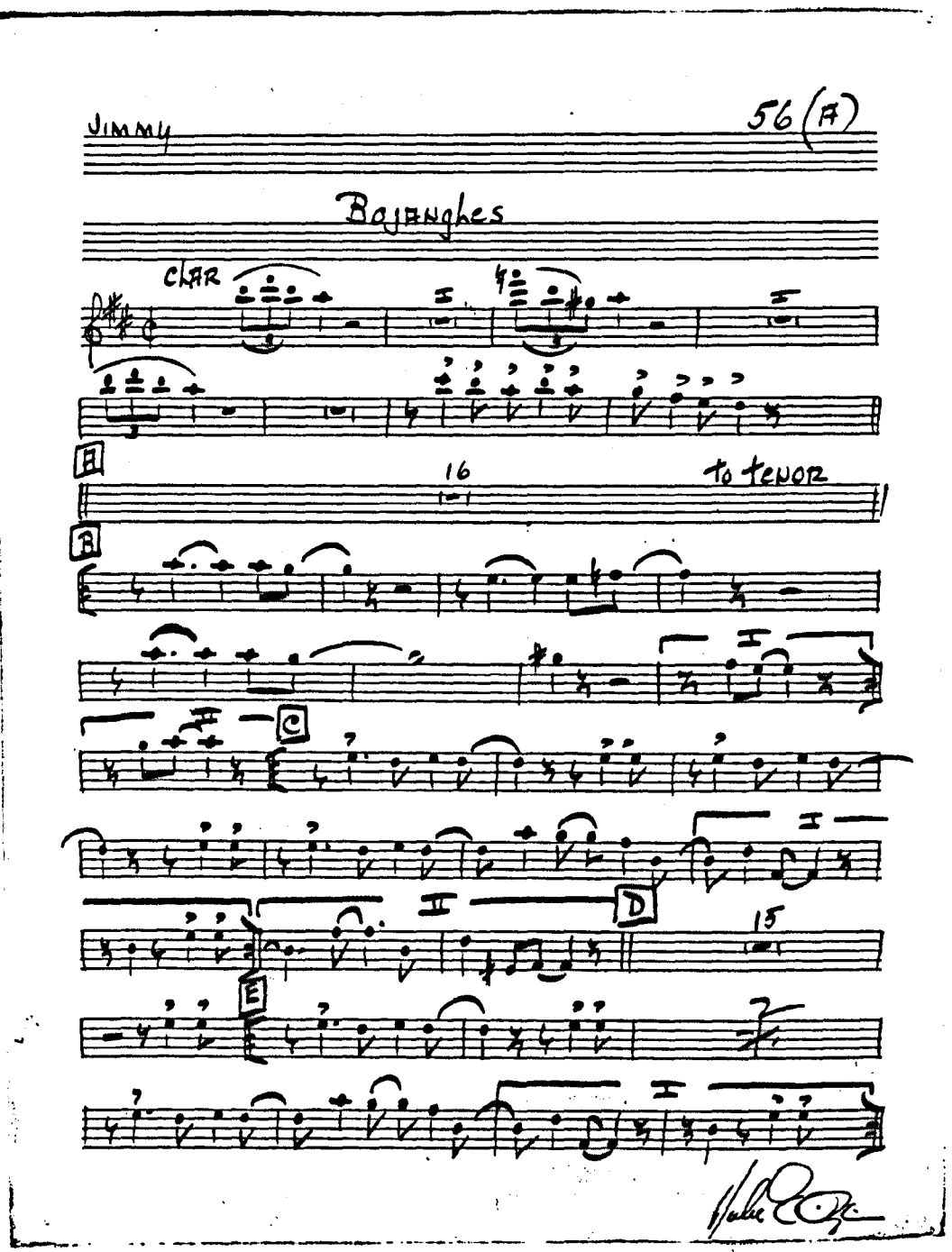
half-dozen Ellington scores a few years ago, several days of diligent search on the part of Tom Whaley and Joe Benjamin produced nothing. Perhaps they'll turn up, but one shudders to think of the possibility that they may not' (Gunther Schuller, 'Ellington's Music as Living Repertory [Are the Recordings Enough?]', in *idem.*, *Musings: The Musical Worlds of Gunther Schuller* [New York: Oxford University Press, 1986], p. 62).

who had been running the band after his father's death. The collection also includes many audiotape recordings of rehearsals, broadcasts and interviews and objects such as music stands, uniforms, awards and books. In 1991, the collection was enlarged further when music from the offices of Tempo (Ellington's publishing company) was acquired from Ellington's sister, Ruth Ellington Boatwright.

Autograph scores and parts of compositions and arrangements, mainly by Ellington and Strayhorn, form the main part of the Ellington Collection. The autograph scores are usually in pencil, whereas extracted or copied scores, often created by copyist Tom Whaley, are usually in ink. There are thousands of band parts, the oldest parts copied by Juan Tizol in pencil, and others by various copyists in ink. In addition to Ellington's personalised autographed manuscript, there are dozens of brands carrying the name of Hollywood Studios, music stores and publishing companies. Figure 1 is an example of Tom Whaley's copying, in ink, on Ellington's autograph 12-stave manuscript. It is Jimmy Hamilton's part for *Bojangles.*

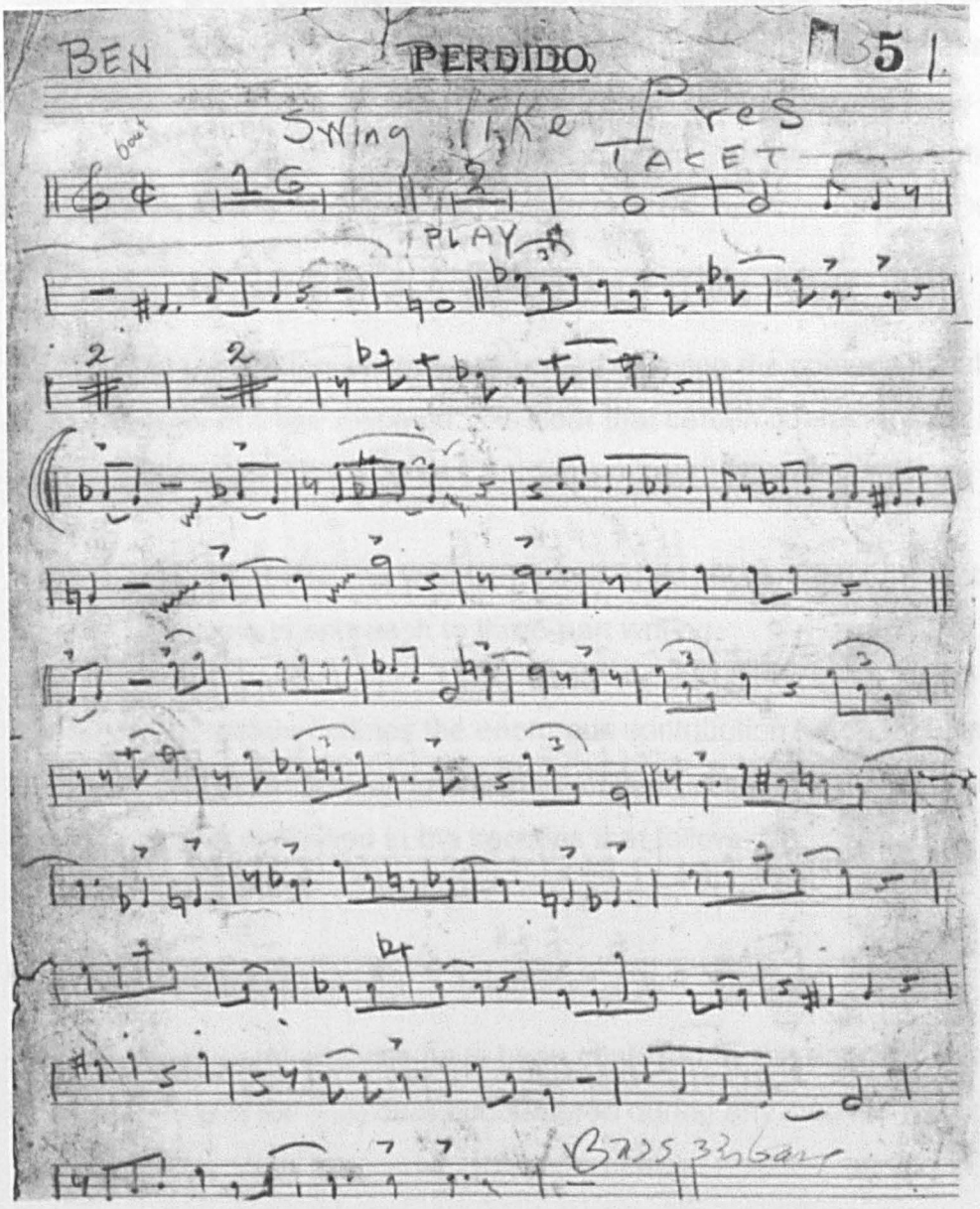
Figure 1: Jimmy Hamilton's part for *Bojangles*



The often well-worn manuscripts carry much more information than notation. This ranges from scribbled telephone numbers of celebrities and many female admirers, to calculations such as prices of shoes and shirts, etc. (especially on

the reverse of Johnny Hodges's parts). The reproduction in Figure 2 of Ben Webster's part for *Perdido* includes the instruction, 'Swing like Pres' (Lester Young), and is an example of Juan Tizol's copying.

Figure 2: Ben Webster's part for *Perdido*, copied by Juan Tizol



Many of the sets of band parts are incomplete – inevitable when musicians were responsible for carrying their own music. Ellington's orchestra was a 'living band'

that toured for the best part of 50 years and during this period nearly a thousand musicians worked with the orchestra. Key instrumentalists copied their music into notebooks; these are also stored in the Smithsonian collection.[3] Despite the missing and lost instrumental parts, it was possible, for the first time, to analyse Ellington's original scores. This study has revealed writing techniques that, in many cases, would be almost impossible to identify without the original source material to consider. The analyses in the following chapters feature examples of this recently discovered original source material. The scores and parts were collected from the Duke Ellington Collection in the Smithsonian Institution's National Museum of American History, Archive Center, Washington, DC during a visit in 1996.

In spite of the difficulties encountered when studying the compositional and arranging style of Duke Ellington, it is clear that certain characteristics remained relatively unchanged throughout Ellington's career:

- His thickened-line writing, for individual section and tutti sections;
- His unique approach to three-part writing.

The following section outlines the enormous contribution made by Ellington's musicians and examines Ellington's harmonic practice. The development of this Ellington style is examined in the sections that follow.

The musicians

Many historians and analysts have been confused by the enormous variety of writing styles and tonal colours encountered during any study of the several

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[3] Smithsonian Institution, NMAH Archive Center finding aid, Subseries 1C: Sidemen's Books consists of ten cubic feet of parts for instrumental soloists including Lawrence Brown and Harry Carney.

thousands of recordings made by Duke Ellington and his various orchestras. There are a number of explanations for this confusion. One of the principal causes is that many of the pieces recorded were neither arranged nor composed by Ellington himself.[4]

To complicate things further, at the start of his career much of the work performed by the Ellington Orchestra was created in collaboration with members of the ensemble. In the late 1920s, Ellington encouraged his musicians to lead the way in developing the band's style. As Gunther Schuller argues:

> It is evident both from the recordings and also from the statements of contemporary musicians that Ellington was very dependent upon his players at this stage, and that *they* knew it ... Through the collaboration of his musicians, Ellington would learn to use the remarkable aggregation of sounds the band contained in a more purely compositional manner.[5]

The following is from an interview with Charles Williams (known as Cootie) in 1976 (trumpet, 1928–40 and 1962–78):

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[4] Many other arrangers and composers also provided scores for the band. Mary Lou Williams provided at least 17 arrangements during her time with the orchestra (1942–3) including *Blue Skies* (also known as *Trumpet-No-End*) in 1943. Ex Jimmie Lunceford arranger Gerald Wilson (trumpet, 1954) provided scores – his *Perdido* can be heard on *The Great Paris Concert* (February 1963) – and Wild Bill Davis's (organ 1969–71) *Azure Te* and *I Got It Bad And That Ain't Good* are both on *The English Concert* (October 1971). Jimmy Hamilton (clarinet, 1943–68) wrote *Clarinet Melodrama* and *Theme For Trambean*. Norris Turney (alto saxophone, clarinet and flute, 1969–71) also composed and arranged for the band; his contributions include a tribute to Johnny Hodges called *Checkered Hat*, and Hodges's replacement in the 1950s, Rick Henderson, supplied *Commercial Time* and *Frivolous Banta*. Other contributors included former Basie trumpeter Buck Clayton, Mercer Ellington, Dick Vance (trumpet, 1951–2), and Luther Henderson.

[5] Gunther Schuller, *Early Jazz: Its Roots and Early Development* (New York: Oxford University Press, 1968), p. 327.

> Most of Duke's compositions in the late 1920s and the 1930s were composed with the musicians assisting. If any member [of the band] wrote a tune, it was thought of as an honour for the band to play it; we didn't think of the money value or nothing like that. Everybody contributed something on their own also – Tizol, Hodges, Bigard, Carney and myself – but Duke used to get the credit for them. Sometimes we would write a complete number and Duke would still get all the credit and all the money.[6]

Duke's son, Mercer Ellington, provides another description of the collaboration that took place during this period, in his book *Duke Ellington in Person*:

> When you look at the credits of his compositions from this period, you will see several of the sidemen credited as collaborators. None was probably so creative or prolific as Bubber Miley, but men like Johnny Hodges, Barney Bigard, had ideas, contributed them (often to 'head' arrangements), and were credited ... Generally, the guys would have just a riff or phrase that Pop would embody in an arrangement or build upon to make a thirty-two-bar song.[7]

It is, of course, very difficult to establish exactly where composition ends and orchestration begins. For example, *Echoes Of Harlem* (also known as *Cootie's Concerto*) – 28 February 1936 – features Cootie Williams's improvisation over an ostinato bass, presumably provided by Ellington. *Concerto For Cootie* – 15 March 1940 – is a development of a 'warm-up exercise Cootie used to play in the dressing room'.[8] While Williams claimed ownership ('I did *Echoes Of Harlem* and *Concerto For Cootie* and they were entirely mine, but Duke got his name on the

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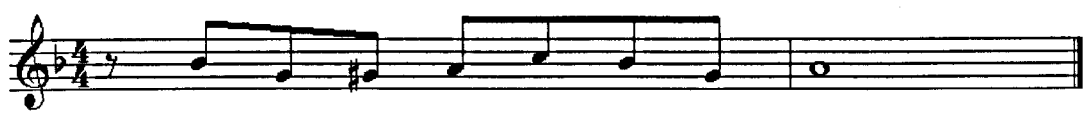
6 Interview with Cootie Williams by Eric Townley, Nice, France, 1976 ('Reminiscing with Cootie', *Storyville* magazine No. 71 [June 1977]; repr. in Eric Townley, 'Concerto for Cootie', *Blue Light: The Newsletter of the Duke Ellington Society* [UK], Vol. 7 No. 1 [January/February/March 2000], p. 4).

7 Mercer Ellington with Stanley Dance, *Duke Ellington in Person: An Intimate Memoir* (New York: Da Capo, 1978), p. 67.

8 Interview with Clark Terry by Marsha Greenlee, Bayside, New York, 6 March 1990; Smithsonian Institution, Oral History Project, NMAH Archive Center, Washington, DC.

label. I didn't mind'),[9] without Duke Ellington's contribution it is hard to imagine these performances ever being recorded: Cootie Williams's phrase (Fig. 3) might have remained a warm-up exercise.[10]

Figure 3: Cootie Williams's phrase from *Concerto For Cootie*



Ellington's reliance upon his musicians is illustrated in the trombonist Milt Bernhart's account of a recording session with Duke Ellington:

> ... he came in one day and passed out eight bars of music to each guy, just eight bars on a scrap of paper, and it was a riff ... Duke said to the official there 'How much music do we need?' And the guy said 'About eight minutes of music, Mr. Ellington'. We had eight bars of music; it was going to last about eight seconds! ... I walked over to the piano, just before the red light went on, and I looked down at those baggy eyes and said, 'What are we going to do?' I said it very quietly, and Duke looked up at me and – in words I'll always remember – said 'You'll know'.
>
> And this was the essence of Duke Ellington – 'You'll know'. That's why that band was that band. And you know something, it did work. We played the first eight bars and instinctively we realized we had to repeat those eight bars, so we did, and this was the entire band; then Duke played a bridge on piano... and then we went back to the first eight bars, and finished the thirty-two bars. At the end of

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9 Eric Townley, 'Concerto for Cootie'.

10 The development of this eight-note phrase (Fig. 3) is addressed in Ken Rattenbury's book *Duke Ellington, Jazz Composer* (New Haven and London: Yale University Press, 1992), pp. 164–201.

> that one of the guys stood up, as if someone had told him to, and played two choruses of pure jazz, and on the second chorus we made up a background with the trombones ... Duke played a few choruses of his own, and Cootie Williams was there and did some wah wah, and then we went back to the first thing we had done and did that. The tempo wasn't too fast and when we had done that it had taken about eight minutes. Duke finished it off with a few passages on the piano, and in the studio were a couple of arrangers, Bill Holman was one of them, Bill was there because it was Duke ... he couldn't believe what he'd heard, nor could anybody. There was no point in doing it again; Duke wouldn't have permitted it anyway, he was out the door.[11]

It is clear that during the band's residency at Harlem's Cotton Club (1927–31) a unique and individual style began to emerge. This can be attributed, in part, to a process of symbiotic composition that took place during rehearsals. There are a number of accounts of this practice. In an article entitled 'Touching Tomorrow's Frontiers is Duke Ellington's Music' for *Metronome* magazine,[12] Harry Allen Overstreet describes how the band assembled after the last show – either in a rehearsal room or on stage – and collectively created an orchestration. Overstreet's account describes how Ellington would dictate the notes to be played by each musician. Working with each section at a time, each musician was given the musical information in four-bar sections. The musicians then played the material and made suggestions and amendments until each 16- or 32-bar section was completed. The musicians would then play it a sufficient number of times to fix it firmly in their memories. While this was taking place, Overstreet describes how Juan Tizol – the Puerto Rican trombonist – prepared a rough score, writing down each section as it developed. Ellington would then take this score home with him to see if any further refinements were possible. The

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[11] Milt Bernhart addressing the West Surrey Big Band Society, 29 May 1996; http://www.jazzprofessional.com/humour/bernhart, accessed 14 December 2005.

[12] *Metronome* magazine, October 1933, p. 31; repr. in Tucker, *Duke Ellington Reader*, p. 100.

following night the arrangement would be rehearsed and further changes and improvements made until the final arrangement was completed and perfectly memorised. In an interview with Carter Harman,[13] Duke Ellington suggested that this tradition of playing without music dated back to vaudeville: '... it was seen as tacky to go on stage with music'.

During the orchestra's tenure at the Cotton Club, in addition to providing arrangements of pop tunes and arranging and often composing music for dancing, Ellington was required to create atmospheric 'mood' or 'jungle' pieces for the club. It was through this exploration of a unique tonal palette – the growling muted brass, the tom toms and cymbals of Sonny Greer, and the inimitable timbres of musicians like Cootie Williams, Albany Bigard (known as Barney), Johnny Hodges and Harry Carney – that a new music began to emerge. As a result of the stability that the Cotton Club residency created, Ellington was also able to write for the same musicians, or 'Ellingtonians', for long periods. This distinctive blend of musicians and music, called 'Ellingtonia' for the purpose of this study, was developed by an ensemble always greater than the sum of its parts. The many Ellingtonians that passed through the orchestra left an indelible mark on its sound. Unique voices within the ensemble, like that of Harry Carney's baritone saxophone, demanded special treatment. The following sections will examine how this special treatment developed into a linear writing style that would colour much of the jazz writing that followed.

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[13] Interview with Duke Ellington by Carter Harman, Chicago, 31 May 1964; Smithsonian Institution, Oral History Project, NMAH Archive Center, Washington, DC, 'Tape 4', cassette copy '1 of 4', side B. Carter Harman was music editor of *Time* magazine from 1952 to 1957. It was his cover story for the magazine on 20 August 1956, highlighting Duke's sensational appearance at the Newport Jazz Festival on 7 July 1956, that is credited by many with rejuvenating Duke's career. Harman was also engaged to help Ellington write his autobiography and collected about 20 hours of interviews before withdrawing from the project.

The famous five-man Ellington saxophone section – Johnny Hodges, Russell Procope, Jimmy Hamilton, Paul Gonsalves and Harry Carney – stayed together from 1956 to 1968. Their 12-year occupancy of the saxophone 'chairs' exemplified the amazing tenures of Ellington's musicians:

Harry Carney	47 years
Johnny Hodges	38 years
Sonny Greer	31 years
Lawrence Brown and Russell Procope	28 years
Jimmy Hamilton	25 years
Paul Gonsalves and Fred Guy	24 years
Cootie Williams	23 years
Ray Nance	21 years
Joseph Nanton (known as Tricky Sam)	20 years
William Anderson (known as Cat) and Otto Hardwick	19 years
Juan Tizol	17 years
Barney Bigard	14 years
Arthur Whetsol and Sam Woodyard	13 years
Rex Stewart, Ivie Anderson and Harold Baker (known as Shorty)	11 years

Although Ellington's aggregation of musicians and stellar soloists contributed enormous amounts of material, Ellington's role of *composer* (literally, 'putter-together')[14] cannot be undervalued. It was the combination of both of these factors, the sharing of musical ideas *and* Ellington's organisation and treatment of this musical material, that led to the emergence of the *Ellington style*. The musicians responded to this musical collaboration in a variety of ways. This ranged from Cootie Williams's pride-tinged nonchalance described above (p. 8), to Johnny Hodges pretending to count out money in the palm of his hand when

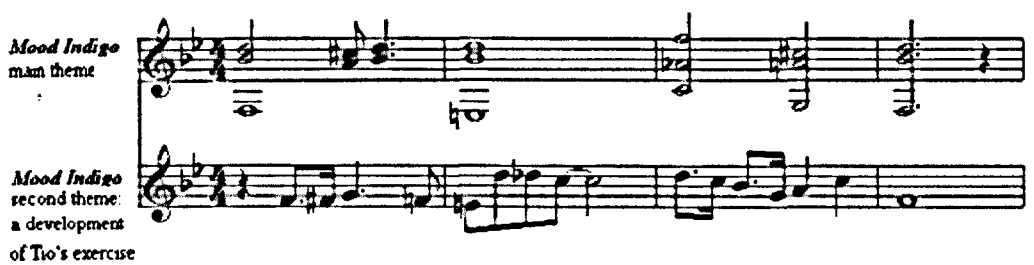
[14] From Old French *composer* (Latin *componere*): to put together (*co[m]*, 'together', and *ponere*, 'to put, place').

the band performed a piece for which he felt he should have received more credit,[15] to Barney Bigard's legal action to receive his credit for *Mood Indigo*:[16]

> Ellington said he wrote *Mood Indigo* at his breakfast table while his mother was making breakfast or dinner ... I had given him the last half of the tune already and he just added the first part ... Oh I got about 13 tunes I never did get credit for.[17]

The first 16-bar section of *Mood Indigo*, which Ellington created, is little more than harmonic backgrounds for the section that was given to Bigard by Tio (see Fig. 4).

Figure 4: Comparing the first 16 bars of *Mood Indigo* with Lorenzo Tio's exercise



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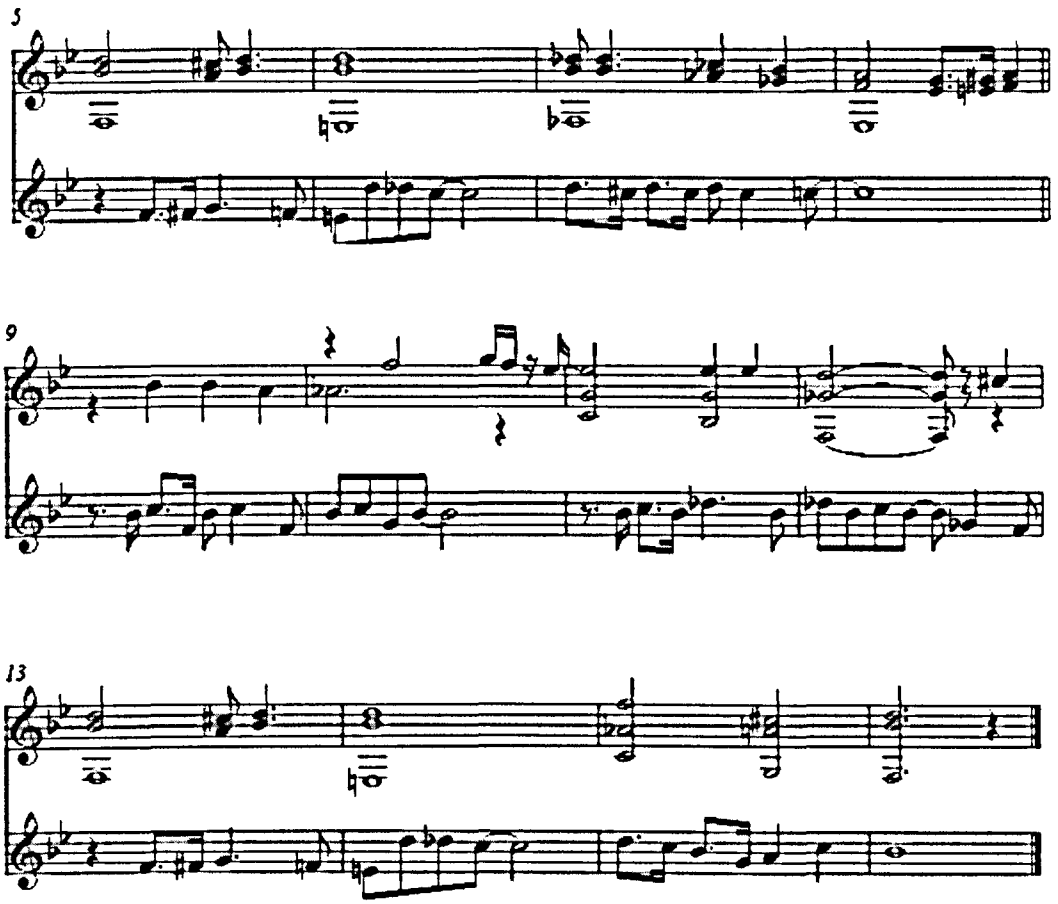
[15] *A Duke Named Ellington* (two-part documentary, 1988). Videotape in the repository of the Duke Ellington Collection, Smithsonian Institution, Washington, DC.

[16] It is perhaps a little ironic that Bigard should claim ownership as, by his own admission, *Mood Indigo* was a development of an exercise given to him by his uncle, and teacher, Lorenzo Tio Jnr.

[17] Interview with Barney Bigard by Pat Willard, 1976. Smithsonian Institution, Oral History Project, Institute of Jazz Studies, Rutgers University.



Some of Ellington's musicians made such significant contributions that it is difficult to imagine Ellingtonia without them. The most outstanding contribution was probably made by William Thomas Strayhorn. Billy Strayhorn contributed more than 500 arrangements, many of them original compositions, to the Ellington library. Employed initially as a lyricist and then as an arranger, his masterful, yet often uncredited, writing brought a new dimension to Ellington's *oeuvre*. It is important to note, however, that despite Strayhorn's considerable involvement, if Ellington had died in 1939 and had never met Billy Strayhorn, it is likely that people would still be listening to, and studying, Ellington's music. *Black And Tan Fantasy, Birmingham Breakdown, The Mooche, East St Louis Toodle-oo, Mood Indigo, Sophisticated Lady, Diminuendo In Blue, It Don't Mean A Thing*

and *Daybreak Express* were all created before Ellington had met Billy Strayhorn; Ellington wrote his first extended work *Creole Rhapsody* in 1931 (two sides of a 78 rpm recording), and followed it with *Reminiscing In Tempo* in 1935 (four sides of 78 rpm recording). Similarly, James (known as Bubber) Miley's responsibilities as Ellington's writing collaborator at the orchestra's inception was vital to the development of the early Ellington sound, just as Sonny Greer's role as mentor, and Irving Mills's management, were fundamental to the growth of Ellington's early orchestra.

Ellington's harmonic practice

By the mid 1930s, Duke Ellington had developed his unique approach to harmony and had established a band that had a clearly identifiable sound. He achieved this through his innovatory approach to basic writing techniques. Ellington was not self-taught (this is well documented in numerous texts including Mark Tucker's *Ellington: The Early Years*[18] and Ellington's autobiography *Music is My Mistress*[19]) and perhaps the advice of one of his teachers – Will Marion Cook – was a catalyst: 'First you find the logical way, and when you find it avoid it and let your inner self break through and guide you. Don't try to be anybody but yourself.'[20]

One of the techniques that remained relatively unchanged throughout Ellington's career was his use of **four-part block** or **thickened-line**[21] **harmonisation**. In thickened-line writing, each of the four lines have similar shapes; this allows each musician in the section to match the lead player's inflections and accents.

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[18] Mark Tucker, *Ellington: The Early Years* (Chicago: University of Illinois Press, 1991).

[19] Duke Ellington, *Music is My Mistress* (London, W.H. Allen, 1974).

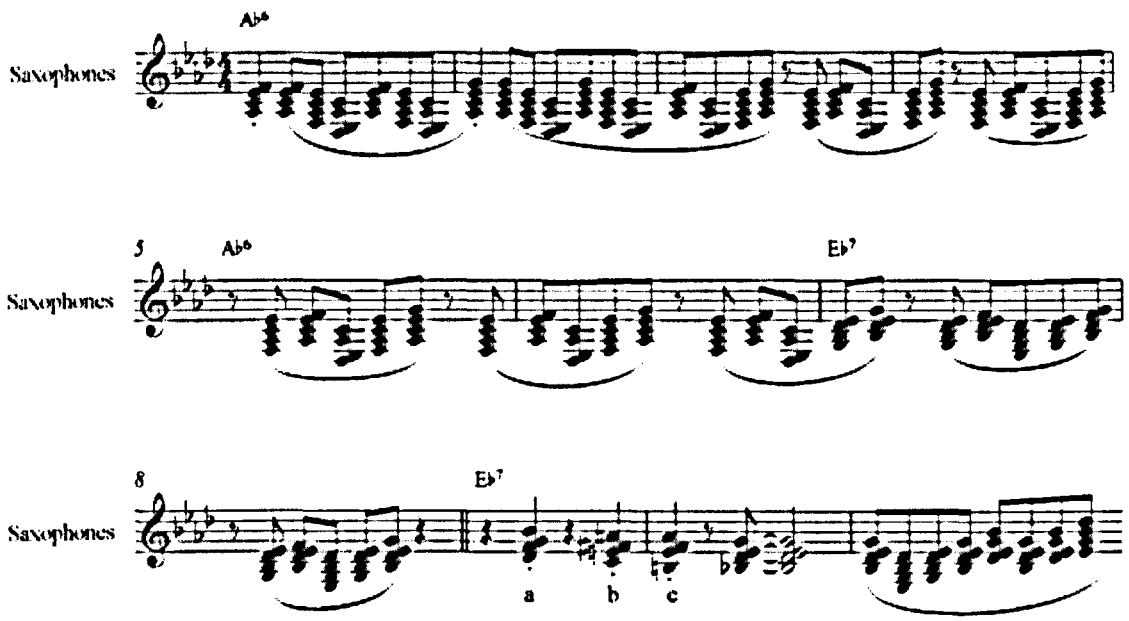
[20] *Ibid.*, p. 96.

[21] Thickened-line harmonisation is a term coined by William Russo in his book *Composing for the Jazz Orchestra* (Chicago: University of Chicago Press, 1973 [1961]).

In his 1933 composition *Daybreak Express*, Ellington used thickened-line harmonisation to create a magnificent soli for his virtuoso saxophone section. As the majority of the notes in the soli are chord notes from the underlying chord sequence – *Tiger Rag* – these are harmonised using various inversions of the relative chords. This style of writing in this soli had been established by writers like Benny Carter (regarded by many as the father of the saxophone soli) in his arrangements for the orchestras of Bennie Moten and Fletcher Henderson in the 1920s and '30s. In an interview in 1964, Ellington said that he wanted his band to 'be as good as Fletcher Henderson's'[22] and was clearly aware of this style of writing.

[22] Interview with Ellington, Chicago, 31 May 1964, 'Tape 4', side A.

Figure 5: *Daybreak Express*, 1933, saxophone section soli

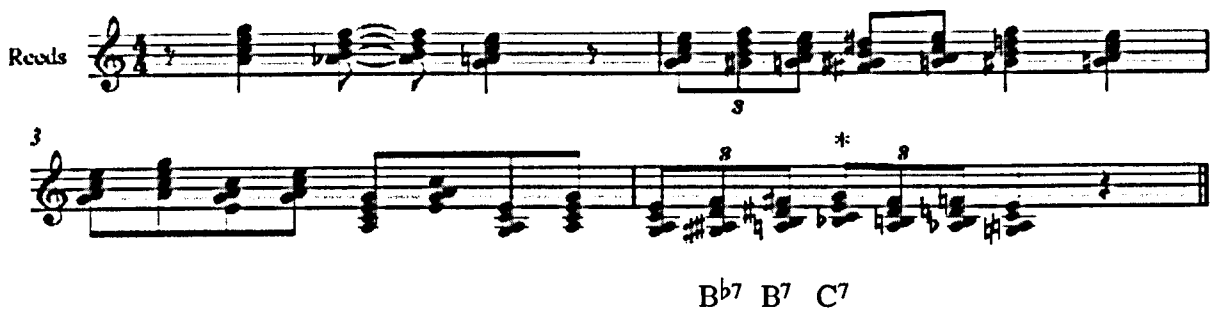


The chromatic passing chords, identified as b and c in Figure 5, are generated by 'planing' the chord marked a, by chromatically parallel intervals.

Chromatic planing, also known as chromatic parallelism (or chromatic parallelisation), is clearly illustrated in the following example. The target note G (* in m. 4, Fig. 6 below) is harmonised with a (7-1-3-5 voicing of C^7 – a dominant-quality chord built on the tonic. The ascending passing notes F and $F^\sharp$ are harmonised with chromatically parallel chords, $B^{\flat 7}$ and B^7, respectively. This results in all voices moving in a chromatically parallel manner. This section was written for clarinet and four saxophones. The melody note is also played an octave lower and is not included in the example.

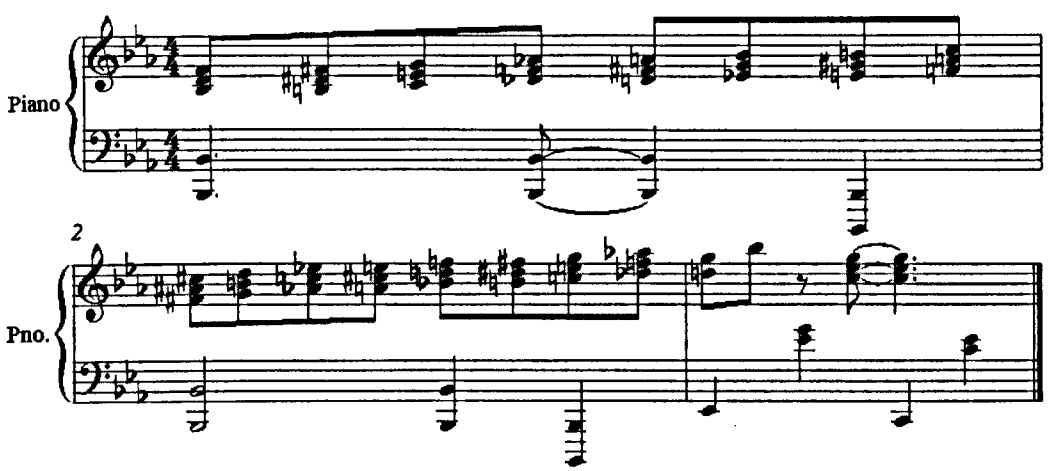
Figure 6: *Rockin' In Rhythm*, mm. A 1–4

(cf. Fig. 76, Ellington pencil score, 'Duke's Harmony', pp. 104–7)



Chromatic planing also featured in Ellington's piano playing. The following is Ellington's introduction to *Blue Goose*, recorded 2 May 1940.

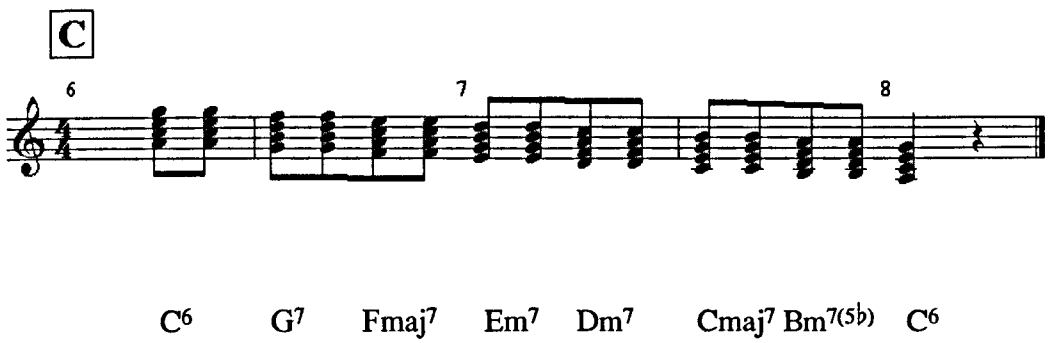
Figure 7: *Blue Goose*, 1940



When a melody moves by step *diatonically*, the technique of diatonic planing can be used. In this type of harmonisation all voices move in parallel fashion through the diatonic scale related to the chord. All voices do not necessarily move by identical intervals.

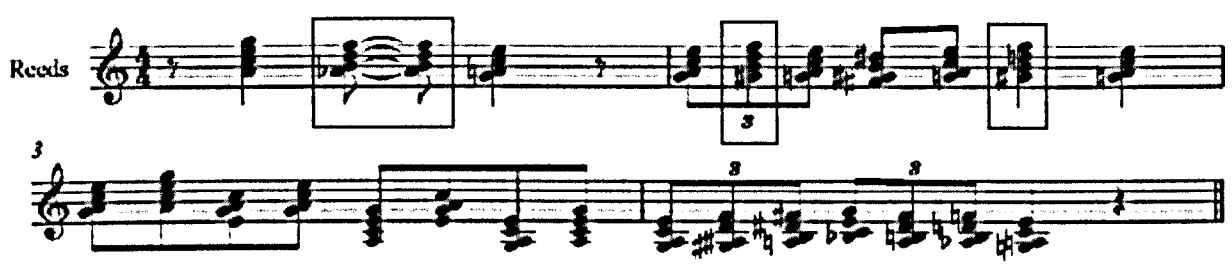
Figure 8: *Rockin' In Rhythm*, mm. C 6–8[23]

(cf. Fig. 76, Ellington pencil score, 'Duke's Harmony', pp. 102–5)



When harmonising non-chordal passing notes, Ellington often used diminished seventh chords. In Figure 9 the notes of the diminished chords (identified with boxes) form the upper part of a dominant seventh chord with a flattened ninth – i.e. (7)-9♭-3-5-7 voicing of the dominant chord of C major.

Figure 9: *Rockin' In Rhythm*, m. 1



Ellington also used dominant-seventh-quality chords to harmonise non-chordal passing notes. These are most commonly built on the note a perfect fifth, or minor second, above the root of the chord of the moment.

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[23] Another example of this can be seen in the 1940 saxophone writing in the accompanying score of *In A Mellotone*, m. 47.

Figure 10 shows the first three pages of Ellington's autograph score of *In A Mizz* and illustrates the techniques described above when writing for four saxophones. Ellington routinely used a separate (treble) staff for Harry Carney's baritone saxophone, which was always written one octave higher than actual sound. The first three pages of Ellington's handwritten score, Figure 10, was found in the Duke Ellington Collection in the Smithsonian Institution in Washington, DC. *In A Mizz* was recorded twice on 12 June and 26 July 1939; the recording made in June is included on the accompanying CD (track 7).

Figure 10a: *In A Mizz*, page 1

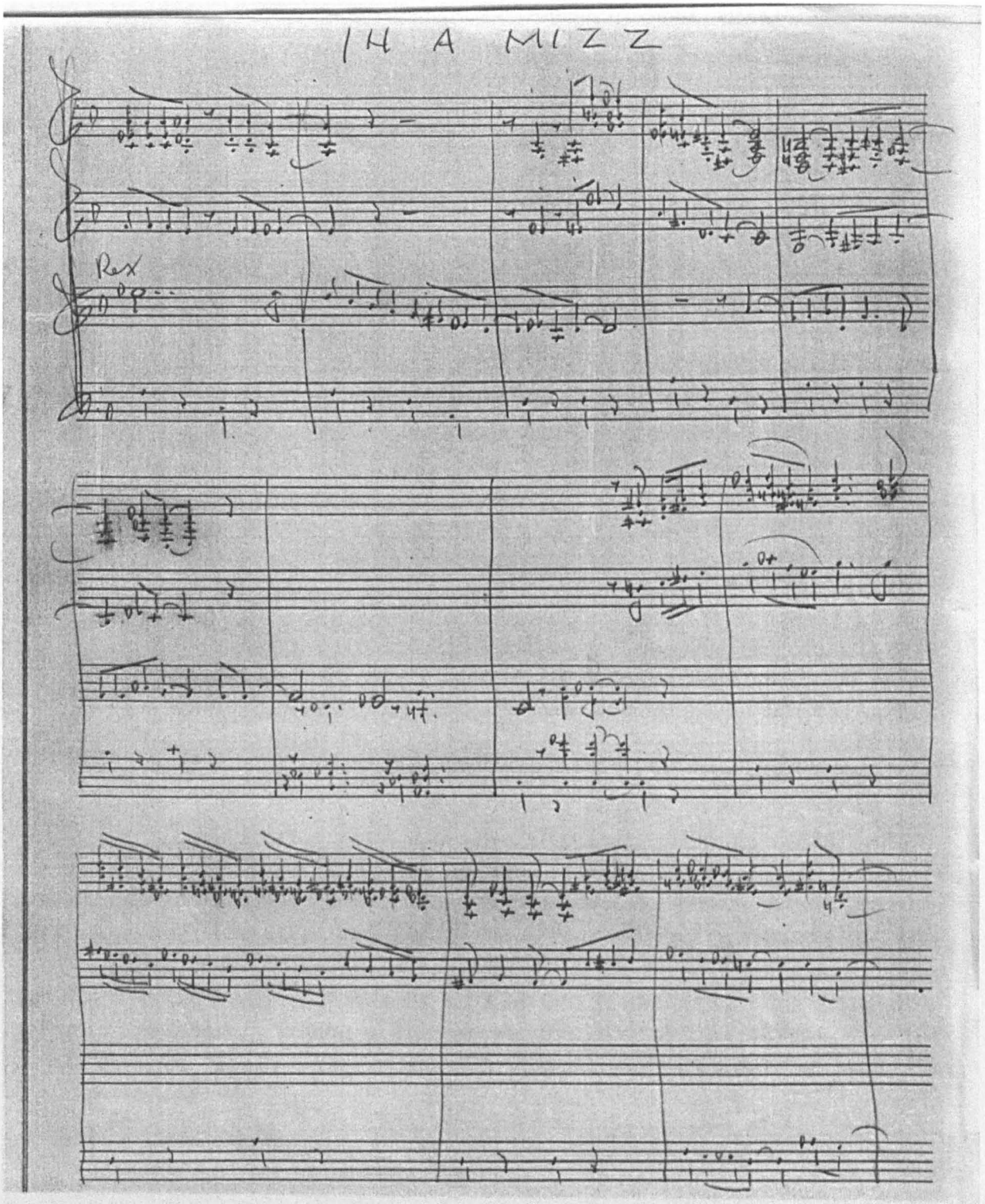


Figure 10b: *In A Mizz*, page 2

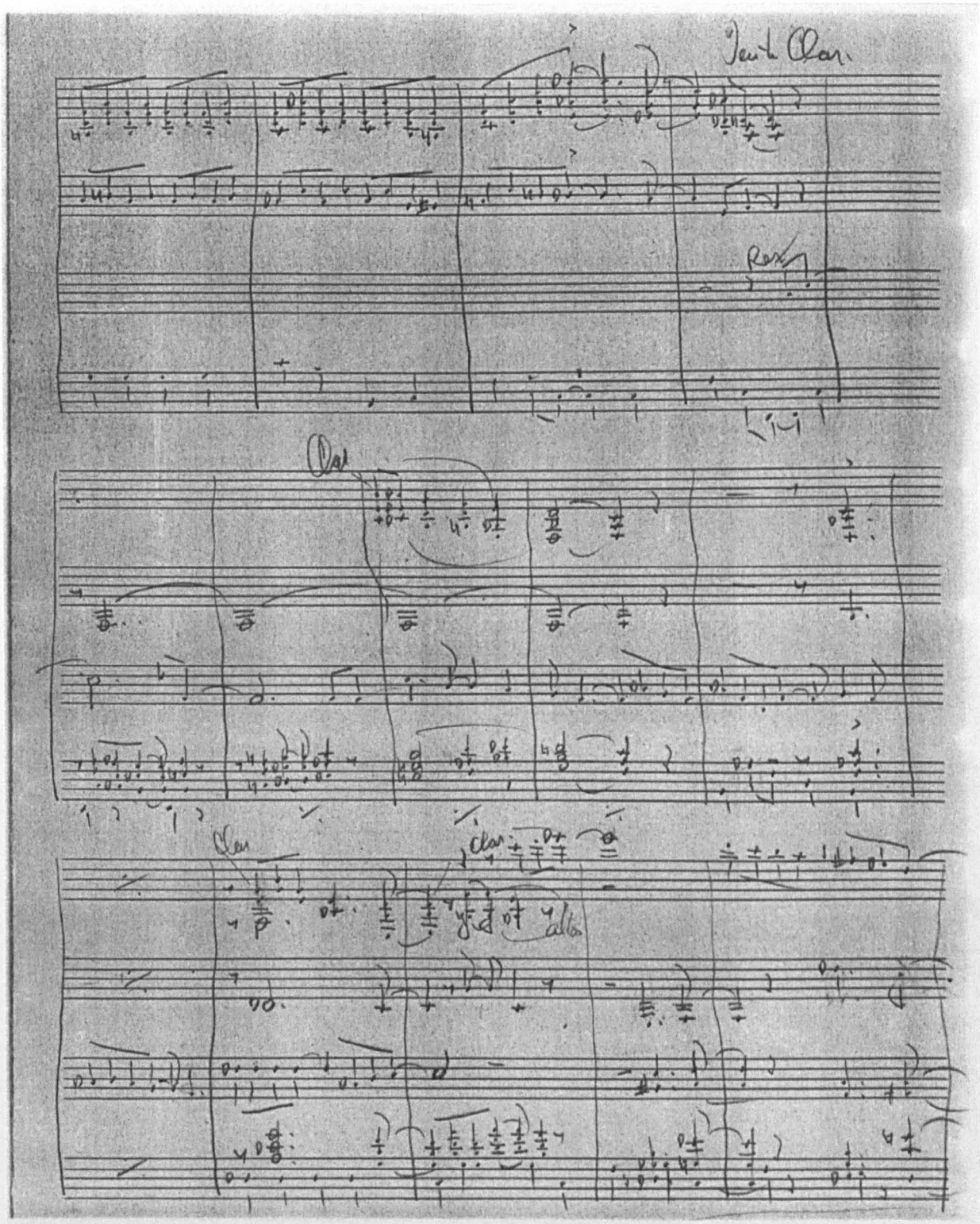
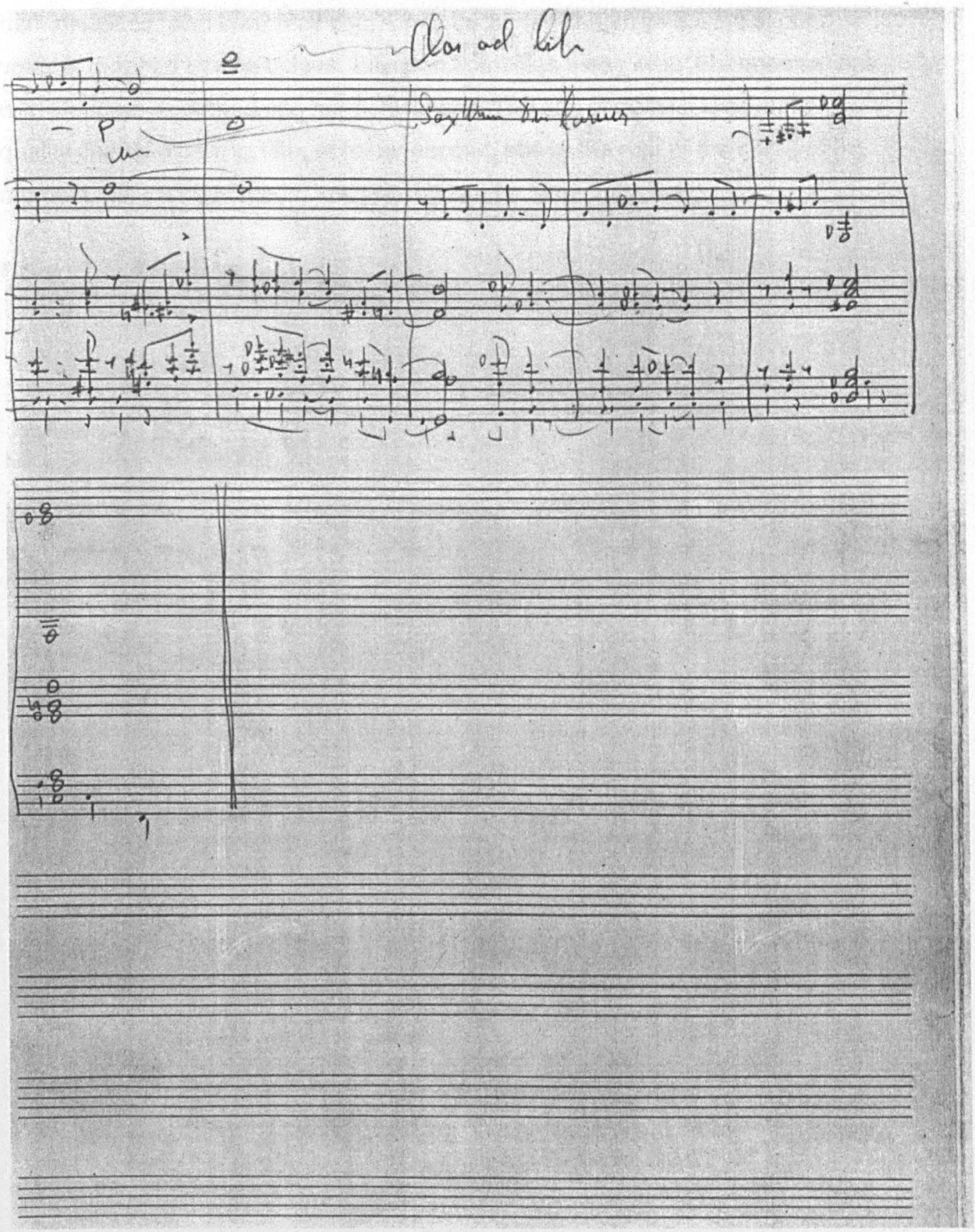
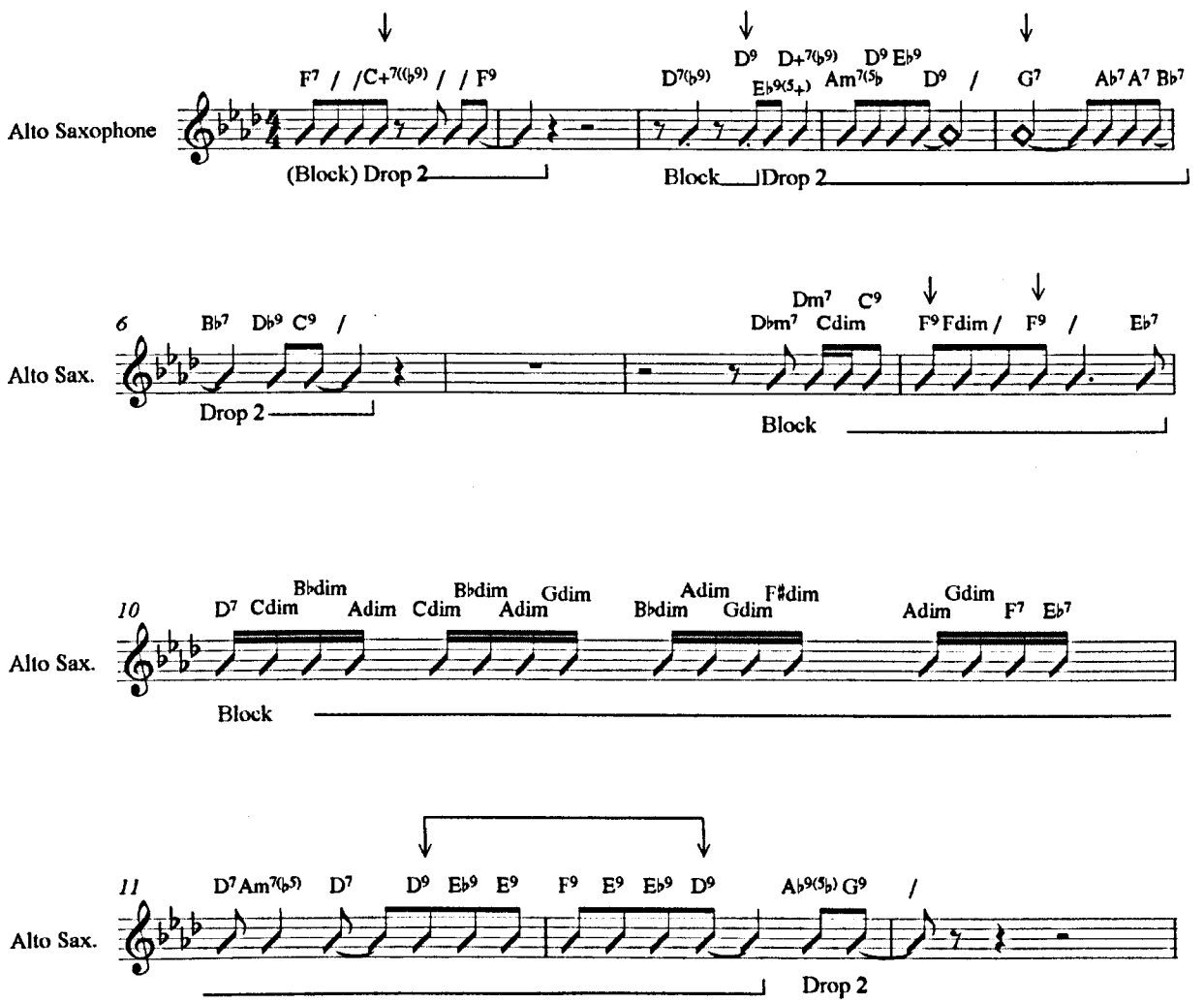


Figure 10c: *In A Mizz*, page 3



The writing in the first 16 bars of *In A Mizz* illustrates Ellington's use of 'drop 2' harmonisation, also known as semi-open thickened line, in which the second voice is dropped by one octave. Ellington combines these drop 2 harmonisations with standard thickened-line harmonisations. The use of dominant-seventh-quality chords a perfect fifth, or minor second, above the root of the chord of the moment, diminished chords, and planing can be seen in Figure 11.

Figure 11: *In A Mizz*, mm. 1–13



It is also important to note that Ellington regularly included a ninth – either natural or altered – when the melody note was the fifth or seventh (and occasionally the third) of the chord. Examples of this practice are identified with arrows in Figure 11.

Ellington also used drop 2 harmonisations in his piano playing. This is illustrated in Figures 12 and 13.

Figure 12: *The Single Petal Of A Rose* (introduction), from *The Queen's Suite*, October 1958

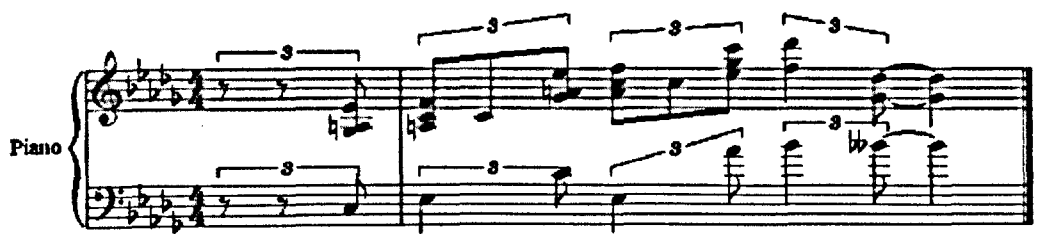
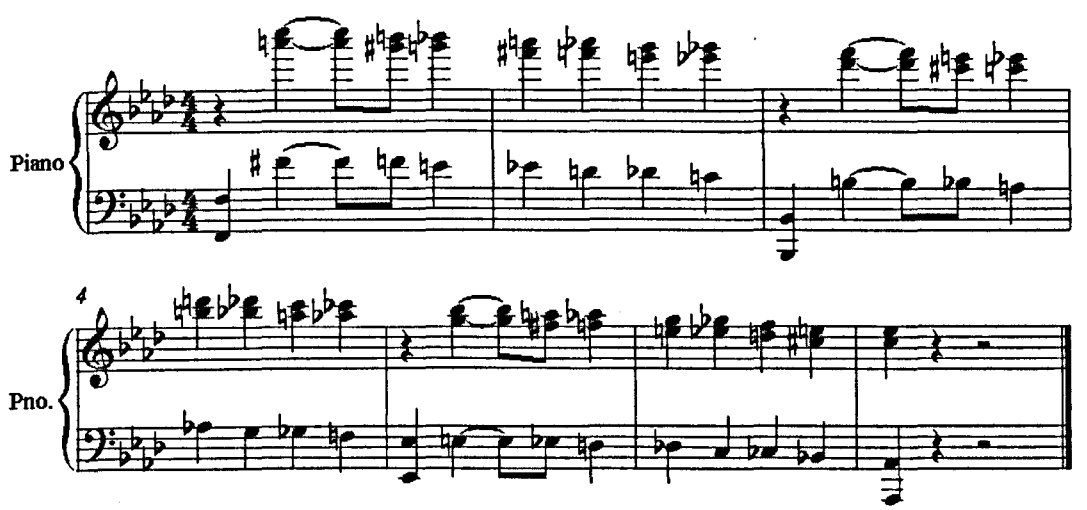


Figure 13: *Jubilee Stomp*, 19 January 1928
Piano solo with chromatic planing and dropped voice



When Ellington added a fifth saxophone – Ben Webster in January 1940[24] – he also occasionally introduced a ninth into thickened-line voicings in which the root of the chord was the melody note.[25] Examples of this are identified in Figure 14.

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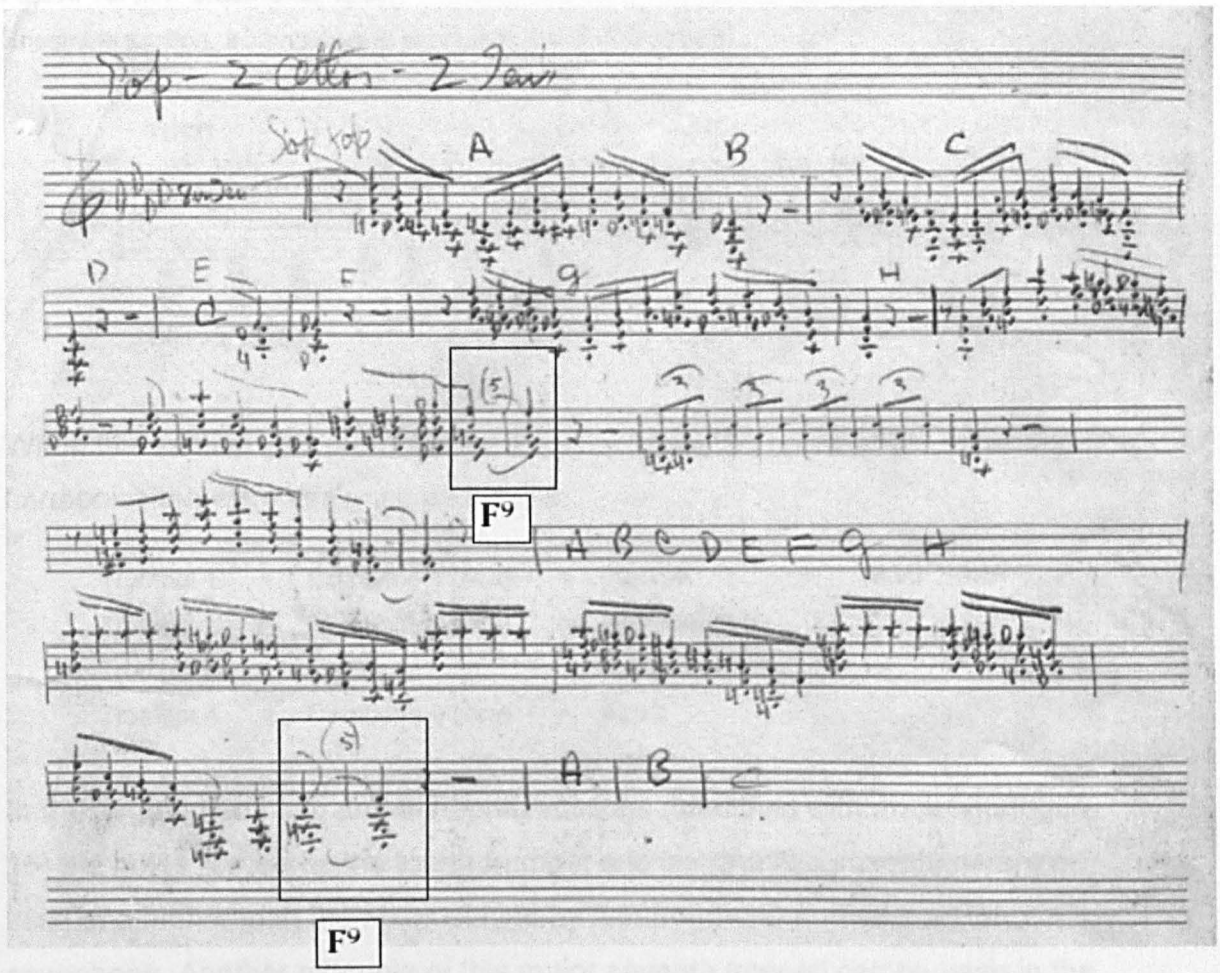
[24] In 1939 Ellington's band lacked a 'hot' tenor saxophone player – Basie had Lester Young and Herschel Evans, Artie Shaw had Georgie Auld, and Benny Goodman had Bud Freeman. Ellington's reluctance to 'poach' Webster from Cab Calloway's band earlier may have been due to Ellington and Irving Mills (Ellington's manager) having a '25% stake' in the Calloway band (Stuart Nicholson, *A Portrait of Duke Ellington: Reminiscing in Tempo* [Sidgewick & Jackson 1999; London: Pan Books 2000], p. 215).

[25] Ellington continued to use five saxophones until the end of his career; prior to this he had occasionally added a trombone to the four saxophones, e.g. *Reminiscing in Tempo*, 1935.

Figure 14: *In A Mellotone*, 1940

Saxophone section's accompaniment for Cootie Williams's trumpet solo (mm. 9–30 relates to mm. 41–63 of the accompanying score; CD track 1)

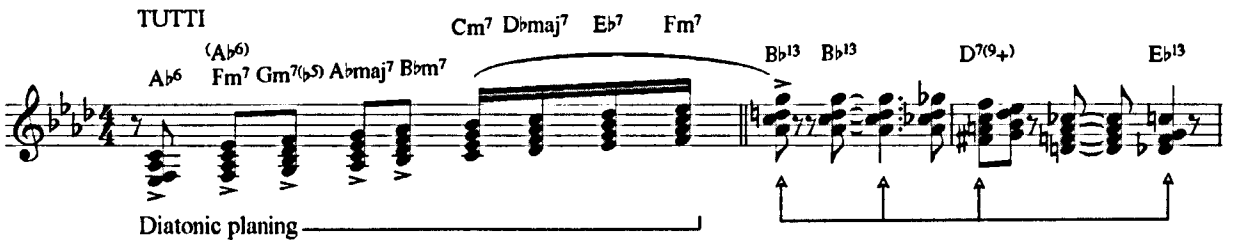


Another identifying feature of Ellington's harmonic practice is the emphasis of the interval of a major seventh. In his thickened-line writing, this interval is usually found between the first and fourth voice. In dominant-quality chords, this interval is created when the melody note is the augmented ninth (a major seventh above the major third), and when the melody note is the thirteenth (a major seventh above the seventh of the chord). The interval can also be found between the major ninth and minor third in minor ninth chords, and the major seventh and the tonic in major seventh chords. The effect of this major seventh interval is

accentuated when the melody note is doubled an octave lower, creating an interval of a minor second between voices. This is illustrated in Figure 15.

Figure 15: *In A Mellotone*, 1940

Ensemble section, accompanying score mm. 64–6; CD track 1



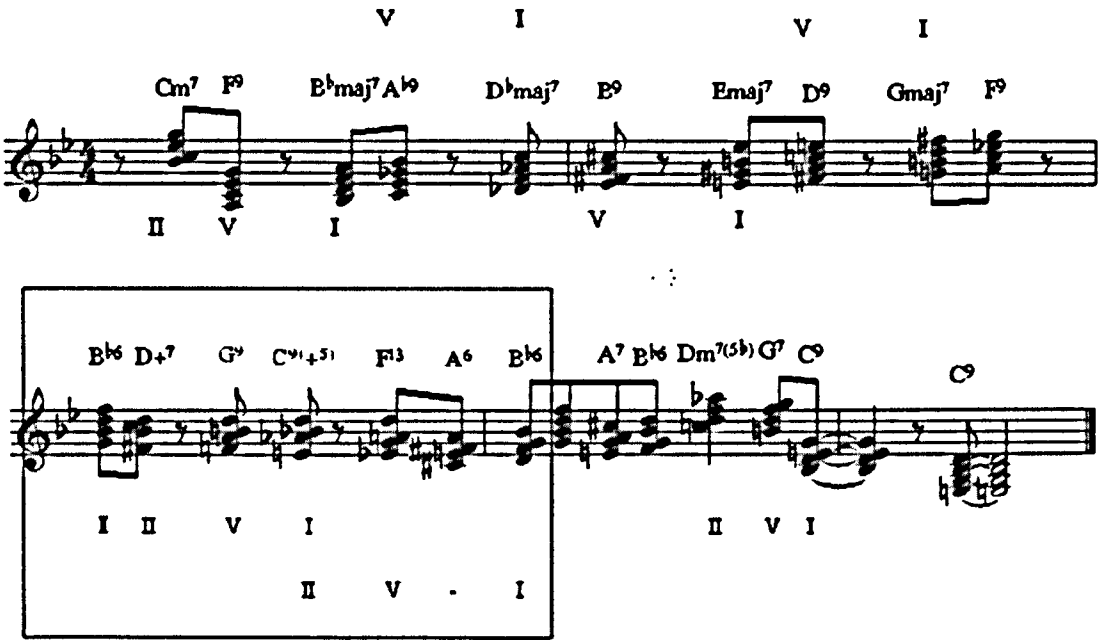
When this section was extracted for full ensemble, the notes of the thickened-line harmonisation were assigned as follows:

Trumpet 1	=	Trombone 1 (8va)	=	Clarinet	=	Tenor 2(8va)
Trumpet 2	=	Trombone 2 (8va)	=	Baritone (8va)		
Trumpet 3	=	Alto 1				
Trumpet 4	=	Trombone 3 (8va)	=	Alto 2		

In the augmented ninth and thirteenth voicings (identified with arrows in Figure 15) the notes played by the fourth trumpet and second alto saxophone are a semitone higher than the notes played by first trombone and second tenor saxophone. Another example of this major seventh interval can be seen in the score of *In A Mizz,* page 2, m. 3 – a $C+^{7(9+)}$ voicing with dropped second voice.

Tonicisation was another technique used by Ellington. The chord of the moment is treated as a temporary tonic and a progression is then constructed to arrive at this temporary tonic chord. In the following example, the C^9 in the final bar is treated as a temporary tonic and this chord is approached using a II-V-I sequence. Similar tonicisation can be seen in the chord progression in the boxed section.

Figure 16: *Reminiscing In Tempo*, 12 September 1935



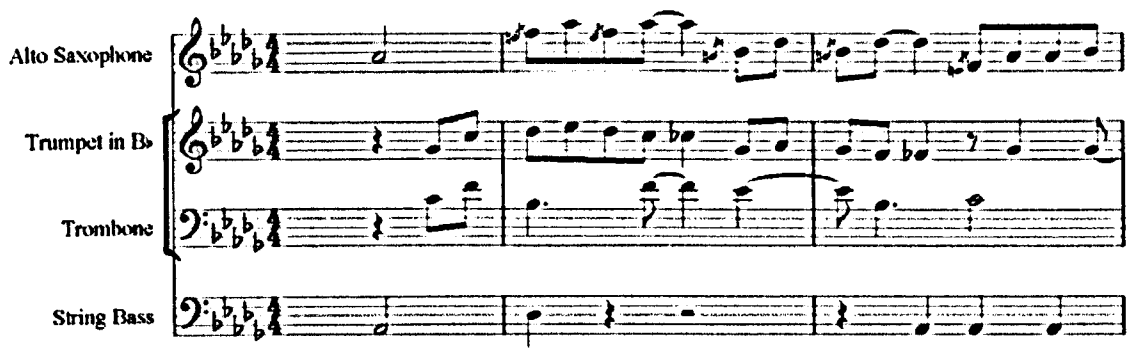
Linear writing

In a linear approach to jazz harmony, the lines that accompany the melody move in rhythmic unison and are generated out of linear concerns in addition to – and, occasionally, in preference to – vertical considerations, i.e. more akin to heterophonic writing than chorale harmonisation. The aim is to give each instrument in the ensemble as melodic a line as possible. In his book *Jazz Arranging and Composing: A Linear Approach*, Bill Dobbins describes how Ellington created much more colourful sounds than other jazz composers and

how this richness was due, in part, to the inclusion of harmony lines that moved in a clear and convincing manner.[26]

For the purposes of this study, the term 'linear writing' is used to describe linear amendments made to harmonic lines in sections of music that were created using techniques such as thickened-line writing or harmonisation in which all parts move in rhythmic unison. As such, linear writing differs from contrapuntal writing in which two, or more, melodic lines are combined in such a way that they establish a harmonic relationship while retaining their linear individuality. The music in Figures 17 and 18 illustrates Ellington's use of polyphonic contrapuntal writing.

Figure 17: *Reminiscing In Tempo*, 1935



[26] Bill Dobbins, *Jazz Arranging and Composing: A Linear Approach* (Rottenburg: Advance Music, 1986), p. 8.

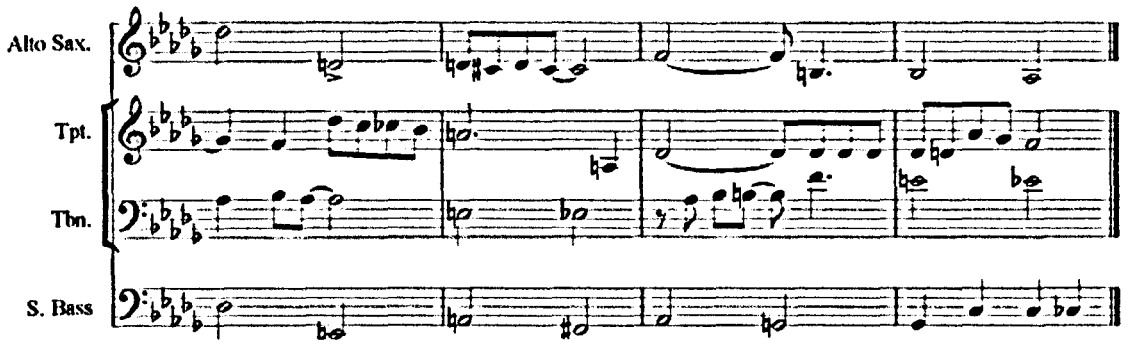
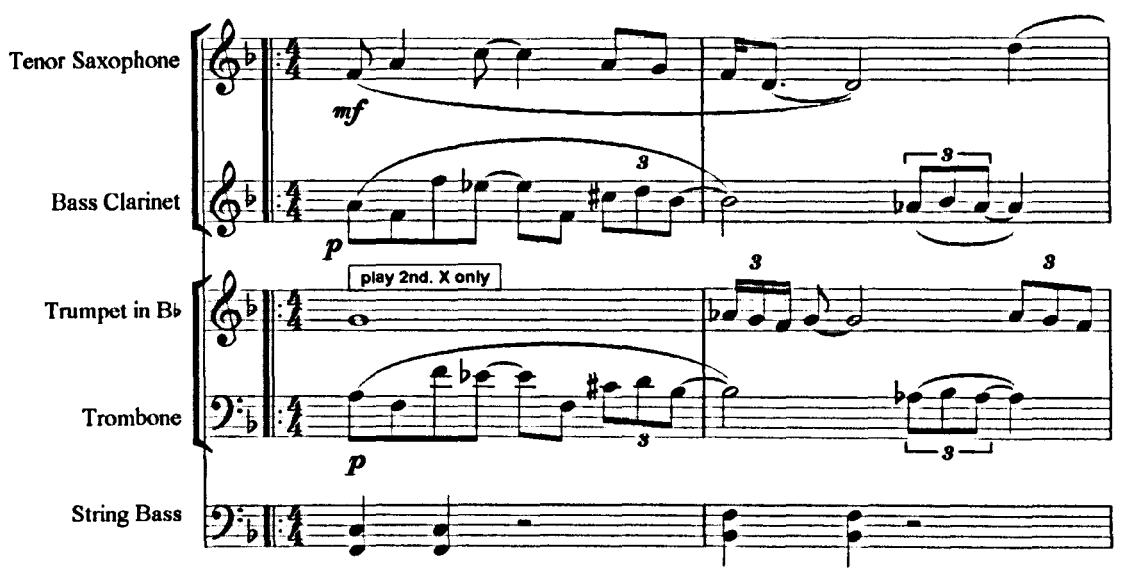
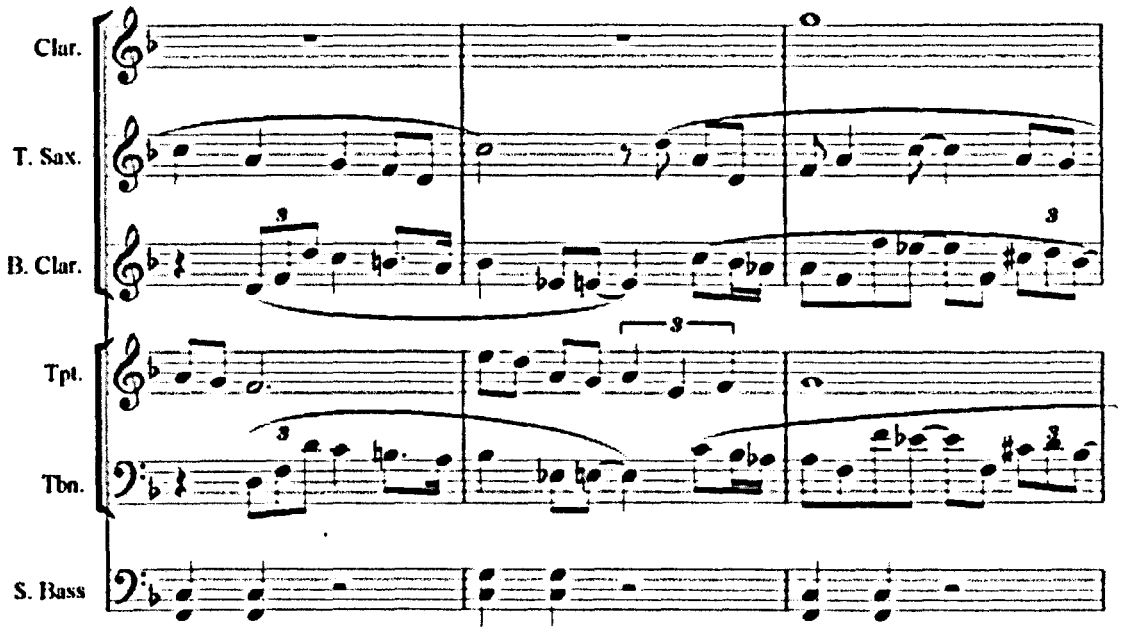
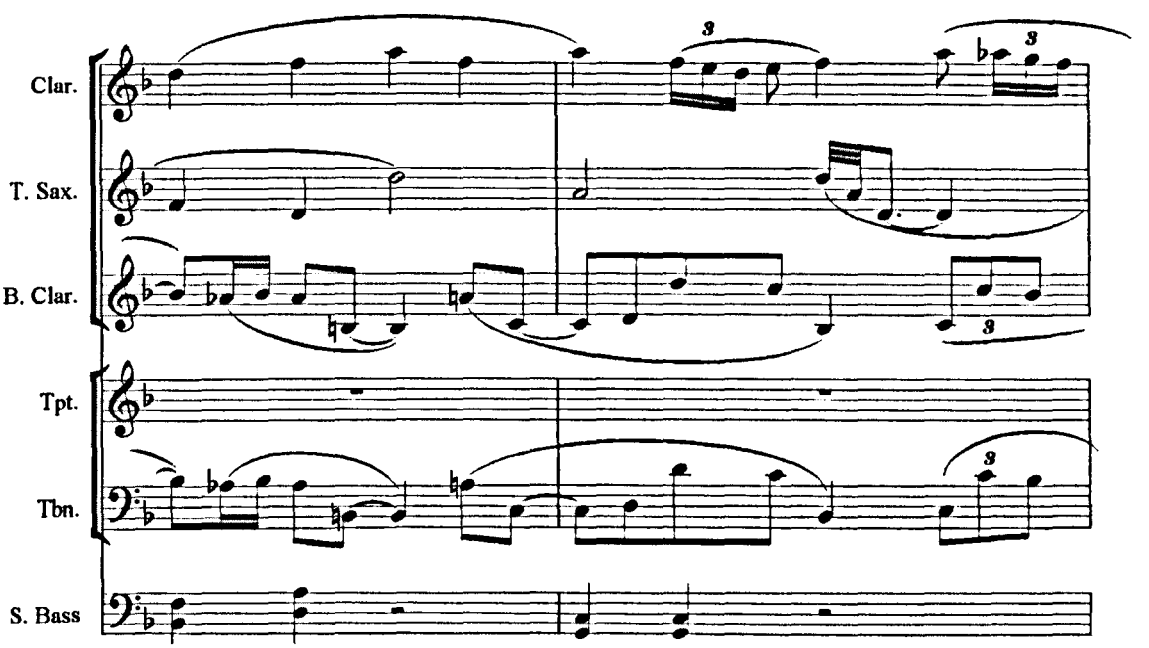
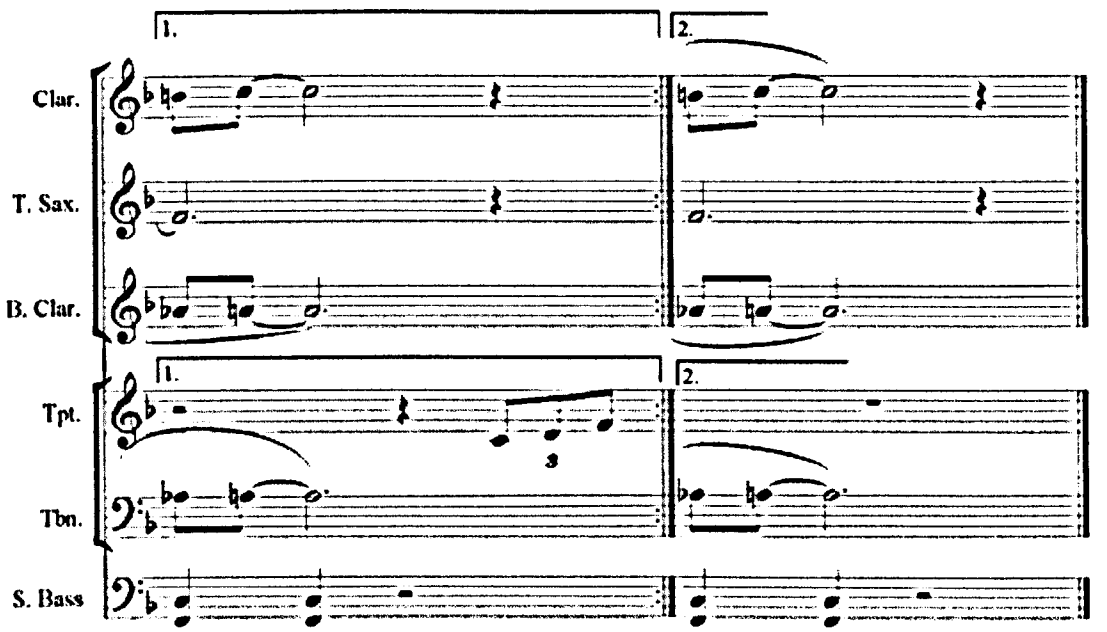


Figure 18: *A Tone Parallel To Harlem*, 1951




Clar.
T. Sax.
B. Clar.
Tpt.
Tbn.
S. Bass


Clar.
T. Sax.
B. Clar.
Tpt.
Tbn.
S. Bass



The linear amendments made by Ellington – and, in some cases, his musicians – are examined in the sections that follow. It will be shown how this technique introduced chromatic colour into Ellington's writing and was an important factor in the development of the unique sonorities heard in *Mood Indigo.*

Plurality

A 'plurality' means a multiple function. It also means that within these multiple functions you may think of any harmonic relationship in a double way,[27] e.g. simple tertian triads can be combined to create more complex harmonic structures. The term 'plurality' is used in preference to 'polytonality' because polytonality suggests the simultaneous use of two or more keys. Figure 19 illustrates Ellington's use of plurality.

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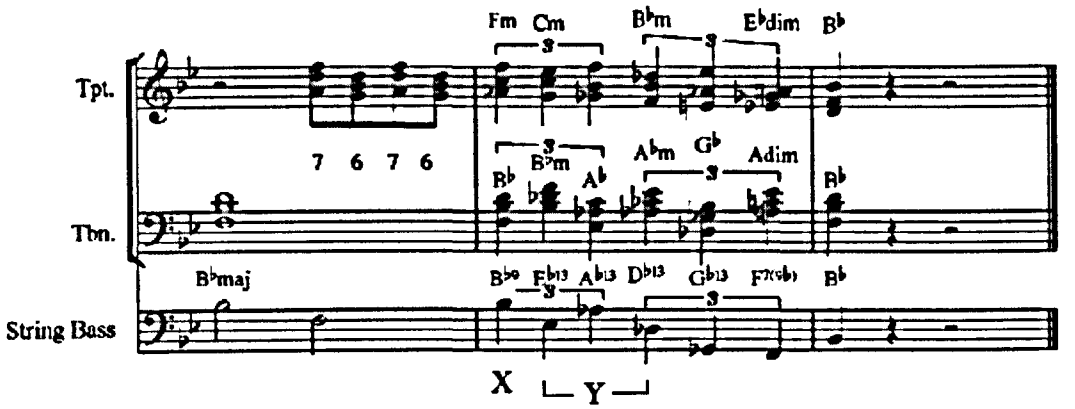
[27] Dick Grove, *Arranging Concepts: A Guide to Writing Arrangements for Stage Band Ensemble,* (California: First Place Music Publications Inc., 1972), p. 149.

Figure 19: *Dusk*
(cf. 'Three-Part Writing', Fig. 47, p. 73)



D minor and G minor triads played by three trumpets introduce major seventh and sixth qualities to the B♭ chord played by the trombones. The F minor triad plated by the trumpets (X) introduces a dominant quality and the two dominant-quality thirteenth chords (Y) are produced when the trombones and trumpets play minor triads built on the fifth and sixth degree of the chord of the moment.

There are many examples of this use of plurality in Duke Ellington's writing, and it was one of the techniques exploited by Billy Strayhorn to imitate the 'Ellington Effect'.[28] The following examples are included to illustrate Billy Strayhorn's use of plurality when imitating Ellington's style.

[28] The 'Ellington Effect' was coined by Billy Strayhorn (Billy Strayhorn, 'The Ellington Effect', *DownBeat*, 5 November 1952, p. 4 [reprinted in Tucker, *Duke Ellington Reader*, p. 269]).

Figure 20: Brass accompaniment to saxophones' first statement of *Take The 'A' Train* theme, A section, mm. 1–2 and mm. 7–8

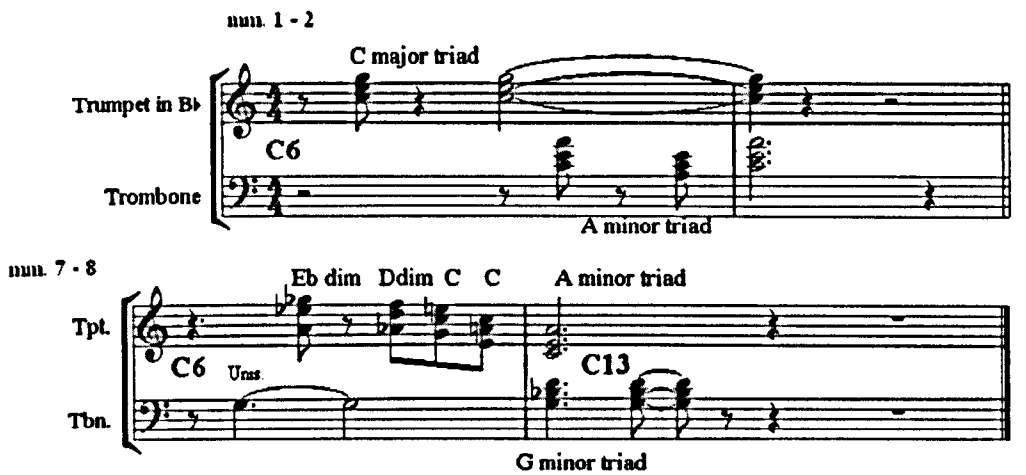


Figure 21: Brass accompaniment to saxophones' final statement of *Take The 'A' Train* theme

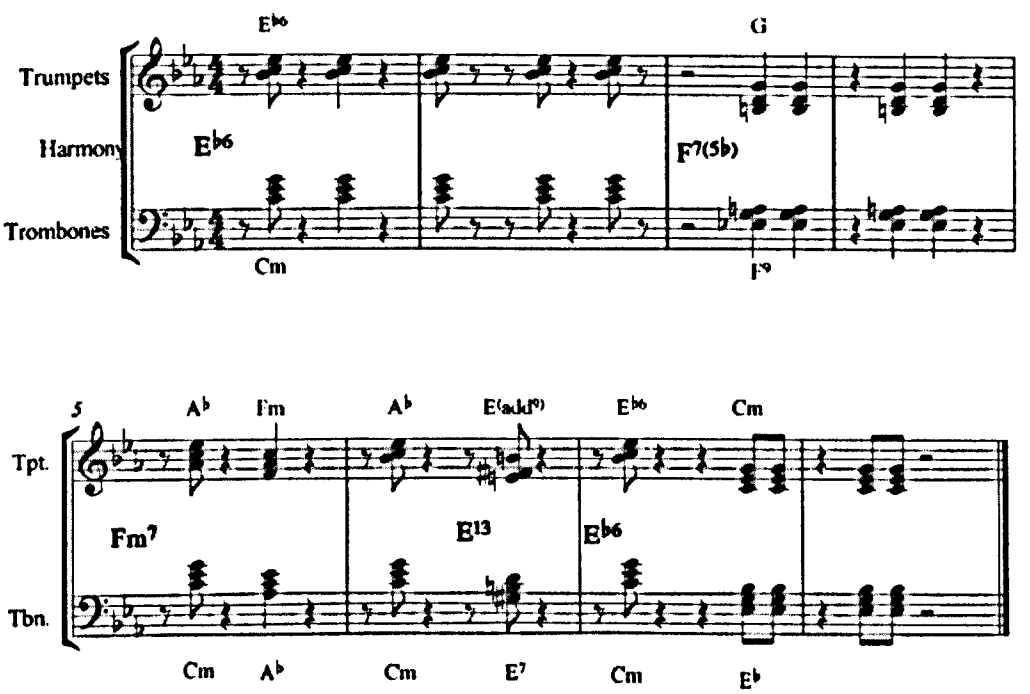
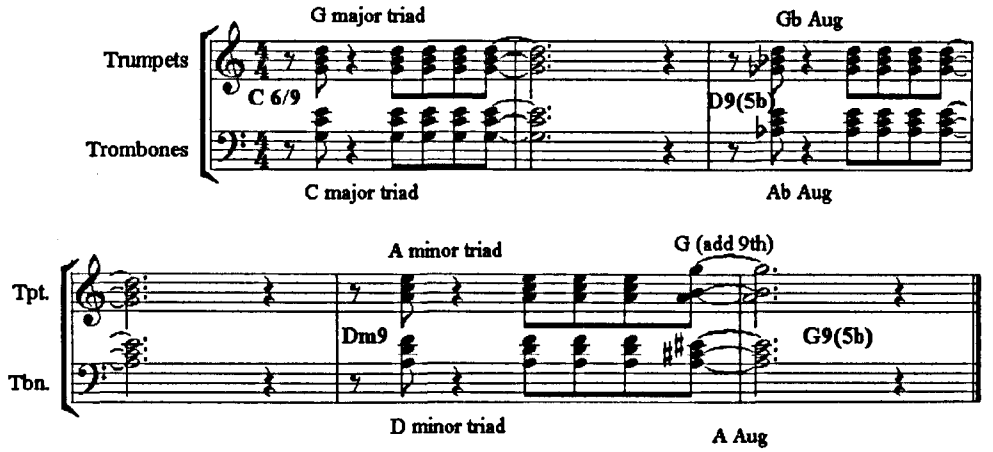


Figure 22: Brass accompaniment to saxophones' repeat of A section, mm. 25–30[29]



It is possible that this use of plurality was influenced by the musicians in each section creating their own parts. When one of Ellington's musicians – trombonist Lawrence Brown, for example – supplied a background figure, the other members of the trombone section could create harmony lines to accompany this figure. This communal style of harmonisation would usually include two significant features:

- The voicings would produce consonant sounds that would allow the section to sound good independently;
- The individual lines created were often more melodic as they were born out of linear concerns as much as harmonic.

Figure 23 demonstrates how the notes of a dominant-quality chord, and its diatonic extensions, can be harmonised using plurality.

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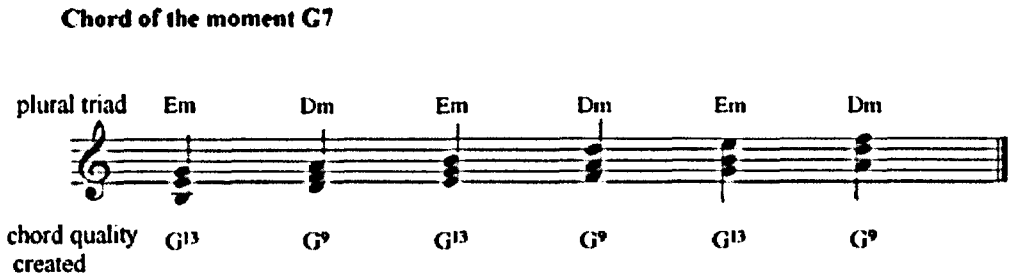
[29] In a special commemorative edition of *The Village Voice,* musicologist Andrew Homzy suggested that it was Ellington who scored the brass section parts in Figure 22.

Figure 23: Plural triads built on the notes of a dominant-quality chord

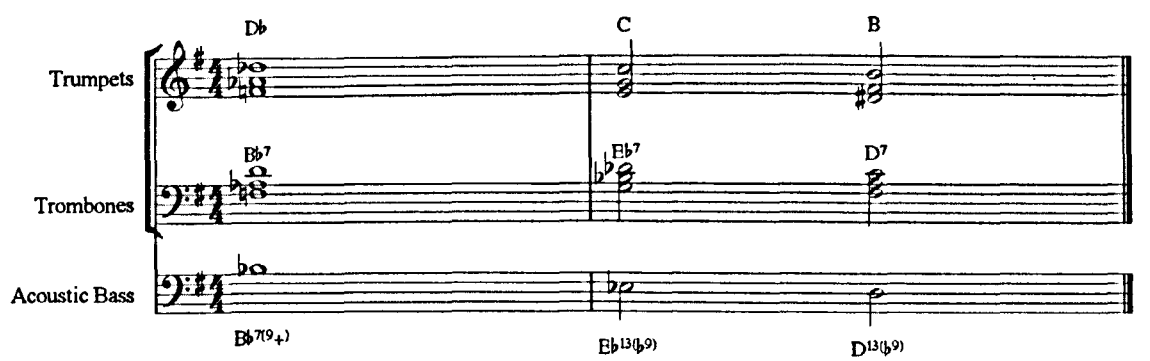


The plural, minor, tertian-triads are all built on the fifth or sixth degree of the chord of the moment (G^7), and all function as extensions of this dominant-quality chord. As a result, all supporting harmony notes would be in the key area of C major and would result in a consonant sound.

Ellington also used plurality to create complex harmonies: for example, in his 1937 composition *Azure*.

Figure 24: *Azure*, 1937

Section of brass accompaniment for Harry Carney's baritone saxophone solo

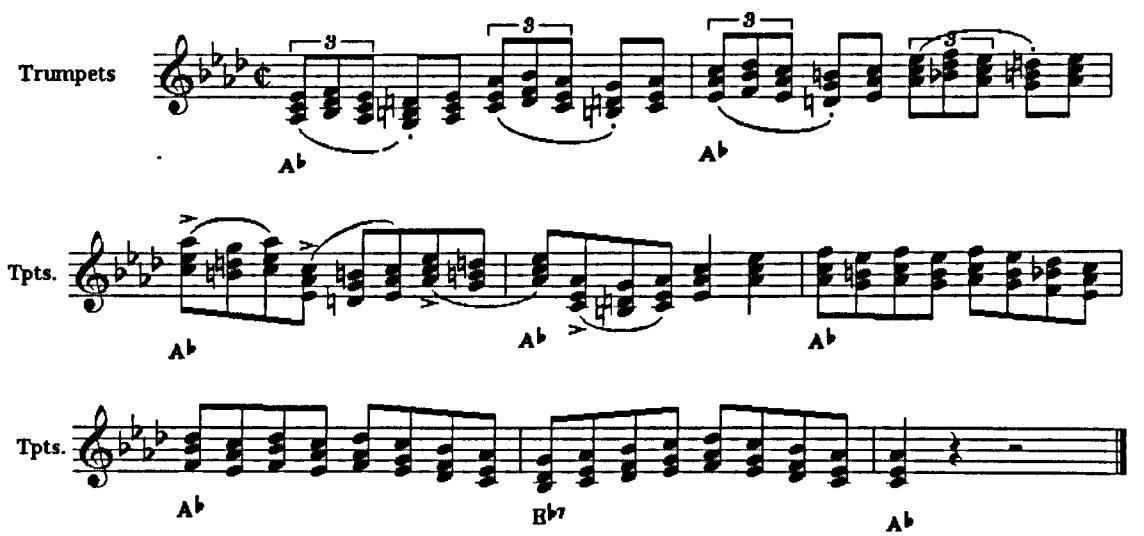


A $B^{\flat 7(9+)}$ chord is created by combining a $D^{\flat}$ major triad with a $B^{\flat 7}$ chord, and the following $E^{\flat 13(\flat 9)}$ chord is formed by combining a C major triad with an $E^{\flat 7}$ chord. This chord then planes chromatically to $D^{13(\flat 9)}$. The planed triads, played by the trumpets, are built using chord notes or extensions and these triads function as

part of chord of the moment. It will be demonstrated in the following sections of this study that this use of plurality was a significant and identifying feature of Ellingtonia.

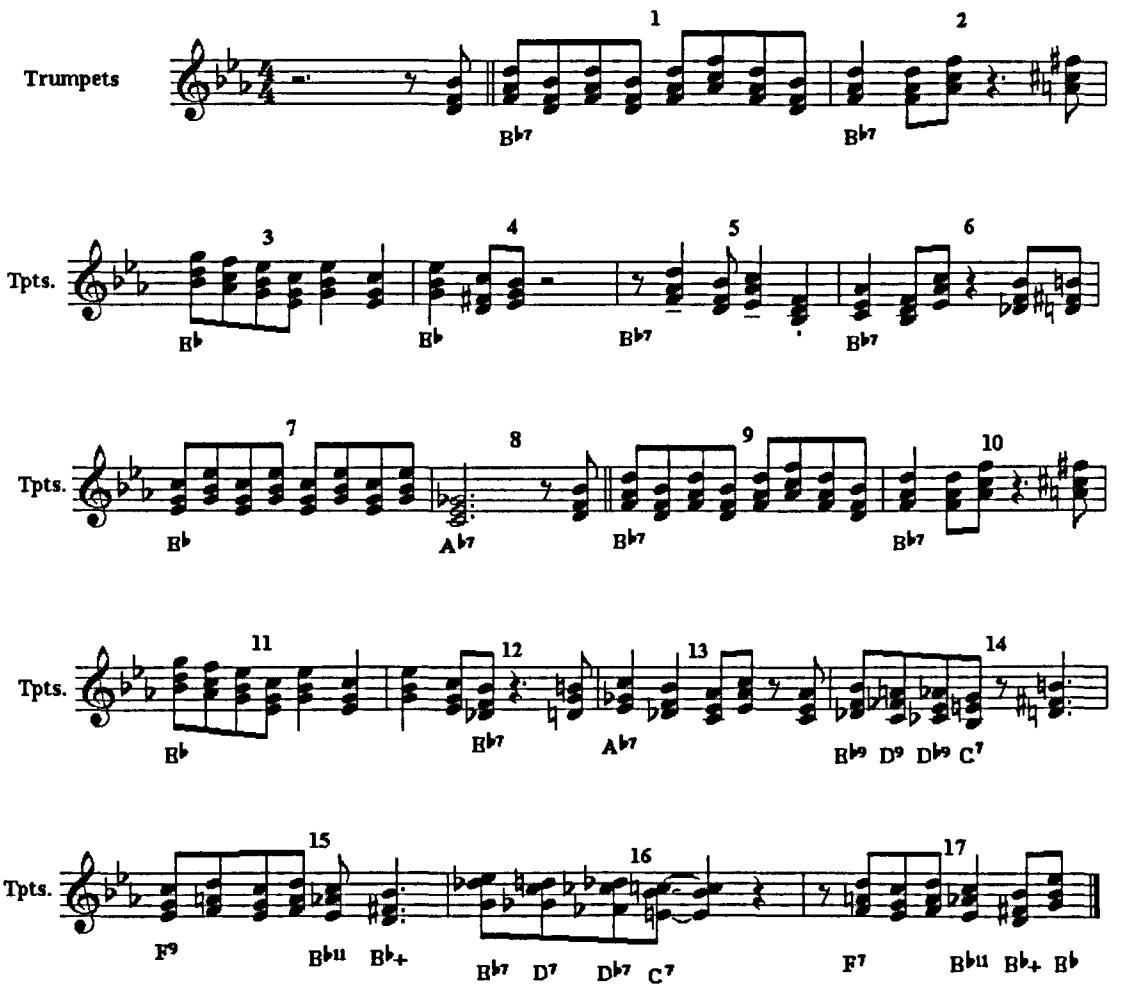
When writing for three instruments, Ellington often combined conventional three-part harmonies – i.e. voicings created by adding two appropriate harmony notes (usually) below the melody – with many of the techniques described above. The techniques of diatonic and chromatic planing can clearly be seen in Figure 25.

Figure 25: *Braggin' In Brass*, 1938



Diatonic and chromatic planing can also be found in Ellington's 1956 score of the 1926 composition *East St Louis Toodle-oo*, Figure 26, mm. 2–3. In m. 4 the harmony parts plane upwards chromatically as the melody move downwards diatonically. The plural triads used to harmonise the melody in m. 3 – Gm and Cm – introduce major seventh and sixth qualities.

Figure 26: *East St Louis Toodle-oo*, bridge section, 1956



It was, however, Ellington's redistribution of clarinet, trumpet and trombone – the classic triumvirate of early jazz – combined with his use of plurality and linear writing, that generated the unmistakable sounds created by the *Mood Indigo* trio. Chapter 1 of this study entitled 'Three-Part Writing' identifies the emergence of this linear approach and the possible catalysts in this development.

Many of Ellington's recordings were based on blues sequences. Often, however, the chords were altered or replaced by substitute chords to such an extent that

the sequences were often difficult to recognise as the blues.[30] Recordings such as *Blue Light*, *Subtle Lament* and *Transblucency* are examples of this. The main theme of *Transblucency* features a remarkable blues chord progression shown in the Figure 27.

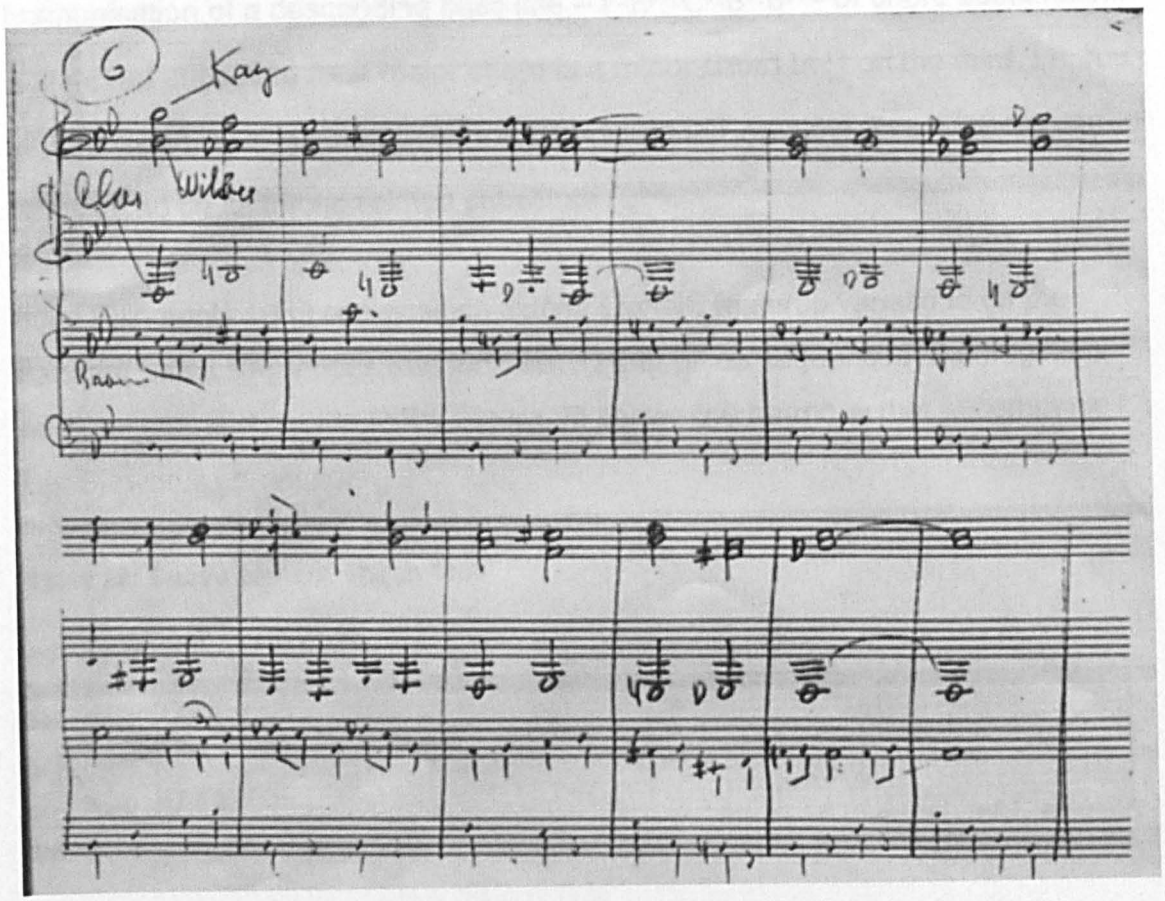
Figure 27a: *Transblucency*, 1946

(or $G^{7(9\flat)}$)

$B^{\flat 6}$	/	Ddim	/	Cm/	A^7	/	$B^\flat F^7 B^{\flat 9}$	/	$B^{\flat 9}$	/	/ /
$E^\flat$	/	$A^{\flat 9}$	/	$D^\flat$	/ $C^{7(5\flat)}$	/	$B^\flat F^{7(9\flat)} B^\flat$	/	$E^{\flat 7}/B^\flat$	$B^\flat$	$E^\flat/B^\flat$ $B^\flat m$
F	/	$E^{\flat 9}$	/	C^9	/ B^7	/	$B^{\flat 9}$ / / /		$B^{\flat 9}$	/	/ /

[30] Perhaps Ellington's ability to disguise the blues foundations of such compositions was influenced by his doting mother's disapproval of the blues. Ellington wrote in his autobiography, *Music is My Mistress*, 'she also played hymns and ragtime but, like most middle-class black women of her era, she disapproved of the blues' (Ellington, *op. cit.*, p. 9).

Figure 27b: *Transblucency*, 1946, pencil score[31]



In m. 2 of this blues sequence – melody note $E^{\flat}$ – Ellington replaces the traditional chord of the subdominant with a C minor chord. The dominant chord (F^7) that would naturally follow this ii chord is replaced by a substitute (A^7) built on the third of the dominant. The sequence of chords, $E^{\flat}$-$A^{\flat 9}$-$D^{\flat}$-$C^{7(5\flat)}$-$B^{\flat}$ (mm. 5–6) is generated using tonicisation. The $C^{7(5\flat)}$ is treated as a temporary tonic and the $D^{\flat}$ chord is the tritone related substitute for G^7 (the dominant of the temporary tonic). Similarly, the $A^{\flat}$ chord that precedes the $D^{\flat}$ is introduced as the dominant

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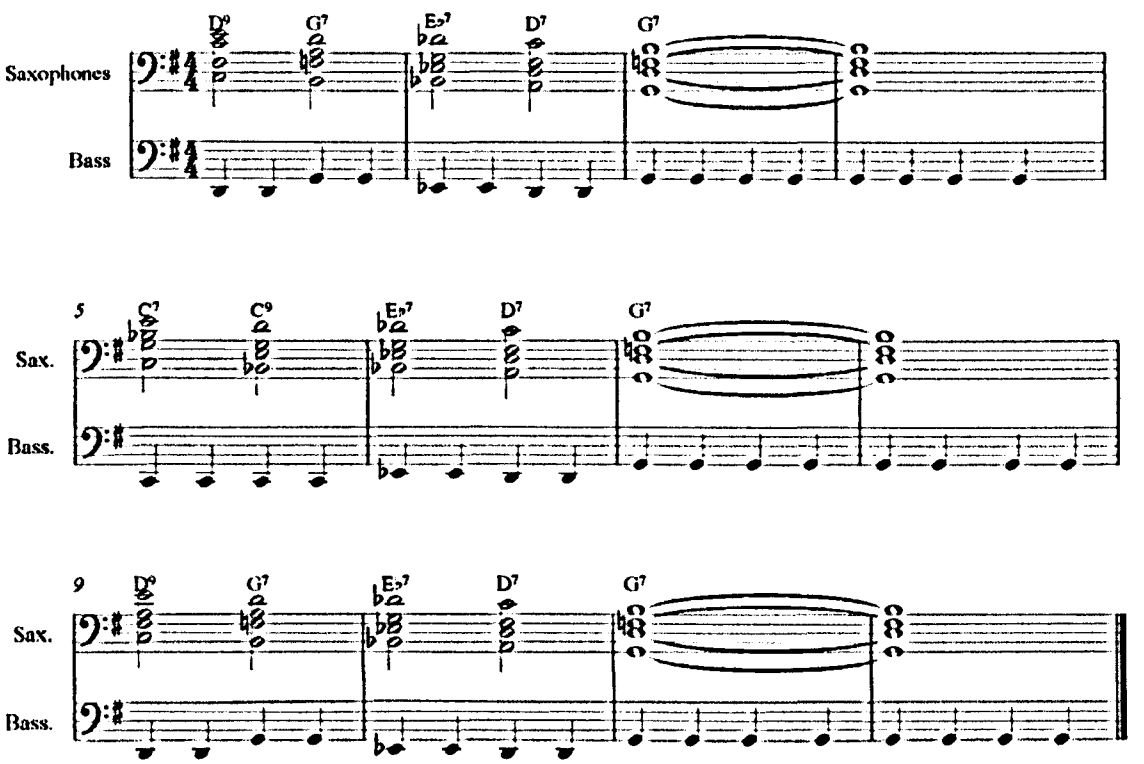
31 The third (treble) stave contains a trombone solo marked 'Brown'. This solo is played by Lawrence Brown later on the recording.

of $D^{\flat}$. The $E^{\flat 9}$ chord in the final descending pattern can be seen as the harmonisation of a descending bass line – $F\text{-}E^{\flat 9}\text{-}C^{9}\text{-}B^{7}\text{-}B^{\flat 9}$ – or chord substitution. A standard substitute for a major chord is a minor chord built on the third, i.e. Am for F. If a dominant seventh quality is introduced ($C^{\sharp}$ melody), this A^{7} chord can be replaced by its tritone related substitute ($E^{\flat 7}$).

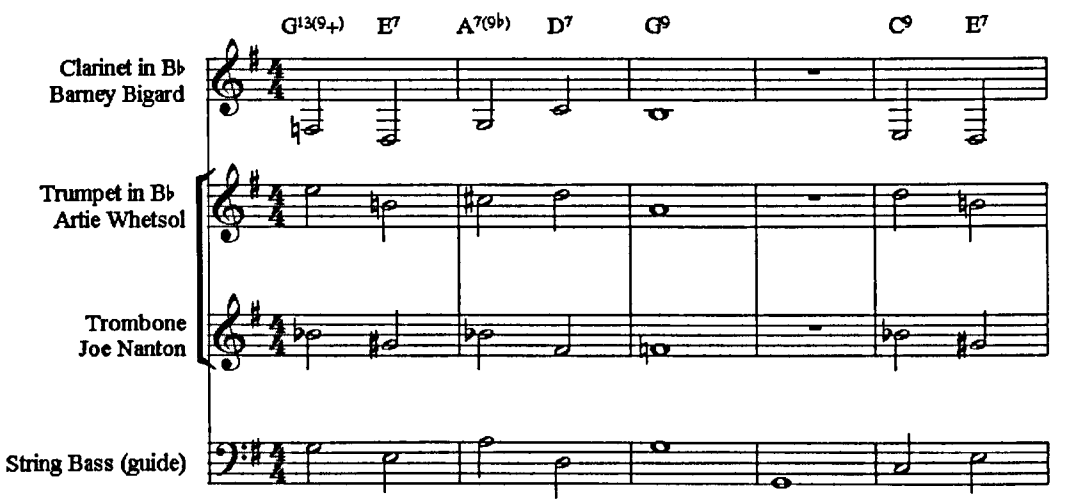
Duke Ellington's 1939 composition *Subtle Lament* features variations on the standard blues sequences that includes 12-bar blues sequences that begin on the dominant and not the tonic. Figure 28 shows the harmony that accompanies Rex Stewart's cornet solo.

Figure 28: *Subtle Lament*, March 1939

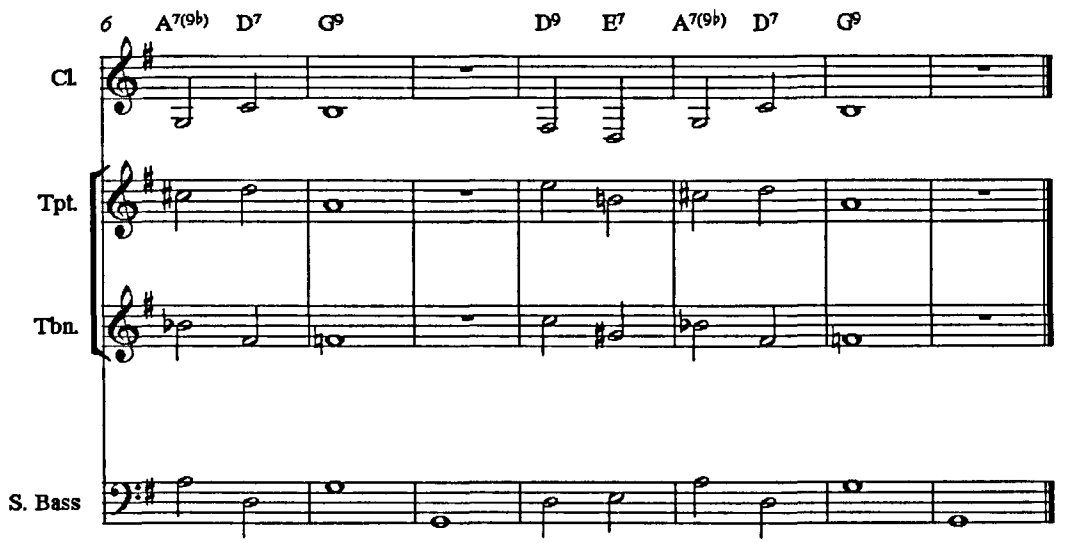


The descending four-bar figure is repeated three times, and only the voicings in the first bar of each phrase differ.[32] Similarly, in *Blue Light* (Fig. 29) only the *first* voicing in each of the three four-bar phrases is changed.

Figure 29: *Blue Light*, 1938; CD track 5



[32] The dominant-quality chord built on the flattened sixth degree of the scale (mm. 2, 6 and 10) appears in a number of Ellington's works including *Mood Indigo* and *Dusk*. Ellington's use of this chord will be addressed in Chapter 1, 'Three Part Writing'.



The theme of *Blue Light* is played by the *Mood Indigo* trio and the clarinet can be heard in an exposed dropped-octave position, playing a line created using thirds or sevenths of each chord. The trombone plays thirds, sevenths or ninths to create a line that uses the first four notes of a Phrygian mode. Each voicing has been considered both vertically, and by adopting a linear approach. Chromatic interest is maintained not only by the nature of the lines themselves but also by the whole-tone qualities of the melody they accompany: the melody uses the first five notes of a major scale built on the supertonic, and has an airy whole-tone character. Ellington had used whole-tone material in compositions prior to this.

Figure 30: *Awful Sad*, October 1928, mm. 13–16

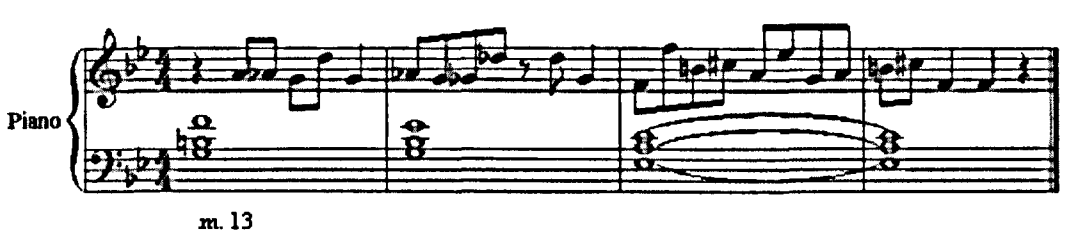


Figure 31: *Awful Sad*, October 1928, mm. 21–4

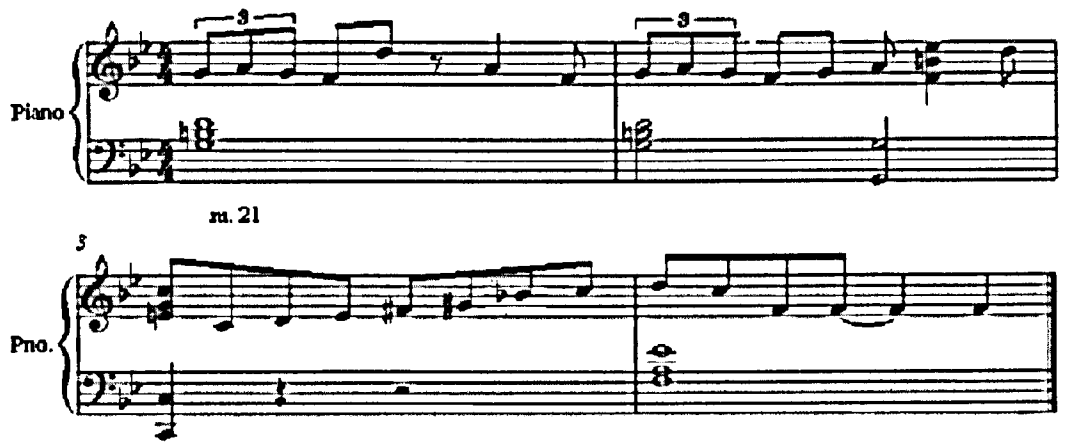


Figure 32: *Awful Sad*, October 1928, mm. 43–4

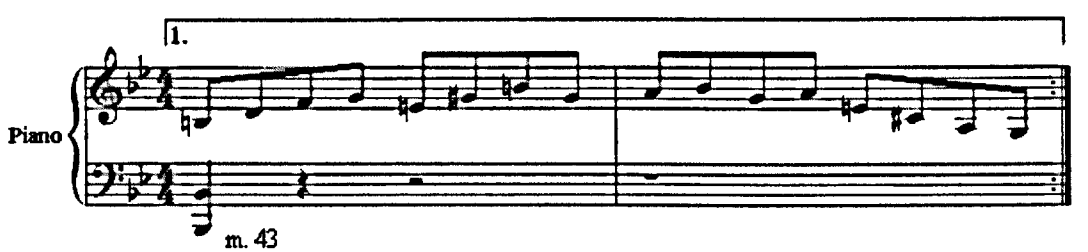
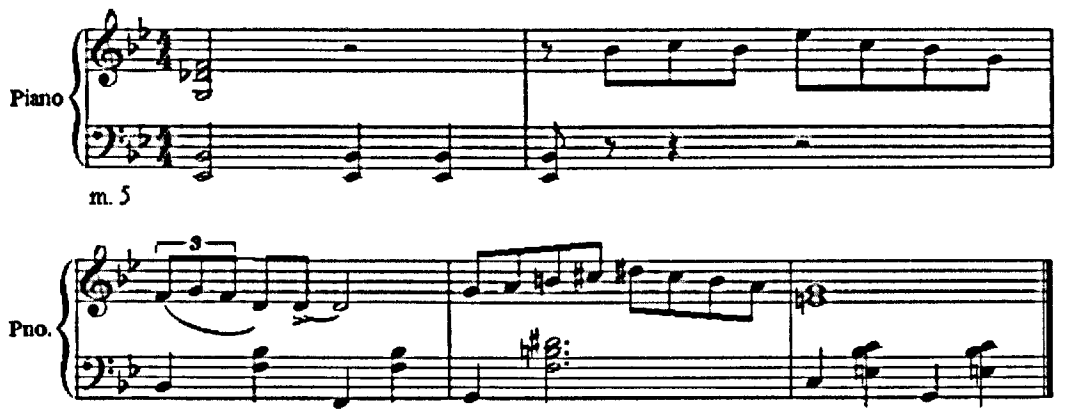


Figure 33: *What A Life!*, 1929



Ellington's piano solo in the classic Blanton–Webster band's recording of *Ko-Ko* is also built using whole-tone scalar material.[33]

Remarkably, Ellington kept his orchestra together for almost 50 years, performing, recording and touring the world. It seems highly unlikely that such an achievement will ever be repeated.

[33] See Rattenbury, *op. cit.*, pp. 121–5.

1. Three-Part Writing

> In 1929 he added Juan [Tizol] to the band, so that he had five brass instead of four. Although I couldn't yet talk to Pop on a musical basis, I remember being around when he was talking about how different it was writing for five instead of four. He began to think of the brass as two sections now, where before the trombone's part had been written with the trumpets. When he wrote for four instruments, he explained to me, you did not have to decide which note to leave out. In writing three-part harmony, you had to decide which note of four you could leave out and still have a good sound. This was a new challenge, and it began to affect the way he had to write.
>
> Mercer Ellington (1978)[1]

When Duke Ellington recorded *Mood Indigo* (CD track 4), his unique blend of double-muted trumpet and trombone with chalumeau clarinet produced a sound that was unmistakable. Ellington continued to use and develop this chord voicing throughout his career. The following analyses examine the structure of this composition, and consider the emergence of Ellington's linear writing style. The three-part writing techniques are further examined in the following section, 'Dusk'. A study of the extant manuscripts of the 1940 composition *Dusk* also provides excellent examples of Ellington's use of plurality and his thickened-line writing for saxophone section. The chapter concludes with a demonstration of the application of some of these techniques.

One of the earliest scores of *Mood Indigo* in the Smithsonian Institution's Ellington Collection is the untitled pencil short-score reproduced below, Figure 34a. It is in Ellington's (early) hand, and there is no indication of instrumentation or key signature. The use of the upper staff suggests that the section was intended for reeds. Interestingly all the voicings are tertian triads or simple 3-7-9 voicings and all are scored within an octave. The melody differs slightly from the recorded version – see Figure 35,

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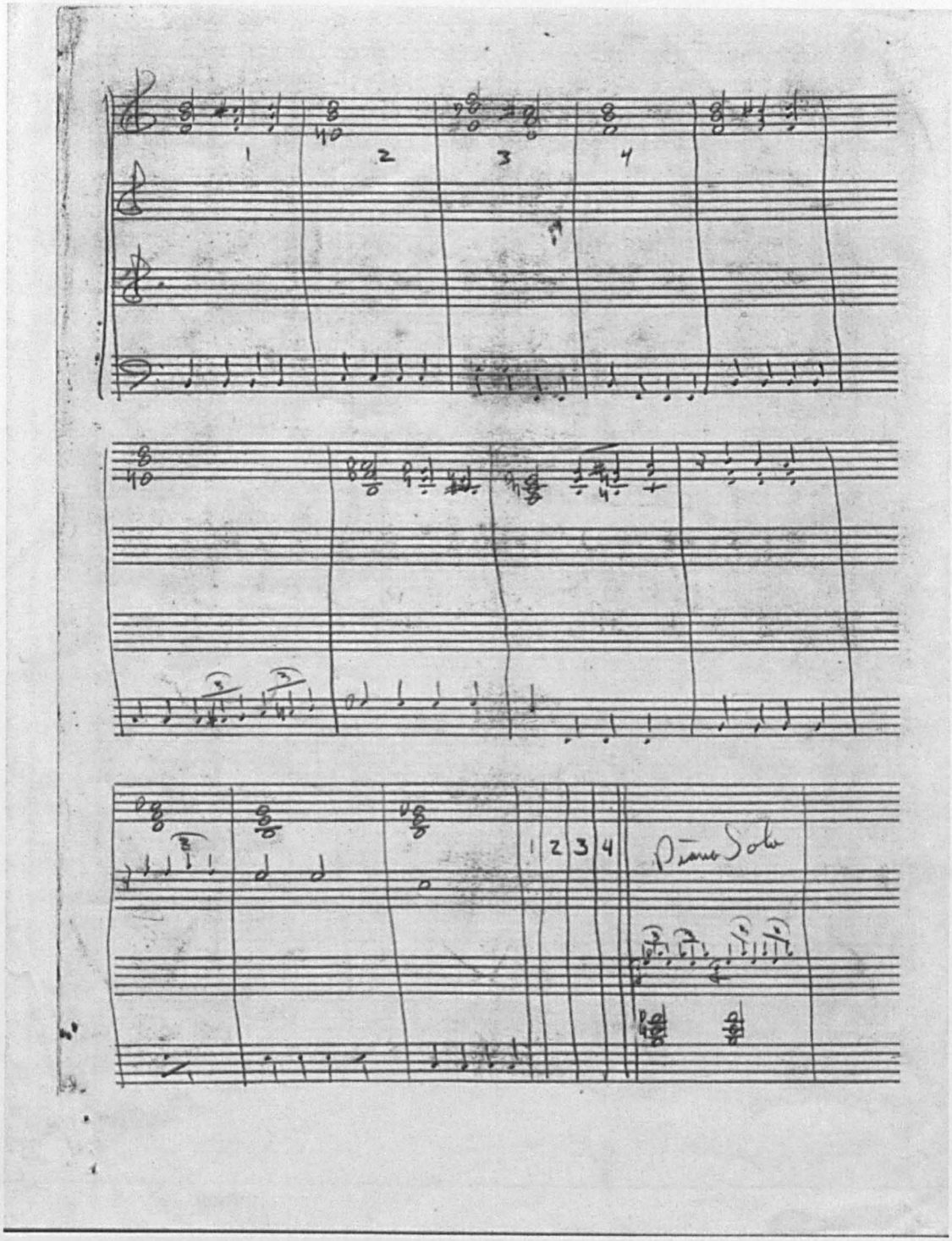
1 Ellington and Dance, *Duke Ellington in Person*, p. 50.

mm. 7–8. Both score and recording are in the key of B♭ major. The first page is transcribed in Figure 34b. The second page of Figure 34a shows the three-part clarinet background for Arthur Whetsol's trumpet solo.

Figure 34a: Early score for *Mood Indigo*



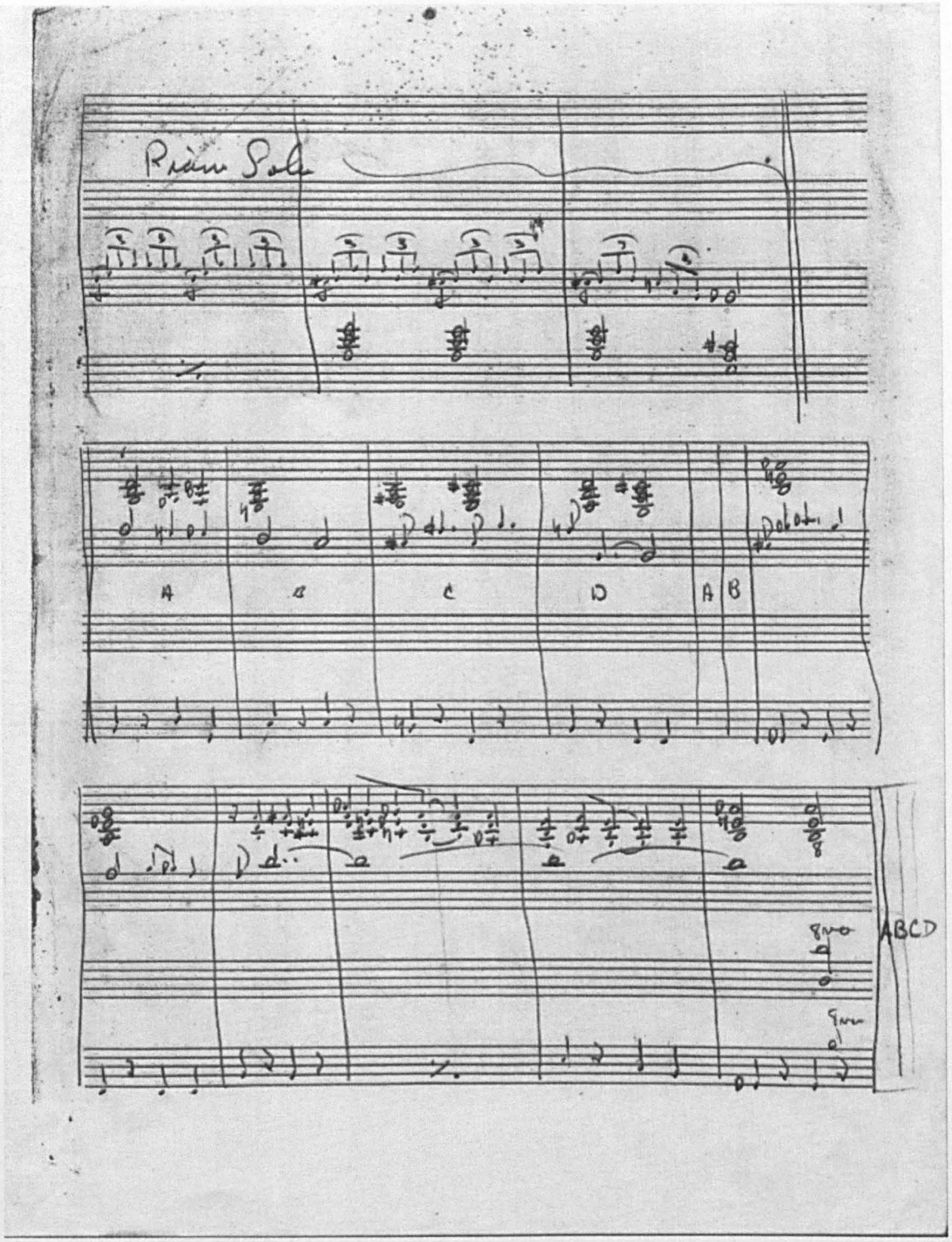
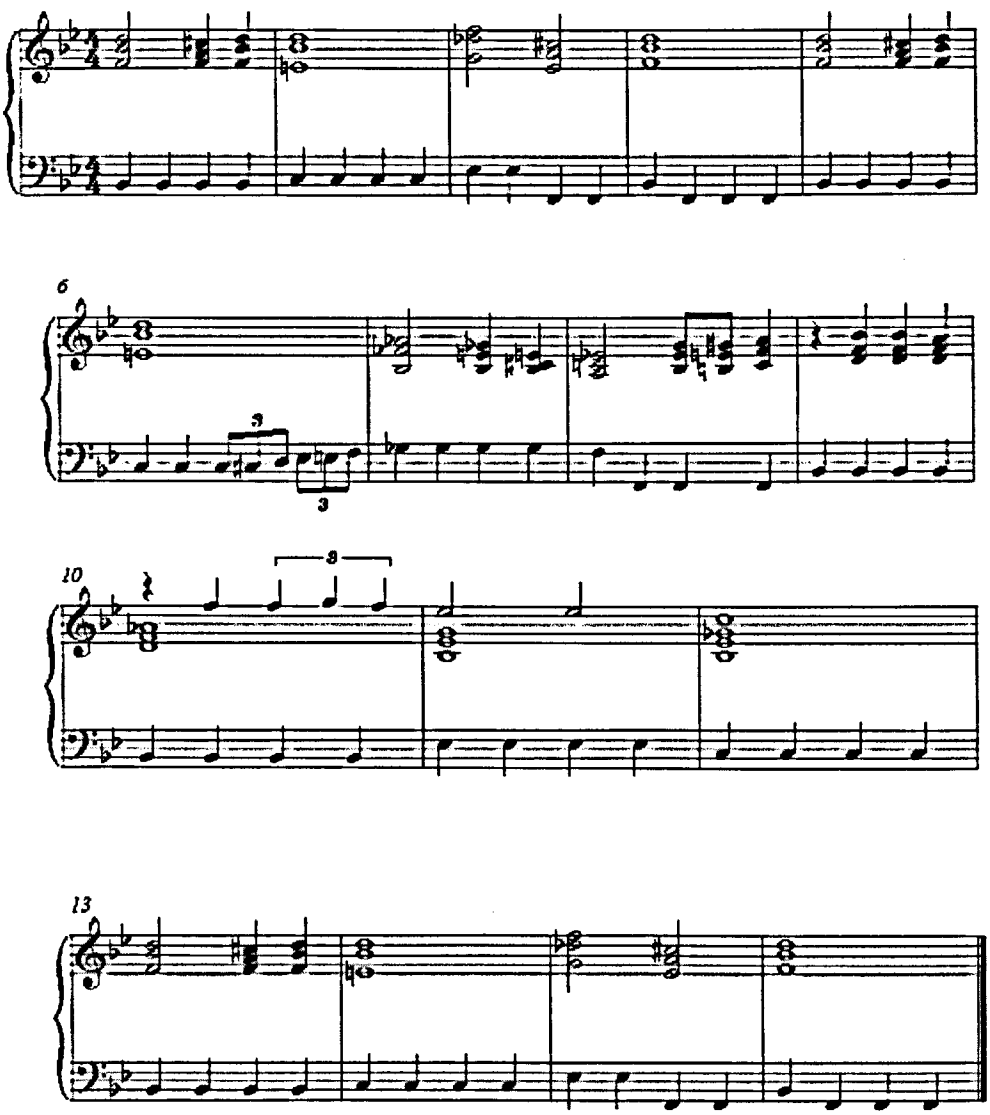

Piano Solo
A
a
c
D
A
B
ABCD
8va

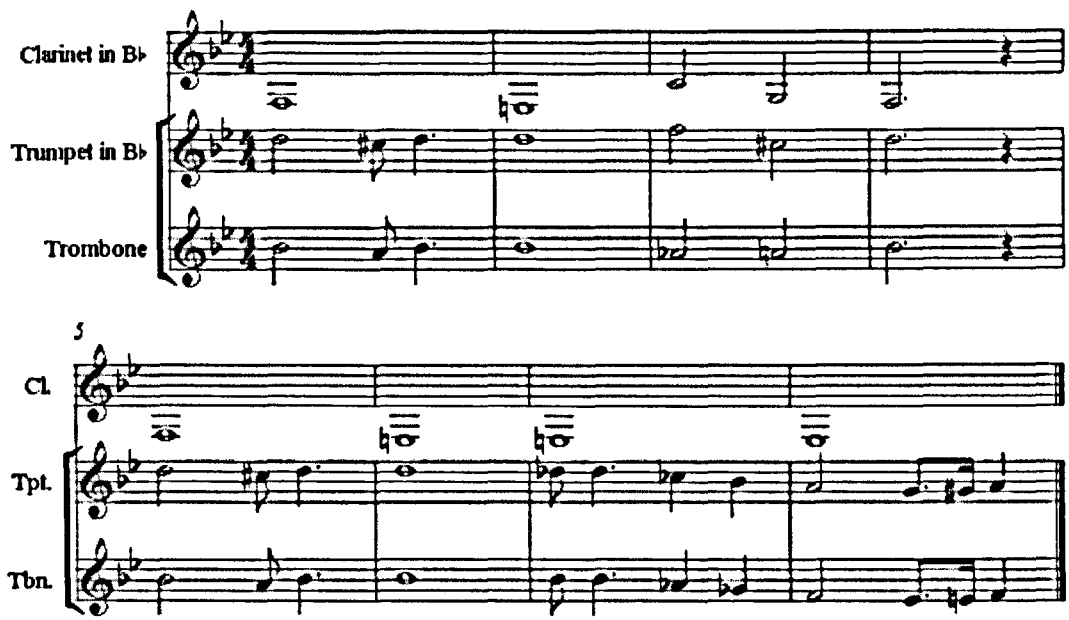
Figure 34b: Transcription of early *Mood Indigo* score



A comparison of this short score with the 1930 recording, illustrated in Figure 35, reveals that on the recording the lowest of the three upper voices was dropped by one octave. As no instrument parts have survived from this period, it is pure conjecture as to how this transposition occurred. Ellington or one of his musicians may have directed the change, although it is possible that the parts were extracted for three instruments, and then redistributed resulting in the accidental transposition. One of the outcomes of opening up the voicings is that the three lines became far more exposed and Ellington,

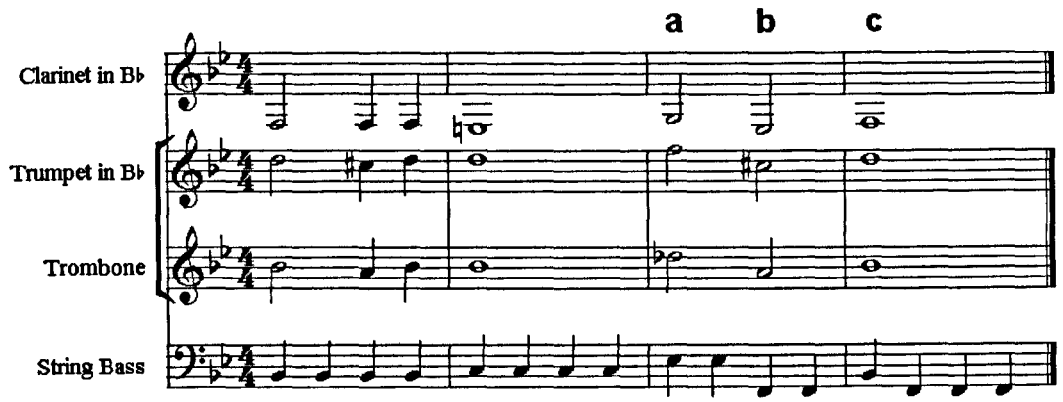
or his musicians, needed to address any awkward intervals exposed both in the chord voicing and, more importantly, in the individual lines themselves.

Figure 35: *Mood Indigo*, 1930



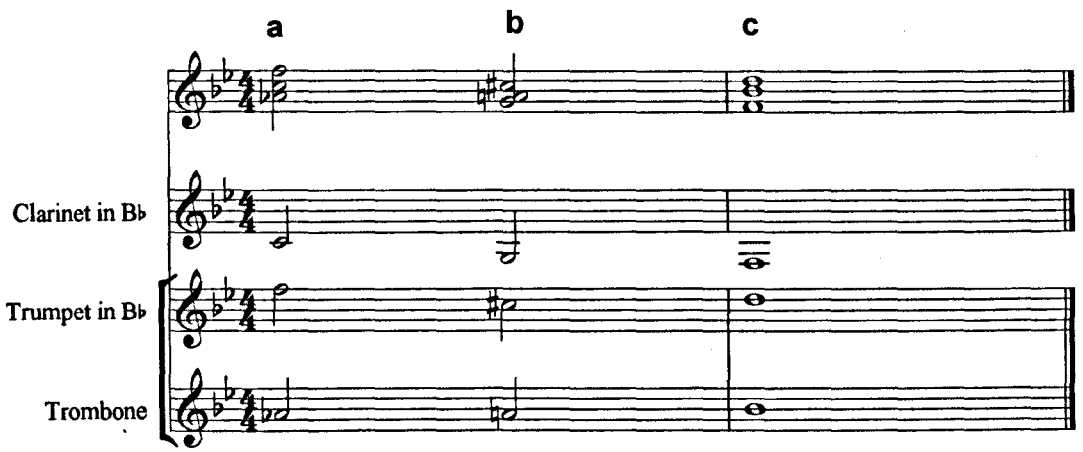
The voicings marked a, b and c in Figure 36a, create unpleasant voice movement when the lowest note is dropped. Closer examination of the autograph score reveals that Ellington introduced and erased a sharp before the lowest note (G) of the first chord in m. 3.

Figure 36a: *Mood Indigo*, transcription of Fig. 34a, mm. 1–4, with lowest note played by clarinet, one octave lower than written on score



His final solution, however, was to use the voicings shown in Figure 36b.

Figure 36b: *Mood Indigo*, mm. 3–4, as recorded 1930[2]



By giving the clarinet the middle voice in the first chord in m. 3, Ellington made it possible for all instruments to have good independent lines: the trumpet plays the

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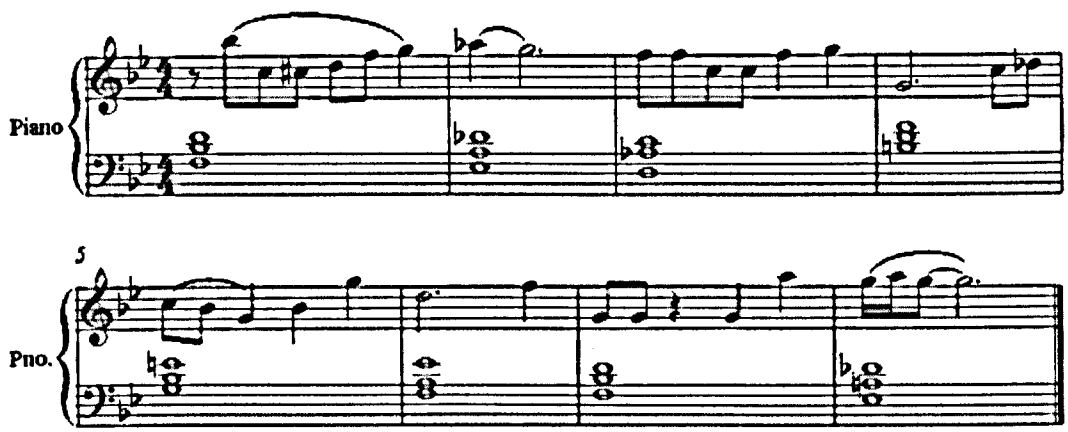
[2] On the 1930 recording, the bass plays an F throughout m. 3, creating F minor and F augmented chords.

melody and the trombone plays an ascending chromatic scale fragment. It is this single act of dropping one voice by an octave, and the resultant linear appraisal, that enabled Duke Ellington and his musicians to create this individual and unique sonority.

The simple chord voicings Ellington used to create *Mood Indigo* are very similar to the left-hand piano shapes Ellington used during this period.

Figure 37: *Black Beauty*: Ellington's 1928 dedication to dancer Florence Mills



It was Ellington's inversion of the traditional jazz front-line trio that created what Gunther Schuller described as a 'music miracle'.[3] Below the theme, stated by Arthur Whetsol's tightly muted trumpet, the trombone of Tricky Sam Nanton, rather than taking the lowest harmony, plays the second line. The trombone is similarly tightly muted with both pixie-mute[4] and closed rubber-plunger mute. The trombone line is pitched at the top of the instrument's compass. While the use of this mute combination produces some

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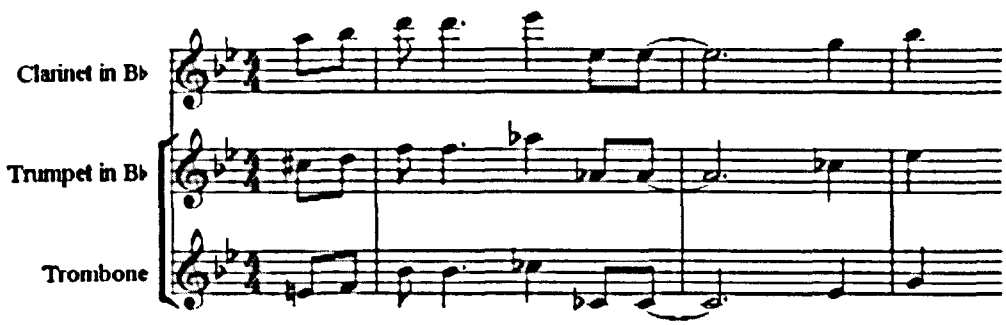
3 Unpublished lecture, 7 February 1996, Cambridge University.

4 Tricky Sam Nanton and his successors in the Ellington plunger trombone chair did not use pixies. Rather, each of them employed a Nonpareil (that's the brand name) trumpet straight mute (David Berger and Brent Wallerab, *Notes on Playing Ellington: Cottontail Full Score* [Jazz at Lincoln Center Library score; Florida: Warner Bros, 1998], p. 2).

wonderful, almost voice-like sounds, it also creates some intonation problems. The muted trumpet melody forms intervals of thirds and sixths with the trombone. In the majority of the voicings, the clarinet part, played by Barney Bigard, plays the third harmony-part, dropped by one octave into the instrument's rich chalumeau register.

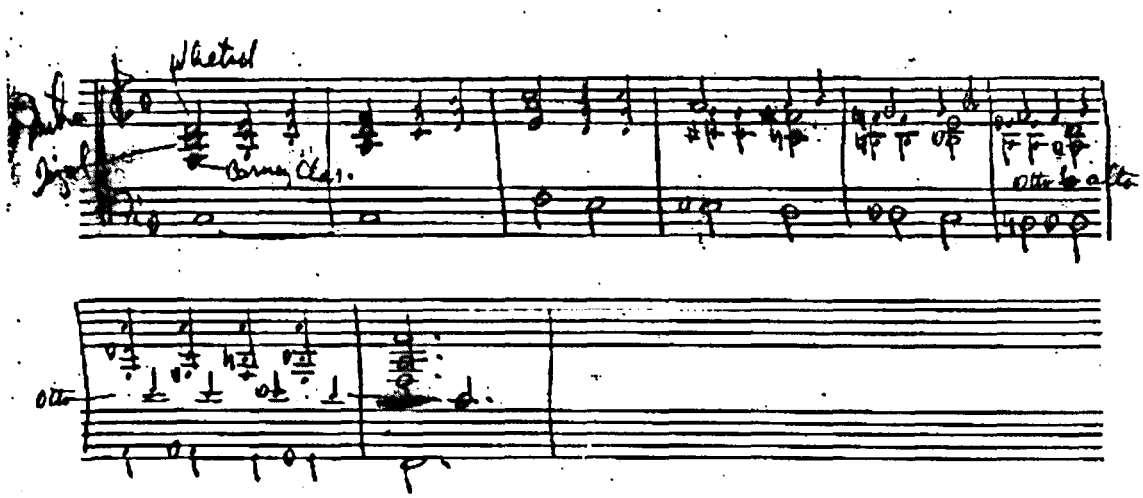
Other pieces from the 1930s also feature this combination of instruments, and demonstrate that Ellington was clearly experimenting with dropping one of the voices.

Figure 38: *Rocky Mountain Blues*



Rocky Mountain Blues was recorded on 14 October 1930 by a seven-piece band led by Ellington called The Harlem Footwarmers. Ellington first recorded *Mood Indigo* at this same recording session.

Figure 39: *Black Butterfly*, 21 December 1936



In this example, Ellington once again used only simple tertian triads. While this selection of instruments[5] produced beautiful pastel timbres, it did not recreate the magic of *Mood Indigo*. Pivotal to the creation of the subtle and original sonorities of *Mood Indigo* were the linear modifications made by Ellington, or his musicians, to the exposed clarinet line in mm. 3 and 4. When the clarinet part is dropped an octave, as in Figures 40a and 40b, Ellington recreates the mood of *Mood Indigo* but the individual lines in these pieces still lack the interest created by the independent movement employed in *Mood Indigo*.

[5] Lines are labelled 'Whetsol', 'Tizol' and 'Barney Clar'.

Figure 40a: *Solitude*, 1934

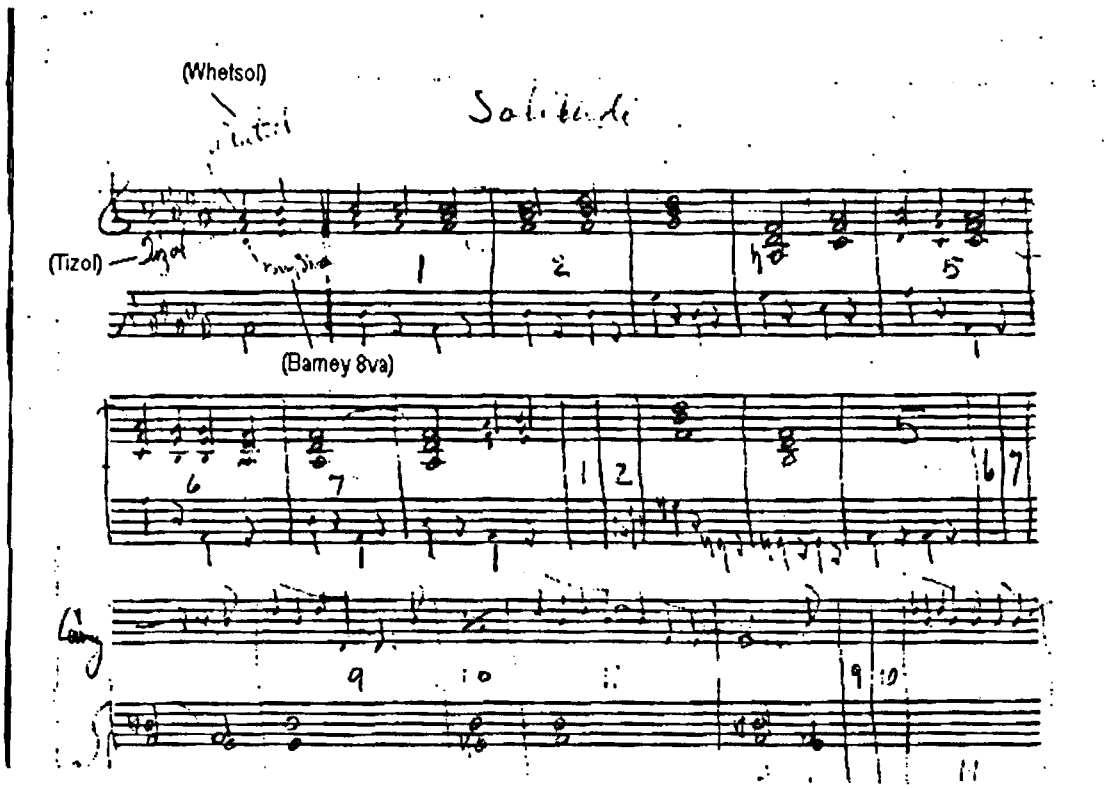
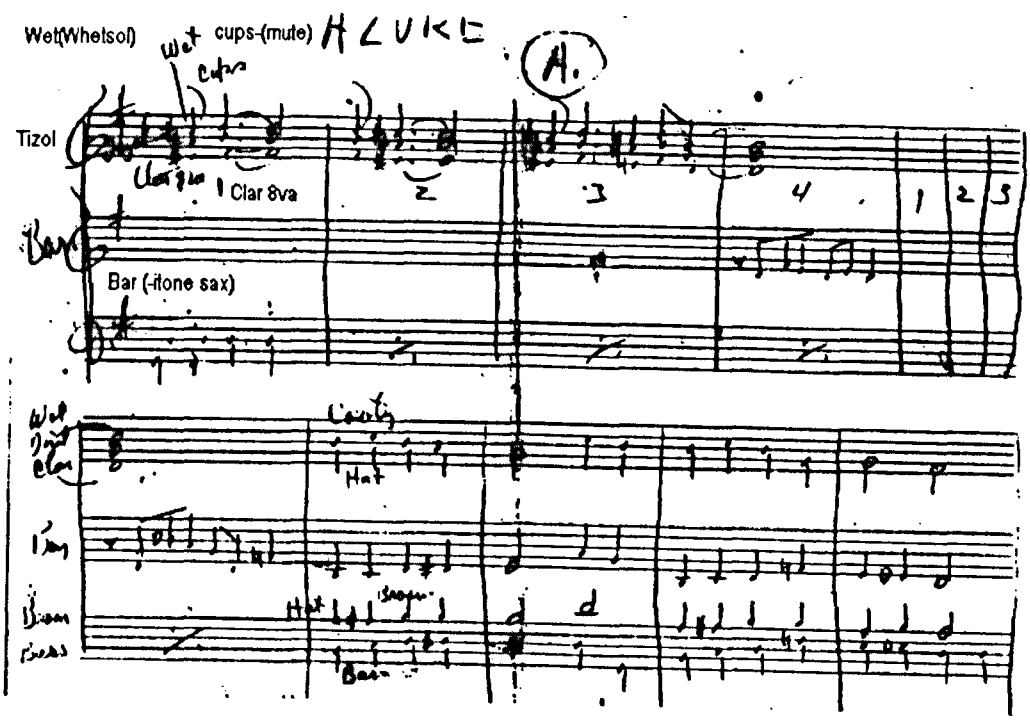


Figure 40b: *Azure*, 1937



In each of these examples, no modification was necessary because of the selection of triads. In *Solitude*, major and minor plural triads are planed diatonically without encountering any harmonic complications. In *Azure* A♯ minor and B minor triads plane chromatically creating $Gmaj^7$ in m. 1, harmonic tension in m. 2, and resolution to tonic G in m. 4 via $Gmaj^7$, D^{11} and $Gmaj^7/D$ in m. 3.

In his composition *Dusk*, Ellington combined the characteristic tonal qualities of the *Mood Indigo* trio with the techniques he had honed since his early experimentation in the 'giant workshop'[6] of the Cotton Club (1927–31). The following analysis of *Dusk* identifies and examines these techniques.

Dusk

The following examination of a complete autograph score of *Dusk* reveals some of the techniques that Ellington used to create the characteristic tonal qualities when writing for the *Mood Indigo* trio. These techniques include:

- **Chromatic planing**;
- **Diatonic planing**;
- **Linear approach,** i.e. independent voice movement – not merely contrapuntal;
- **Plural chord voicings,** i.e. complete tertian triads built from upper chord notes and chord extensions;
- **Dropped voice** of *Mood Indigo* trio;
- **The use of $\flat VI^7$ chord.**

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6 Gunther Schuller, unpublished lecture, 7 February 1996, Cambridge University.

The section concludes with a demonstration of how these techniques can be used to create an Ellingtonian pastiche.

In much the same way that Ellington was forced into finding a harmonic solution in the opening four bars of *Mood Indigo*, *Dusk*'s tessitura prevents the use of close-position voicings as these would produce lines out of reach of the trombone, and the effect of the rich, woody, low clarinet would be lost. As in *Mood Indigo*, in the statement of the main theme of *Dusk* the lowest voice is dropped by an octave and is played by the clarinet. Occasionally, however, when the melody rises above F (top line of the treble stave), the clarinet plays the *middle note* of the chord and this is dropped by two octaves. These opened voicings once again result in harmony parts becoming even more exposed and this creates the need to address voice-leading issues to ensure attractive individual lines.

It is important to note that, by 1940, when *Dusk* was recorded:

- Duke Ellington had completed the creative workshop period in Harlem's Cotton Club. As Gunther Schuller stated, 'slowly and relentlessly, through a process of continuous reappraisal, of constant polishing and refining, the Duke's musical concepts began to crystallize';[7]
- He had assembled an impressive line-up of musicians – five saxophones (including Ben Webster), and the young bassist Jimmie Blanton;
- Ellington was 40 years old and about to begin what many consider his most creative period.

During the six-month period between recording sessions on 6 March and 5 September 1940, the Blanton–Webster band, as it became known, recorded a prodigious list of titles including:

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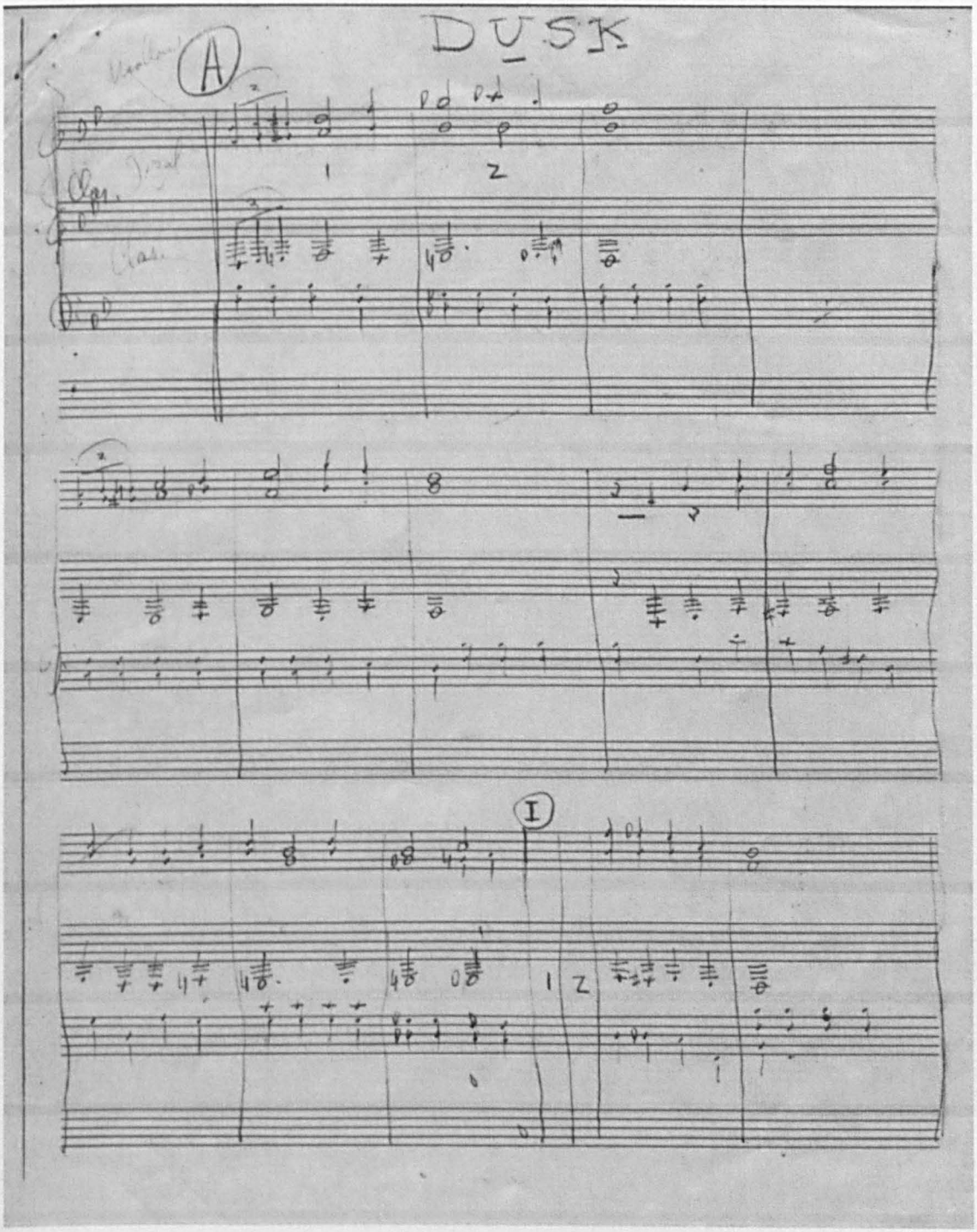
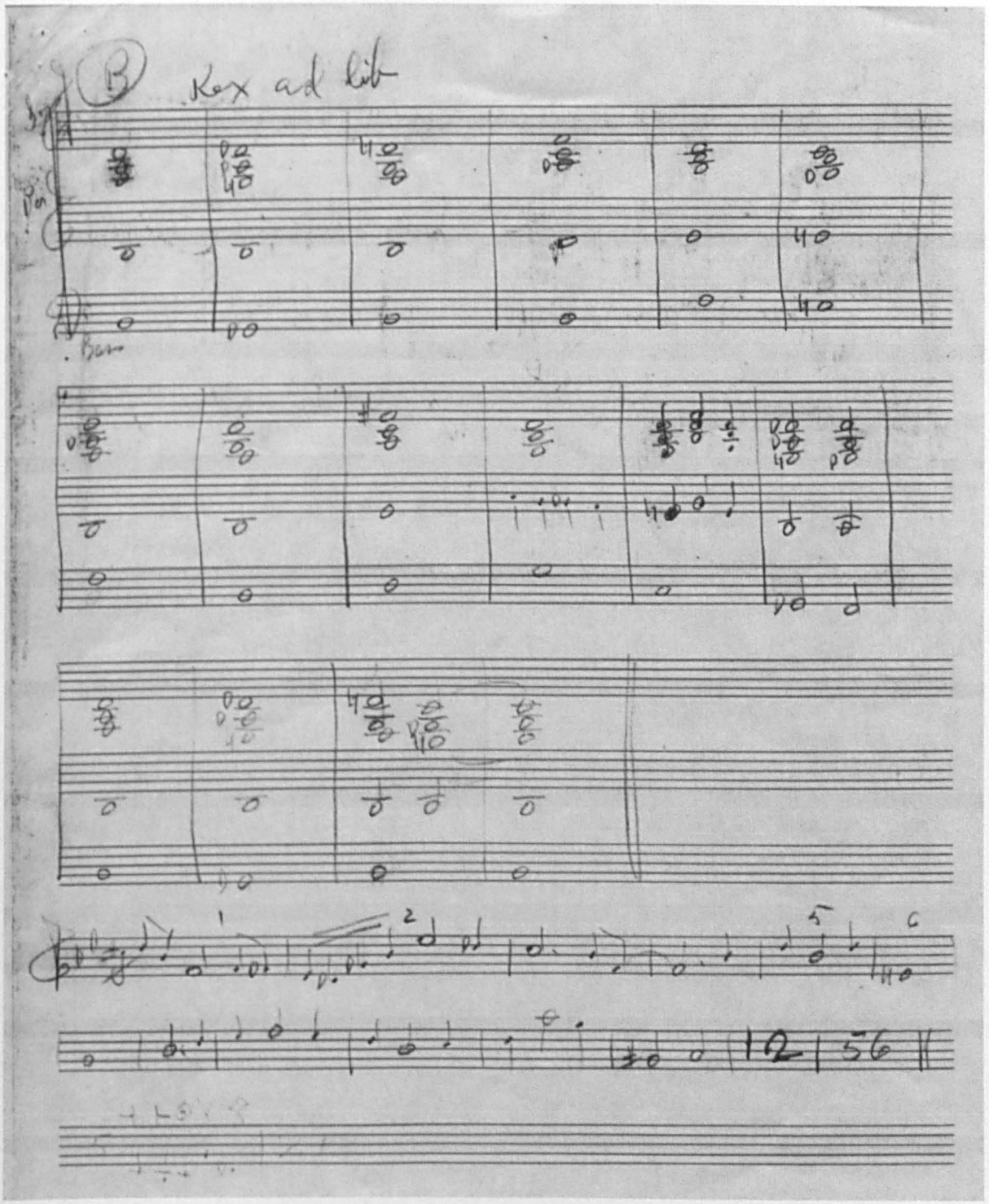
[7] Schuller, *Early Jazz*, p. 340.

Jack The Bear and *Ko-Ko*	6 March 1940
Congo Brava and *Concerto For Cootie*	15 March 1940
Bojangles and *Cottontail*	4 May 1940
Harlem Airshaft and *All Too Soon*	22 July 1940
Sepia Panorama	24 July 1940
Warm Valley	31 July 1940
In A Mellotone	5 September 1940

Arrangement

Figure 41: Ellington's pencil score of *Dusk*, pages 1 and 2



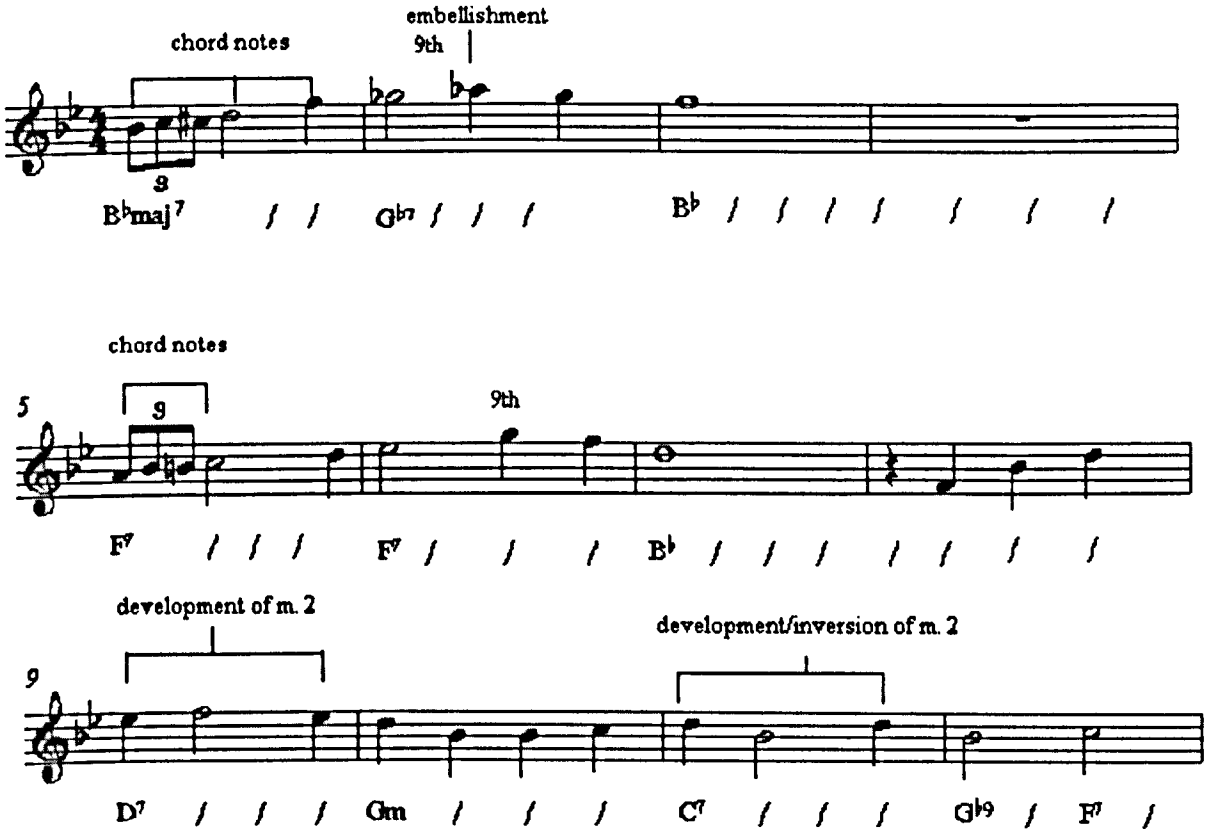

B
Kex ad lib

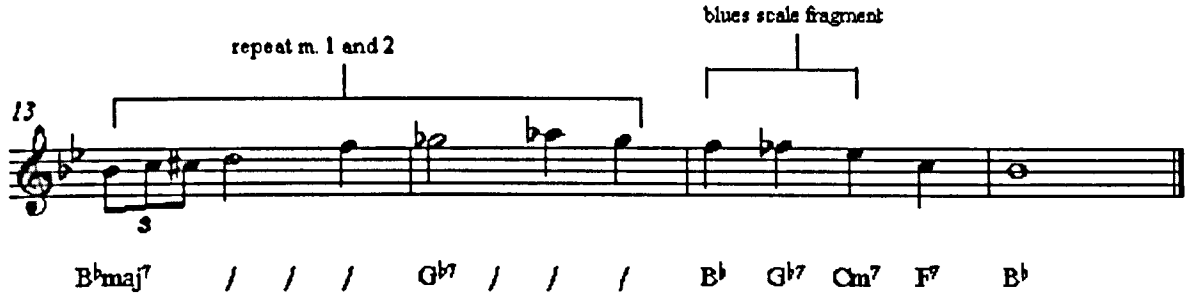
Dusk follows a simple theme and variations form (CD track 6). After a short piano introduction the *Mood Indigo* trio (Wallace Jones and Juan Tizol on trumpet and trombone, and Barney Bigard on clarinet) state the 16-bar theme. Rex Stewart plays the first 16-bar variation on cornet, with reed accompaniment, followed by a 16-bar ensemble variation, eight bars of antiphonal exchanges between trombones and reeds, and eight bars for full ensemble. Four saxophones play a two-bar link before the main theme is restated. Ellington echoes the piano introduction to decorate the closing chord.

Melody

The theme of *Dusk* is in four four-bar sections which can be seen as a miniature **A A B A** song form.

Figure 42: *Dusk*, main theme





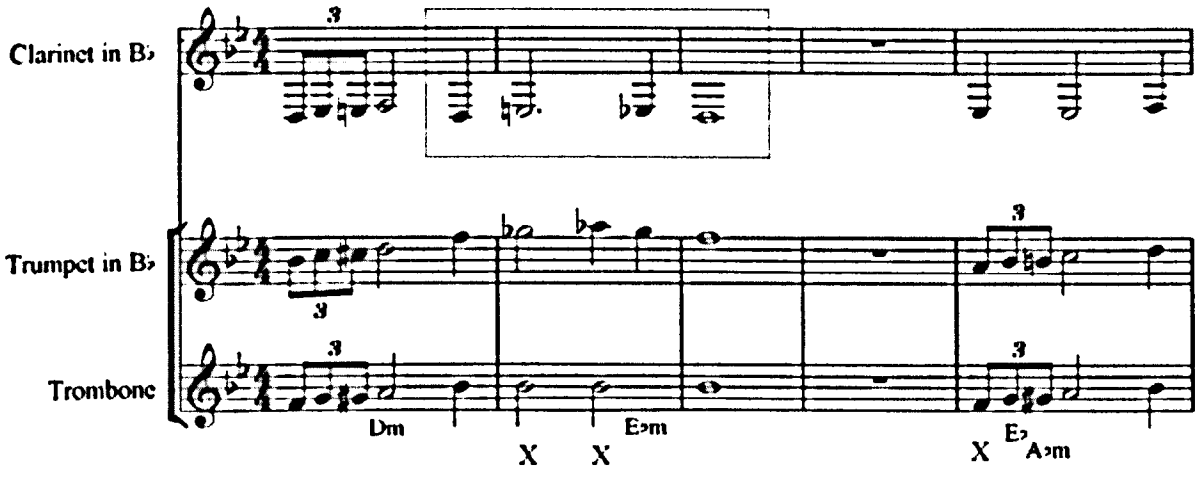
The melody in m. 1 is built using chord notes decorated with quaver-triplet passing notes. In m. 2 the root note of the $^{\flat}$VI^{7} chord is embellished with the neighbour note, A$^{\flat}$, the ninth of the chord, before returning to the dominant in m. 3. An imitation of this phrase forms mm. 5–7; the third and fifth of the chord are decorated, and the passing note D, the thirteenth, leads to the seventh in m. 6. This is embellished, as in m. 2, with a ninth before falling to the third of the tonic key. The **B section** uses a III^{7} vi II^{9} $^{\flat}$VI^{7} V^{7} chord sequence. The melody is a development of the material in m. 2. The ninth features once again: flattened – E$^{\flat}$ and augmented – F. A ninth is also used in m. 11 and the pattern is inverted, before returning to the dominant via a $^{\flat}$VI^{7} chord. The function of this dominant-quality chord built on the flattened-sixth degree in *Dusk* is similar to its role in *Mood Indigo*. Ellington's use of this chord is interesting as this upper-chromatic decoration of the dominant that follows is also a flattened-fifth substitute for a dominant-seventh-quality chord built on the supertonic. This type of flattened-fifth substitution would form part of the harmonic language of bebop in the following decade. The final **A section** begins as a repeat of the first A section, but instead of coming to rest on the dominant, as in m. 3, Ellington uses a blues scale fragment to descend to the tonic.

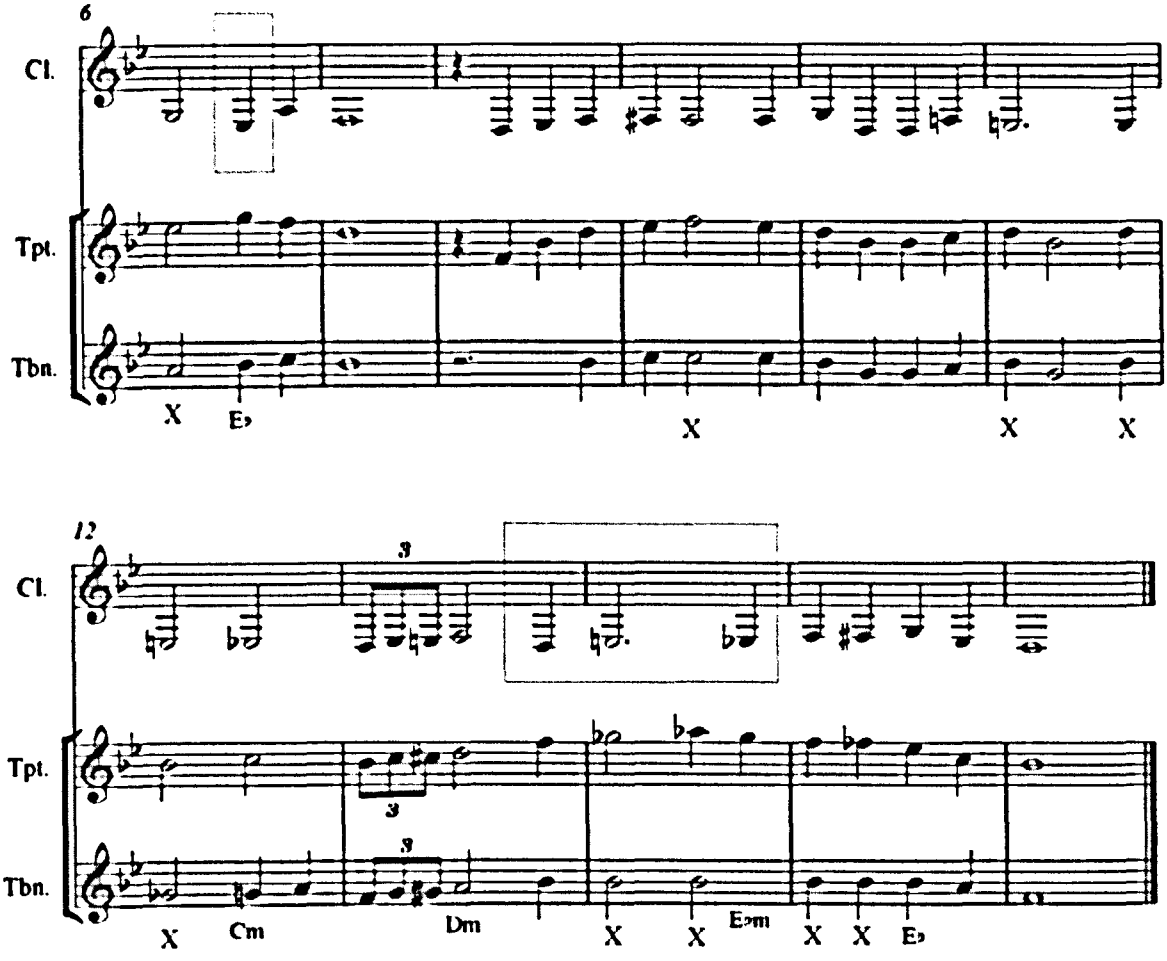
Harmony

Of the 45 three-part voicings in the main statement of the *Dusk*'s theme, all but 11 voicings form tertian triads; these are identified with an **X** in Figure 46. Of the remaining 34, six form plural triads: that is, complete tertian triads formed from chord notes and chord extensions. When these plural triads are combined with the rhythm section, the chord of the moment is fully described; their plural identity is indicated in Figure 46. The following plural triads can be found in the statement of the main theme in *Dusk*:

iii on I = tonic major ^{7th}	(m. 1 – $B^{\flat}maj^{7}$)
iv on V = $V^{11(9\flat)}$	(m. 2 – $F^{11(9\flat)}$)
IV on V = V^{11}	(mm. 5 and 6 – F^{11})
$^{\flat}$vii on V = $V^{7(9+5\flat)}$	(passing chord, m. 5 – $F^{7(9+5\flat)}$)
ii on V = V^{9}	(m. 12 – F^{9})

Figure 43: *Dusk* theme as played by the *Mood Indigo* trio





The line played by the clarinet is created by dropping the lowest note of the triad by one octave. In sections of the melody where the melody rises above F, top line of the treble clef, the clarinet takes the inner voice and plays this *two* octaves lower (boxed in Fig. 43), allowing Ellington to keep the clarinet in its chalumeau register, essential to the *Mood Indigo* timbre. The lines played in the final bars, mm. 15–16, provide another example of Ellington's linear approach. Each of these lines was considered individually; the introduction of good counterpoint or contrary motion was not born out of a study of polyphonic writing, but out of the desire to produce lines to which the individual player could bring his own character and bluesy intonation.

A written solo[8] played by cornet player Rex Stewart follows the statement of the opening 16-bar theme. The solo is based on a harmonic variation of the main theme's chord sequence:

$B^{\flat}maj$	$G^{\flat 13}$	$B^{\flat 6/9}$	$B^{\flat 9}$
$F^{11}add^{13}$	$G^{\flat 7(5\flat)}/E$	Fm^{11}	$B^{\flat 6}$
$D^{7(9\flat)(9+)}$	Gm	$C^{9}\ C^{11(add\,13)}\ C^{9}$	$G^{\flat 7}\ F+^{7}$
$B^{\flat}maj^{7}$	$G^{\flat 13}$	$B^{\flat 6}$	$G^{\flat 7(5\flat)}/B^{\flat}$

Band members and students of Ellington's music have commented on how attuned Duke was to his sidemen and their playing, and how, in addition to borrowing thematic material, he would feature individual players' idiosyncrasies. Clark Terry explained how Ellington liked a particular 'half cocked valve' sound Rex Stewart achieved when he played a D natural and how Ellington would assign that note to Stewart.[9] This note can clearly be heard in the fifth bar of Stewart's solo. Ellington mentions the same note. Take *Boy Meets Horn* (Rex Stewart's cornet feature). There's one note with a cocked valve that has a sound that we wanted; E natural (D natural concert pitch). No other note has that sound.[10]

Figure 44 shows a reproduction of Ellington's score of the ensemble section that links Rex Stewart's solo and the closing restatement of the theme. This section contains many of the techniques Ellington would continue to use throughout his career.

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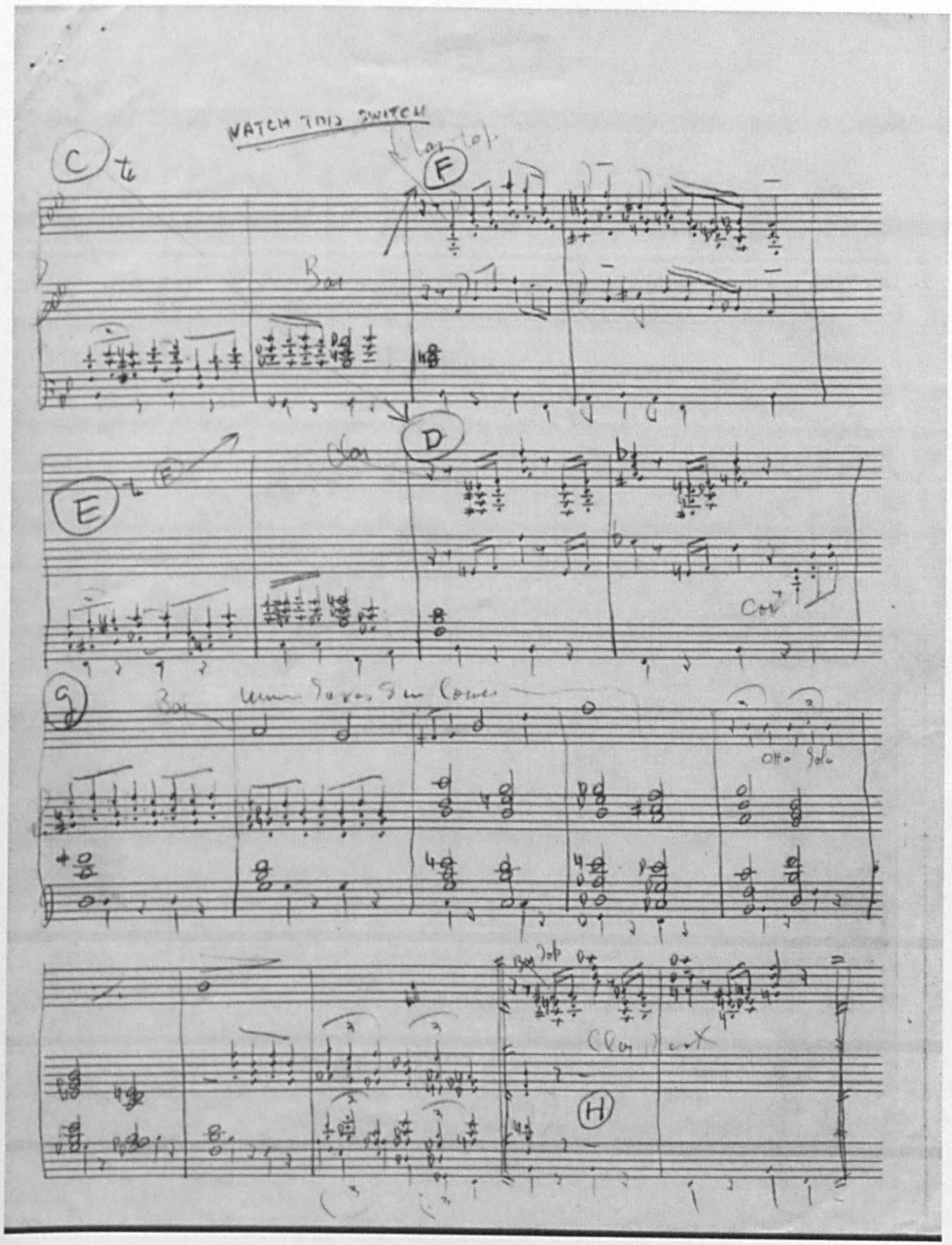
8 Gunther Schuller was correct when he suggested, 'I would not be surprised to discover that Stewart's "solo" was composed by Duke and was meant to be an integral part of the composition' (Gunther Schuller, *The Swing Era: The Development of Jazz 1935–40* [New York: Oxford University Press, 1989], p. 122).

9 Interview with Clark Terry by Marsha M. Greenlee, 6 March 1990.

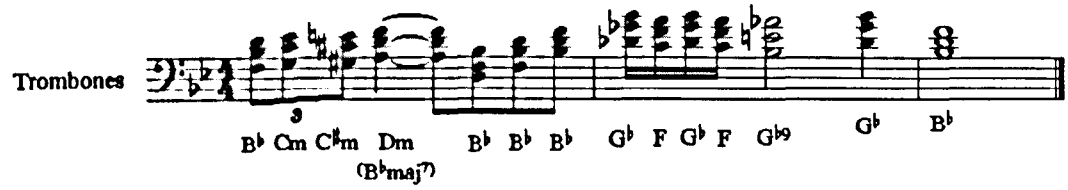
10 Nicholson, *Portrait of Duke Ellington*, p. 199; originally printed in *DownBeat*, 26 December 1956, p. 25.

Figure 44: Ellington's pencil score of *Dusk*, page 3



In the sections marked C and E in Figure 44, the trombones play an embellishment of the main theme. This is voiced using tertian triads and 3-7-9 voicings similar to those used in the main theme. Here, however, all voicings are in close position.

Figure 45: *Dusk*, trombones, mm. E1–2–D1

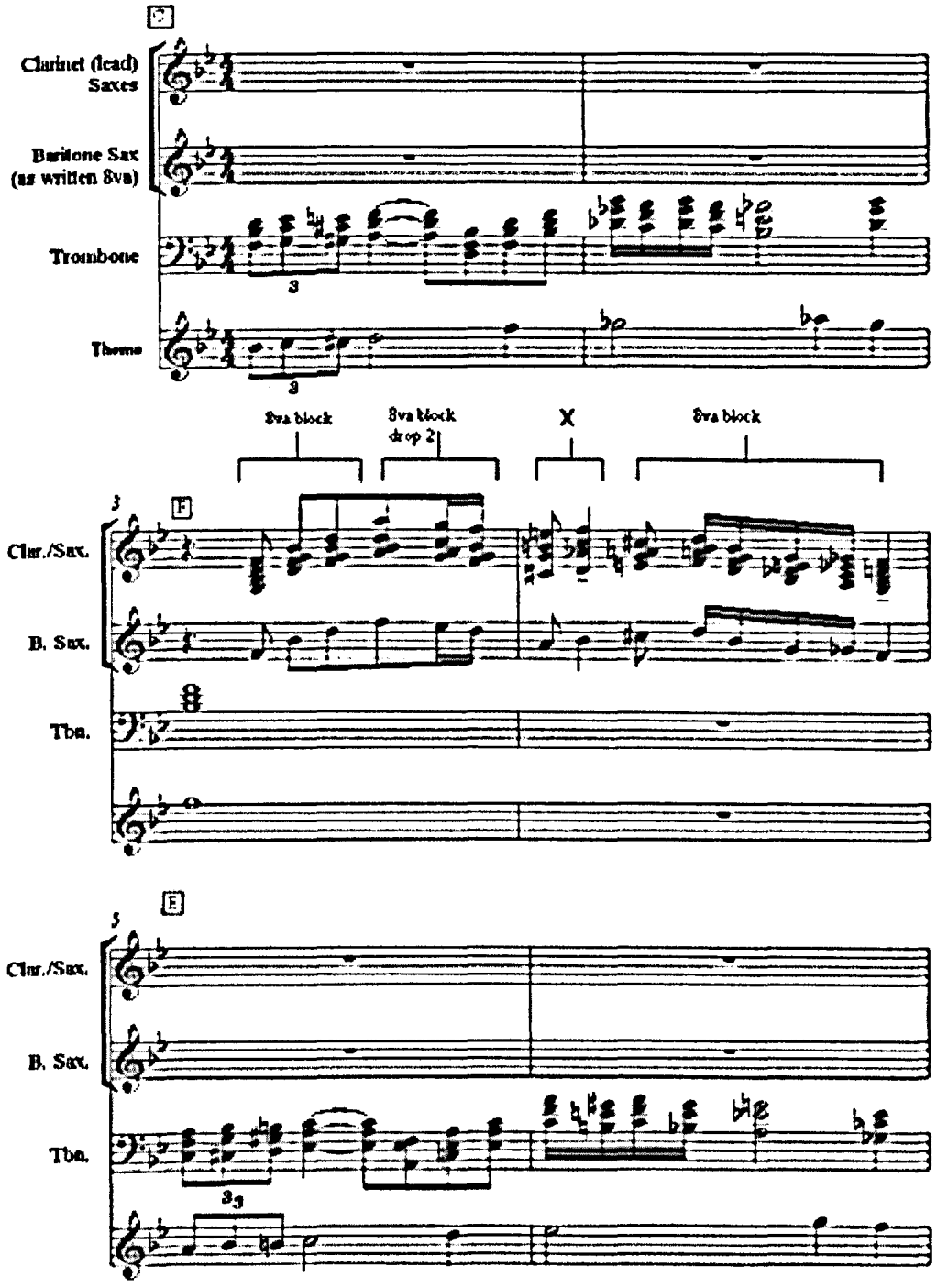


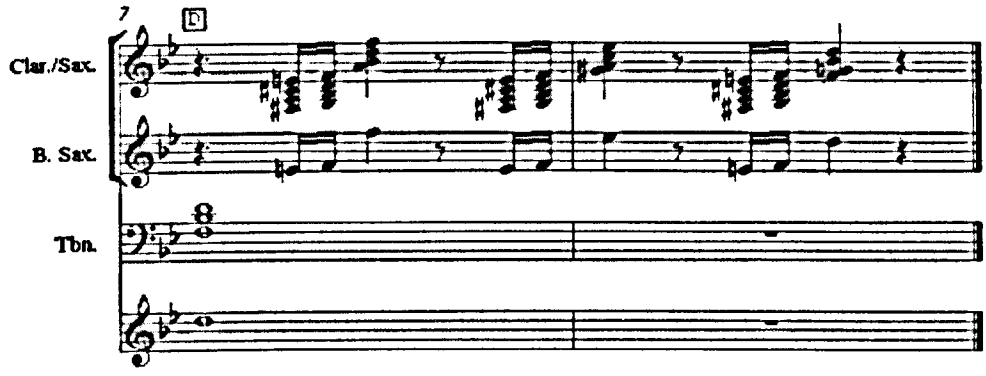
The B♭maj7 chord in Figure 45 is created when the trombone trio play a Dm tertian-triad. This plural triad of Dm creates a major-seventh quality when combined with the bass's B♭. The trombones move from the first voicing of B♭ to the fourth voicing, Dm, using the technique of planing. The target chord (Dm) is approached by planing each voice by semitone or half-step. Planing is also used to harmonise the B♭ - A - B♭ - A line in m. 2. The Cminor chord, in m. 1, could also be the product of diatonic parallelisation, i.e. planing each voice by step within the diatonic scale.

The saxophones respond to the saxophones' 'call': their reply is built using simple, decorated, chord note material, Figure 46. Ellington's writing for Harry Carney and the saxophone section demonstrates the use of a number of techniques, including a linear approach. In the section marked F, the saxophones play a thickened-line harmonisation, with the melody doubled one octave below. Harry Carney's baritone saxophone plays the doubled melody (m. 3). As the melody rises, Ellington opens the last three voicings by dropping the second voice. This ensures that the baritone line remains within its range. In m. 4, the baritone plays the root of the first two chords, marked **X** in Figure 46. This is another example of planing or chromatic parallelisation. The target chord (melody F) is harmonised with a B♭9 voicing that could either be a

cluster, i.e. a compact five-part voicing within an octave, with a dropped voice, or an example of *chorale* or *true bass* voicing; this voicing is then approached by planing each voice by semitone or half-step – in this case from below. The last six voicings are all octave block.

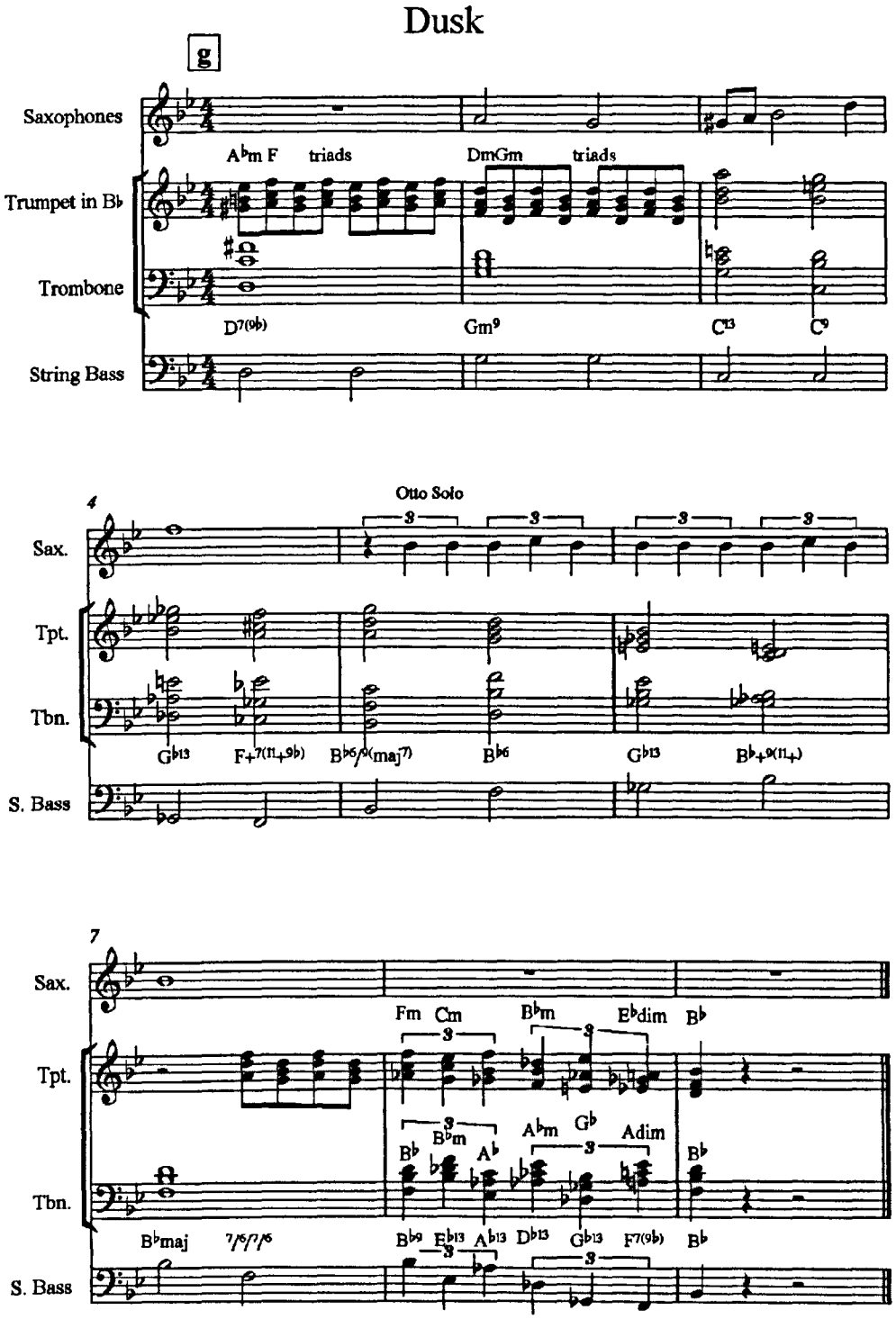
Figure 46: *Dusk*, transcription of Fig. 44, mm. 1–8





When the trumpets take over the theme variation, marked 'Cors' in Figure 44, they plane alternate A♭ minor and F major triads over the trombone's open D7 in m. 9 of the ensemble section (marked **g** on autograph score), and D minor and G minor triads over the trombones' G minor. By combining such simple elements, Ellington creates surprisingly complex, and very modern, sounds; in m. 9, a complete diminished scale is employed. Throughout this **g** section the majority of the trumpet voicings form complete plural triads over the trombones' open or inverted 1-3-5, 1-7-3, or 1-7-9 voicings. Occasionally both sections form plural triads. For example, in m. **g**4 the altered G♭7 chord is created by combining the trumpet's E♭ minor with the trombone's D♭ minor, and the following altered F7 chord by blending the trumpet's F augmented triad with the trombone's C♭ major. These harmonies are illustrated in Figure 47.

Figure 47: *Dusk*, transcription of Fig. 44, mm. 9–17



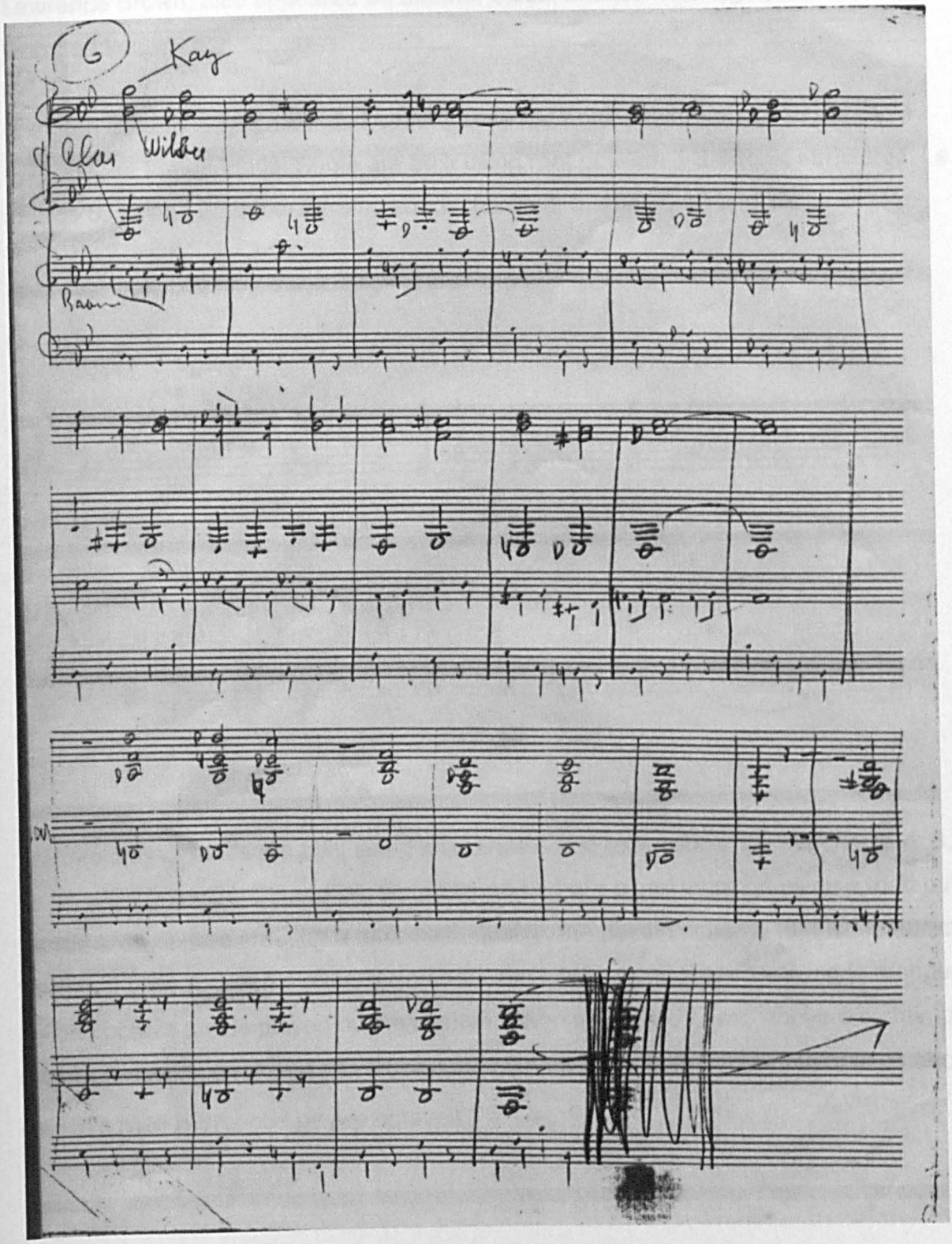
There are occasions when the opportunity to create complete, consonant-sounding triads within a section is overlooked, i.e. when linear or harmonic considerations suggest a more appropriate alternative. In m. g5, the trumpets' Gminor triad (over trombones' $B^{\flat}$chord) moves not to an $E^{\flat}$ minor triad, but to a 7-1-3 voicing of $G^{\flat 13}$; this whole-tone quality anticipates the whole-tone cluster in m. g6.

Ellington's arrangement of *Transblucency*, recorded 4 January 1946, features a similar *Mood Indigo* trio, but the female voice of Kay Davis replaces the trumpet. This unique use of the human voice as an instrument first featured in Ellington's work on *Creole Love Call* in 1927, where Adelaide Hall added a wordless obbligato above the main theme. The technique Ellington used to create the main theme, marked 6 in Figure 48, is similar to that employed to create *Dusk*. The chord sequence Ellington used to create *Transblucency* is an altered 12-bar blues sequence:

(or $G^{7(9\flat)}$)

$B^{\flat 6}$	/ Ddim /	Cm	/ A^7	/	$B^{\flat}F^7B^{\flat 9}$	/	$B^{\flat 9}$	/	/	/	
$E^{\flat}$	/ $A^{\flat 9}$ /	$D^{\flat}$	/ $C^{7(5\flat)}$	/	$B^{\flat}F^{7(9\flat)}B^{\flat}$	/	$E^{\flat 7}/B^{\flat}$	$B^{\flat}$	$E^{\flat}/B^{\flat}$	$B^{\flat}m$	
F	/ $E^{\flat 9}$ /	C^9	/ B^7	/	$B^{\flat 9}$ / /	/	$B^{\flat 9}$	/	/	/	

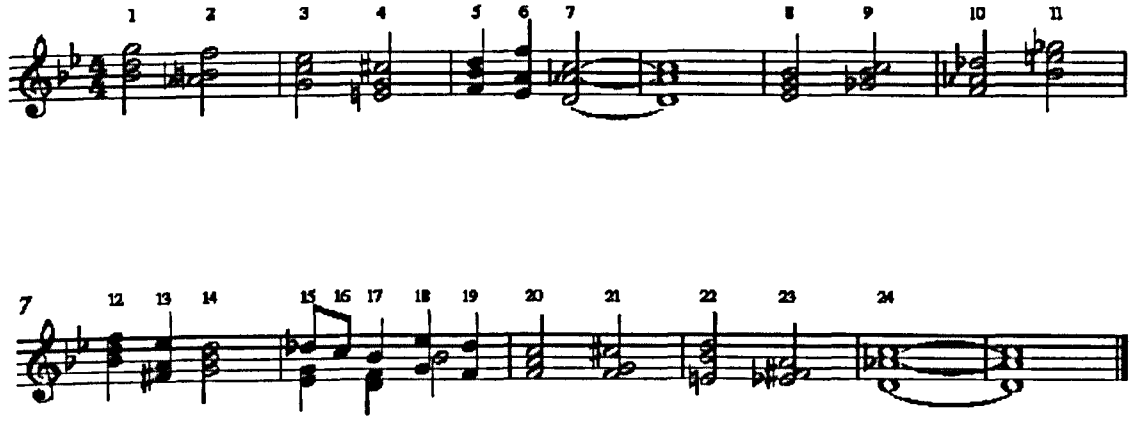
Figure 48: *Transblucency*



The third (treble) stave contains a trombone solo marked 'Brown'. This solo, played by Lawrence Brown, also appeared on another blues, entitled *Blue Light*, recorded eight years earlier.

Ellington uses mainly tertian triad structures to harmonise the melody; 16 out of 24 voicings are tertian triads. Some are built using root position 1-3-5 tonic structures, i.e. chords 8, 12 and 20; others are inverted: chords 3, 5, 10, 17, 18 and 19.

Figure 49: *Transblucency*, transcription of main theme



The majority of triads are built using chord notes and extensions, i.e. the chords 4, 6, 7, 9, 11, 13, 15, 21, 22, 23 and 24. Chords 1 and 14 are plural voicings using a triad built on the sixth degree creating a tonic sixth quality; the passing chord, 16, also features a similar quality. As seen previously in *Dusk*, the lowest note of each voicing is dropped by one octave and is played by the clarinet; when the melody rises above a certain point – E♭ in *Transblucency* and F in *Dusk* – the clarinet plays the middle-note of each chord and this note is dropped by *two* octaves.

Ellington also used the tonal colour created by the *Mood Indigo* trio in accompaniments. Figure 50 shows the second page of Ellington's autograph score of *Transblucency* and contains background figures for Lawrence Brown's solo.

Figure 50: *Transblucency*

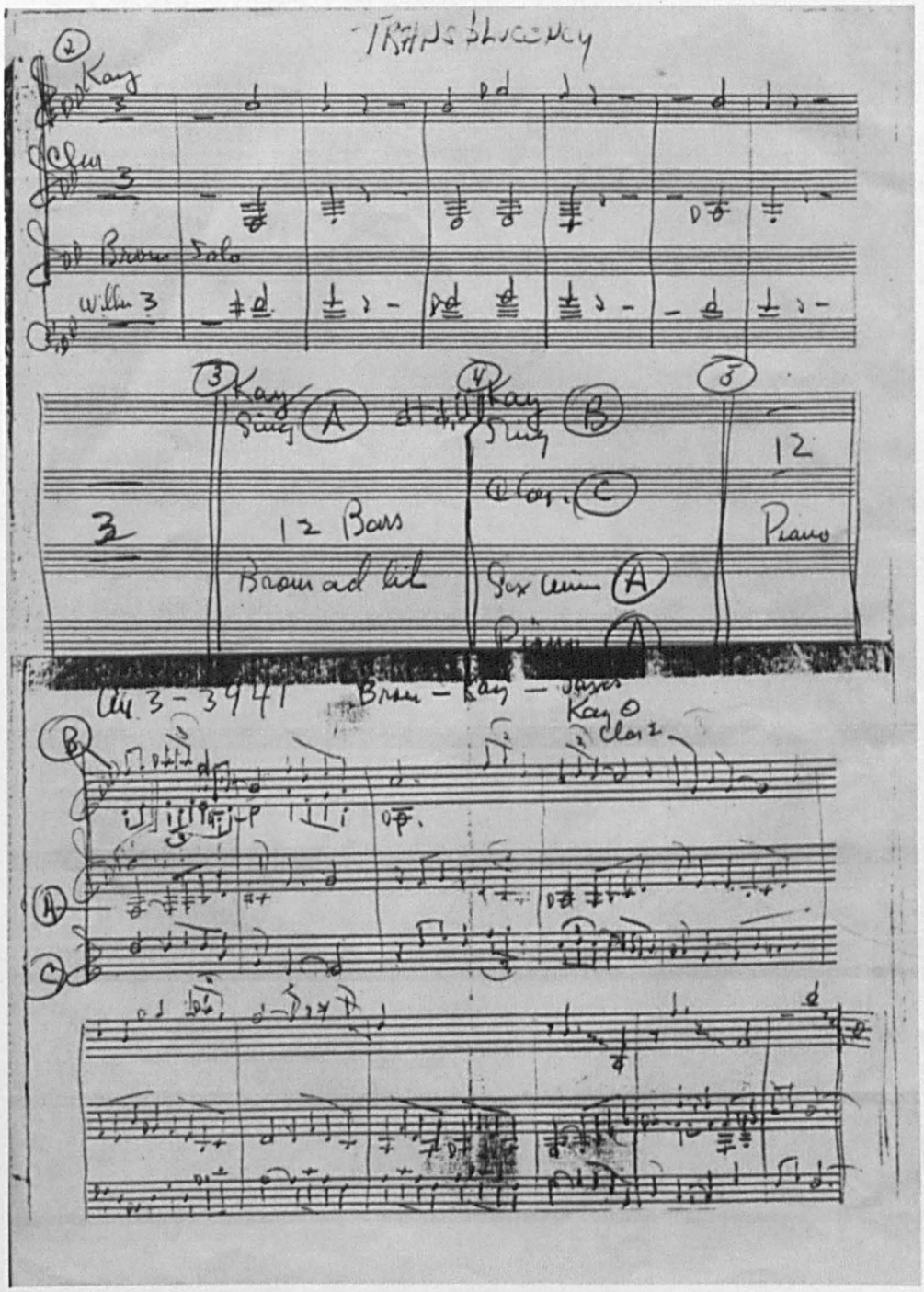
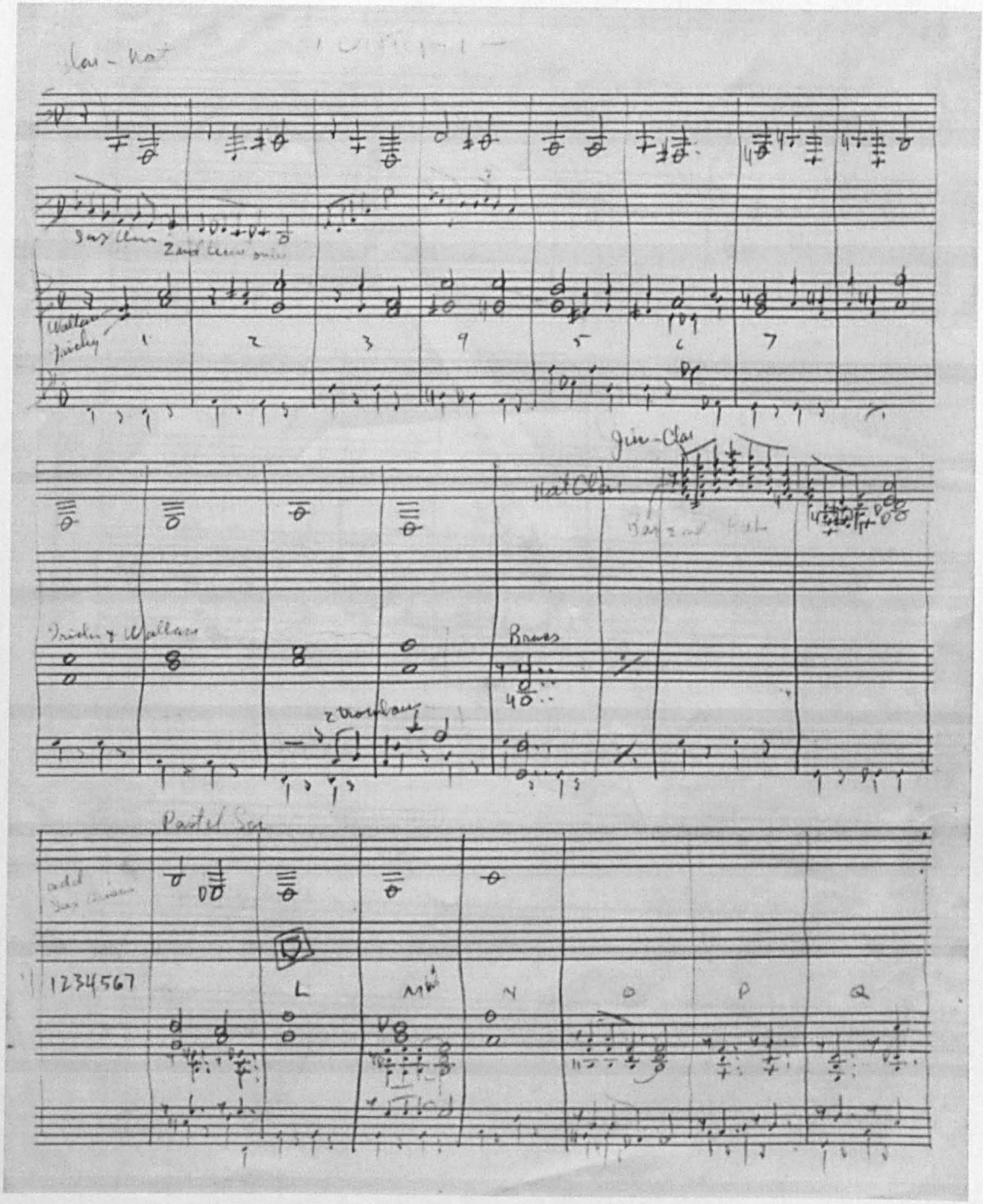


Figure 51 shows the trio providing backgrounds in *Tonight (I Shall Sleep With A Smile On My Face*), recorded in 1943.

Figure 51: *Tonight (I Shall Sleep With A Smile On My Face)*



The score indicates that the trio includes Nat Jones on clarinet, Wallace Jones on trumpet and Nanton on trombone. The marking 'pastel sax' can be found at the point where unison saxophones take over the clarinet line, following the repeat of mm. 1–7. This unison line also follows the same conventions regarding a two-octave drop. In m. N, Figure 51, the C cannot be dropped by two octaves, as it would fall out of the range of the alto saxophone.

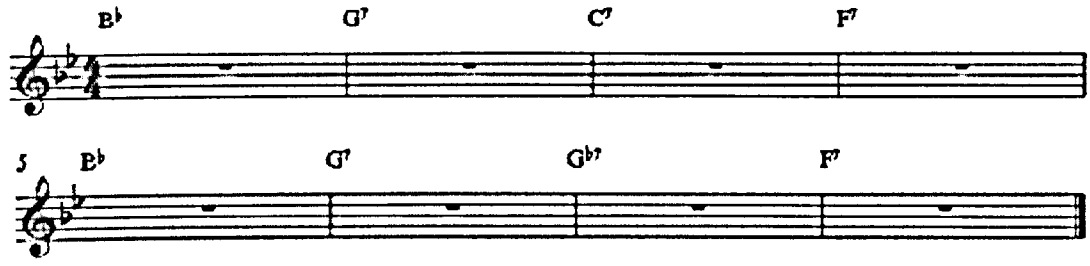
Writing for Ellington's *Mood Indigo* trio

Using the information gleaned from the previous analyses, it is possible to copy Ellington's use of plural chords, linear amendments and dropped clarinet voice when writing for the *Mood Indigo* trio. The process can be broken down into five stages:

1. Create a chord sequence. Major and dominant-quality chords facilitate greater use of plural triads;
2. Compose a (simple) melody based on the chord sequence;
3. Harmonise the melody using simple tertian triads, use plural triads where possible;
4. Drop the lowest voice by one octave. Drop middle voice by two octaves if melody rises above $E^{\flat}$ / F;
5. Make harmonic and linear amendments as required.

1. A simple, I^7 VI^7 II^7 V^7 I^7 VI^7 $^{\flat}VI^7$ V^7, chord sequence is created. The Ellingtonian $^{\flat}VI$ chord is a substitute for the tritone related II^7.

Figure 52: Chord sequence constructed using major and dominant-quality chords



2. A simple melody is composed using chord notes (cf. *Dusk* without any passing notes or embellishments, Fig. 54)

Figure 53: Melody constructed using mainly chord notes

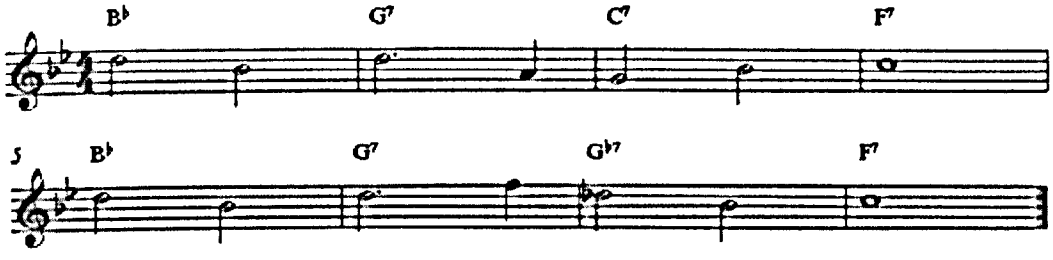
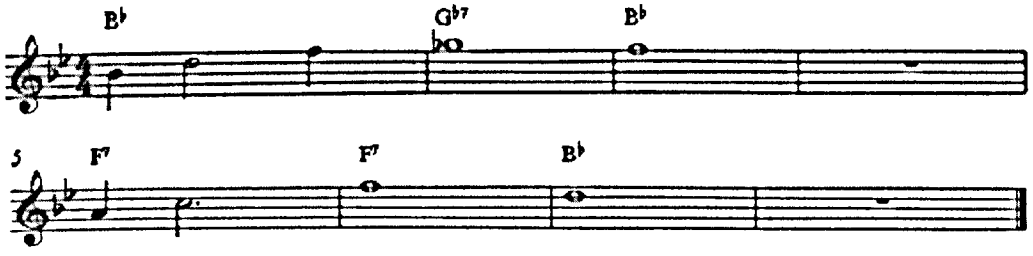
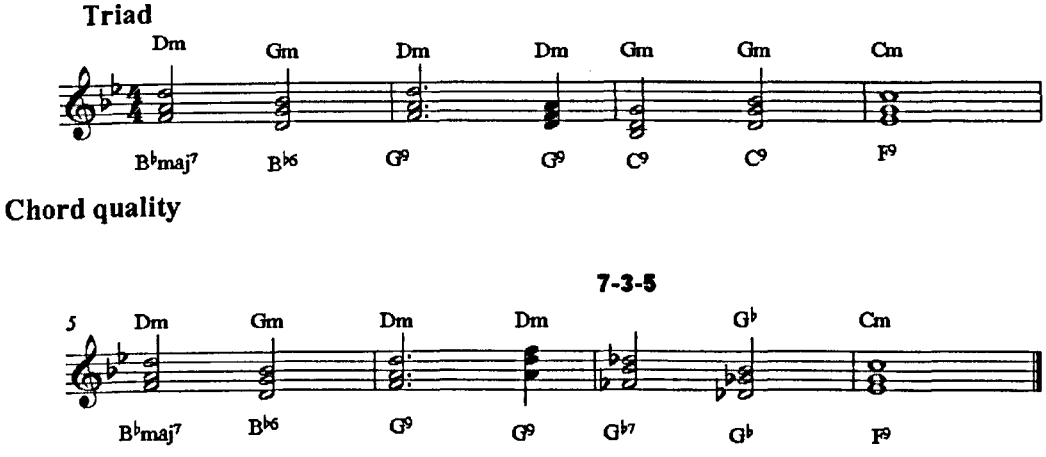


Figure 54: *Dusk*, without any passing notes or embellishments



3. The melody is harmonised. Wherever possible simple, plural, tertian triads are used to express the qualities of the chord of the moment. The melody note D in the first bar could be voiced using a G minor triad which would result in B♭ sixth quality, or a D minor triad which would result in B♭ major seventh-quality chord.

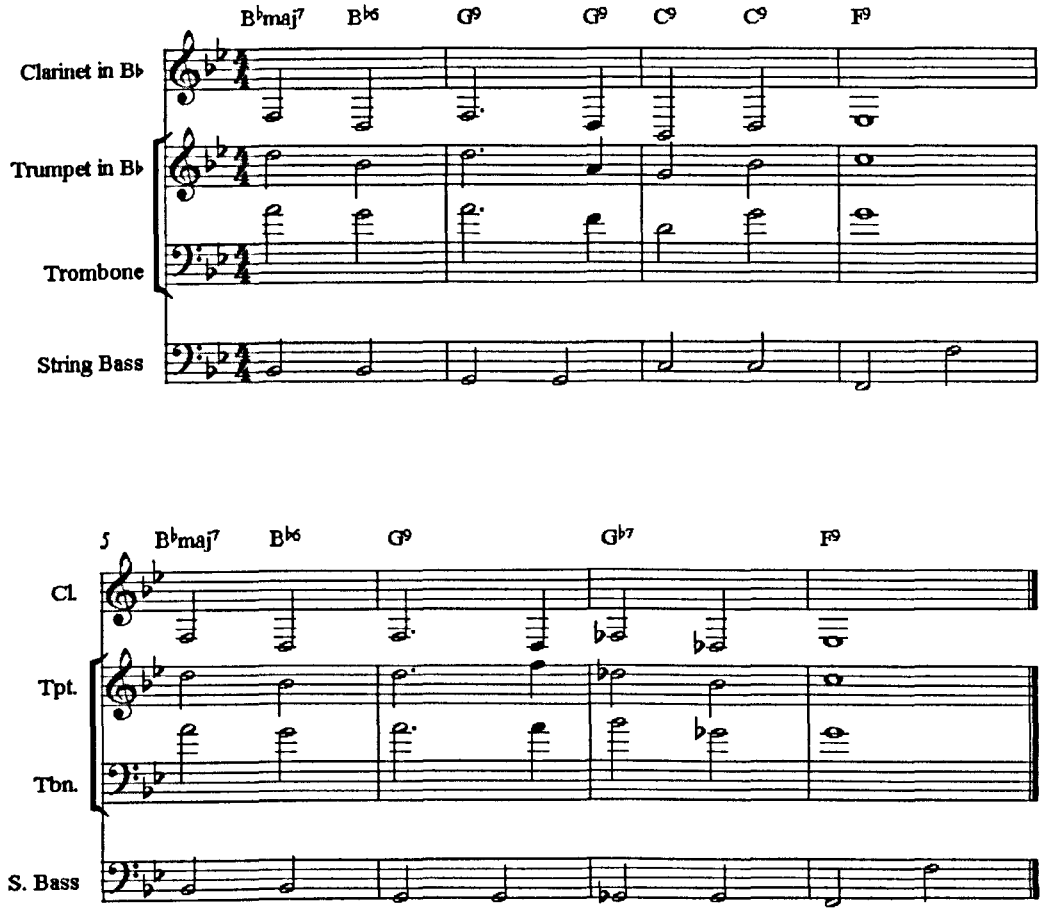
Figure 55: Melody harmonised using plural triads wherever possible



4. The lines are distributed:

- Melody to muted trumpet;
- Middle voice to muted trombone;
- Lowest voice to clarinet, one octave lower than written.

Figure 56: Harmonisation orchestrated for *Mood Indigo* trio



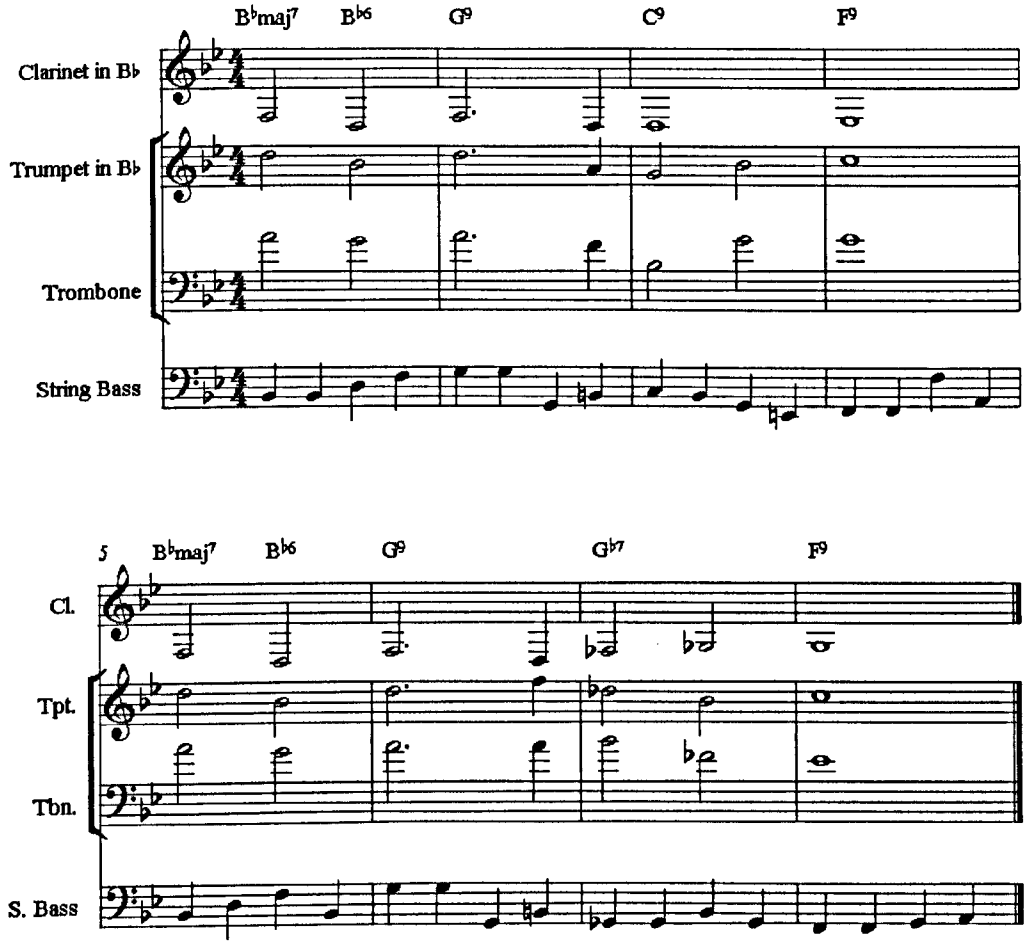
When the melody rises to F in m. 6:

- Melody to muted trumpet;
- Middle voice, dropped two octaves to clarinet;
- Lowest voice to muted trombone, actual pitch.

5. The individual lines are amended as required.

Any unpleasant or awkward intervals and notes outside the instruments' compass are changed. In the clarinet line, the fifth and penultimate notes are too low for a B♭ clarinet. To correct this, the clarinet and trombone switch notes. As a result, in m. 3, the clarinet now has two minim Ds; these are converted to a semibreve (cf. *Transblucency* m. 8 and *Dusk* m. 2)

Figure 57: Harmonisation with amendments



The trombone and clarinet switch lines on both penultimate and final chord to promote better voice movement.

The composition created in this exercise is developed further in Chapter 5, 'Reflections in D'.

2. Duke's Harmony

> First you find the logical way, and when you find it, avoid it and let your inner self break through and guide you. Don't try to be anybody else but yourself.[15]

The following chapter identifies and examines some of the techniques found in Ellington's writing for his orchestra. These include traditional procedures such as tonicisation and planing, Ellington's use of 'pianistic' chord voicings, and the development of a linear approach to orchestration. Ellington's reference to colours, when describing musicians and tonal blends, is also considered. An autograph score of *Rocks In My Bed* is included to illustrate how Billy Strayhorn was able to imitate the Ellington style. The chapter concludes with an example of how Gerry Mulligan used some of these techniques to create the innovative sounds for Miles Davis's recordings, *Birth Of The Cool*.

The development of jazz and its associated harmonic language evolved, in part, through the linear exploration of the twentieth century's basic Western harmonic landscape: for example, the I–IV–V structures of the blues. The new rudiments were not developed out of a consideration of parallel octaves and fifths, or rising thirds and falling sevenths but what sounded 'hot', 'bluesy', 'gut-bucket' or 'cool', and, more importantly, the generation of good, strong harmonic and melodic lines. An example of jazz harmony developing out of the convergence of different musical perspectives occurs in the standard blues sequence. The chords used in the 12- or eight-bar blues are usually built on the first, fourth and fifth degrees of the scale (i.e. C, F and G). Each of these chords appears with added minor sevenths; the chord built on the fourth degree, however, has

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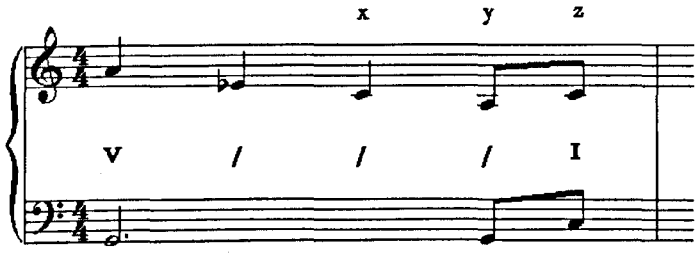
[15] Advice from African-American composer Will Marion Cook, c. 1923 (Ellington, *Music is My Mistress*, p. 97).

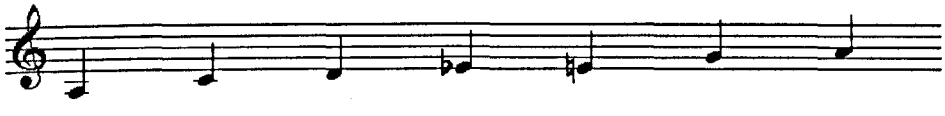
a dominant *ninth* quality (i.e. C^7, F^9 and G^7). The chord is defined when the horn players substitute their major scalar material with minor at this point in the blues sequence. The following examples demonstrate how this confluence of musical styles, traditions and cultures produced a number of harmonic anomalies. The melodic fragment, shown in Figure 58, could be produced when the 'front-line' players' linear, or scalar, material is combined with the rhythm section's harmonic material.

Figure 58: Melodic fragment



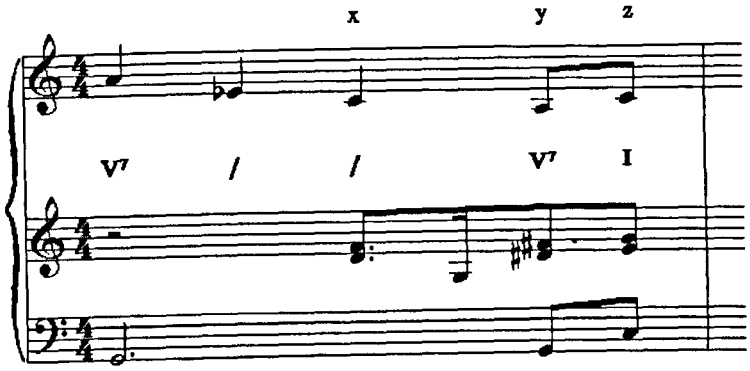
The melodic fragment uses notes from the blues scale built on the sixth degree (Fig. 59):

Figure 59: Blues scale built on the sixth degree on the tonic scale



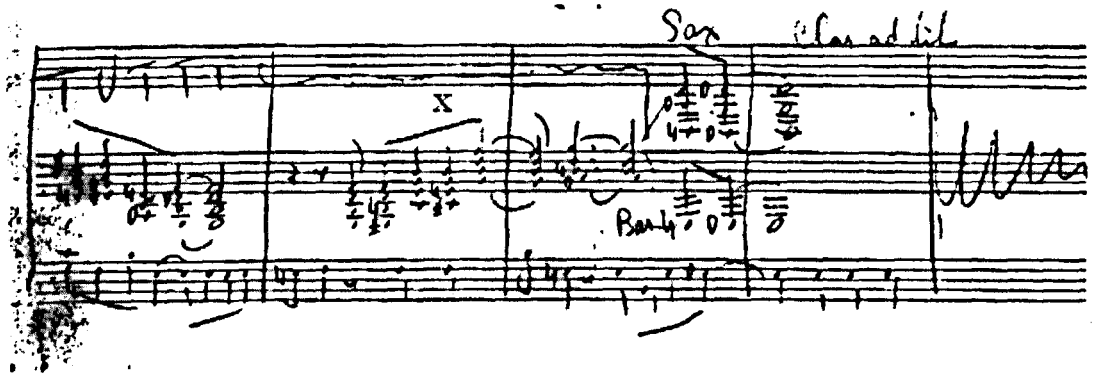
When the melodic line, and underlying 'dominant–tonic' harmony is combined with a pianist's ergonomic shapes, (x=Dm^7 y=Adim z=C), the following anomalous harmonies could be produced.

Figure 60: Melodic fragment with piano accompaniment



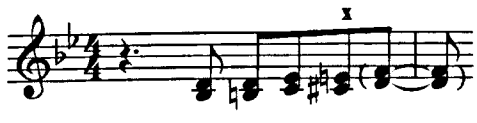
The conflict between major seventh and minor or flattened seventh at y is acceptable within a jazz framework as each of the parts is strong, and moves in a clear and convincing manner. The harmony is developed through linear consideration, with little concern for vertical harmonic construction. An example of this is identified, x, in Ellington's writing for saxophones in *Rocks In My Bed.*

Figure 61: *Rocks In My Bed*, mm. B2–5



The $C^{\sharp}dim$ chord, at x is formed when the lower notes in the Cm^{7}voicing are planed upwards by a semitone. This chromatic movement is identified in Figure 62.

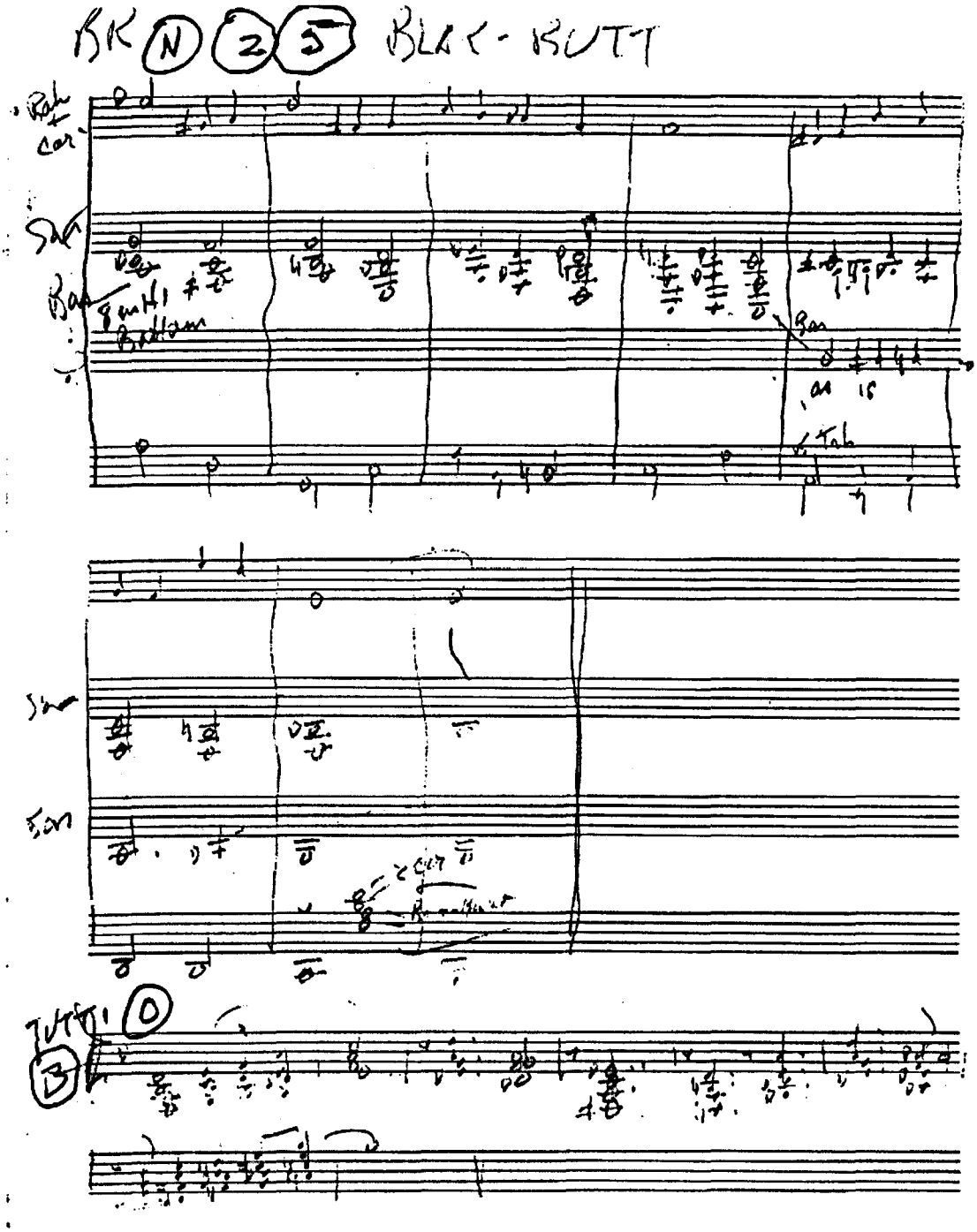
Figure 62: *Rocks In My Bed*, m. B3; chromatic movement in saxophone harmonisation



Ellington occasionally combined the fourth and the major third in voicings. Examples of this can be found in his writing for orchestra and his piano playing. When this appears in Ellington's music, it is usually with an accompanying pedal.

Figure 63 is a reproduction of a page from an autograph score found in the Smithsonian Institution's Ellington Collection. It shows the bridge section of Ellington's 1936 composition *Black Butterfly*. This score is more recent, however, and was probably written in 1969.

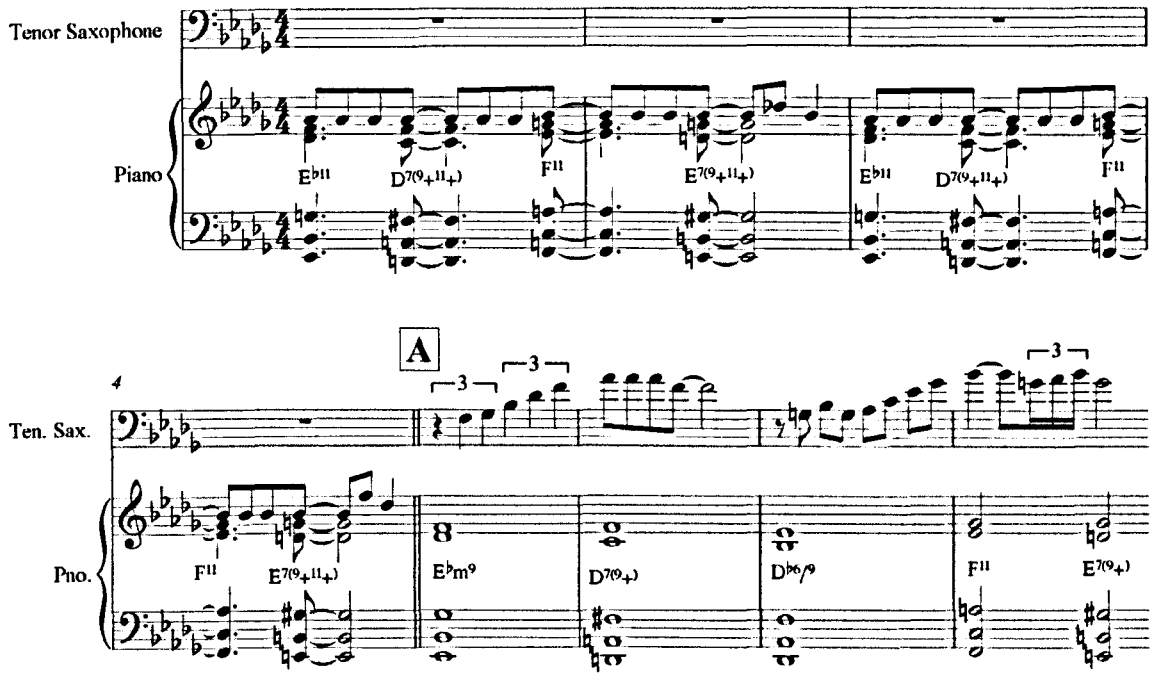
Figure 63: *Black Butterfly*



In the final two measures of Figure 63, the melody note, E, – on the staff marked 'Rab + Cors' (Johnny Hodges's alto ['Rabbit'] and trumpets) – clashes with the dominant-quality

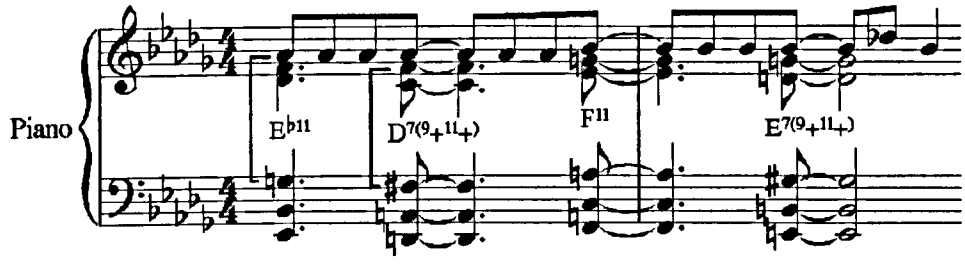
eleventh-chord voicing (Gm^7/C). In the following example (Fig. 64), Ellington includes both third and fourth in his piano introduction. This use of fourth and major third is considered in detail in the following sections.

Figure 64: *Happy Reunion*, 1958



The dissonance created by the interval of a flattened ninth in the $E^\flat$ and F eleventh chords, and the major seventh interval between seventh and thirteenth in the dominant-quality chords that follow, beautifully presage the harmonic and melodic material of the tenor saxophone feature for Paul Gonsalves. These intervals are identified in Figure 65.

Figure 65: *Happy Reunion*, 1958; piano introduction mm. 1–2



Ellingtonian harmonic nuances like these are described by bassist Aaron Bell:

> He liked there to be a clash in the harmonic intervals, certainly. And then, of course, that's an old standard rule in the, even in the traditional harmony to create, before the resolution, you must have dissonance. You know, dissonance which resolves into consonance. Well, Duke did that, but his dissonances were farther, much further out, and when they resolved, they would be resolving into dissonance, from traditional sounds really.[16]

'Pianistic' shapes, i.e. ergonomic voicing shapes favoured by piano players, feature regularly in Ellington's compositions and arrangements. The left-hand piano voicings in the 1928 composition *Black Beauty* – Ellington's 1928 dedication to dancer Florence Mills – are very similar to those found in the 1930 composition *Mood Indigo.*

[16] Interview with Dr Aaron Bell for Ken Burns's film *Jazz*, 25 October 1999.

Figure 66: *Black Beauty*

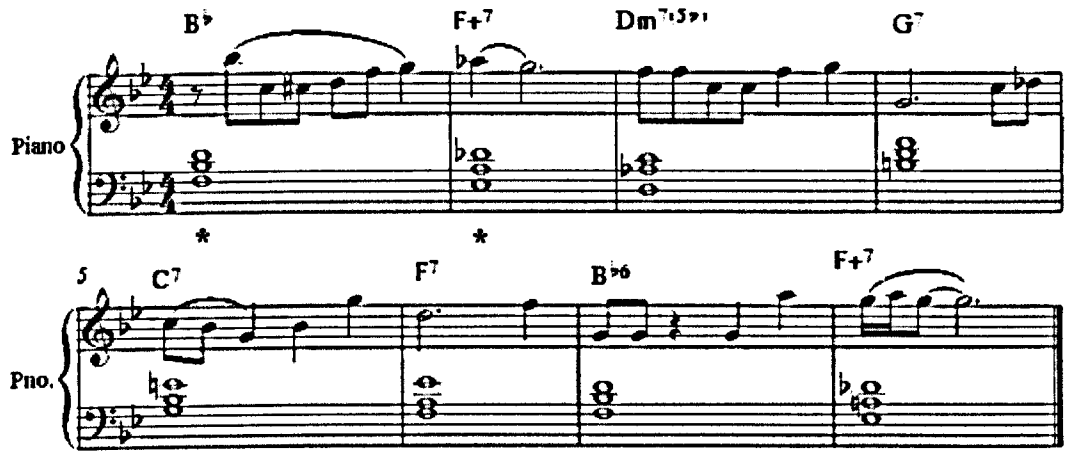
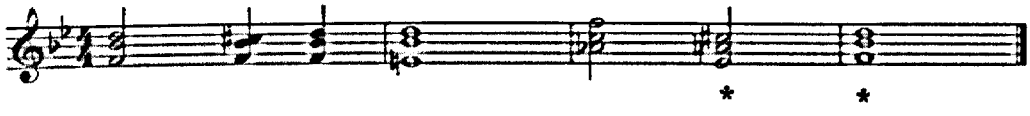


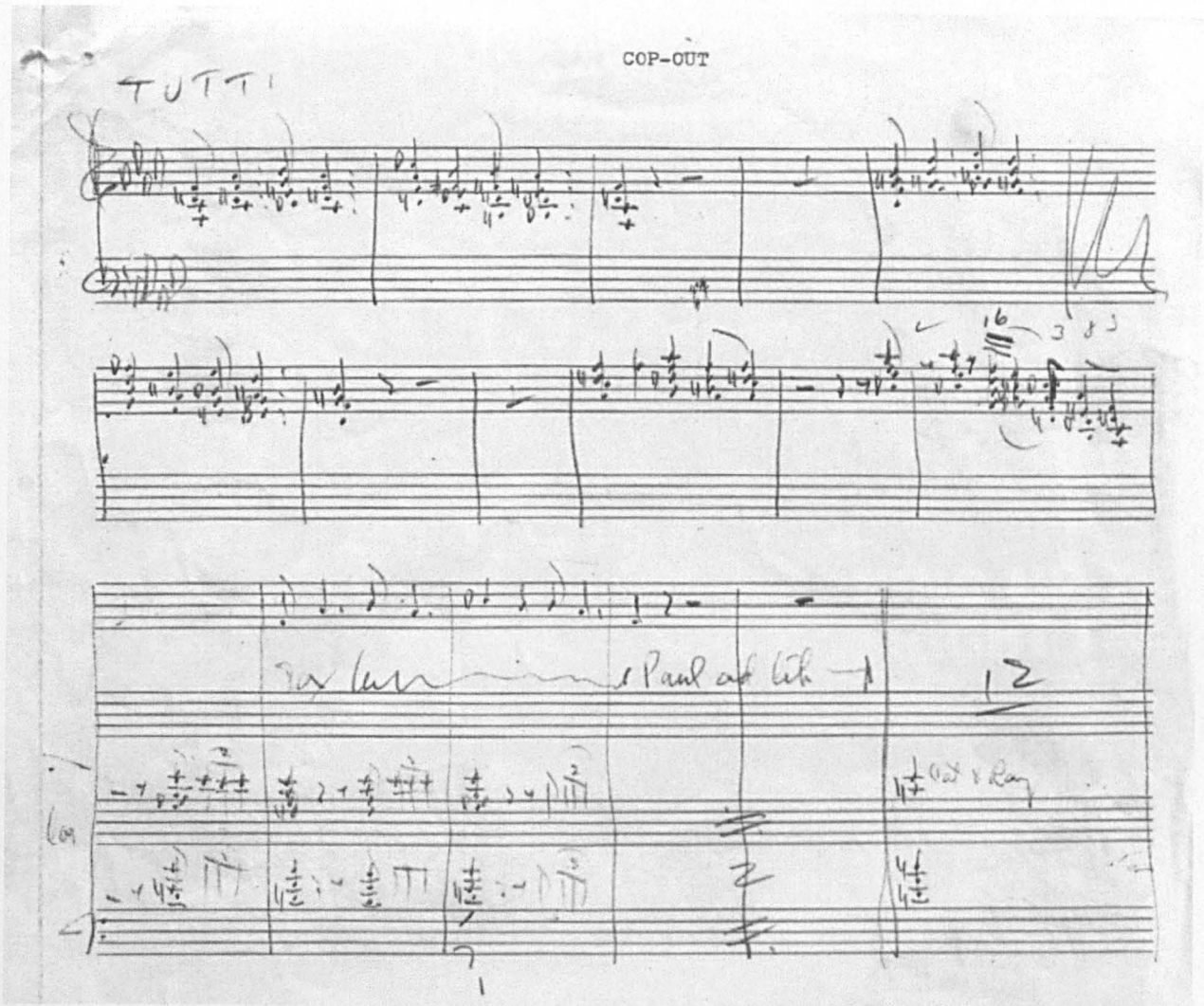
Figure 67: *Mood Indigo*



There are examples in Ellington's scores that suggest the use of 'pianistic' ergonomic shapes, and sequences of these shapes, possibly replacing traditional arranging and orchestrating techniques found in other compositions such as *Daybreak Express* and *In A Mizz*, for example.

A brief study of the autograph score for *Cop Out* (Fig. 68) demonstrates how difficult it is to establish which technique was used to harmonise the ensemble passage. An examination of the inner parts reveals strong descending chromatic lines that could be the result of planing or tonicisation.

Figure 68: *Cop Out*, 1957

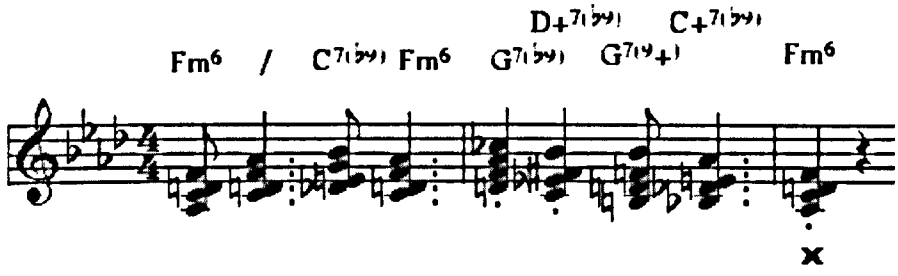


When the *Cop Out* theme is first stated, by Paul Gonsalves's tenor sax, the following harmonic structure is used.

I	/ / /	II	/	V	/	I	/ / /	I	/ / /
(Fm^{6}	/ / /	G+$^{7(9+)}$	/	C+$^{7(9\flat)}$	/	Fm^{6}	/ / /	Fm^{6}	/ / /)

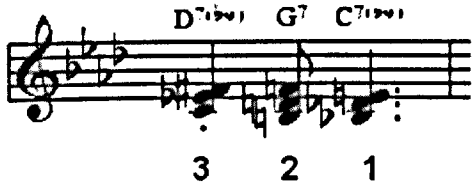
When the ensemble restates the theme, it is with the harmonic refinements shown in Figure 69.

Figure 69: *Cop Out*, mm. 1–3



These voicings could be the product of the traditional technique of tonicisation, wherein the target chord, **X**, is preceded by a chord built on its dominant – C. This 'dominant' chord is 'tonicised' to act momentarily as a transient tonic towards which a secondary-dominant, or a II– V sequence, may move. It is equally possible that the shapes used in this section of *Cop Out* tutti are generated primarily out of concern for smooth voice movement. This linear process, however, often produces chromatically planed harmonic movements that look exactly the same as chromatically altered tonicisations. An examination of the lower voices in m. 2 of Figure 69 reveals that the target chord **X** is preceded by a chord built on its dominant, C. This chord (1 in Fig. 70) is then approached by chromatic planing.

Figure 70: *Cop Out*, lower voices in final chords of m. 2, Fig. 69

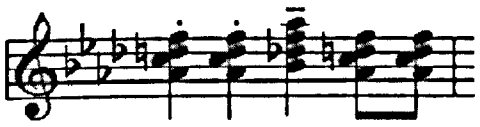


Chord 1 is a diminished shape built on the minor seventh (fifth or third) of the dominant; this shape produces a $C^{7(9\flat)}$ chord quality. Planing this diminished shape back, and upwards by semitones, generates chords 2 and 3. Because of the possible tritone substitution, chord 2 could be $D^{\flat 7(9\flat)}$ wherein the melody would be the thirteenth, or G^7 with a melody note of an augmented ninth. Similarly chord 3 could be $D^{7(9\flat)}$ with an

augmented fifth in the melody, or an $A^{\flat 7}$ chord with a ninth in the melody. The suggestion that tonicisation is the technique that Ellington used is supported by the use of correct enharmonic note spellings in the autograph score. For example, the $F^{\sharp}$ and $E^{\flat}$ in m. 2 correctly identify the major third and flattened ninth of the $D^{7(9\flat)}$ chord.

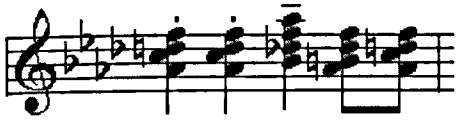
There is some evidence that Ellington's writing was influenced by linear considerations. In m. 9, rather than using the harmonisation shown in Figure 71, Ellington creates movement in two inner parts by introducing tension into the penultimate chord (B natural and D flat).

Figure 71: *Cop Out*, m. 9 without linear amendments



Fm^6 / $B^{\flat}m^7$ Fm^6 /

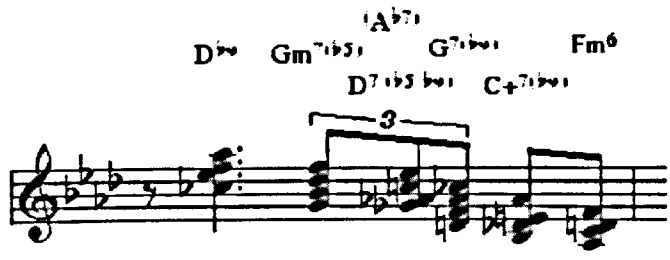
Figure 72: *Cop Out*, m. 9 with linear amendments



Fm^6 / $B^{\flat}m^7$ $D^{\flat 7}Fm^6$

Figure 73 is from Ellington's pencil score (m. 11, Fig. 68). The rhythm has been amended to reflect what was played on the recording (CD track 8). There appear to be various techniques used here. Clearly this is another example of tonicisation; however, it appears that a linear approach was adopted here also.

Figure 73: *Cop Out*, m. 11

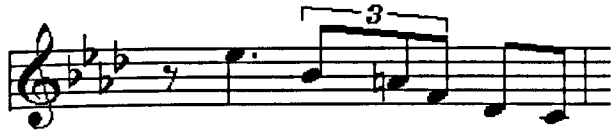


Ellington's harmonisation – $D^{\flat 9}$ $Gm^{7(\flat 5)}$ $D^{7(\flat 5\flat 9)}$ $(A^{\flat 7})$ $G^{7(\flat 9)}$ $C+^{7(\flat 9)}$ Fm^{6} – results in the third part staying within an F minor blues scale: merely planing diminished shapes would have produced the following sequence:

$D^{\flat 9}Gm^{7(5\flat)}\underline{A^{\flat 7(9\flat)}}$

This would have resulted in the rather awkward line shown in Figure 74.

Figure 74: *Cop Out*, m. 11; harmony line created by planing diminished chords



It was through further development of this process of linear composition, and concern for good independent lines,[17] that Ellington and Strayhorn would generate sounds that would influence many jazz composers that followed.

Many writers have commented on Ellington's style and there has been much debate regarding the amount of formal music training that Ellington received. Whitney Balliett suggests,

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[17] Billy Strayhorn asked trombonist John Sanders, 'Did you enjoy your part?' after a recording of *Sophisticated Lady* (interview with Clark Terry by Marcia M. Greenlee, 6 March 1990, 'Tape 2').

> Ellington invented a new music. It was not fully understood during his lifetime, and it is still not properly appreciated. He fashioned it out of what he heard and saw around him. He translated his senses into music, not in a diaphanous Debussy way but in a hands-on way.[18]

Perhaps the people who observed this remarkable creative process most closely were the musicians and, in particular, the copyists[19] that extracted the band parts from Duke's scores. Tom Whaley said:

> The first time I was copying his music, I said, 'Duke, you got an E natural up there against an E flat.' He said, 'That's all right. Put it down.' After you hear it, it sounds great.[20]

Msgr John Sanders (trombone and copyist, 26 April 1954–8, September 1959–63 and 1967) said in an interview for Ken Burns's film *Jazz*:

> He believed in his knowledge of a harmony which he developed. A harmonic language [of] his own. He knew the basics, of course, but he took that and developed it into his own language.

This view is reiterated by another of Ellington's copyists and sidemen Dr Aaron Bell (bass, 26 May 1960–1 January 1963 and 1967), also in an interview on October 25 1999 for Ken Burns's film *Jazz*:

> I know sometimes I used to copy some of his scores for him and I'd say, 'Oh, Duke, you made a mistake. You, you have this C sharp lying up next to a C. Are you...?' And he'd look at me and say, 'Copy it like it is, would you?' So I'd say, 'Okay.' Like you are going to be sorry, but you get in the studio and you hear it and how he looked, my eyes would stretch. And all he would say was, 'Aargh.'

---

[18] Whitney Balliett, in *Daybreak Express* Vol. 2 No 2 (Fall 1996).

[19] In the Smithsonian Collection there are many examples of band parts copied by a cross-section of the band.

[20] Stanley Dance, *The World of Duke Ellington* (New York: Da Capo, 1981), p. 46.

> Duke never studied formally – the rules of harmony and music, I mean – so he devised his own system and this evolved through the years of experience. He came to certain conclusions and that's what he used.

It is clear, however, that Ellington did study music in Washington, DC, as a teenager. Henry Lee Grant – one of Washington's most important black musicians[21] – gave Ellington 'lessons in composition in the late 1910s'.[22] Ellington claimed that he 'jumped at the opportunity' to study harmony with Henry Grant, as Grant taught 'most of the advanced musicians'.[23] According to Grant's daughters, Mrs Alice Spraggings and Mrs June Hackney, Ellington visited twice a week to work on harmony exercises with their father.[24] 'We moved along real quickly, until I was learning the difference between a G-flat and an F-sharp'.[25] Ellington also studied music at Armstrong High School in Washington, DC.[26]

Perhaps a greater appreciation of the copyists' concerns can be gained by considering some of Ellington's more complex voicings, also taken from *Cop Out* (Fig. 75).

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[21] Tucker, *op. cit.*, p. 59.

[22] Maud Cuney-Hare, *Negro Musicians and Their Music* (New York: Da Capo, 1936), p. 208.

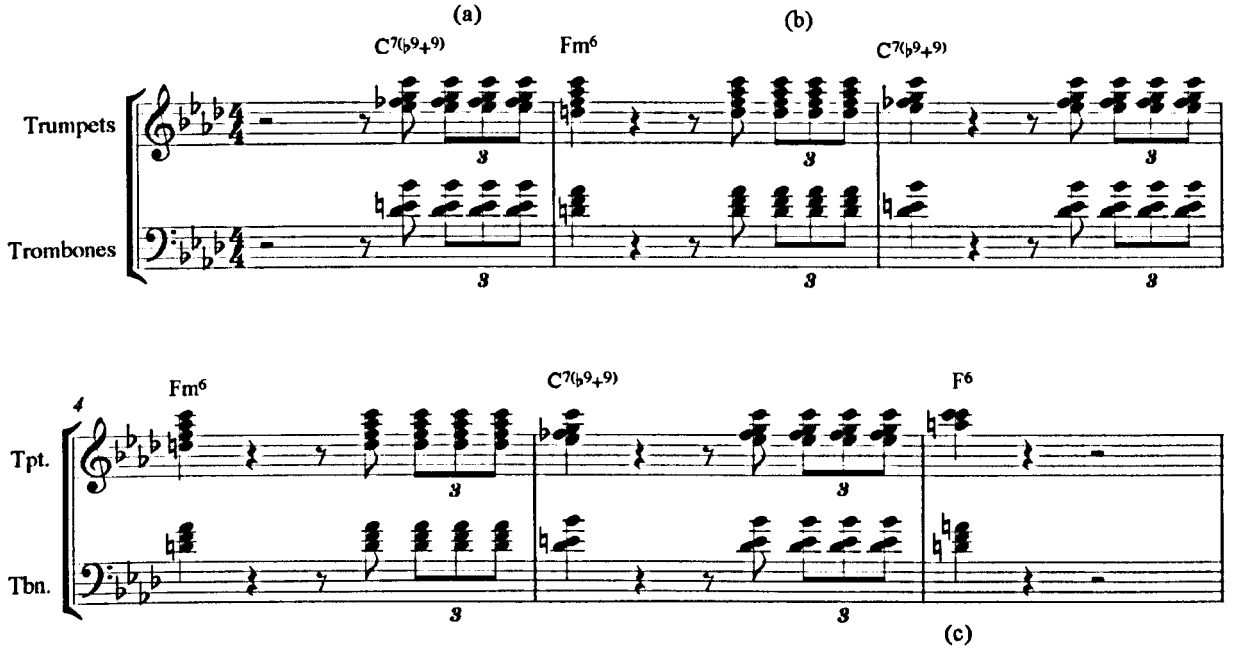
[23] Ellington, *op. cit.*, p. 28.

[24] Tucker, *op. cit.*, p. 61.

[25] Ellington, *op. cit.*, p.33.

[26] Tucker, *op. cit.*, p. 10.

Figure 75: Brass voicings from *Cop Out*, mm. 12–17



The complex chord quality at (a) is achieved by combining the trombones' dominant-quality diminished triad – minor ninth, major third and minor seventh – with the trumpets' combined C minor and C major shapes. At (b), both choirs play diminished chord shapes derived from the tonic F minor sixth chord. The semitone grind between third and fourth trumpets is perfectly acceptable; it is the product of combining the augmented ninth with the major third. The chord at (c), however, appears contradictory: after stating a theme that is very clearly set in a minor key, this section, the soloist's 'launch pad', ends with the brass section playing an F *major* sixth chord. Trombones play a D minor triad generated from the notes of F major sixth, the trumpets an A natural and (doubled) C. While the inclusion of both major and minor triads in the dominant-seventh voicing at (a) might appear contradictory, the 'minor third' is actually the augmented ninth. This process is not reversible, however. A 'minor' triad introduced into a dominant-quality major chord introduces chromatic colour but it is not usually acceptable to introduce a major chord into a tonic minor.

There are many fascinating accounts of Ellington's writing methods; some comment upon the urgency with which he created his music; others upon his spontaneity:

> Duke loved to have a copyist on the road so that he could have work extracted from his scores copied out and placed on the bandstand right away, maybe that night, or the next night and hear it. So when Duke wrote, he wrote very quickly, but very accurately.
>
> Not having it [an available piano] didn't stop him. He's forever thinking of something and wants to hear it right away. That's why having a copyist, an extractor, on the road, he didn't have to wait 'til he got back to New York to call Tom Whaley.[27]
>
> While they were going from one town to the other, he had this idea and he asked Johnny, 'Have you any munch whip [manuscript]?' and Johnny said, 'No.' So he just took his cuff and wrote something on it so he wouldn't forget it, I guess. When he got to the town he transferred it. But he, he always wanted to put it down.[28]

One of the most remarkable aspects of Ellington's scores is how concisely they are set out. Complete orchestrations often occupy a single sheet of ten- or 12-stave manuscript paper. Trombonist John Sanders described Ellington's scores in the interview for the film *Jazz*:

> Duke had a way of putting everything on a score in a very concise way. Orchestrators usually like a long score sheet where they start from the top, from the flute, woodwinds, brass, right down to the string section, percussion. And each instrument, it's on a line which the copyist could just copy, right. With Duke, you get a score which is all together, the musical material, the harmony, the rhythm and the voicing which is so important. The voicing. Who's on top. Who's on bottom. Who's playing the lead. And how to voice the other parts. So Duke had it all there.
>
> He would write on various staves. The saxophones on one stave or maybe two. The baritone sax and the other four on another stave. The trombones on a stave. The trumpets. So when you got the score from Duke, it was ready to be extracted, to be copied.

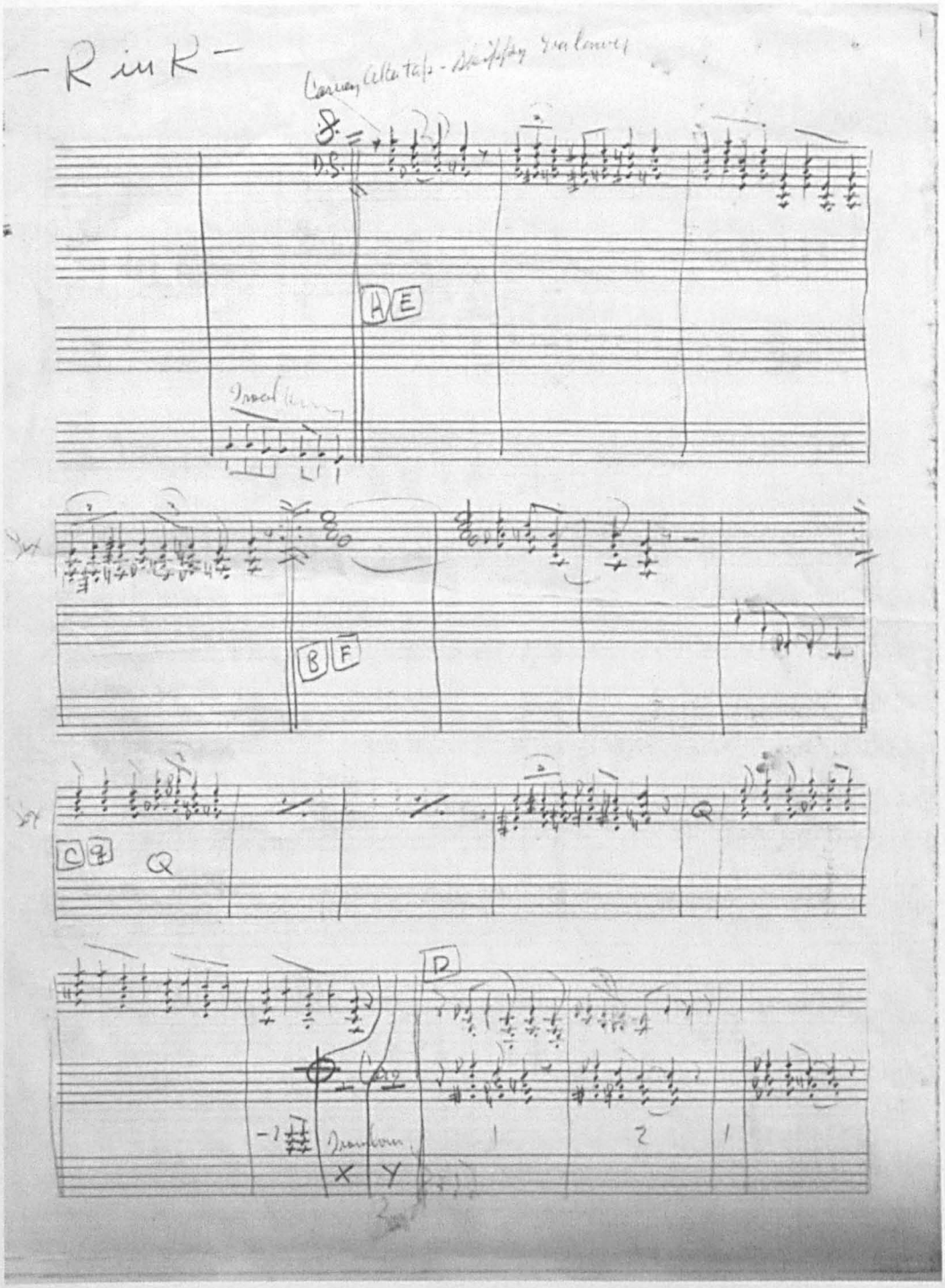
---

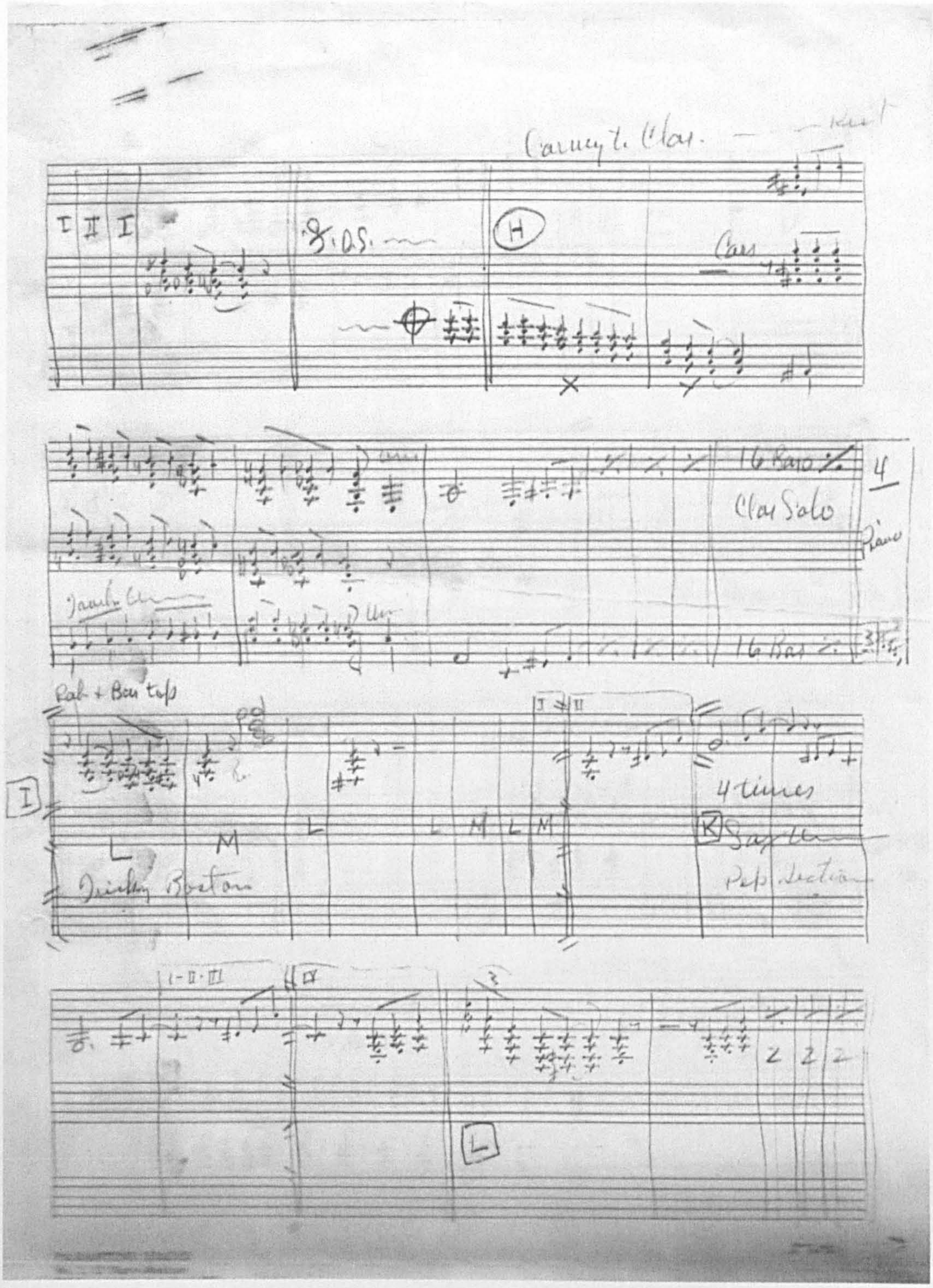
[27] Interview with Msgr John Sanders for Ken Burns's film *Jazz*.

[28] Interview with Dr Aaron Bell for Ken Burns's film *Jazz*, 25 October 1999.

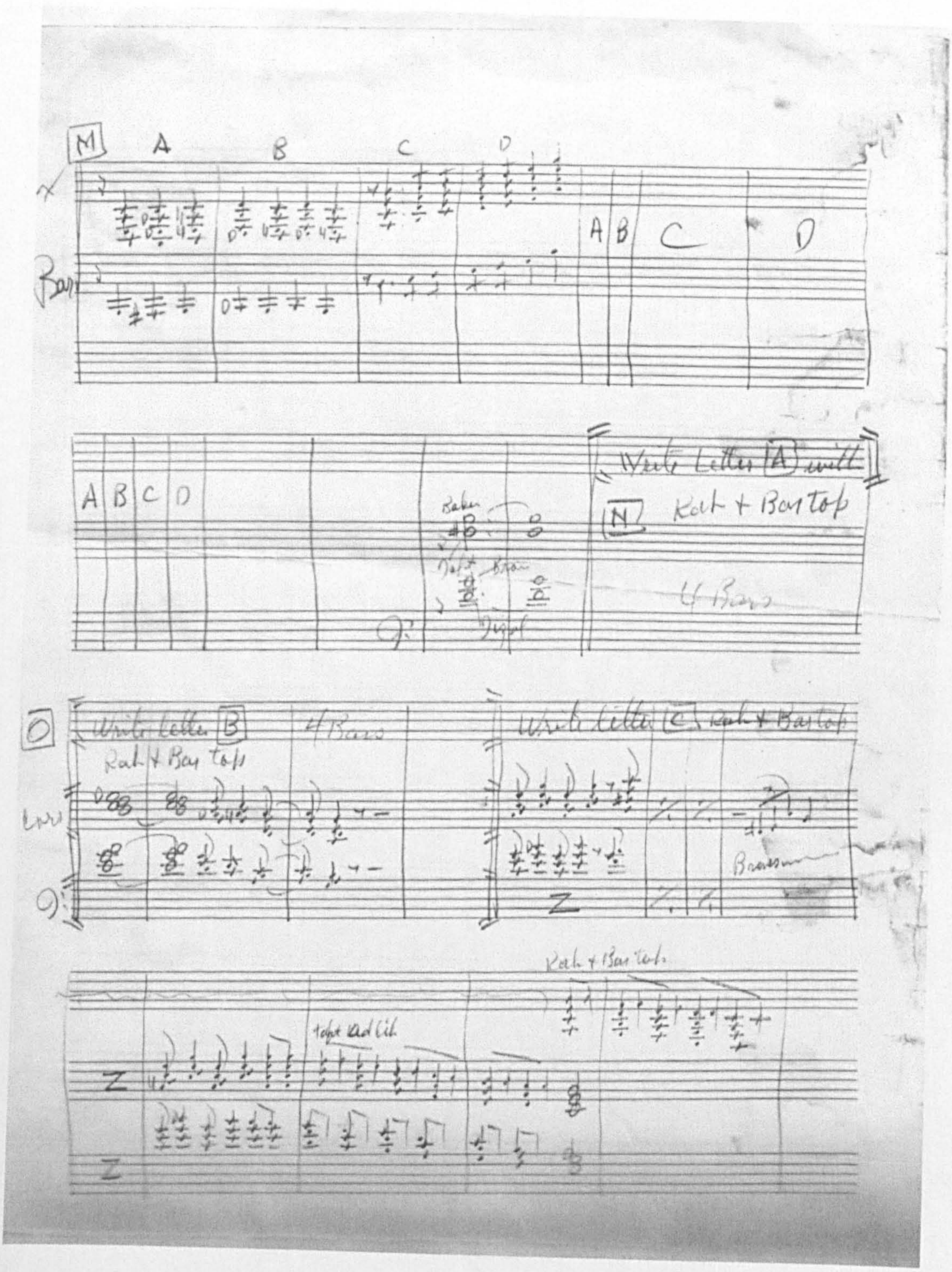
This can clearly be seen in Ellington's autograph pencil score of *Dusk* in the previous chapter and in Figure 76. The autograph pencil score of *Rockin' In Rhythm,* reproduced as Figure 76, is from the Smithsonian Institution Ellington Collection. Although the piece was first recorded in January 1931, this score was created between May 1943 and February 1944. The instruction to the copyist at the top of the first page of the score, 'Carney Alto top – Skippy 8va Carney', indicates that this score was prepared during the period that Ben Webster's replacement Elmer 'Skippy' Williams was in the band: August 1943–May 1944. In addition to this, on the third page of the score the individual notes of the dominant-quality chord voicing before letter N are ascribed to four named musicians: Baker, Taft, Brown and Tizol (see also 'Taft ad lib' below on same page). Harold 'Shorty' Baker played with Ellington 1942–4, 1946–51, 1957–9 and 1961–3. Taft Jordan replaced Rex Stewart in May 1943 and stayed until 1947, Lawrence Brown played with the band from 1932–51 and 1960–9 and Juan Tizol stayed from 1932 until February 1944, also 1951–3 and 1960. The score must therefore have been prepared no earlier than August 1943 when Williams joined, and no later than February 1944 when Tizol left.

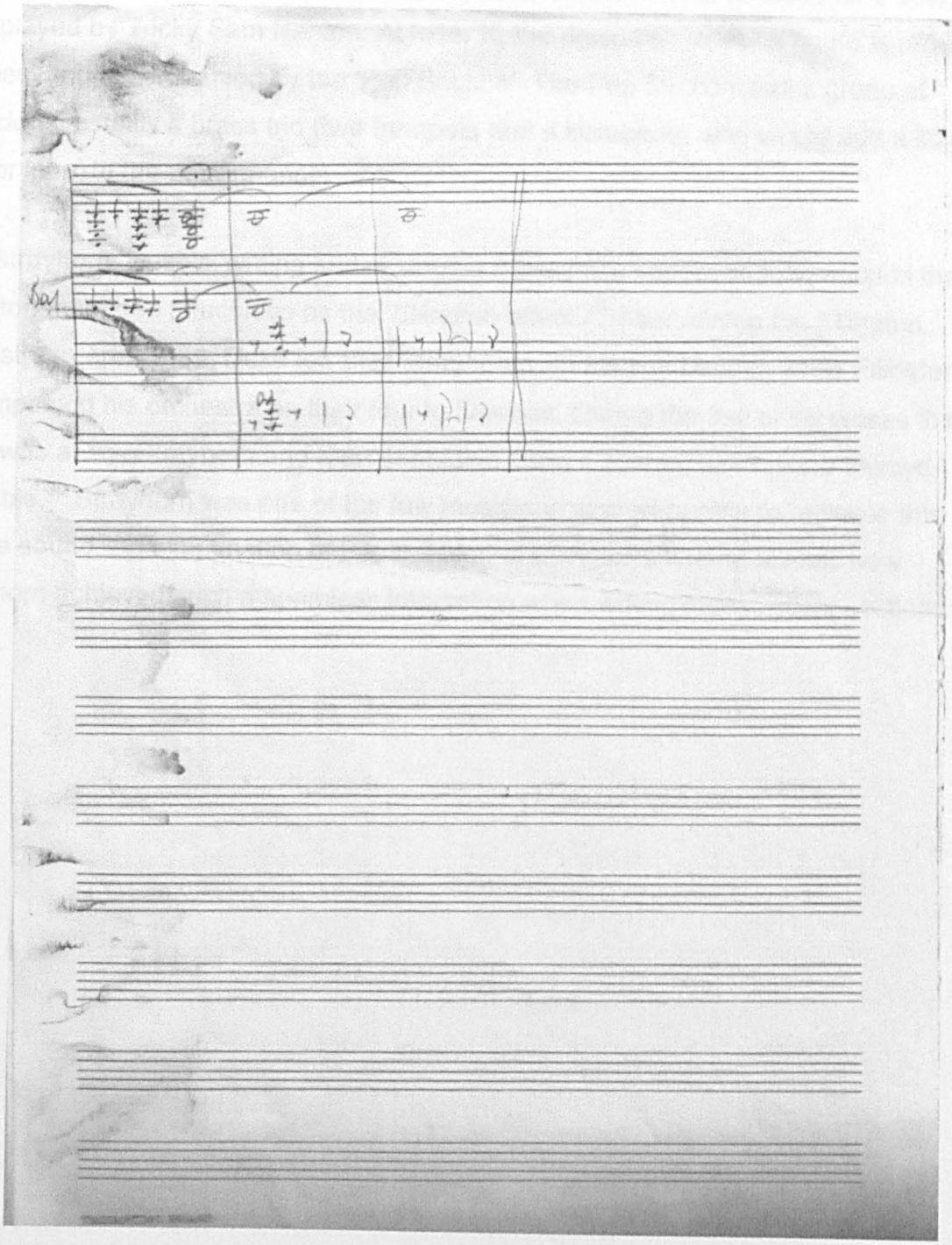
Figure 76: *Rockin' In Rhythm*





D.S.
H
Clar Solo
16 Bars
4 times
K
L


M
A
B
C
D
Write Letter A with
N Rab + Bar top
4 Bars
O
Write letter B
Rab + Bar top
4 Bars
Write letter C Rab + Bar top
Brass
Rab + Bar top



The use of a separate staff for Harry Carney's baritone saxophone line is a peculiarity of Ellington's scoring, and identifies one of the distinguishing, linear-writing techniques that enabled Ellington to produce such distinctive sounds. There are a number of other interesting features on the score. At letter I, the lowest stave (trombone) is marked

'Tricky Boston'. This indicates that this section is a 'Boston' (1920s slang for a solo), here played by Tricky Sam Nanton. At letter K, the unison saxophone figure is repeated '4 times' and accompanied by the 'Pep Section'. The Pep Section was a group of musicians, usually a brass trio (two trumpets and a trombone) who would add a little zest or 'pep' to the performance.

Billy Strayhorn, Duke's 'writing and arranging companion', described the sounds that Ellington managed to achieve as the 'Ellington effect'.[29] After joining the Ellington orchestra in April 1939, Duke left Billy Strayhorn with his son Mercer, while Ellington accompanied his orchestra on their tour to Sweden. During the five or six weeks that the band was away, Strayhorn and Mercer studied Duke's scores, which were always available.[30] Strayhorn was one of the few musicians who were able to recreate this unique sound. An examination of this imitation of Ellington's writing reveals how Strayhorn achieved such a seamless interaction when writing independent sections of works.

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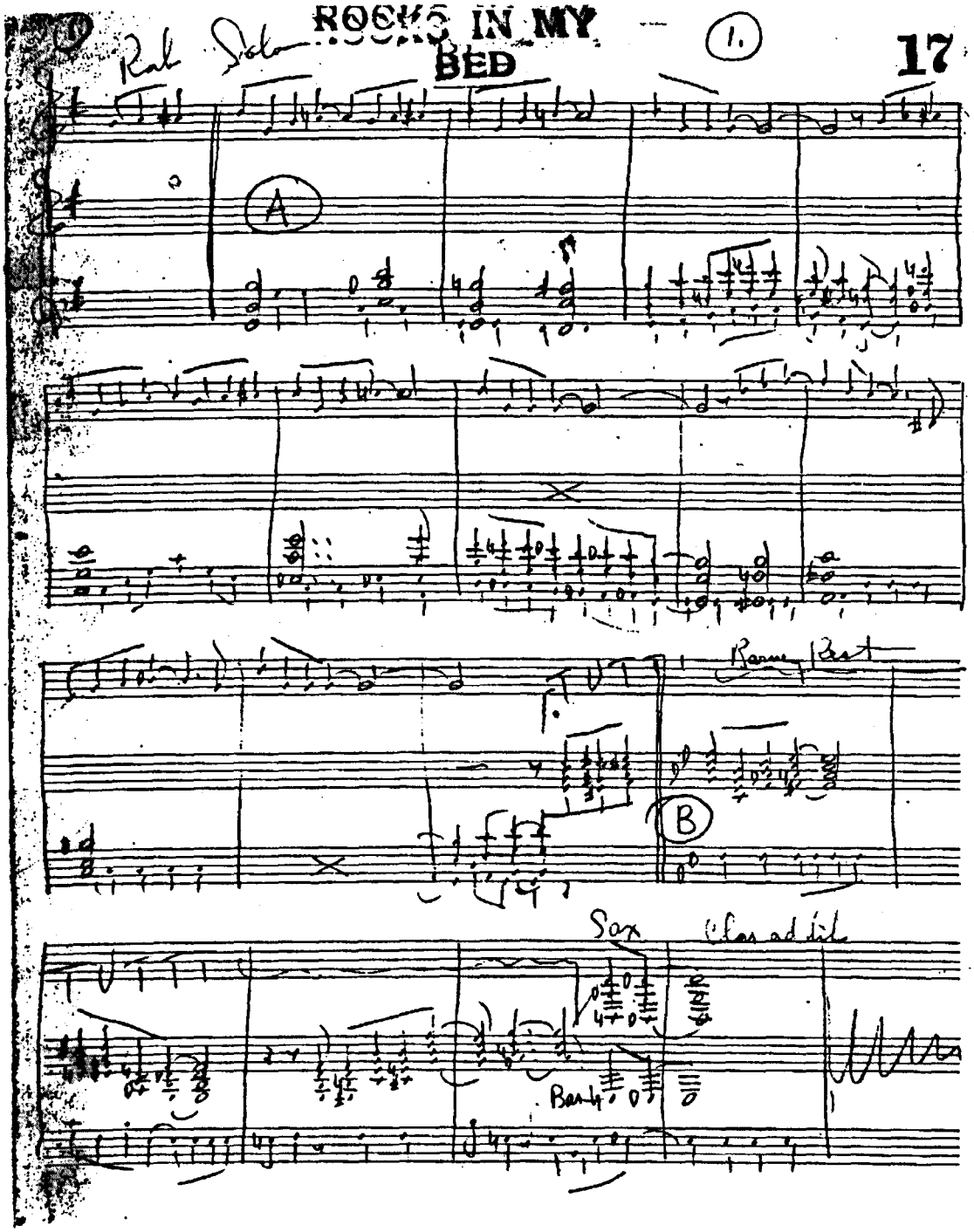
[29] See Introduction, footnote 28, p. 34.

[30] Dance, *op. cit.*, p. 32. Interview with Mercer Ellington ('He told me, "Anytime you want to, look at the scores."').

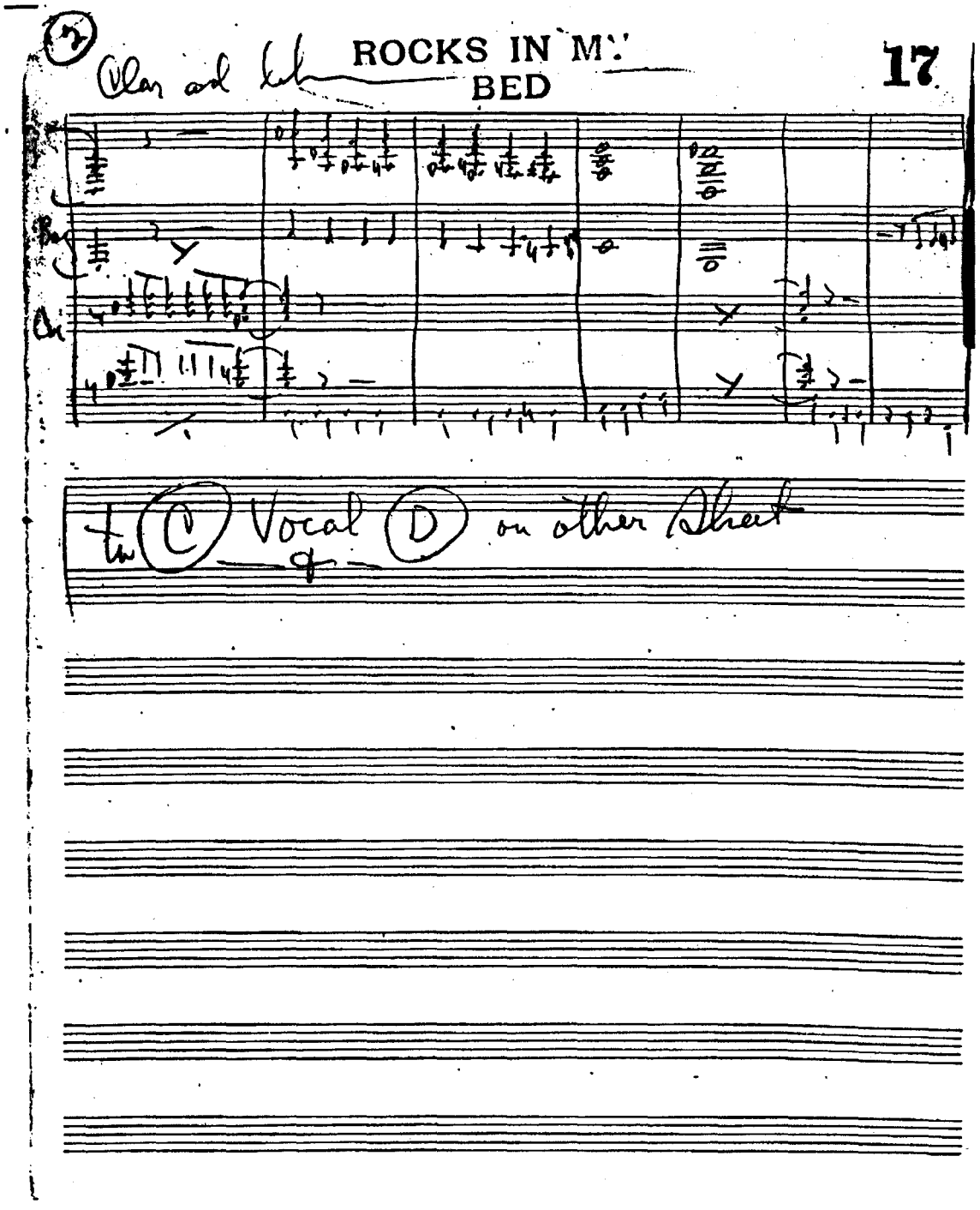
Rocks In My Bed

Figure 77: *Rocks In My Bed*

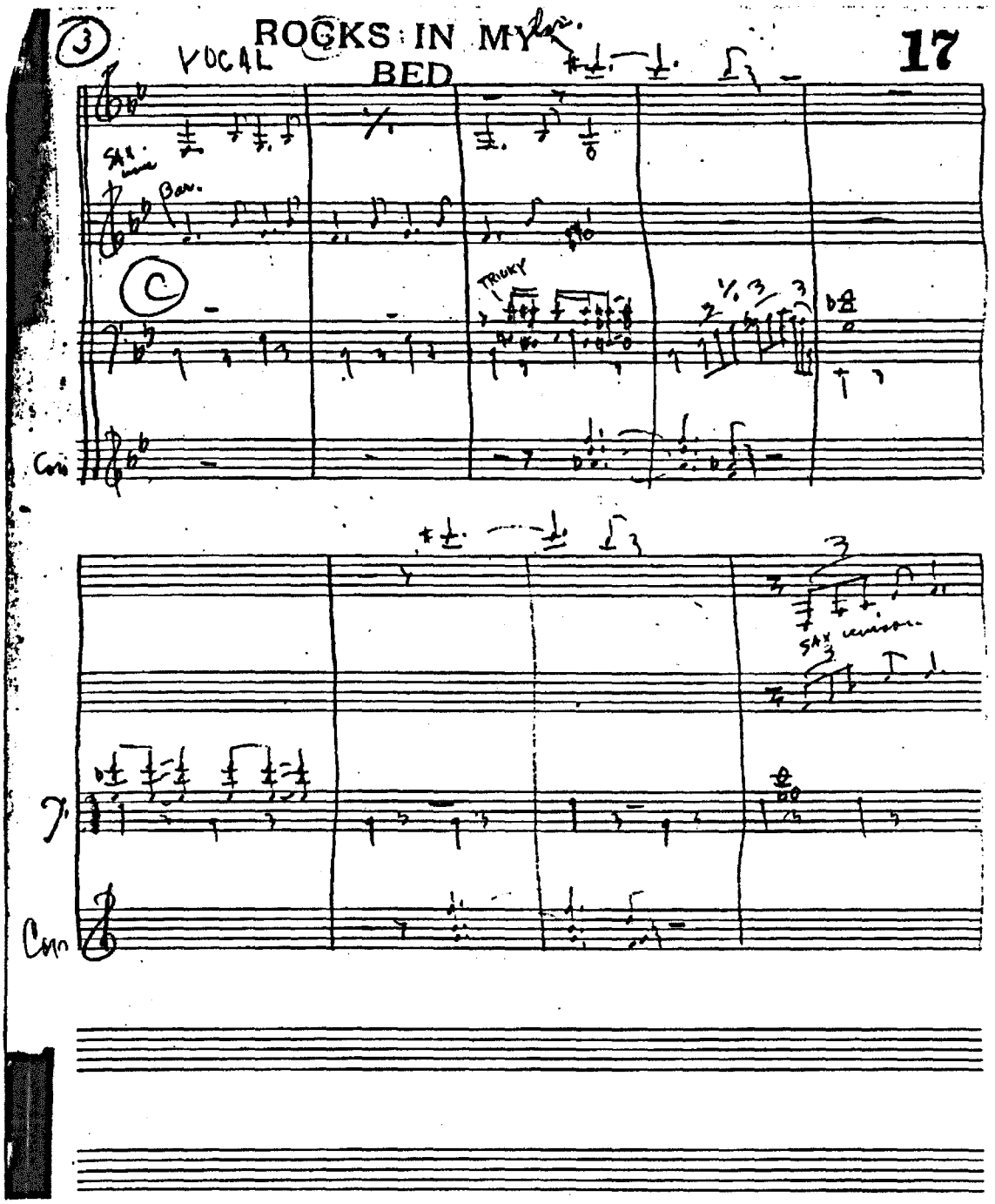
Recorded 29 September 1941, Hollywood; Ivie Anderson, vocal. Page 1: Ellington



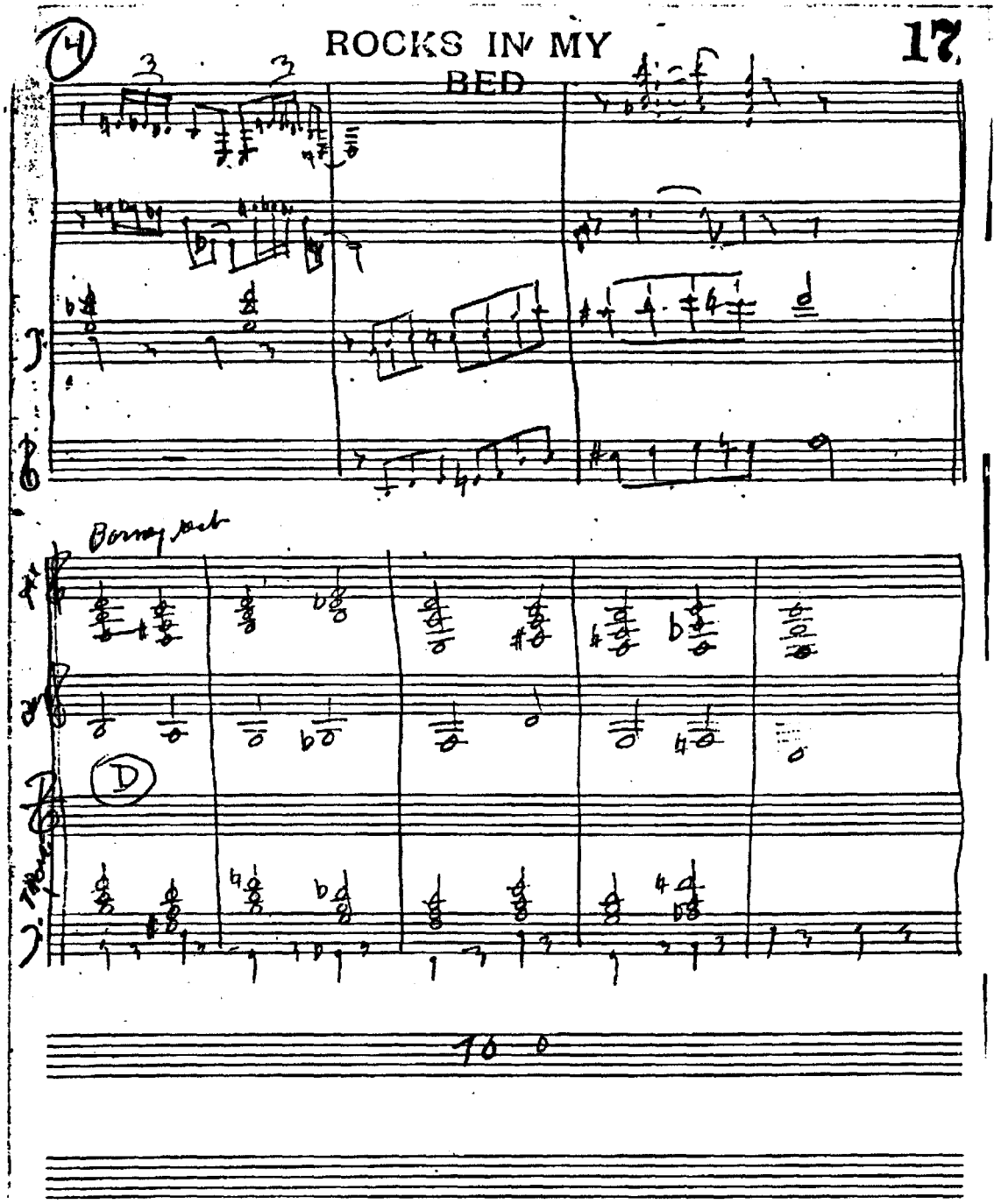
Page 2: Ellington



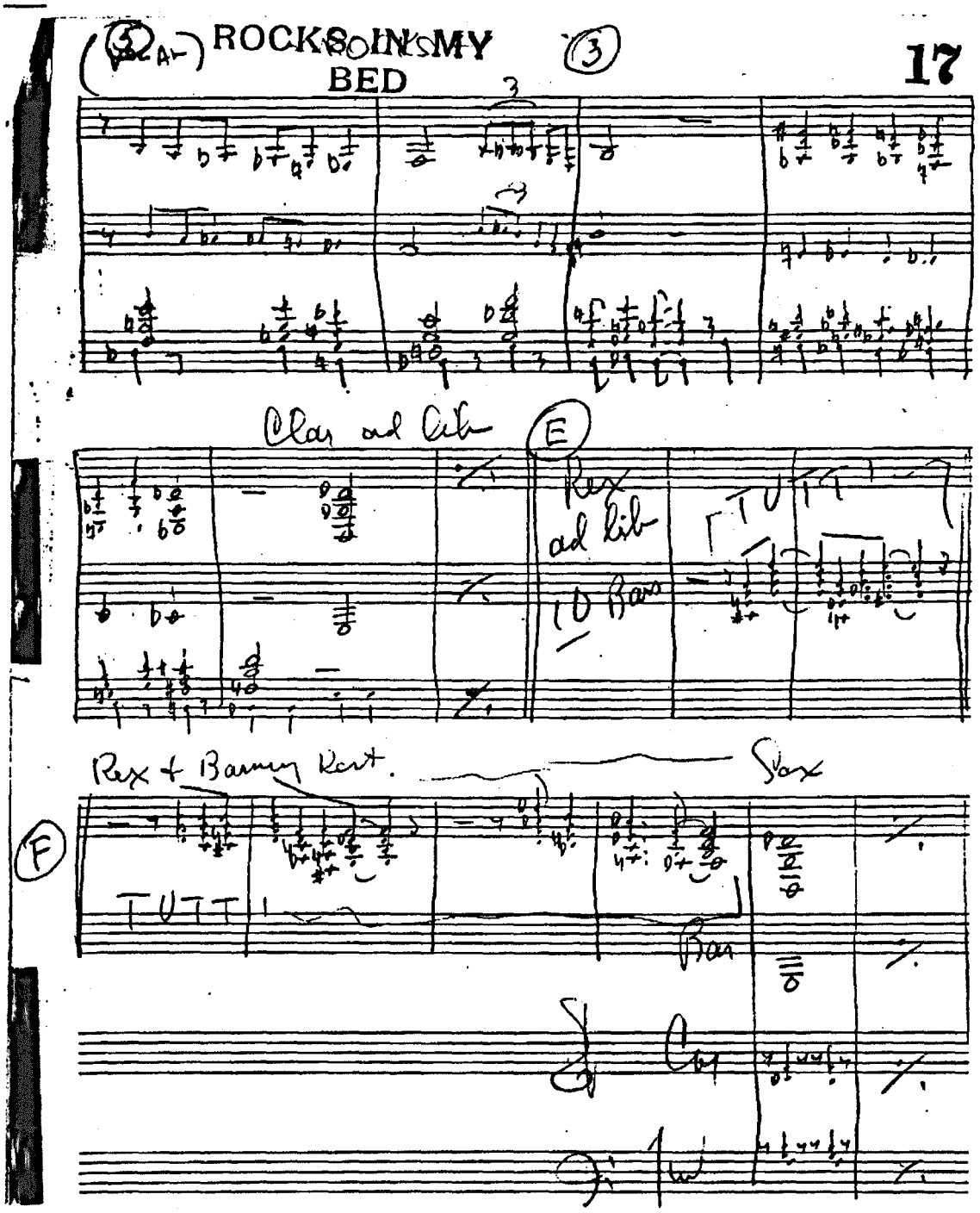
Page 3: Strayhorn



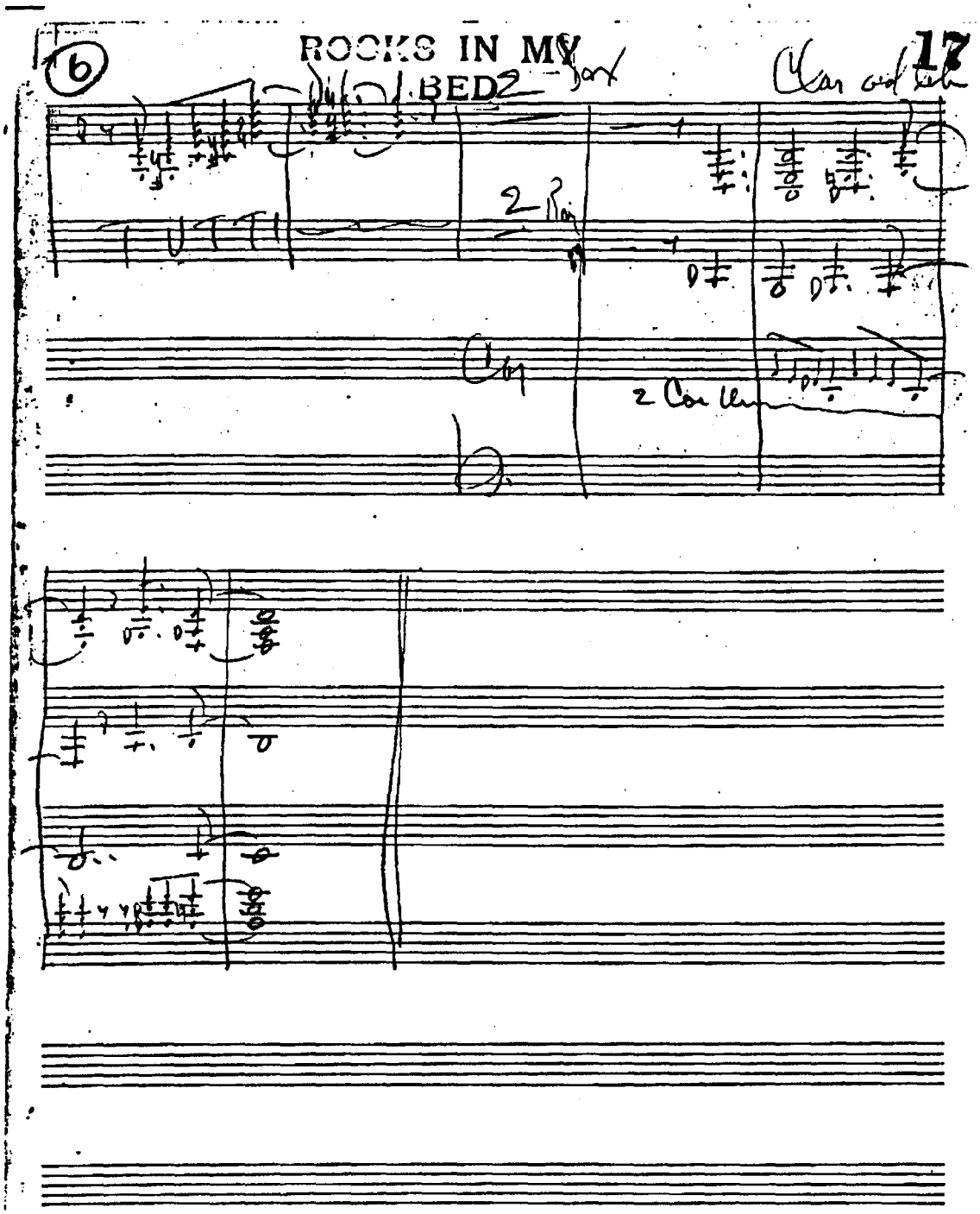
Page 4: Strayhorn



Page 5: Strayhorn and Ellington (from m. D11)



Page 6: Ellington



Rocks In My Bed is an Ellington composition based on the 12-bar blues structure, with words by Don George (lyricist ,1943–74: *I'm Beginning To See the Light, Everything But*

You, I Ain't Got Nothin' But The Blues, etc.). After the enormous commercial success of the band's recording of Billy Strayhorn's vocal arrangement of *Flamingo* for Herb Jeffries (28 December 1940, Chicago), Ellington wrote very few vocal arrangements for the band.[31] It is interesting to note that both composers set out their scores in a surprisingly similar style, with four saxophones on one stave and the baritone line on another. As seen previously in *Dusk*, the baritone line always appears an octave above where it sounds.[32] Both composers use very simple triadic voicings. This is especially noticeable in Ellington's and Strayhorn's writing for the trombone section. This use of plurality, i.e. using simple shapes to describe both basic and very complex chord structures, is fundamental to the sound that both composers produced.

Close examination of the autograph score reveals that the first voicing in m. A4 was originally an open 1-5-3, B minor triad, which was followed by what appears to be a 3-1-5 voicing of an F major triad. This voicing was achieved by planing the lower voices down by a semitone, while the lead moved by a whole tone, from the final chord of m. A3.

This chord, and the voicing that follows, were both erased and replaced with a more traditional, cadential – Ib - V^7 - I^7. The final chord of A4 is an upper-chromatic dominant-quality chord, which planes down by a semitone to the subdominant in m. A5. In m. A6 the C chord becomes minor. The trombones plane this shape down by a semitone, while the bass moves by fifth from A to D to create an inverted tonic voicing in m. A7.

---

[31] Interview with Duke Ellington by Carter Harman, 21 July 1964, Atlantic City, New Jersey, Smithsonian Institution, Oral History Project, NMAH Archive Center, Washington, DC. '[Strayhorn's] first sensation was a new arrangement of *Flamingo*, a great vocal arrangement, adding new life and flavour to vocal arranging.'

[32] Walter van de Leur, 'Duke Ellington and Billy Strayhorn: Their Collaboration for the "Blanton–Webster Band"' (unpublished master's thesis, Dept of Musicology, University of Amsterdam, 1993). 'Of the roughly three thousand surviving autograph scores pertaining to the thirty year period during which the two composers collaborated, only fifty two carry the handwriting of both.'

Outer voices once again form the consonant interval of a tenth. These outer voices plane chromatically from the last note of A6 to the target chord, the plural E minor triad voicing of G^6, an anticipation of A8. Rather than simply planing parallel minor triads, a linear approach is used to complete this section. The second trombone, Sam Nanton, is given a strong independent line to avoid unattractive clashes with the repeated G in the melody. The resultant trombone voicings are still mostly triadic shapes, but harmonic colour is introduced as a result of linear consideration.

Despite the addition of four saxophones, it is worth comparing Strayhorn's 25 trombone voicings at letter D, with Ellington's 30 voicings at letter A. There are obvious differences in the writing styles: Strayhorn's triads are mainly in close position, either 1-3-5, or simple inversions, but both writers use plural triads. In D2, a $B^{\flat}$ triad is used to express a Gm^7 chord, and in D4 an inverted F minor triad is used to express a $B^{\flat 9}$ harmony. Of the voicings Strayhorn uses, only four are not tertian triads; there are three dominant-quality, 3-7-9 voicings (in D6 and D7), and a 3-6-9 quartal triad in D7.

In total, 77% of Ellington's voicings are tertian triads, and 88% of Strayhorn's voicings are tertian triads. Both composers build 'dominant' structures using diminished shapes built on chord notes, e.g. Ellington A4, A9, A12, Strayhorn D2, D3, D9, and both use plural chords and the technique of plurality. As a result of his understanding of Ellington's style, Strayhorn was able to interact and collaborate seamlessly with Ellington. It is important to remember, however, that, while Strayhorn was able to imitate Ellington's style, both composers had distinctive musical styles: Billy Strayhorn created some of the richest and most complex sounds produced by the orchestra.

Ellington's arranging is often compared to the mixing of tonal colours; Ellington himself included terms such as 'pastel sax' (see Fig. 51 in Chapter 1: *Tonight I Shall Sleep With A Smile On My Face*). A selection of these comparisons is included below.

In an interview for Ken Burns's film *Jazz*, trombonist John Sanders said:

> He knew the orchestra so well, the colours of each instrument. But not just his instrument. To Duke, a trumpet was not just a trumpet, it was an individual. It was Hal Baker, a Ray Nance, a Clark Terry, a Cat Anderson. All different sounds, Willy [*recte.* Willie] Cooke. A saxophone was not just an instrument, but it was a person. One taste is Harry Carney playing the baritone sax. Johnny Hodges on the alto. Though he was working with colours, with a colour, the orchestration and the harmony. He had the ability to put all this together in a composition.[33]

In another interview for the film *Jazz*, bassist Dr Aaron Bell[34] said:

> Duke believed in the colour of chords. Different things. He studied art at one time. That probably came into play when he, Duke, evolved his devices, harmonic system.

Mercer Ellington said, in an interview with Stanley Dance, that Ellington never left colour when he switched from painting to music:[35]

> The same tone represented a different colour or shading when played by Tricky Sam, Lawrence Brown or Tizol. The ability to get an ensemble sound that still gelled from three such diverse personalities was remarkable.

Dance himself wrote:

> Duke has been called the supreme colourist of jazz and his choice of musicians always shows him to be discerningly sensitive to the variety of his palette.

Barry Ulanov wrote in his book *Duke Ellington* in 1946:

> Harmonizing a simple melody was always an experiment in color with Duke; it was always important to him to create a sound that 'rang', as he put it, either because it was mellifluous, exquisitely concordant, or because it was bizarre, challengingly discordant.[36]

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[33] Interview with Msgr John Sanders for *Jazz*.

[34] 25 October 1999.

[35] Dance, *op. cit.*, p. 36.

[36] Barry Ulanov, *Duke Ellington* (New York: Da Capo, 1946), p. 9.

When Charles Melville interviewed Duke Ellington for the magazine *Jazz Journal* in the 1950s, Ellington said:

> Jimmy Hamilton, who plays clarinet, is taken out of the sax section and Clark Terry is put in instead, and it's an interesting colour ... Like you have three trombones – normally you'd have Britt Woodman on top, but in different sections you'd switch it around and have Quentin Jackson on top. And then John Sanders, who's a valve trombone – each one goes on top, then the other two try to match that particular timbre. It's practically equivalent to having three sections. I think it helps us to get a much broader sound, a broader scope of sound.

David Schiff suggested that:

> Ellington's precise command of individual colors within his orchestra recalls Rimski-Korsakov's [*sic*] principle that an orchestrator should assign melodies only to instruments uniquely equipped in register and tone color to play them – a principle perfected by Ravel and Stravinsky. Ellington applied this idea not just to instruments but to specific performers: in his scores he assigned lines by name of player rather than of instrument.[37]

The music in Figure 78, from *Reminiscing In Tempo*, suggests that Ellington was perhaps more concerned with linear development and tonal colouring, rather than the inclusion of sevenths and thirds, and which octave a particular chord note appeared in. This is supported by indications to the copyist as to which note, or colour, to give to 'Ten' [tenor saxophone] in mm. 52–3 and to Harry Carney's 'Bar' [baritone saxophone] in mm. 61–2. In m. 67 the tenor saxophone of (Al) Sears plays lead while Harry Carney's baritone plays the second part. The trombone and solo backgrounds in this section of *Reminiscing In Tempo* provides a fascinating example of this blending of colour tones.

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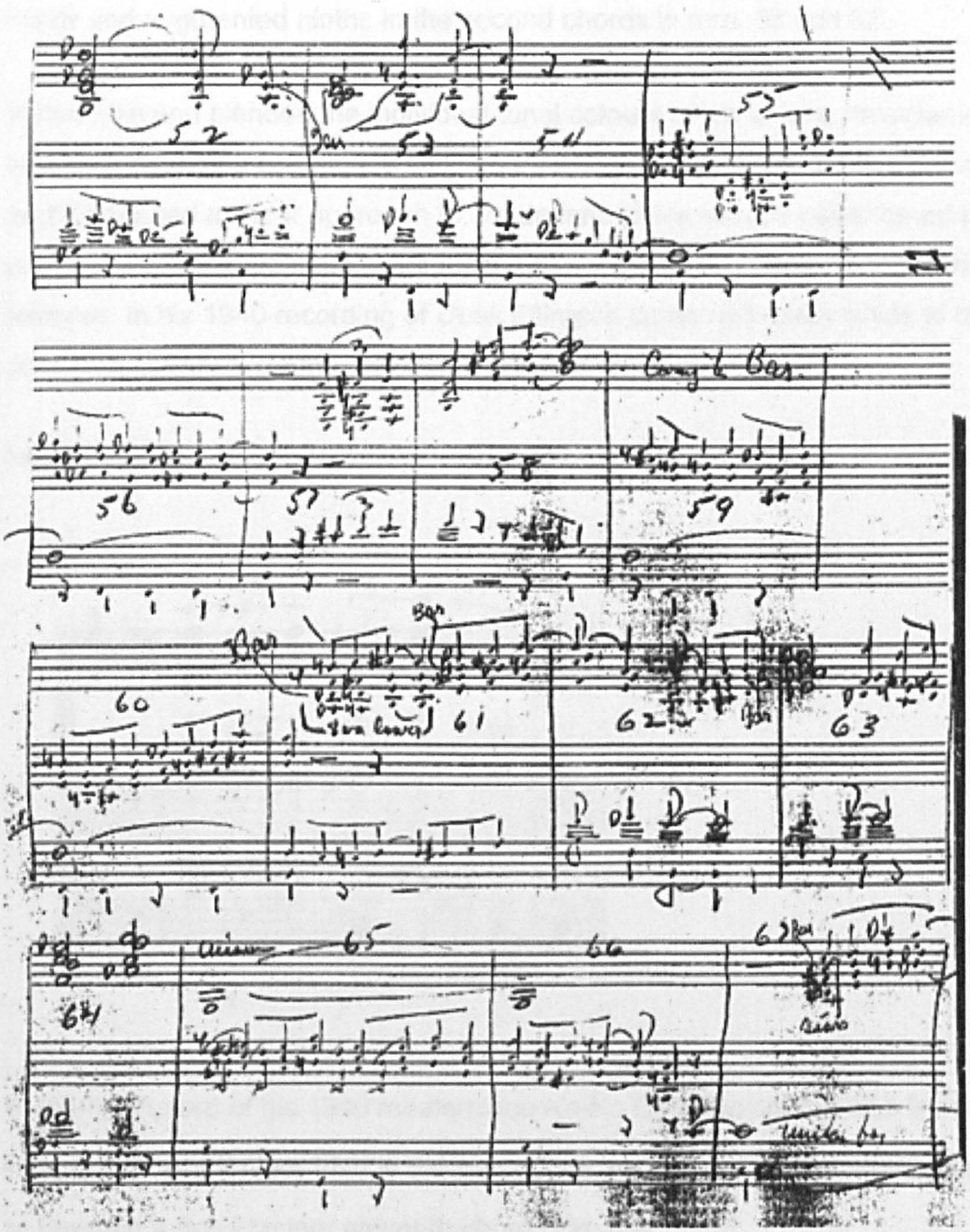
[37] David Schiff, 'Built Pieces', *The Atlantic Monthly* Vol. 275 No. 1 (January 1995).

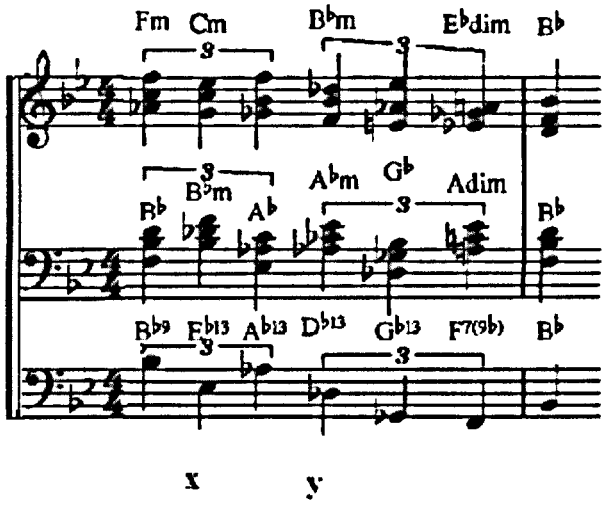
Figure 78: *Reminiscing In Tempo* (key B♭)



The linear approach to the writing in this piece also produce voicings that include both major and augmented ninths in the second chords in mm. 53 and 62.

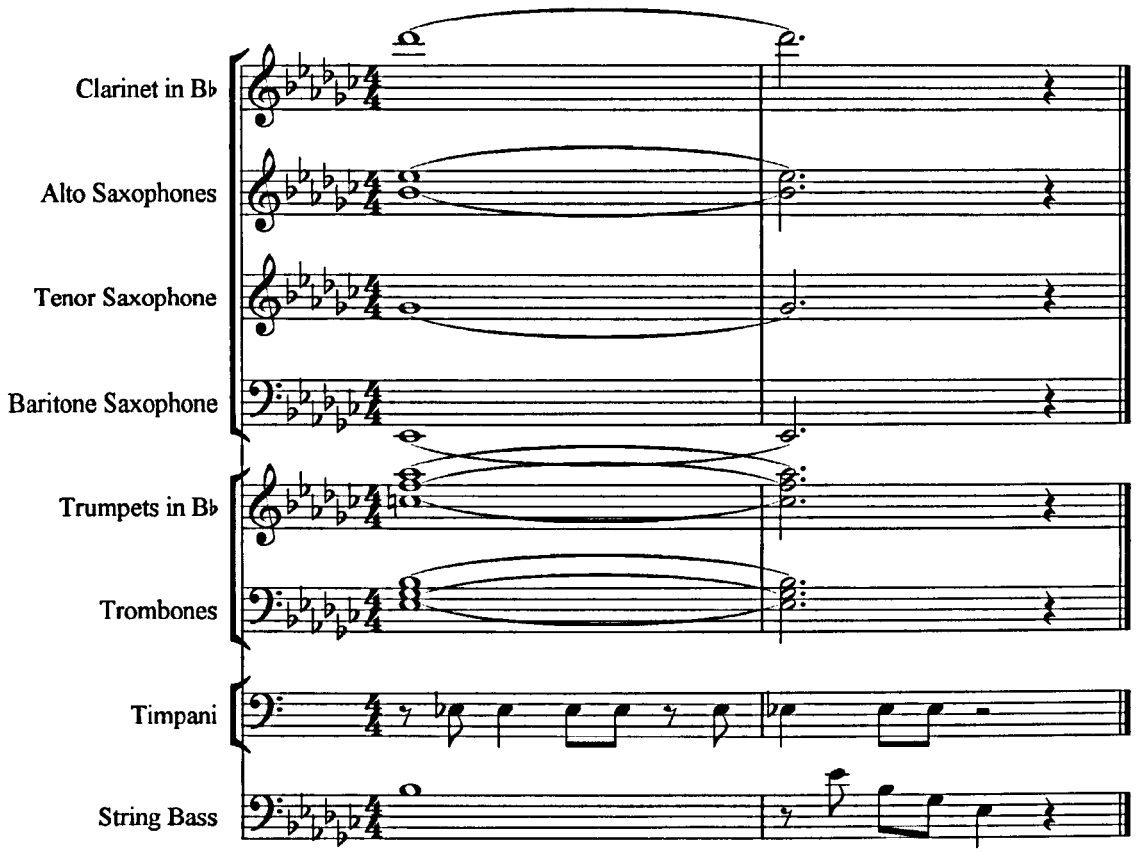
When Ellington blended the individual tonal colours of his unique musicians, he used standard arranging techniques such as tonicisation and thickened-line harmonisation and introduced a linear approach to create innovative sounds never heard before in jazz. He also used plurality to combine, often very simple, triads to create rich harmonic textures. In his 1940 recording of *Dusk* Ellington combined minor triads to create dominant-quality thirteenth voicings marked **x** and **y** in Figure 79.

Figure 79: *Dusk*



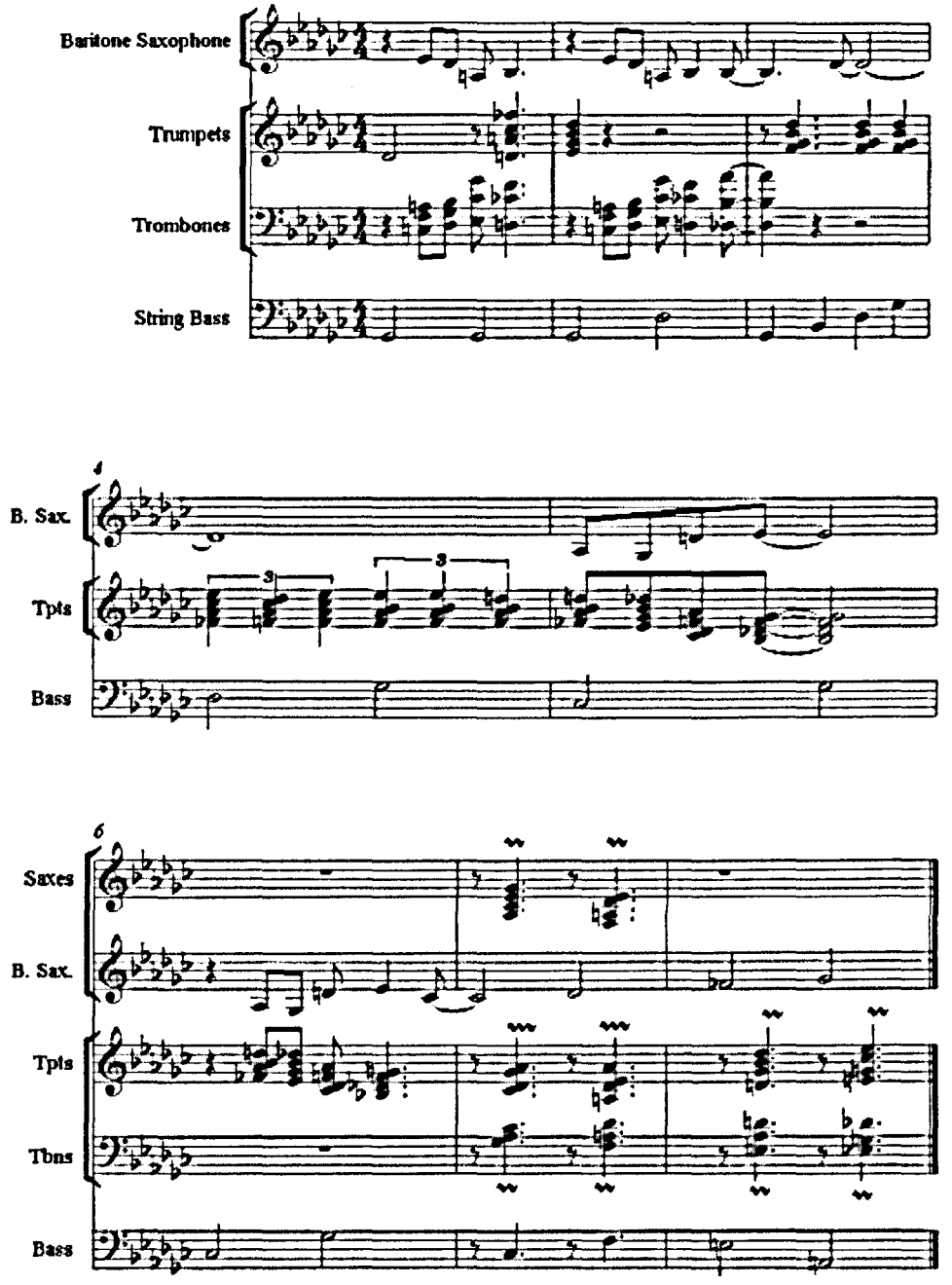
In the final chord of his 1940 masterpiece *Ko-Ko* Ellington combined a trumpet choir F minor triad, an E♭ minor triad in the trombones and E♭ minor seventh saxophone voicing to produce a rich E♭ minor eleventh chord (Fig. 80).

Figure 80: *Ko-Ko*



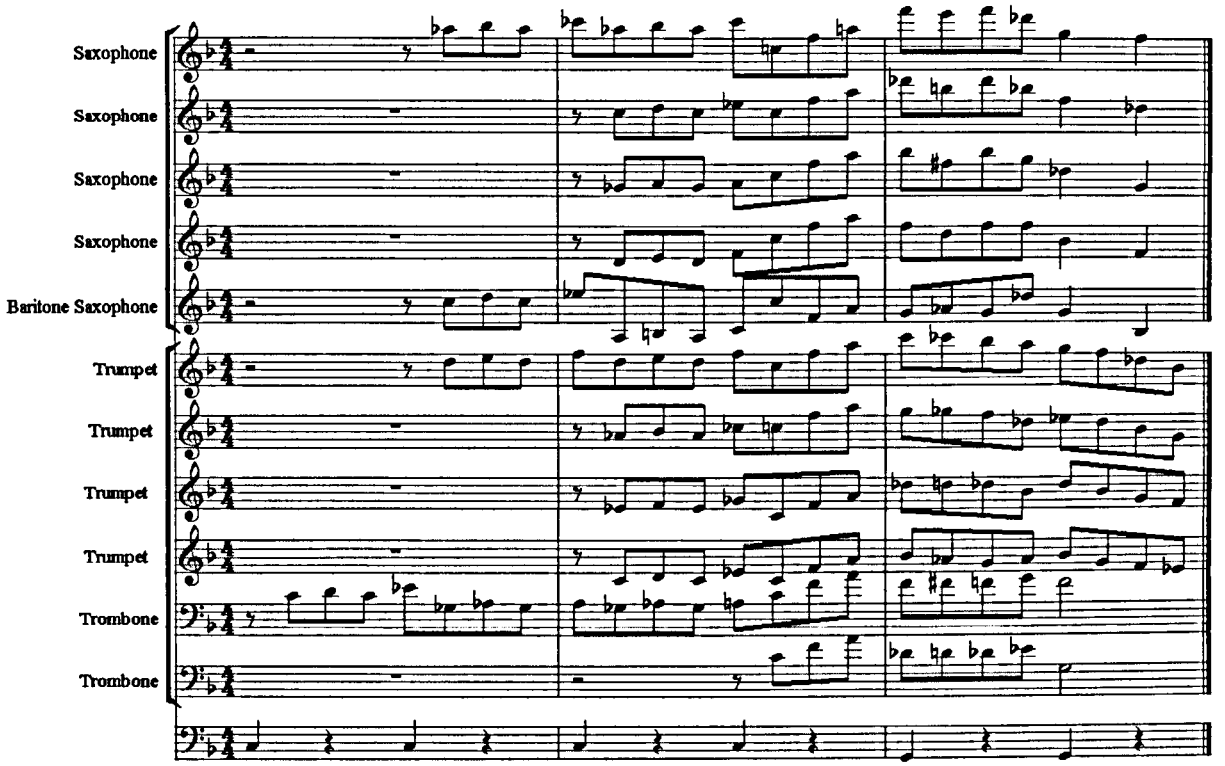
Although Billy Strayhorn was able to imitate the Ellington sound, as illustrated in the analysis of *Rocks In My Bed*, Strayhorn also elicited his own innovative sounds and textures from the same musicians. It is important to note, however, that both composers often created an independent, maverick line for the robust baritone saxophone tone of Harry Carney. (An example of Ellington's writing for Harry Carney's baritone saxophone can be found in the Introduction, Fig. 10.)

Figure 81: *Paradise*, 1948 (Billy Strayhorn)



Strayhorn's linear writing developed further and he produced complex polyphonic writing. This is illustrated in the following example (Fig. 82)

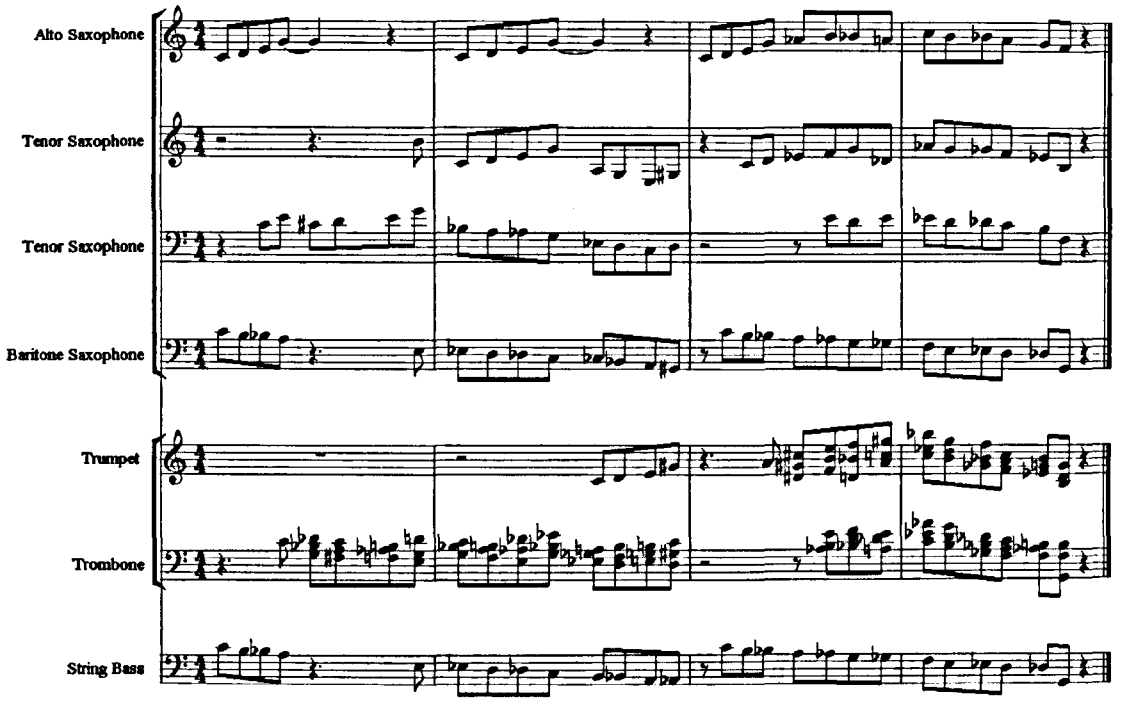
Figure 82: *The Man I Love*, arranged by Billy Strayhorn



By the 1950s Strayhorn produced even more rich and complex contrapuntal writing. This can be seen clearly in an unused introduction for *Pretty Girl* (1956), also known as *Star Crossed Lovers.*[38]

[38] Walter Van de Leur, *Something to Live For: The Music of Billy Strayhorn* (New York: Oxford University Press, 2002), p. 157.

Figure 83: *Pretty Girl*



The influence of Ellington and Strayhorn's writing can be heard in many of the works of the writers that followed. The rich sounds found in Thad Jones's scores contain many Ellingtonian plural harmonisations and linear considerations. If, as Miles Davis suggested, '*Birth of the Cool* had gone somewhat in another direction, but it had mainly come out of what Duke Ellington and Billy Strayhorn had already done',[39] it was the linear approach to ensemble section writing that helped arrangers like Gil Evans, John Lewis and Gerry Mulligan generate the unmistakable sounds of the famous Miles Davis Nonet recordings.

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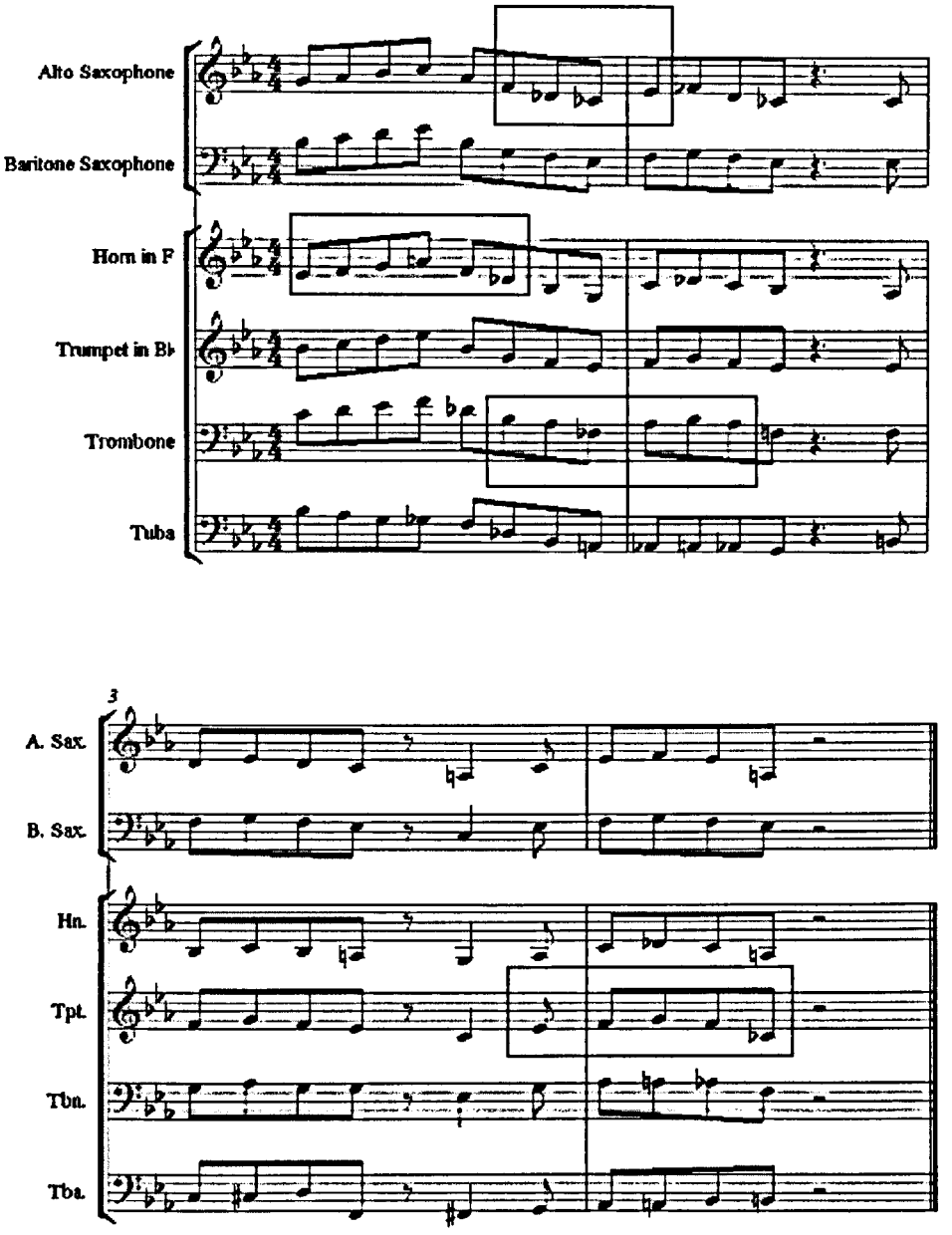
[39] Miles Davis, *Miles: The Autobiography* (New York: Simon & Schuster, 1993), p. 109.

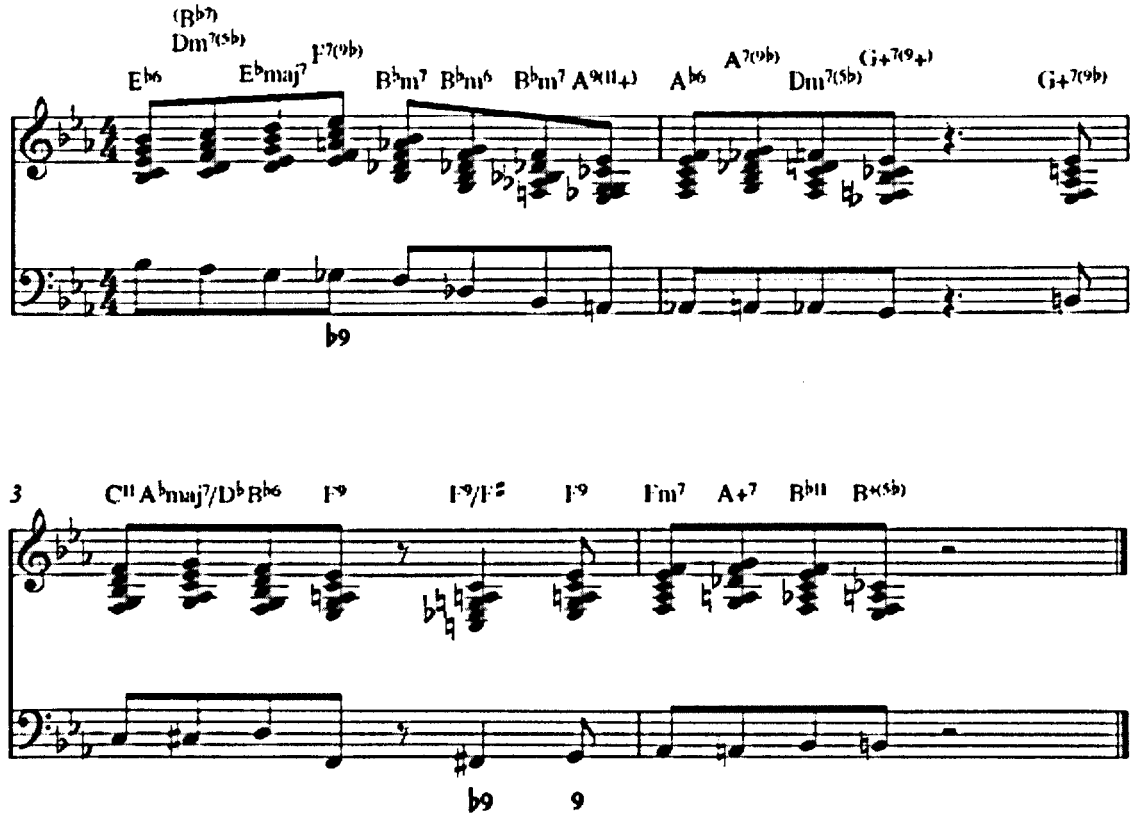
Figure 84: *Jeru*, 1949 (Gerry Mulligan)



Jeru is harmonised using a simple thickened-line harmonisation with melody doubled one octave lower. The lines feature whole-tone material, boxed in Figure 84; this helps introduce a 'modern' flavour to the harmonisation. It is the independent line played by Bill Barber on tuba, however, that introduces the unmistakable texture. Just as Ellington wrote for Harry Carney, Mulligan assigns the tuba a maverick line. Carney's baritone

saxophone often played the ninth of the chord, low in the voicing. Schuller describes this as 'one of the striking characteristics of Ellington's voice-leading', and a 'seemingly minute detail of voicing which adds that unusual, rich, slightly dark and at times melancholy flavour to Ellington's saxophone section'.[40] The tuba, similarly plays the ninth of the chord on three occasions, as shown in Figure 85. The line gives cohesion and adds enormous chromatic colour to the entire section: sometimes the tuba plays notes from the chord of the moment, elsewhere it defines the voicing, e.g. the final, upper-chromatic dominant- quality voicing in the first measure, and the tonicisation in the second. Without the addition of this 'Ellington effect', Jeru would have been merely a simple block harmonisation.

Figure 85: *Jeru*, 1949



[40] Schuller, *Early Jazz*, pp. 336–7.

3. In A Mellotone

I think anyone who attempts to do orchestration should be, fundamentally, an accompanist.[48]

In A Mellotone is a classic Duke Ellington composition that features typical examples of his writing for trombone trio and inventive details in form; it also demonstrates Ellington's writing for full ensemble, and saxophone soli. First recorded by the 'Blanton–Webster' band on 5 September 1940, *In A Mellotone* demonstrates Duke's wit and skill as an arranger. *In A Mellotone* is also an excellent example of a composition that was created collectively, and illustrates Ellington's ability to take simple material – often supplied by members of the orchestra – and expand and develop it to form complete compositions.

The following analysis examines the composition and arrangement of *In A Mellotone*. In the accompanying musical score, Ellington's sketches and scores are considered alongside a complete arrangement constructed from band parts borrowed from the band folders by Bill Berry during his tenure with the orchestra, 1961–4. The original Ellington material was collected during a visit to the Smithsonian Institution's Duke Ellington Collection in 1996.

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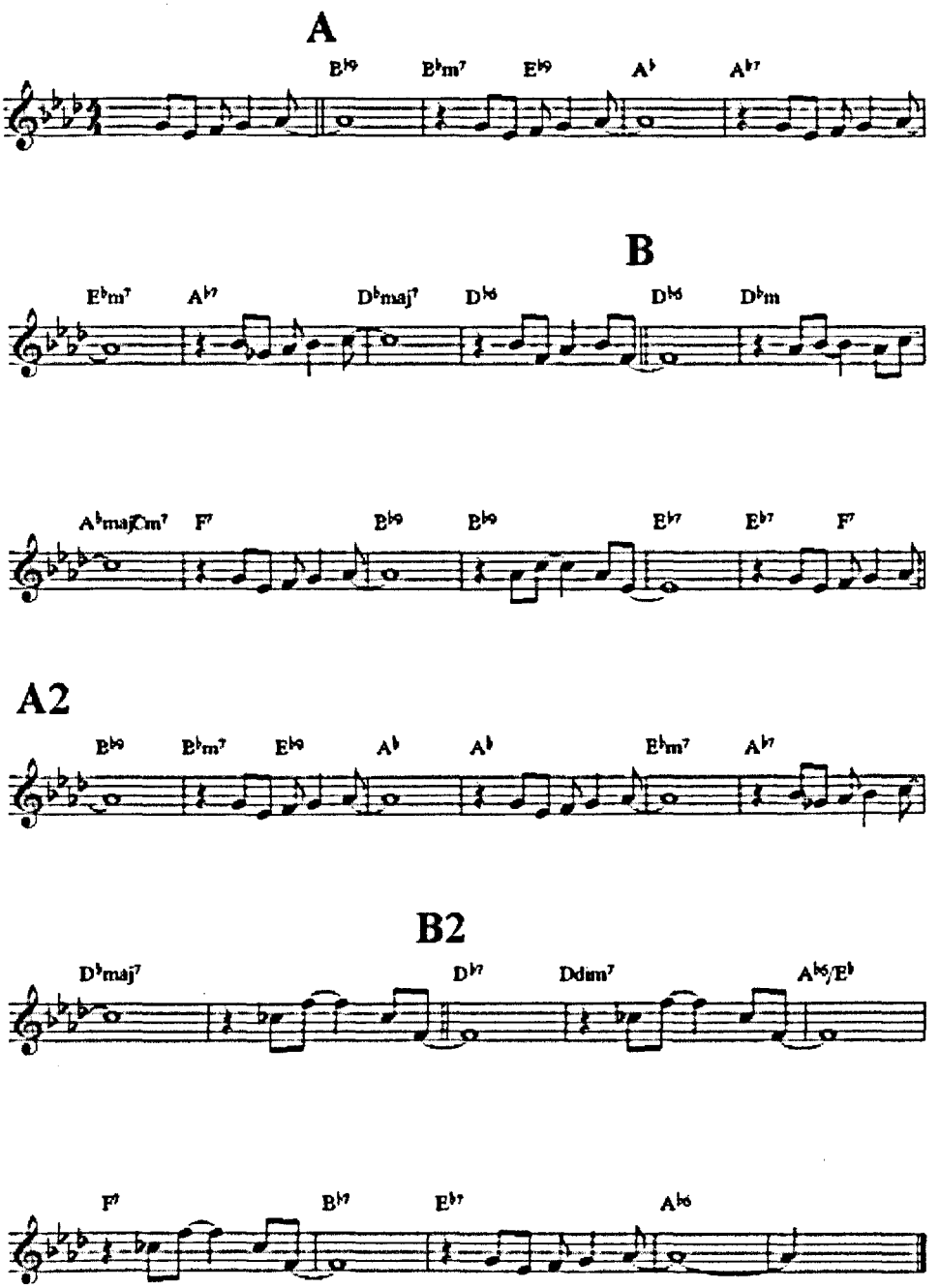
[48] Interview with Duke Ellington by Carter Harman, Chicago, 31 May 1964.

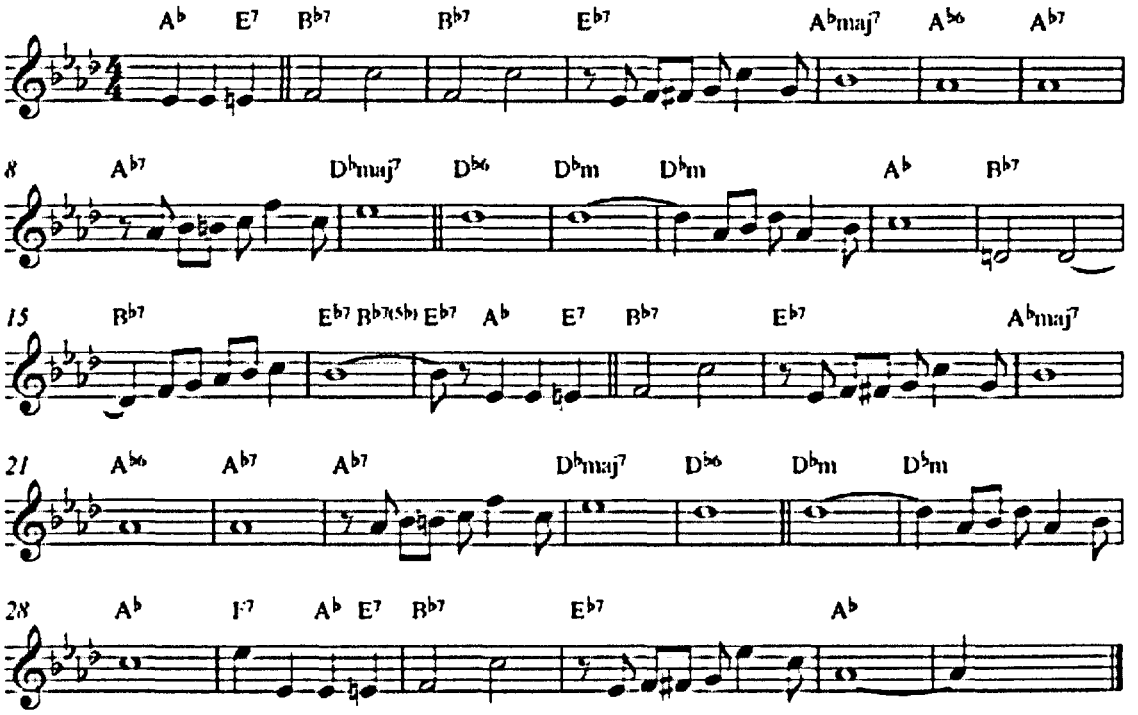
Melody

Figure 86: *In A Mellotone*



The 32-bar melody (Fig. 86) has the simplicity and cohesion of a riff tune. The composition uses the chord sequence of Art Hickman's *Rose Room*[49] and is played at a medium tempo, c. 132 bpm.

Figure 87: *Rose Room*



The melody of *In A Mellotone* is constructed using four eight-bar sections that create the 32-bar **A-B-A-B2** form. These **A** and **B** sections are the development of two basic riff patterns. **Riff 1** uses a major scale fragment from V up to I in A♭ major, played as a three-beat anacrusis (Fig. 88) and **Riff 2** features the rhythmic pattern shown in Figure 89.

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[49] Ellington had already used this 'contrafactum' technique earlier in his career: the familiar chord structure of *Tiger Rag* was used in *Creeper* (29 December 1926), *Jubilee Stomp* (19 January 1928), *Hot And Bothered* (1 October 1928), *High Life* (16 January 1929), *Daybreak Express* (4 December 1933) and *Braggin' In Brass* (3 March 1938).

Figure 88: *In A Mellotone*, Riff 1 pattern

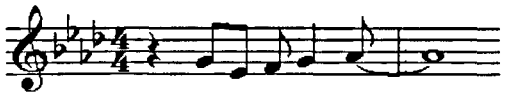
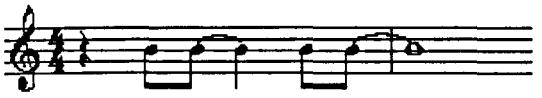


Figure 89: *In A Mellotone*, Riff 2 rhythmic pattern



In the **A section**, Riff 1 appears three times in the tonic key of A♭ (Fig. 90). It is then restated a minor third higher[50] (Fig. 91) in the transient tonic key of D♭ in m. 7.

Figure 90: *In A Mellotone*, Riff 1 in tonic key of A♭

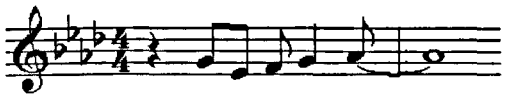
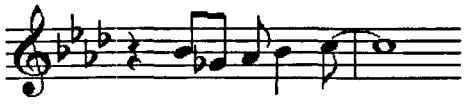


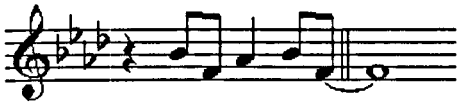
Figure 91: *In A Mellotone*, Riff 1 restated a minor third higher



[50] In many 'Fake' and 'Real' books, an F replaces the G♭ in m. 6, e.g. *New Real Book 3* (Sher Music Co., 1995).

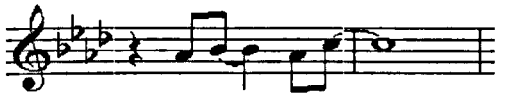
In the **B section** the Riff 1 pattern reappears, in m. 8, but with slight thematic variation, as shown in Figure 92.

Figure 92: *In A Mellotone*, Riff 1 variation



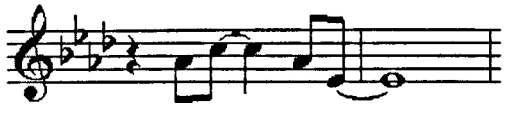
In m. 10, the rhythmic pattern of Riff 2 appears for the first time. Both of the two note elements of the riff form an ascending pattern, as shown in Figure 93.

Figure 93: *In A Mellotone*, Riff 2 pattern, m. 10



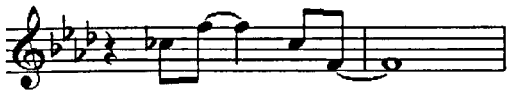
Riff 1 appears in its original form in m. 12 and, as the halfway point is reached, m. 14 features another Riff 2 variant (Fig. 94). This variation uses the notes of an A♭ triad and ends on the dominant in preparation for the next section.

Figure 94: *In A Mellotone*, Riff 2 variation



The A section is repeated to create the second A section, mm. 16–23, and the Riff 2 pattern is used in mm. 24–5, 26–7 and 28–9 to create the **B2 section**. Here, however, the notes are from a minor blues scale built on the sixth degree.

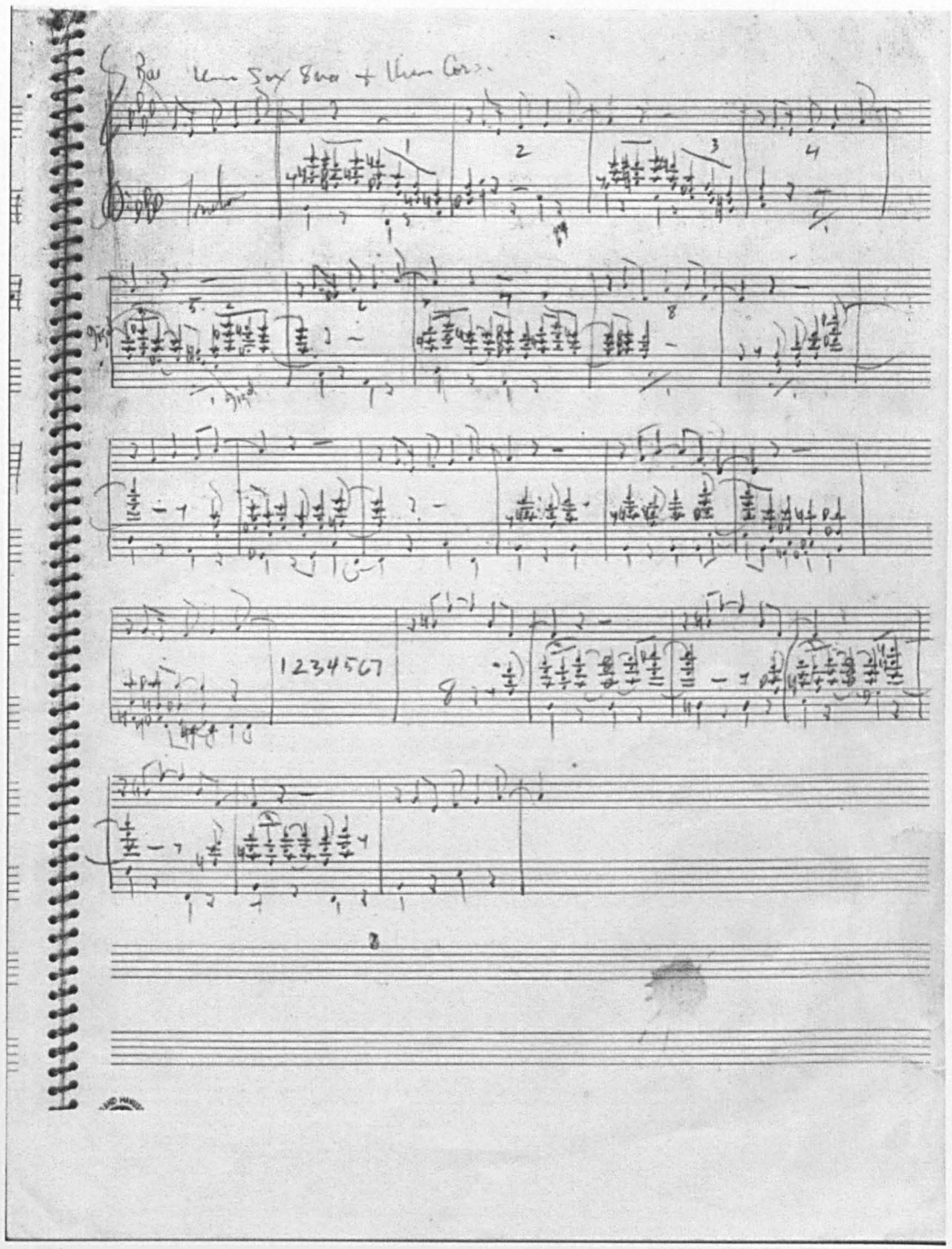
Figure 95: *In A Mellotone*, Riff 2 pattern, blues scale variation



This bluesy riff is repeated three times. The underlying ascending harmonic sequence, $D^{\flat 7}$ $Ddim^7$ $A^{\flat 6}/E^{\flat}$ F^7, helps to build the climax in the statement of the main theme.

The harmonic structure of *In A Mellotone* differs slightly from *Rose Room*, and there are minor differences between the draft of the main theme that Ellington made in the score, reproduced in Figure 96, and recorded performances of the tune. This short score was found in a spiral-bound notebook in the Smithsonian Ellington Collection. Labelled *Notebook 2 c. 1940–3* by staff at the Archive Center, this notebook includes work by both Ellington and Strayhorn. On the recording the final notes of each phrase are extended, and the theme is played by unison saxophones only, and not with unison trumpets (Cors) as indicated on the score, i.e. 'Bar[itone] Unis sax 8va + Unis Cors'.

Figure 96: Ellington's pencil score of *In A Mellotone*, main theme and accompanying trombone figures



Rose Room had been a very popular vehicle for improvisation during the 1920s and would have been very familiar to the Duke's men. It is possible that the title, *In A Mellotone*, was inspired by Barney Bigard's sound during performances of *Rose Room* at the Cotton Club. Charles Fox wrote the following in 1959:

> An interesting aspect of Duke Ellington's work has always been his adaptations of other men's tunes. Sometimes they survive for us only in the thin, functional arrangements he often scored quickly for use at the Cotton Club; sometimes he would entirely transform a melody, virtually making it his own property ... *Rose Room*, scored with masterly reticence, its melody discreetly hinted at, was used as a vehicle for Barney Bigard's clarinet playing.[51]

A.H. Lawrence's description of the tune's evolution, in his book *Duke Ellington and His World*, supports this supposition, and suggests that the title was inspired by Hodges's material. It seems likely that the *Mellotone* theme evolved as a series of background riffs, to be played behind a soloist; Johnny Hodges contributed the main theme and Lawrence Brown added the complementary, antiphonal trombone accompaniment:

> Sometimes a composition would germinate and flower from within the band itself. While on tour during the 1930s, Ellington featured Bigard on the Art Hickman composition *Rose Room* while Richard Bowden Jones (Jonesy), the band boy, began to pack up.
>
> One night as the clarinettist was playing, Hodges began backing up Bigard's solo with a five note phrase. 'The next night, I answered Johnny with a riff of my own,' Lawrence Brown recalled. 'Over time it developed that the full saxophone section would play Johnny's tune and me, Tricky, and Tizol would respond, playing my response in harmony. Other than Duke's eight-bar intro on piano, and the six-bar brass fanfare he wrote before Johnny's solo [Fig. 99 below], that piece came right out of the band. When we recorded it, he named it "In a Mellow Tone" after Johnny's tune.'[52]

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[51] Charles Fox, *Ellington on Record. The Nineteen-thirties' Duke Ellington: His Life and Music* (London: The Jazz Book Club, 1959), p. 85.

[52] A.H. Lawrence, *Duke Ellington and his World* (New York and London: Routledge, 2001), p. 170.

The arrangement

The overall form includes three choruses of theme (or 'head') and variation, with an eight-bar introduction featuring a piano and bass duet. There is no modulation. Ellington's high, open, dominant-ninth quality piano shapes are answered by Jimmie Blanton's bass solo breaks before planing chromatically down to an F^9 chord (see accompanying score, mm. A–F). These 3-7-9 / 1-5-1 shapes not only contrast the bass, but their piercing bite allows the piano player to compete with a full band in a 'live' situation. The main theme is then played by unison saxophones and accompanied by the trombone section.

The essential quality of Ellington's writing for the trombone section is its apparent artlessness. An examination of two arrangements illustrates this point. In the accompanying score (mm. 1–30), the original trombone trio appears on the piano stave below the 1960s arrangement (copied from Bill Berry's reconstructed score) to allow comparison. In both cases, the synergy of the antiphonal interplay between unison saxophones and the trombone section transforms this simple 32-bar standard riff theme into a compelling piece of Ellingtonia.

In both versions, the trombone line is harmonised, where possible, using simple tertian triads, frequently built using upper chord notes. A study of the writing for trombones in this arrangement reveals some principles of plural chord generation:

- When the chord of the moment is major, dominant-quality thirteenth chords can be harmonised using a minor triad built on the thirteenth (e.g. a G minor triad contains the thirteenth, root and third of $B^{\flat 13}$);
- A dominant-quality ninth chord can be expressed using a minor triad built on its fifth;
- A major seventh chord could feature a minor triad built on its third, and a major sixth chord voicing could include a minor triad built on the sixth;
- A major ninth chord voicing could feature a major triad built on the fifth of the

chord;

- When the chord of the moment is minor, plural *major* triads can be used, for example, a minor-seventh chord voicing contains a major triad built on its third.

This harmonic sleight of hand produces strong consonant sounds and can also promote smooth movement within parts. Where smooth movement does not occur naturally, linear amendments are made. The nature of the voicings suggests that the harmonies evolved from aurally developed linear harmonisations created by Ellington's trombonists. In addition to the anecdotal evidence cited above, an examination of the two versions of the trombone trio background reveals that the majority of the voicings form tertian triads. In the writing for the Nanton, Tizol and Brown trio, only 17 of the 109 voicings are not tertian triads. In the arrangement for the later trio, the number drops to 12. In both the 1940 and 1960 arrangements, the triads that are not tertian are simple seventh or ninth shapes in which the seventh or ninth replaces the root. Although it is impossible to establish whether these amendments were made by Ellington or by his musicians – and subsequently included in later arrangements – it seems likely that it was the musicians that were responsible. The trombone background gradually builds to a climax in m. 28, a high C above an F^7 chord, voiced as an A diminished triad; this coincides with the melodic climax as the saxophones play their bluesy Riff 2 pattern over an ascending bass line.

On the 1940 recording Ellington's piano interposes a two-bar reprise of the introduction (score mm. 31–2) to lead into a full chorus of Cootie Williams's trumpet.[53] Williams is accompanied by the saxophone section and drafts of the accompaniment were also found in the spiral-bound notebook in the Smithsonian collection. These drafts are reproduced in the following examples.

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[53] Williams left the band later that year (7 November 1940) to join Benny Goodman; he was replaced by Ray Nance. When he returned to the Ellington organisation (early September 1962) he reclaimed his solo, and the two-bar break.

Figure 97: Saxophone section background figures for trumpet solo (cf. score, mm. 33–40)

Copied from *Notebook 2 c .1940–3*, Ellington Collection, Smithsonian Institution

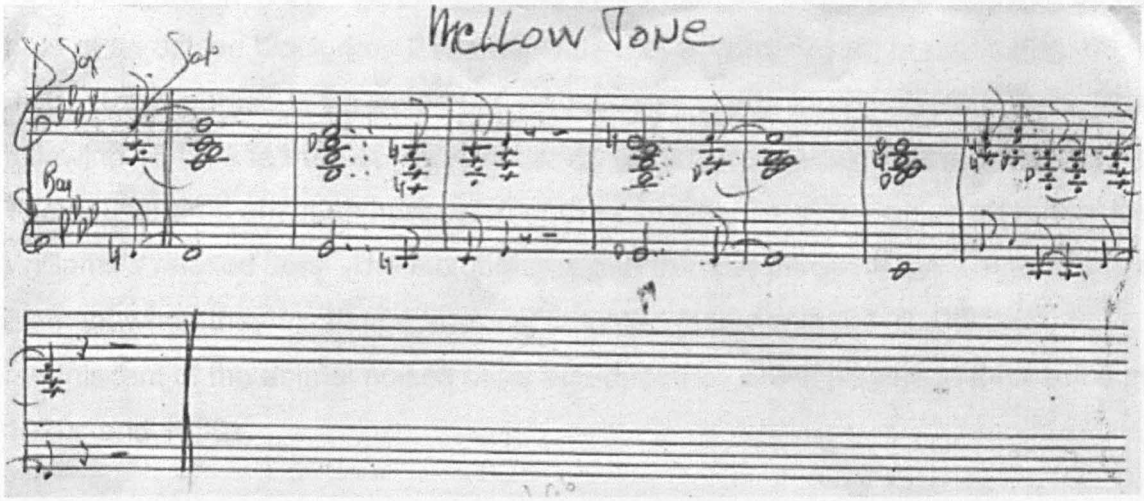
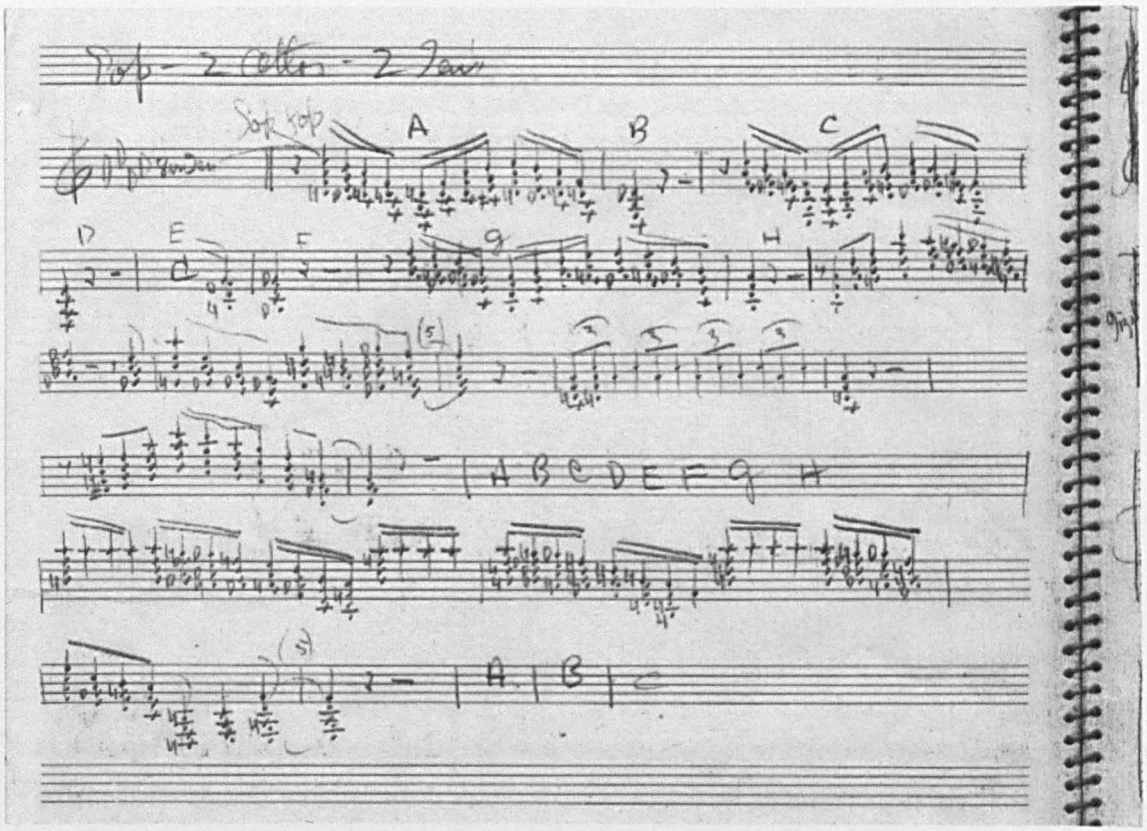


Figure 98: Saxophone section background figures for trumpet solo

Copied from *Notebook 2 c. 1940–3*, Ellington Collection, Smithsonian Institution



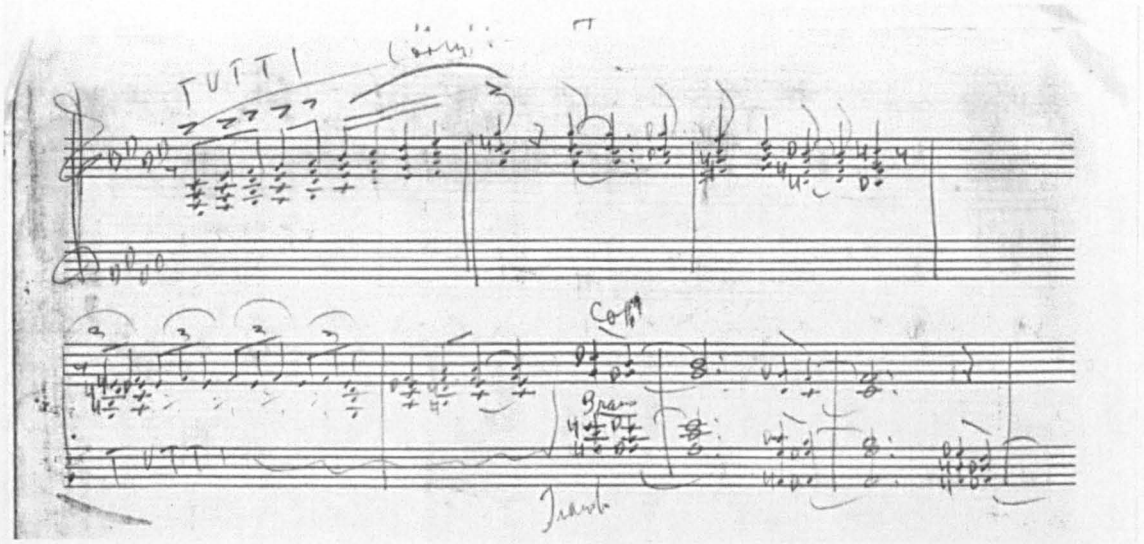
On both the 1940 recording and the 1960 score, the eight bars shown in Figure 97 replace mm. A–H in Figure 98. These eight bars are harmonised for five instruments in 1940, and four in 1960[54] (accompanying score mm. 33–40). This is followed by eight bars of an octave block drop 2 harmonisation of accompanying phrases (Fig. 98, mm. 9–15). Each phrase fills a single bar, and creates space for the soloist's reply. The following 15 bars feature semiquaver patterns built from arpeggio and scale fragments. The double-time effect and precision of the saxophones act as a perfect foil for Cootie Williams's relaxed 'feel'. The saxophones and trumpet introduce an almost comical element when they exchange 'musical laughter' (score mm. 57–8, CD track 1), reminiscent of the animal noises often introduced by brass players in their solos in the 1920s and 1930s.

Williams's solo ends when the full band enter with an ascending Mixolydian scale pattern played as staccato, even quavers.

[54] In the later score, rests were inserted to allow time to change to clarinet. This was not necessary in the earlier score as both sections were intended to be played by Johnny Hodges on B♭ soprano saxophone.

Figure 99: *In A Mellotone*, tutti section

Copied from *Notebook 2 c. 1940–3*, Ellington Collection, Smithsonian Institution



This forms the introduction to a brief eight-bar tutti that acts as a springboard into Johnny Hodges's alto solo. Ellington clearly experimented with this ensemble section. Two examples of discarded ensembles are examined below (Figs. 100 and 101).

Figure 100a: *In A Mellotone*, discarded ensemble section

Copied from *Notebook 2 c .1940–3*, Ellington Collection, Smithsonian Institution

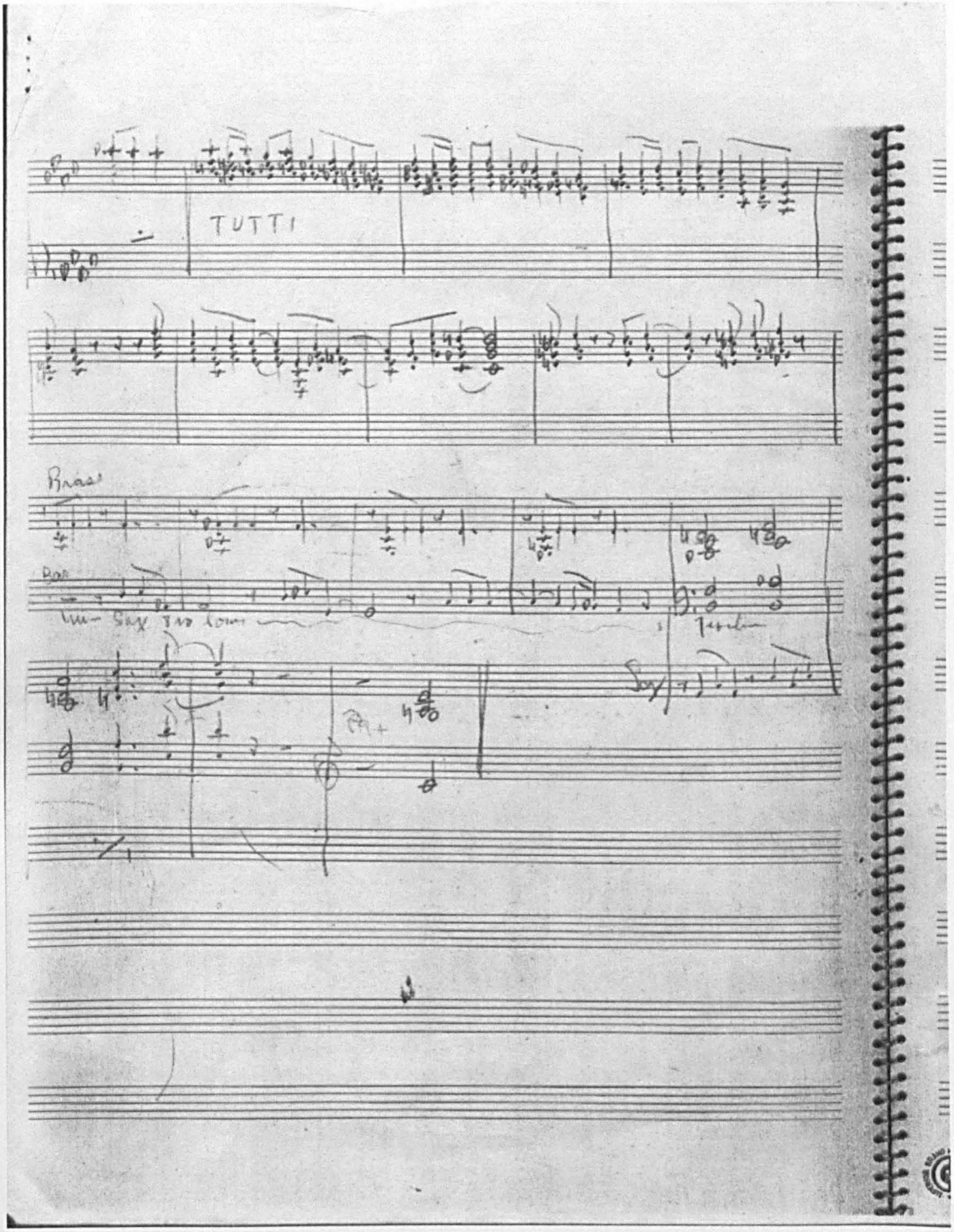
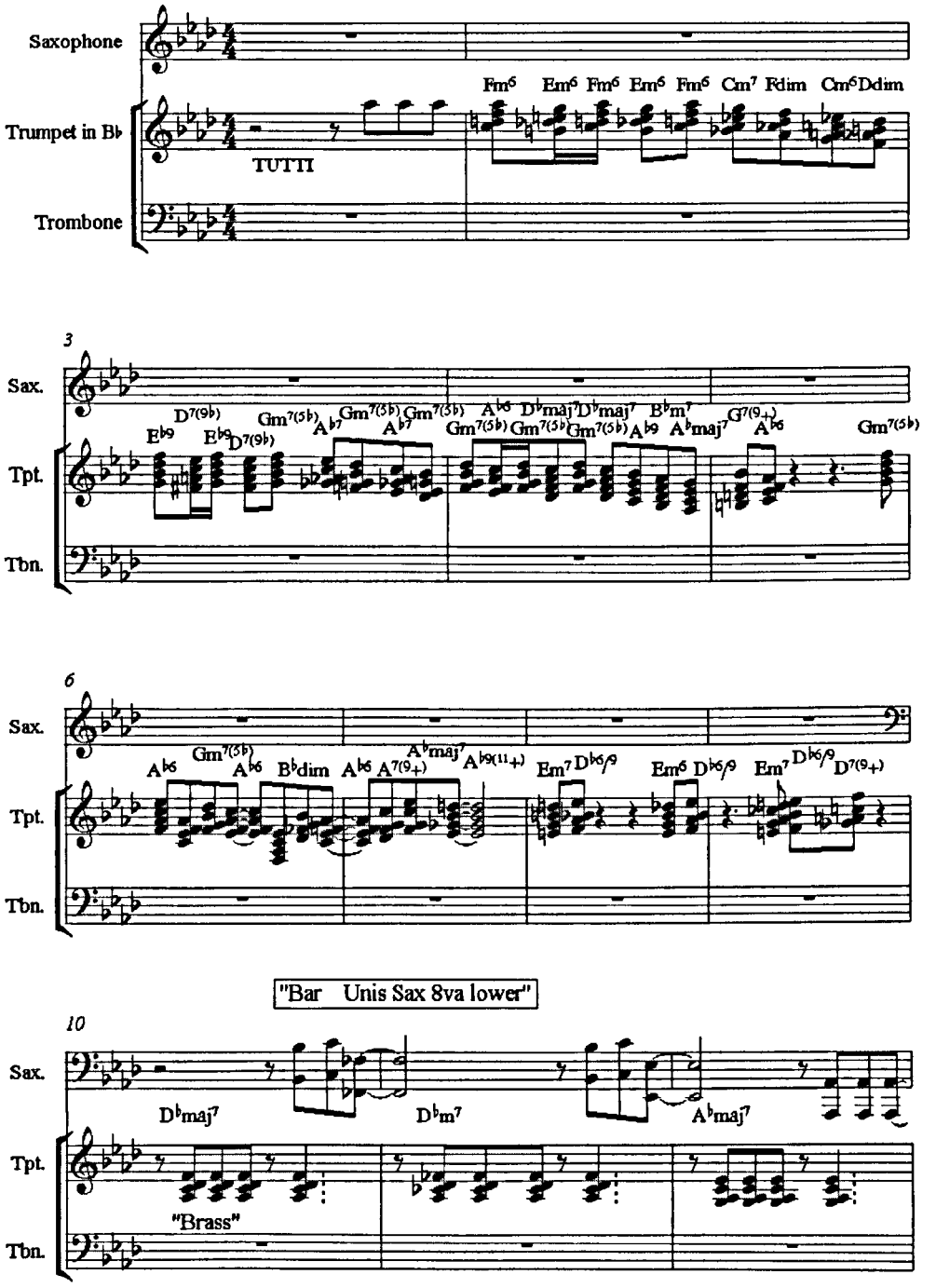
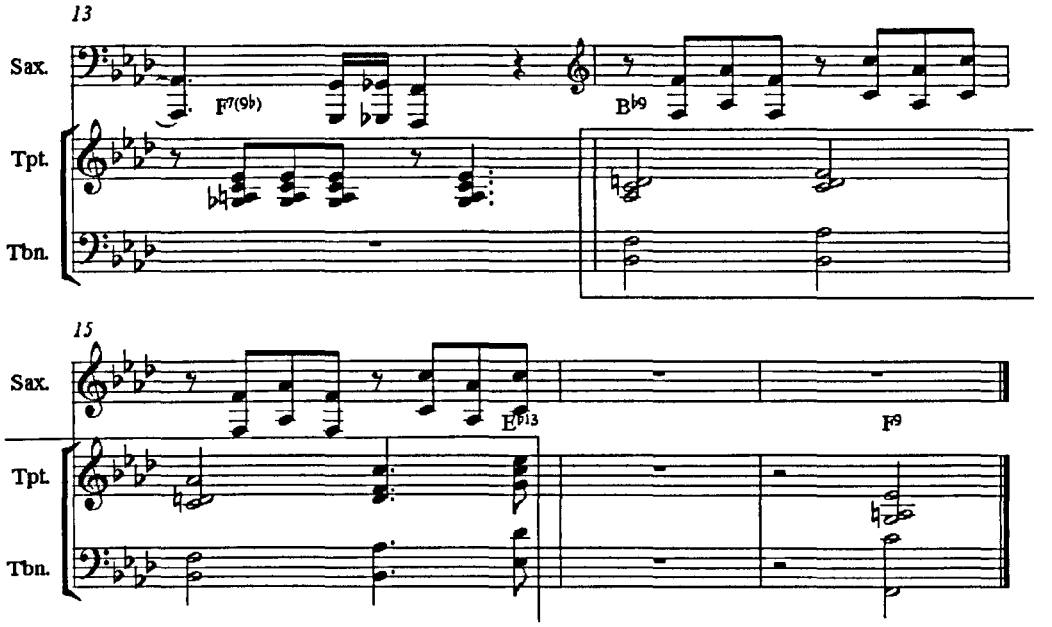


Figure 100b: *In A Mellotone*, transcription of discarded ensemble section, Fig. 100a





On both the 1940 recording and the later score, the first six bars of Johnny Hodges's alto solo is played with rhythm section accompaniment only (score mm. 71–6). When the full brass section joins him – score mm. 77 and 78 – they play a rising $B^{\flat 9}$ arpeggio and create a two-bar break into the last 16 bars of Hodges's solo. This two-bar phrase can be found in the discarded chorus for full band (identified in Fig. 100b above).[55] Although it appears that no audio recording of this tutti section exists, it *was* included on trumpet parts found in the Smithsonian Collection.

Another draft ensemble section, Figure 101a, also presumably intended for inclusion at this climax point in the arrangement, was found on the reverse of an Ellington pencil score for *All Too Soon* (also known as *Slow Tune*, recorded 22 July 1940). It is scored for five brass and not for full band, i.e. two trumpets and three trombones. Ellington indicates the distribution of the trombone parts – 'Tizol' lead and 'Brown' lowest part.

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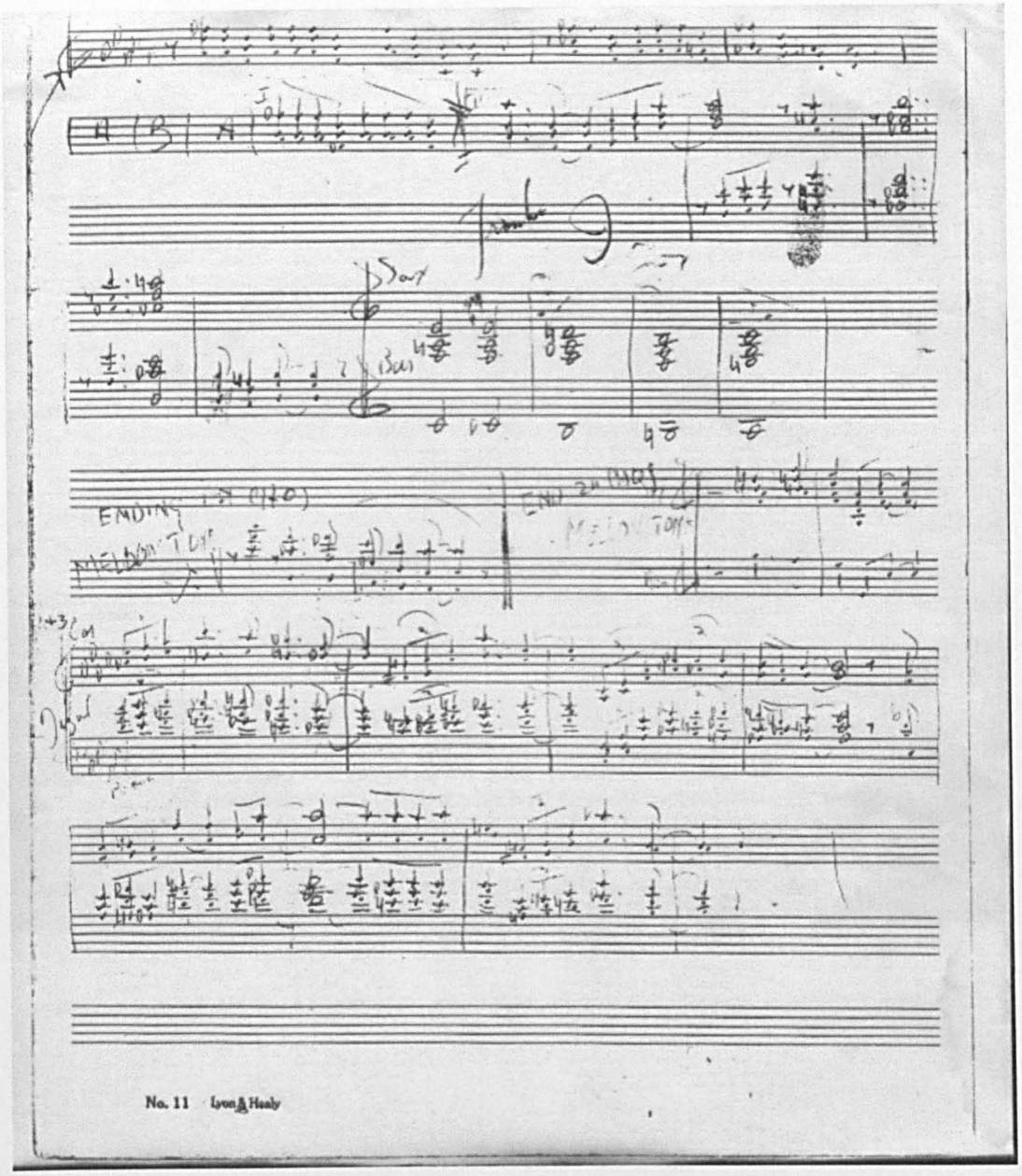
[55] Found in shared spiral-bound note book. *Notebook 2 c. 1940–3*, in the repository of the Duke Ellington Collection, Smithsonian Institution, Washington, DC.

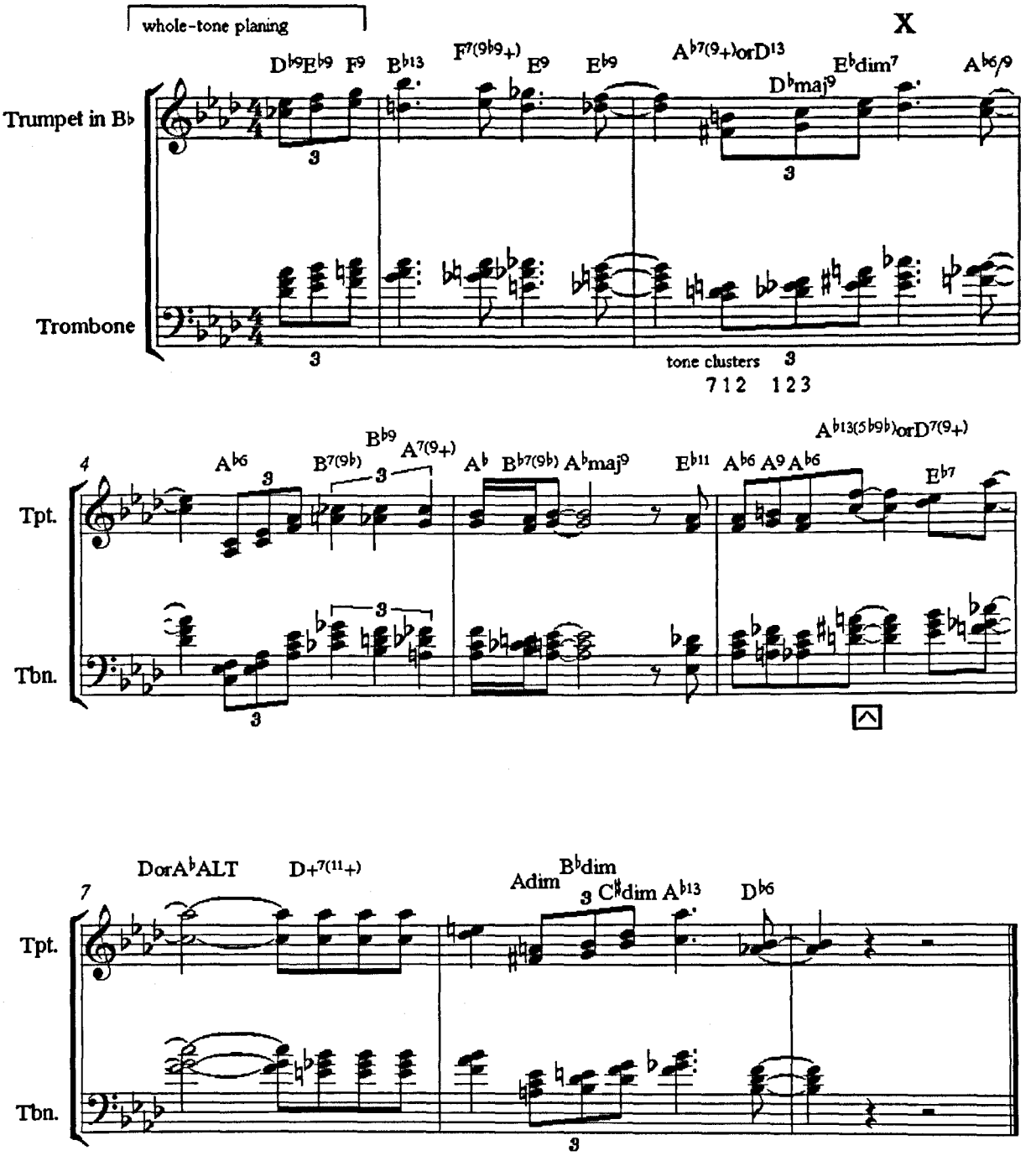
This unused brass soli passage features some unusual and complex structures; these are examined in Figure 101b.

Figure 101a: *In A Mellotone*, unused brass soli passage[56]



[56] Above the soli in Fig. 101 are two endings for 'Mellow Tone', one scored for trombones, marked 'Ending 1st Cho[ru]s', and the second scored for saxophones marked 'Ending 2nd Cho[ru]s'.

Figure 101b: *In A Mellotone*, transcription of unused brass soli passage



Although created in 1940, pre-dating bebop by half a decade or so, the harmonic language employed in this brass soli passage is very advanced. The chord marked ⍓ in m. 6 is clearly a flattened-fifth substitute for a dominant-quality chord, built on the tonic. If Ellington *was* using this flattened-fifth substitution technique, where the shared third and seventh of dominant-quality chords a tritone apart renders them interchangeable, then perhaps the second bar of Figure 101b would be more accurately interpreted as:

$B^{\flat 13}$ $F^{7(9_+9\flat)}$ $B^{\flat}{}_{+}{}^{7(5\flat 9\flat)}$ $E^{\flat 9}$ [57]

This use of flattened-fifth substitution, combined with the semitone grinds between outer voices, found in mm. 2, 5 and 7, would help colour Thelonious Monk's playing when he later helped to create the post-war harmonic landscape of bebop. In the chord marked **x**, once again Ellington includes the fourth and the third in a chord with a dominant quality, and the interval of a flattened ninth between lead trumpet and second trombone. The harmonic complexity of this ensemble section – tone clusters, whole-tone planing, and semitone grinds – may have seemed out of place in the surroundings of the 1940 score of *In A Mellotone.* Whatever the reason, Ellington discarded it, and used the shorter tutti section, shown in Figure 99, on his 1940 recording.

The piece comes to an end when the full ensemble joins Hodges to create a quasi-'shout'[58] chorus (Fig. 102); a four-part block harmonisation of Riff 2 pattern is stated three times over an ascending two-in-a-bar bass line. The piece ends quite suddenly

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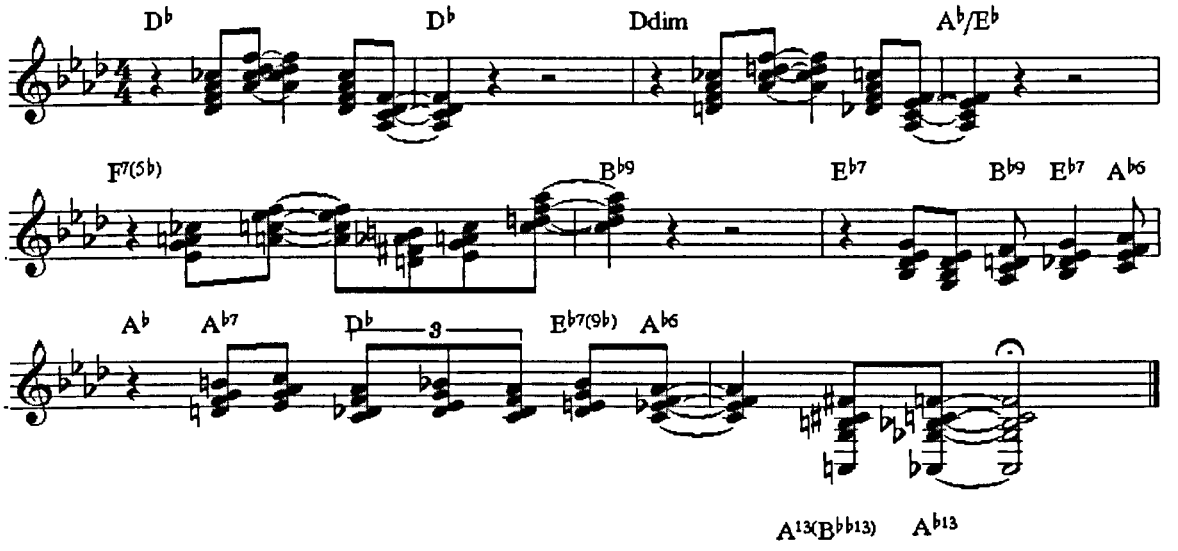
[57] Whether Ellington's planed chromatic dominant chords (*Sophisticated Lady, Prelude To A Kiss*, etc.) were actually flattened-fifth substitutions made within a cycle of fifths will remain a subject for debate.

[58] A 'shout chorus', also known as 'out chorus', 'sock chorus' or just 'the out'. Originally used to describe the effect created by the introduction of accented, syncopated right-hand chords used by Harlem's 'stride' pianists, quite often in the final, climactic, chorus. The 'shout chorus' is more commonly used to describe the final ensemble passage that forms the climax of a big band arrangement.

with a harmonisation of the Riff 1 pattern followed by full band playing a four-part block harmonisation of a traditional 'tag' ending.

Figure 102: *In A Mellotone*, final ensemble section



Many commentators have described Ellington's difficulties with endings. Trumpeter Clark Terry said:

> But that's the way Duke likes to live, he wants life and music to be always in a state of becoming. He doesn't even like to write definitive endings to a piece. He'd often ask us to come up with ideas for closings, but when he'd settled on one of them, he'd keep fooling with it.[59]

In a Smithsonian Institution Oral History interview,[60] Clark Terry again recalls Duke's idiosyncratic dislike of endings, and how on one occasion he provided the final section of *Newport Up* after Ellington called out, 'Hey Sweetie [one of Terry's nicknames], write me an ending!'

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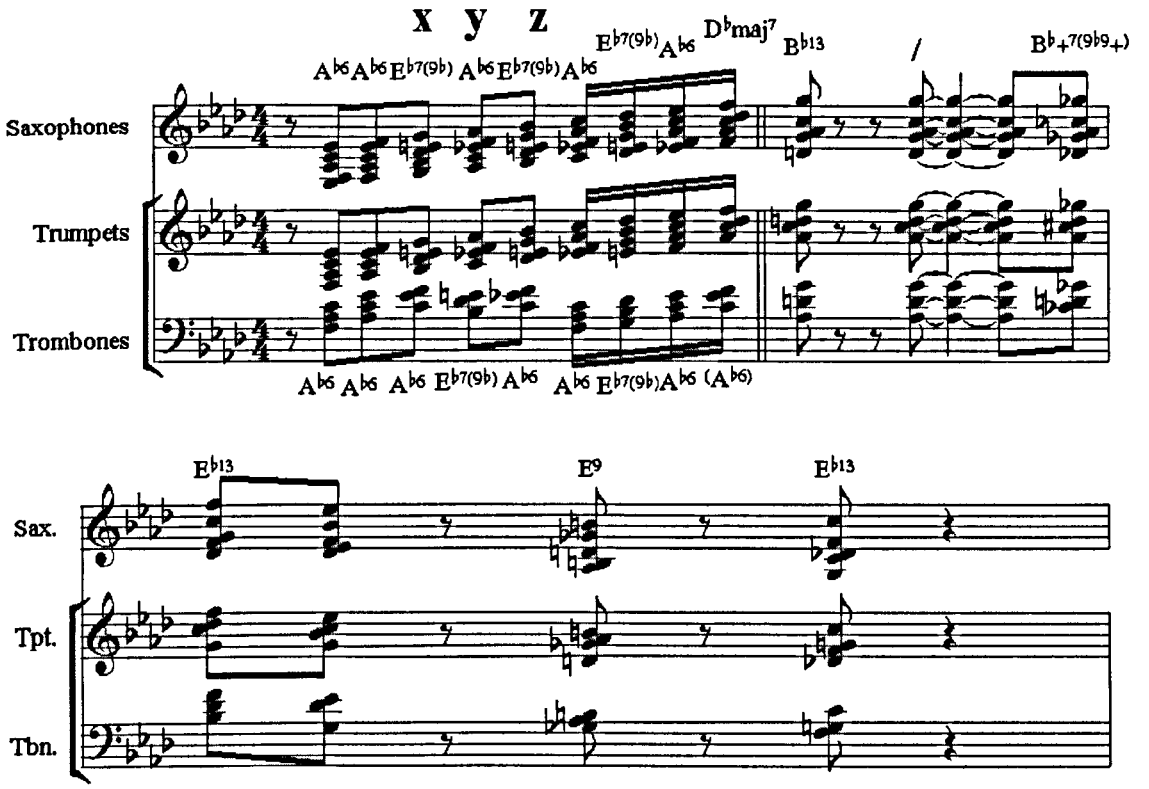
[59] Nat Hentoff, 'This Cat Needs No Pulitzer Prize', *New York Times Magazine*, 12 September 1965 (reprinted in Tucker, *op. cit.*).

[60] Interview with Clark Terry by Dr Marcia M. Greenlee, 6 March 1990.

In the later orchestration, the harmonies used in this final section are much richer. For example, in the trombone section, m. 88 (score), there are semitone grinds between upper voices. These are created when the interval of a major seventh (between the flattened seventh and thirteenth, and third and augmented ninth) is inverted. Further harmonic complexity is generated when the baritone saxophone plays an $E^{\flat}$ – a *major* ninth – in the second chord in m. 88. Although Ellington occasionally used both flattened and augmented ninth in the same chord, there are fewer examples of Ellington mixing altered ninths with major ninths. It is possible, however, that Bill Berry's parts were collected from different arrangements: while the trombone trio have matching parts, the harmonies they play in the tutti and closing sections are different to the rest of the band.

Figure 103: *In A Mellotone*, tutti section from score assembled using Bill Berry's parts, c. 1960 (cf. accompanying score mm. 64–71)



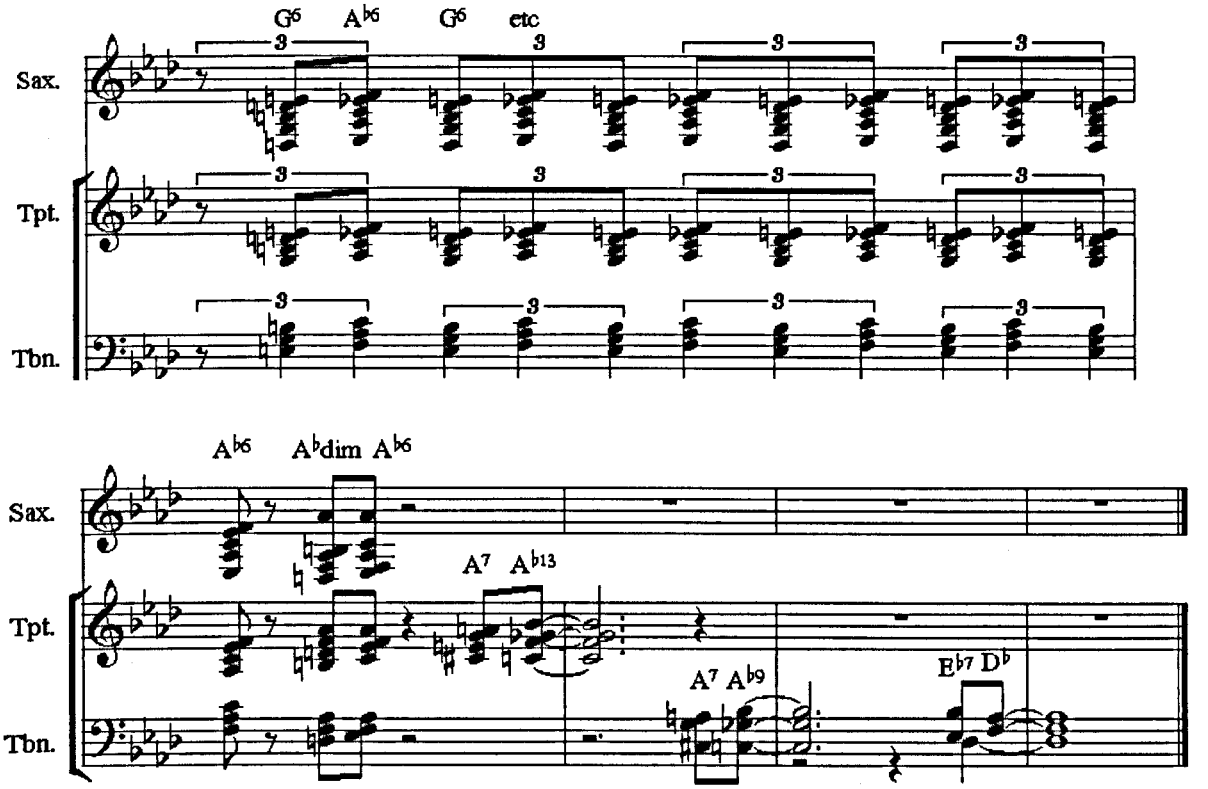


Figure 103 illustrates this anomaly. The voicings marked **x**, **y** and **z** combine tonic sixth chords with conflicting, dominant chords. In voicings marked **x** and **z** the saxophones and trumpets play diminished seventh shapes, i.e. rootless $E^{\flat 7(9\flat)}$ chords, while the trombones play what appears to be a tonic sixth chord. The trombones *could* be seen as playing extensions of the dominant voicing:

F	functions as the ninth of the dominant chord;
$E^{\flat}$	is the root of the dominant chord;
C	functions as the thirteenth of the dominant chord.

However, the voicing marked **y** is more confusing: here the trombones play a dominant-seventh-quality chord, again a diminished $(E^{\flat 79\flat})$ shape, while the rest of the band play

a tonic-sixth chord. The conflict created by the E natural and E flat suggests that these parts are from a different arrangement.

In conclusion, a study of the writing in this piece supports the following observations:

Voicings used in *In A Mellotone*

- Four trumpets rarely spread more than one octave.
- The lead trumpet's note is usually doubled in another section.
- Trombones are mostly scored within an octave (see mm. 68–70, 77–9), with a maximum spread of a ninth or tenth, unless the lowest trombone plays root.
- Trombones regularly play very high (C, third space in treble clef).
- Routinely, the voicings for trombone trio contain enough chord extensions or alterations to form a different apparent triad, especially in soli sections.
- The saxophone section voicings regularly span one octave in octave block. When the lead saxophone is high, Ellington drops the second voice.
- Occasionally the section is given five-part block drop 2. This is formed by taking the closest voicing of a given melody note, and dropping the second voice by one octave, e.g. m. 33.
- In chorale-type harmonisations, the baritone does not necessarily play root.

In block/thickened-line writing

- When the melody is the fifth of the chord, the ninth is routinely included, and usually replaces the tonic.
- In a thirteenth chord the fifth is seldom used. If it is, it is not usually included in the same octave.
- Semitone grinds occur when the interval between outer voices (1 and 4) is a major seventh, and the melody is doubled.

- Augmented ninths are occasionally used with flattened ninths, or very occasionally major ninths with altered ninths.
- The interval between the outer trumpets is seldom greater than an octave.
- Each section produces a consonant harmony independently.
- Parts cross on repeated chords, and necessary adjustments are made to promote better linear movement.
- Upper chromatic dominant chords routinely replace V^7.

Voice leading

- Ellington's more complex chords consist of individual voices that move smoothly to notes in the following chord. For example, the last chord of m. 65 (score) is a dominant-quality ninth chord, with an augmented fifth, and added diminished and augmented ninths. Such chords, however, could be considered as synthetic harmonies, wherein the chord is generated, primarily, out of concerns for voice leading.

Passing chords

- Passing/non-chordal notes are regularly harmonised using diminished-seventh chords built downwards in minor thirds from the note in question. These chords do not necessarily function as $V^{7(9\flat)}$.
- When the melody moves by a semitone, the harmony voices often plane similar intervals.
- ii^7 and V^7 are interchangeable.

Finally, an examination of the harmonisation of non-chordal passing notes used in both the 1940 and 1960 saxophone backgrounds and ensemble tutti, provides the following information:

The non-chordal melody note of $B^{\flat}$ appears over an $A^{\flat}$ major chord ten times in this piece.[61] In the 1960 arrangement, Ellington used a passing diminished chord to harmonise each of these. This is an example of tonicisation as the diminished chord is a actually rootless $V^{7(\flat 9)}$ chord. The background figure shown in Figure 104 appears three times.

[61] This use of a major ninth on a tonic chord is a characteristic of many of Ellington's recordings: cf. *Transblucency* (mm. 4–5 and 11–12), *Blue Light* (mm. 3, 7 and 11) and *Cottontail* (mm. 1, 3, 9 and 11).

Figure 104: *In A Mellotone*, c. 1960 (Bill Berry's score)

Score, mm. 51–2, 53–4 and 63–4

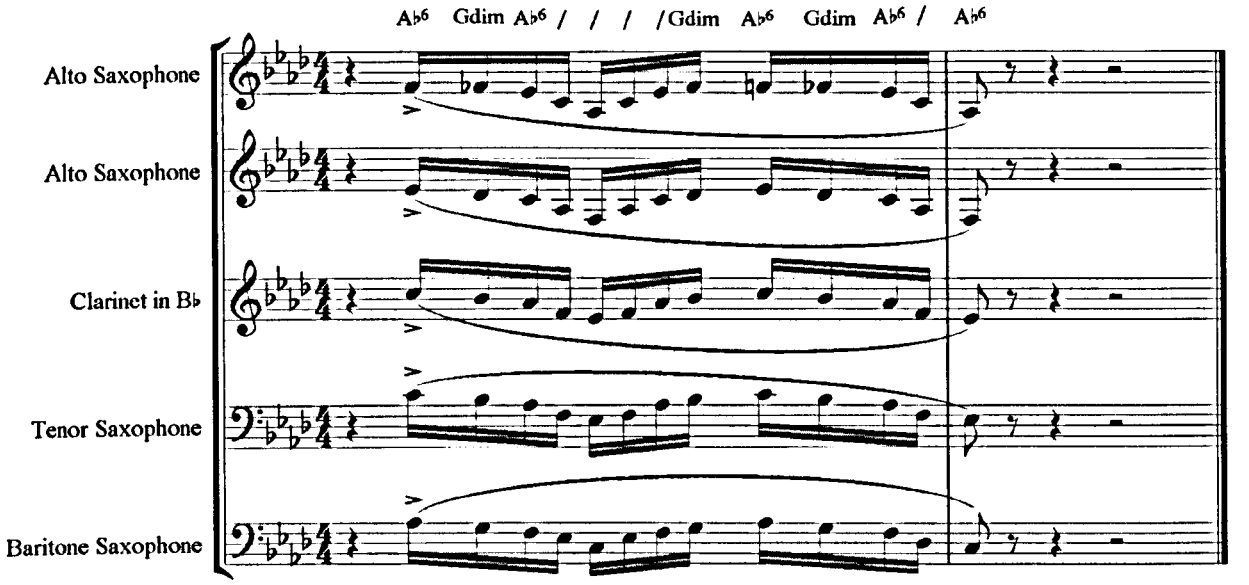
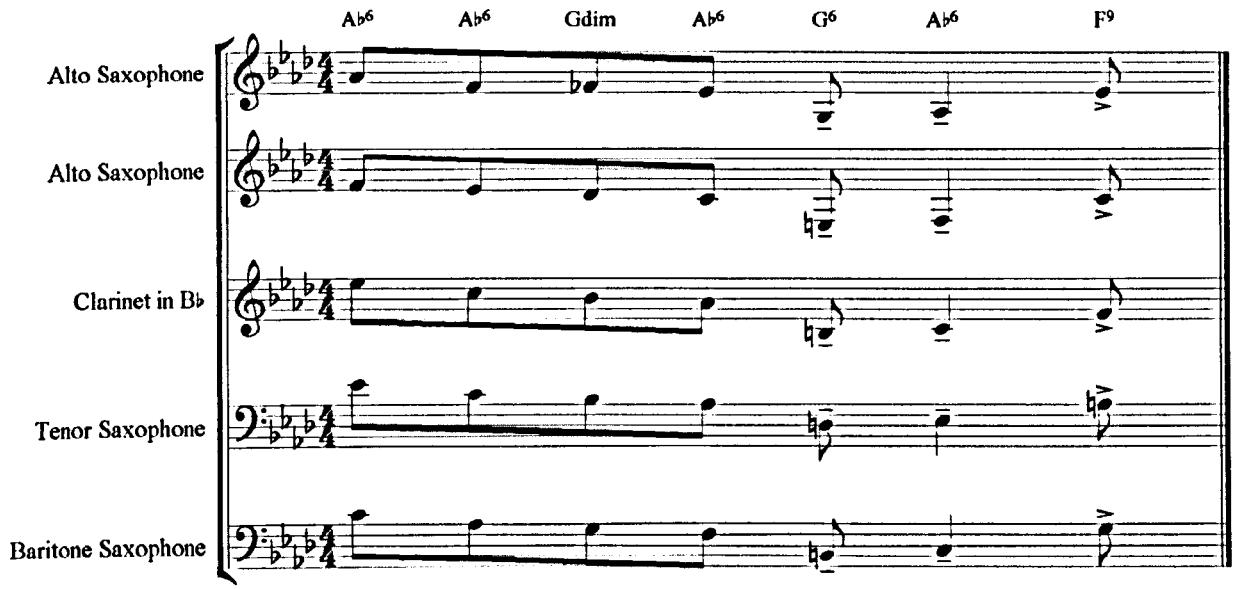


Figure 105: *In A Mellotone*, c. 1960 (Bill Berry's score)

Score, m. 59



This use of passing diminished chords creates continuous diatonic or chromatic movements in each line. In the 1940 arrangement similar diminished chords are used nine times (Fig. 106) and a vii$^{7(5\flat)}$ chord is used once (Fig. 107). This Gm$^{7(5\flat)}$ chord can

also be seen as a rootless V chord: it is not always necessary, or possible, to include the chord root in a thickened-line harmonisation.

Figure 106: *In A Mellotone*, 1940
Score, mm. 51–2, 53–4 and 63–4

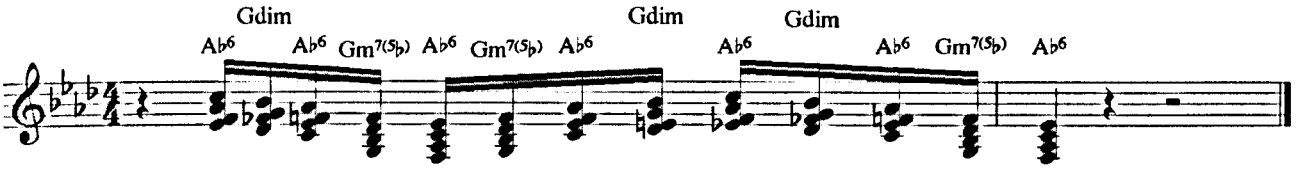
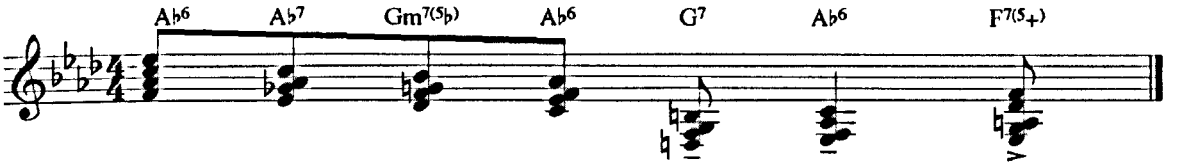


Figure 107: *In A Mellotone*, 1940
Score, m. 59 (Fig. 98)

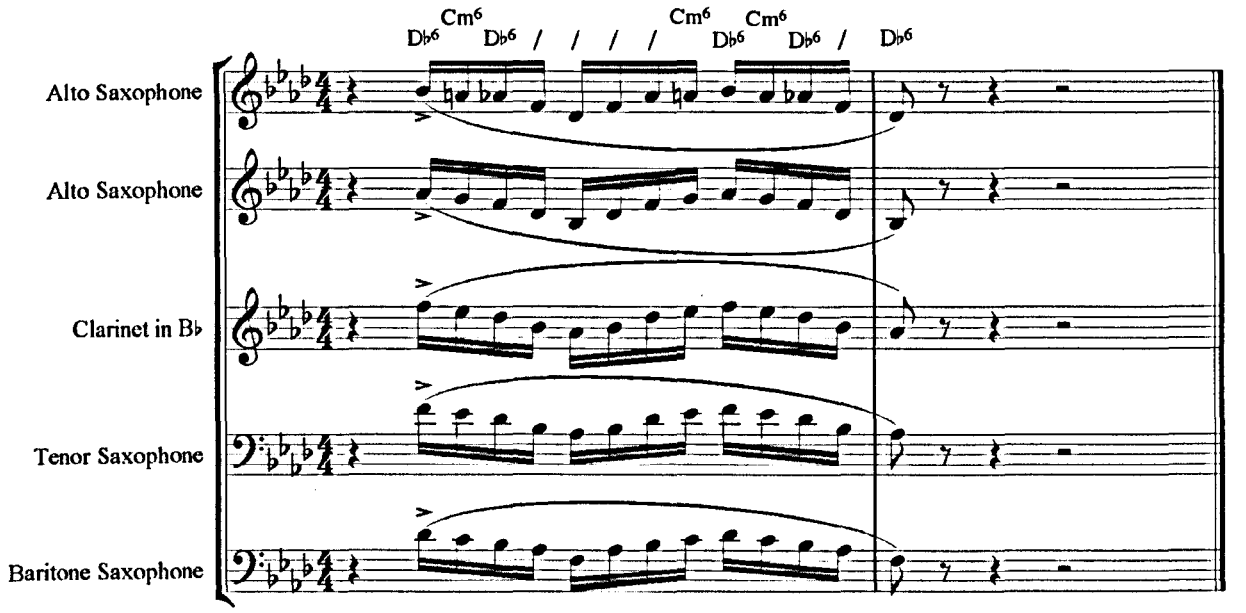


In Figure 107 the $Gm^{7(5\flat)}$ passing chord is preceded by a dominant-quality tonic chord and continuous diatonic and chromatic movement is maintained. When the ensemble play the ascending line (score m. 64), the technique of diatonic planing is used in the 1940 recording and the $B\flat$ passing note is harmonised using a Cm^7 chord. In Bill Berry's score, the ascending line begins on $E\flat$ and not C. The combination of notes used to harmonise the $B\flat$ passing note supports the suggestion that the parts may have been collected from different arrangements (Fig. 103).

When the chord of the moment is the subdominant ($D\flat$ major), the non-chordal passing note of $E\flat$ occurs four times. A iii^6 chord (Cm^6) is used three times, as shown in Figure 108.

Figure 108: *In A Mellotone*, c. 1960 (Bill Berry's score)

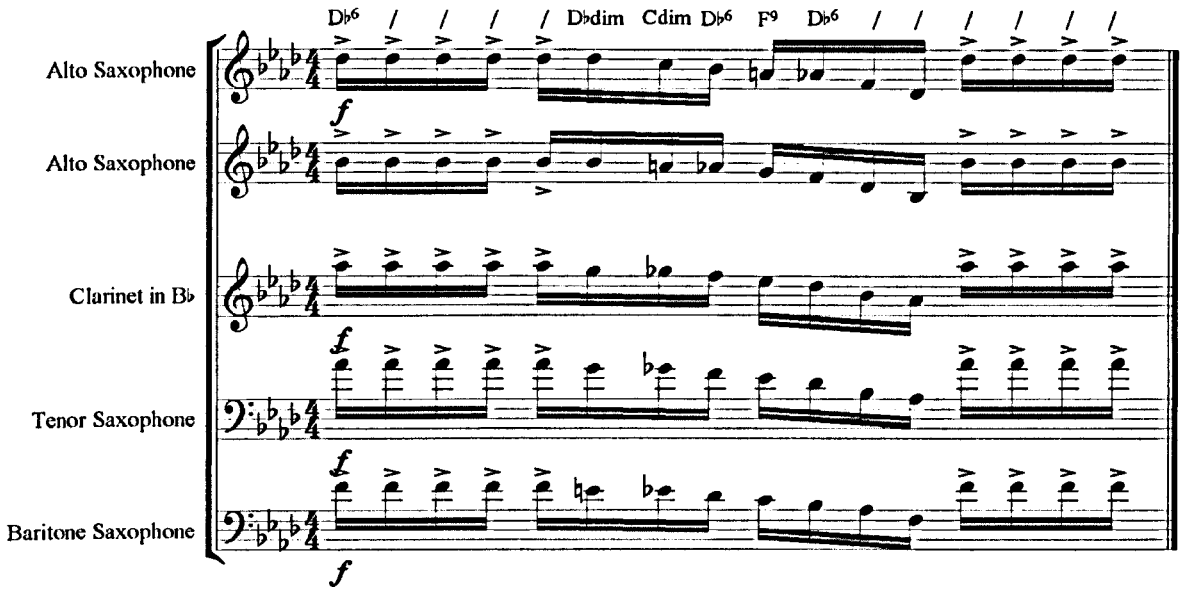
Score, mm. 55–6



The use of a Cm^6 rather than a Cdim chord creates chromatic movement in the first alto saxophone part and allows the second alto saxophone to play a diatonic line: a diminished chord would have introduced a $G^{\flat}$ into the second alto saxophone part. The fourth non-chordal passing note of $E^{\flat}$ (score m. 57) is harmonised using a VI^9 chord (F^9) in both arrangements as illustrated in Figure 109.

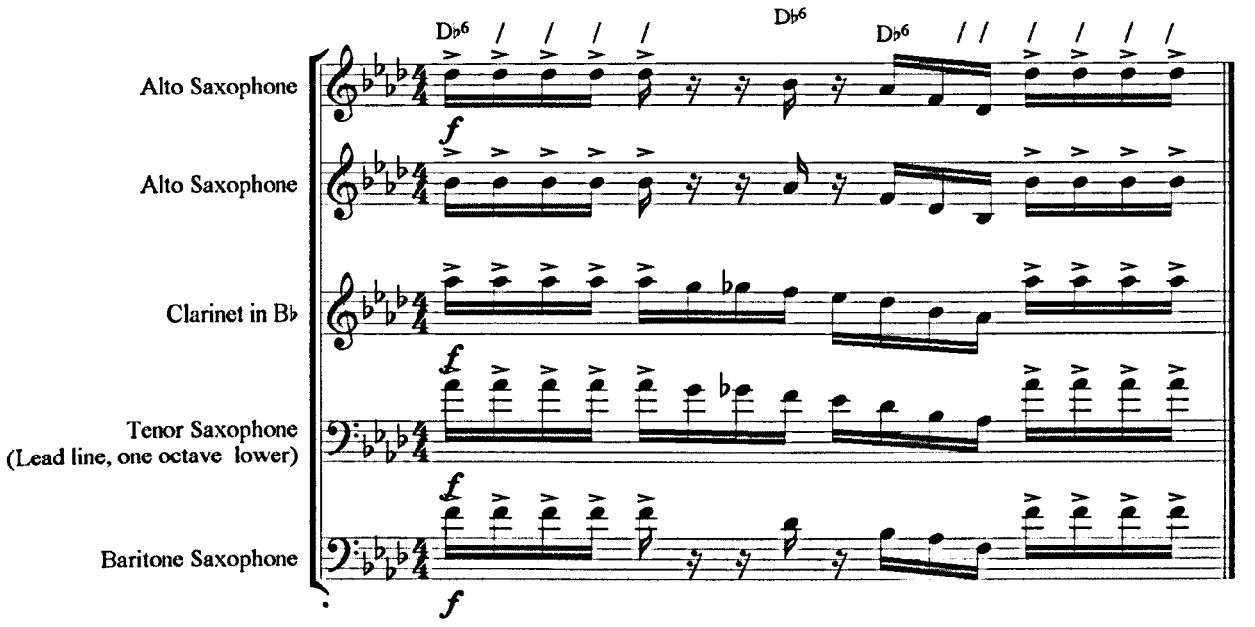
Figure 109: *In A Mellotone*, c. 1960 (Bill Berry's score)

Score, m. 57



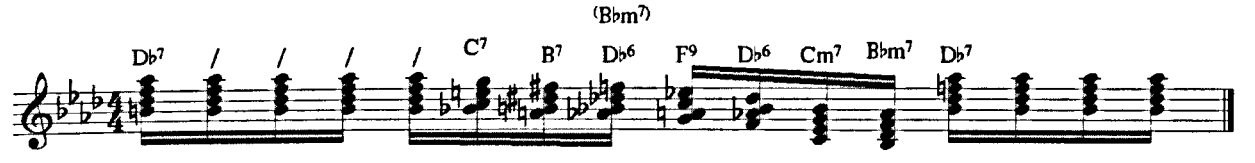
This F^9 chord could have been created by adopting a linear approach. Using this technique all chordal notes can be harmonised using the chord of the moment as shown in Figure 110.

Figure 110: *In A Mellotone*, c. 1960 (Bill Berry's score)
Score, m. 57, without passing chords



The G natural and G flat in the clarinet line can then be harmonised using passing diminished chords. The F^9 chord is created when all the first alto saxophone moves chromatically from $B^\flat$ to $A^\flat$ and plays an A natural, and the second alto and baritone saxophones move diatonically from $A^\flat$ to F and $D^\flat$ to $B^\flat$ respectively. The corresponding section in the 1940 version is slightly different as the chord of the moment has a dominant-seventh quality but the F^9 chord appears in a similar position. Other passing chords are generated by diatonic and chromatic planing.

Figure 111: *In A Mellotone*, 1940
Score, m. 57



When the chord of the moment is a dominant-seventh-quality chord built on the supertonic ($B^{\flat 9}$), and the melody note is the second (C), it is treated as a ninth and harmonised with a dominant-ninth voicing.

When the non-chordal passing note is a fourth, the following processes can be identified:

When the chord of the moment is built on the dominant ($E^{\flat 7}$), the passing note, $A^{\flat}$, is treated as an eleventh ($E^{\flat 11}$) and harmonised using a ii^7 chord ($B^{\flat}m^7$); this maintains the dominant quality of the chord. A non-chordal melody note of a fourth, above a chord built on the subdominant, appears twice in each arrangement, i.e. $G^{\flat}$ over a $D^{\flat}$ chord. In both arrangements Ellington used the technique of tonicisation to harmonise *one* of these notes: a $iii^{7(5\flat)}$, ($Cm^{7(5\flat)}$), chord is used. As in previous examples, this is actually a rootless I^9 chord ($A^{\flat 9}$) which acts as a temporary dominant. The second time this note appears, it is harmonised using a $^{\flat}III^7$ chord (B^7) in the 1940 arrangement (Fig. 111). This chord is produced when the $D^{\flat 7}$ chord is planed downwards chromatically. The B^7 chord then functions as an upper-chromatic dominant that moves smoothly to the $B^{\flat}m^7$ chord (enharmonically $D^{\flat 6}$) that follows. Tonicisation is used in the 1960 arrangement: a C dim chord is used to create another rootless dominant-seventh-quality chord (Fig. 108), with a diminished ninth ($A^{\flat 7(\flat 9)}$).

4. Cottontail

> When I joined I didn't have any music. He hadn't written any parts for me. I guess I'd been in the band about three months and still no music. I was added to the saxophones, you see, and I was trying to find that fifth part. Barney Bigard used to give me his parts sometimes – he hated tenor – and I'd try to look at Johnny Hodges' music and transpose to tenor. So after a while I asked the Duke, 'When are you going to write me some parts?' And he said, 'You're doing all right.' He was having fun at me trying to work out the fifth part. So finally, when he started to get me some parts, Tizol – who sat right behind me – noticed that certain notes I played struck him as soft. He asked why I didn't blow those notes out, and I told him some of those notes didn't sound right to me. That's why I blew them softer. He told me, 'Blow them out, that's the way he wants them.'
>
> Ben Webster[77]

Cottontail[78] is one of the most outstanding recordings made by Duke Ellington's 'Blanton–Webster' orchestra. The now famous Hollywood recording features a solo by Ben Webster that is widely regarded as one of the finest and most memorable in the history of jazz. In addition, the bass playing of Jimmie Blanton, through this and many other recordings with Duke Ellington, defined the future of double bass playing. This seminal recording[79] predated bebop and 'modern' jazz, and yet sets out many of the ideas and techniques that would influence generations of musicians that followed:

- The 'bebop contrafactum' technique of draping a unison melody played by trumpet and saxophone over an existing chord sequence, in this case George Gershwin's *I*

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[77] Max Jones, *Talking Jazz* (London: Macmillan, 1987), pp. 83–4 (also Nicholson, *op. cit.*, p. 216).

[78] Also known as *Hot Chocolate* (recorded December 1941) and *Shuckin' And Stiflin'* which was included in *Jump For Joy*, a musical revue written by Sid Kuller and Duke Ellington. The show opened at the Mayan Theater, Los Angeles, on 10 July 1941 and closed, after 101 performances, on 27 September 1941. The company of 60 was headed by Dorothy Dandridge. The show included *I Got It Bad And That Ain't Good*, *Rocks In My Bed*, *Jump For Joy* and *Bli Blip*.

[79] First recorded in Hollywood on 4 May 1940, it was recorded 75 times between 10 May 1940 and 8 January 1973 – 79 times with alternate takes and titles.

Got Rhythm, would become the technique used to generate the majority of the 'bop' repertoire over the following 15 years.

- The writing of extended soli sections pre-dates the saxophone writing of Jimmy Giuffre's *Four Brothers* for Woody Herman's 'First Herd' by seven years, and began a tradition that Thad Jones would carry on into the 1970s in compositions like *Little Pixie*, *Fingers* and *Groove Merchant.*
- The generation of highly complex concerted ensemble passages established sounds and tonal colours that would influence the writing of many 'modern' arranger/composers, such as Gil Evans, Bob Brookmeyer and Thad Jones.

The following analysis considers *Cottontail* as another example of the unique, symbiotic and reciprocal relationship between Ellington and his musicians. It also examines the enormous contribution of Ben Webster, and Ellington's linear approach to orchestration. The accompanying score was assembled using various extant resources and by listening to and transcribing the audio recording. No autograph score of the piece has survived; the Smithsonian Collection has an incomplete set of original parts – copied in pencil by Juan Tizol, c. 1940 – and a number of scores that appear to have been assembled, using incomplete sets of band parts, by copyist Tom Whaley in later years when his eyesight was failing. These scores contain many errors and none appear to be from the 1939–40 period.

As with many Ellington titles, there has been much discussion concerning the composition rights. Occasionally, complete orchestrations, or sections of orchestrations, were supplied by sidemen: *Cottontail* is an example of this. The theme was composed, and much of the arrangement supplied, by the great Kansas City tenor saxophonist Ben Webster.

Ben Webster played with Ellington in 1935, 1936, 1940–3 and 1948–9. He studied piano and attended Wilberforce University before taking up the tenor saxophone when

he was 21 years old. Records of his wages with Ellington's band included payments for 'extractions and arrangements'.[80] Rex Stewart wrote in *DownBeat* in 1967:[81]

> As a composer and arranger, Ben's most significant contribution was Cottontail, for which he also wrote the now famous saxophone section chorus.

Trumpeter Jimmy Maxwell was a great friend of Ben Webster[82] and he confirmed that Webster wrote the theme and composed and arranged the saxophone soli. Other than the theme and soli section, Maxwell said that the '... rest of the chart is Duke's'.

Melody

The angular melodic and rhythmic patterns combined with the use of ninths, flattened fifths and the resulting tonal ambivalence[83] presaged the bebop revolution.

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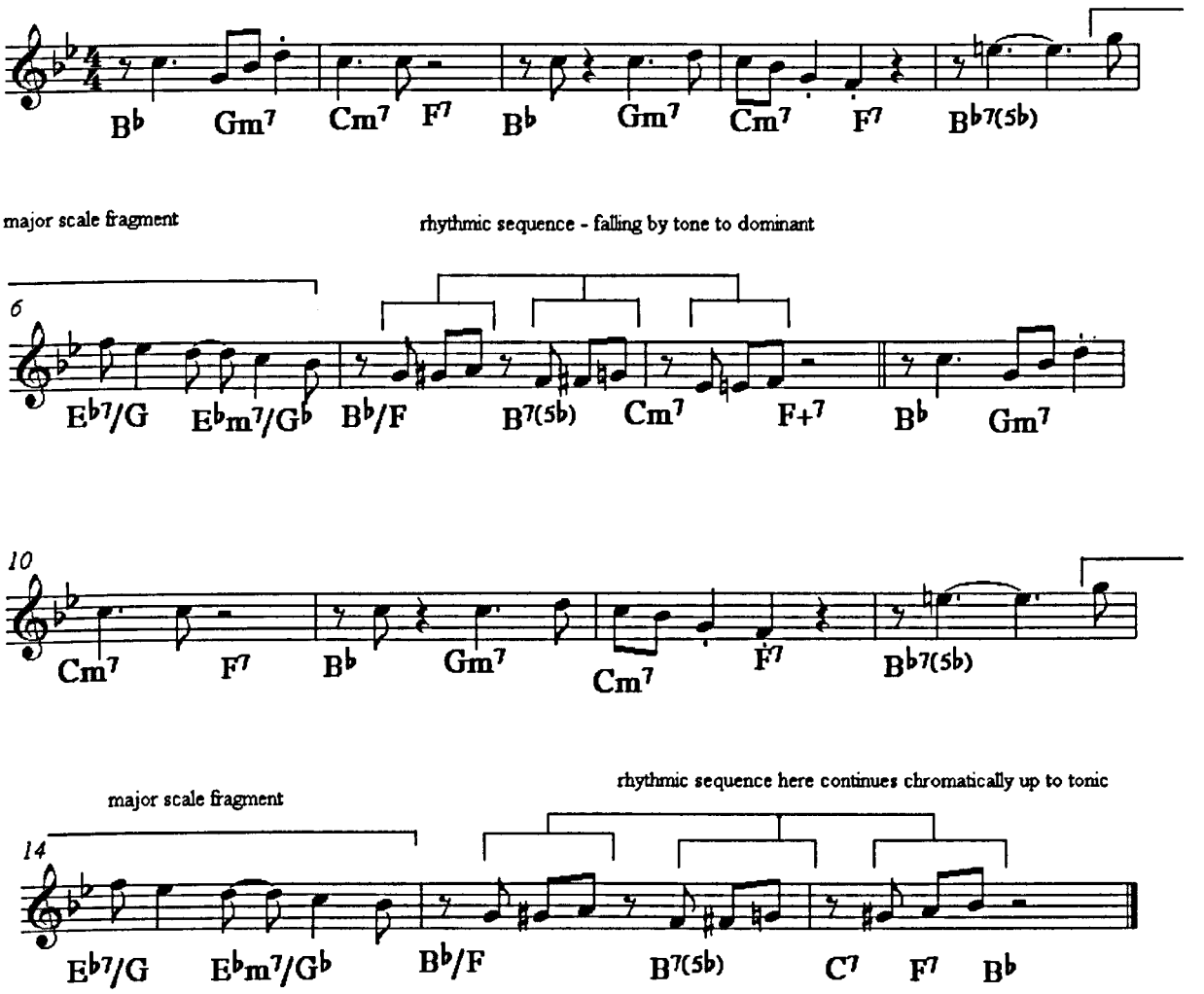
[80] Ann K. Kuebler, archivist at Smithsonian Institution, Ellington Collection, personal communication.

[81] Rex Stewart, *Jazz Masters of the Thirties* (New York: Da Capo, 1972), p. 23. Originally published in *DownBeat*, 1 June 1967.

[82] David Berger, personal communication, email, 6 June 2003. David Berger is recognised internationally as a leading authority on the music of Duke Ellington and the swing era. Conductor and arranger for the Lincoln Center Jazz Orchestra, from its inception in 1988 through to 1994, Berger has transcribed more than 500 full scores of classic recordings including over 350 works by Duke Ellington and Billy Strayhorn. Berger had trumpet lessons with Maxwell and later played in his band in New York.

[83] Schuller, *The Swing Era*, p. 127. 'If we look at only the melodic line ... we might easily consider it to be in C minor or perhaps set in some pentatonic scale. The E natural in the fifth bar is, of course, a surprise, but could in the key of C indicate a shift to the major. It isn't until the last note of the sixth measure, however, that the melody reveals itself, retroactively, as having been in B♭ all along. The E natural turns out to be a flattened fifth, and the whole stance of the melody is harmonically off kilter, at oblique angles to the base harmonies as it were.'

Figure 112: *Cottontail*, A section



The B section (mm. 17–24) features an eight-bar trumpet solo, by Cootie Williams, supported by a rich five-part harmonisation played by the saxophone section. Rather than follow the standard A A B A form, the final A section is replaced with a four-bar link section. These sections are examined below.

Arrangement

Ellington fashioned many showcase arrangements for his stellar soloists. Rex Stewart had *Trumpet In Spades* (*Rex's Concerto*, 11 July 1936), Ray Nance performed his

Concerto For Klinkers in *Jump For Joy* (1941), *Clarinet Lament* (28 February 1936) was *Barney's Concerto*, and Cootie Williams recorded his famous *Concerto* six weeks earlier on 15 March 1940. *Cottontail* could equally have been titled *Concerto For Frog*, or *Ben's Concerto*, as it is clearly *his* showcase.

The arrangement is 188 bars long and consists of six choruses based on Gershwin's (32-bar) *I Got Rhythm* chord changes. The first statement of the theme, however, is 28 bars long; the basic A A B A form is altered slightly, and the final A section is replaced by a link into Ben Webster's solo (Fig. 121).

The opening A sections are played in octave unison by alto and baritone saxophones, trumpet and trombone (Johnny Hodges, Harry Carney, Cootie Williams and Lawrence Brown). Punctuating backgrounds are added from m. 7; the remaining four brass players (Wallace Jones, Rex Stewart, Tricky Sam Nanton and Juan Tizol) play these 'pianistic' voicings. The B section features an improvised solo by Cootie Williams, score mm. 17–24, accompanied by five saxophones.[84] In contrast to the 'boppish', angular melody, the B section features sustained pads of sound played by the saxophones. This section is reproduced in Figure 113. It is difficult to establish whether the harmony in this section is the work of Ellington, Strayhorn, Ben Webster or the musicians themselves. Whoever is responsible, these 'modern' voicings would not sound out of place in a score produced for Dizzy Gillespie's big band by Tadd Dameron, George Russell or Gil Fuller, and their presence confirms that bop was 'in the air'.

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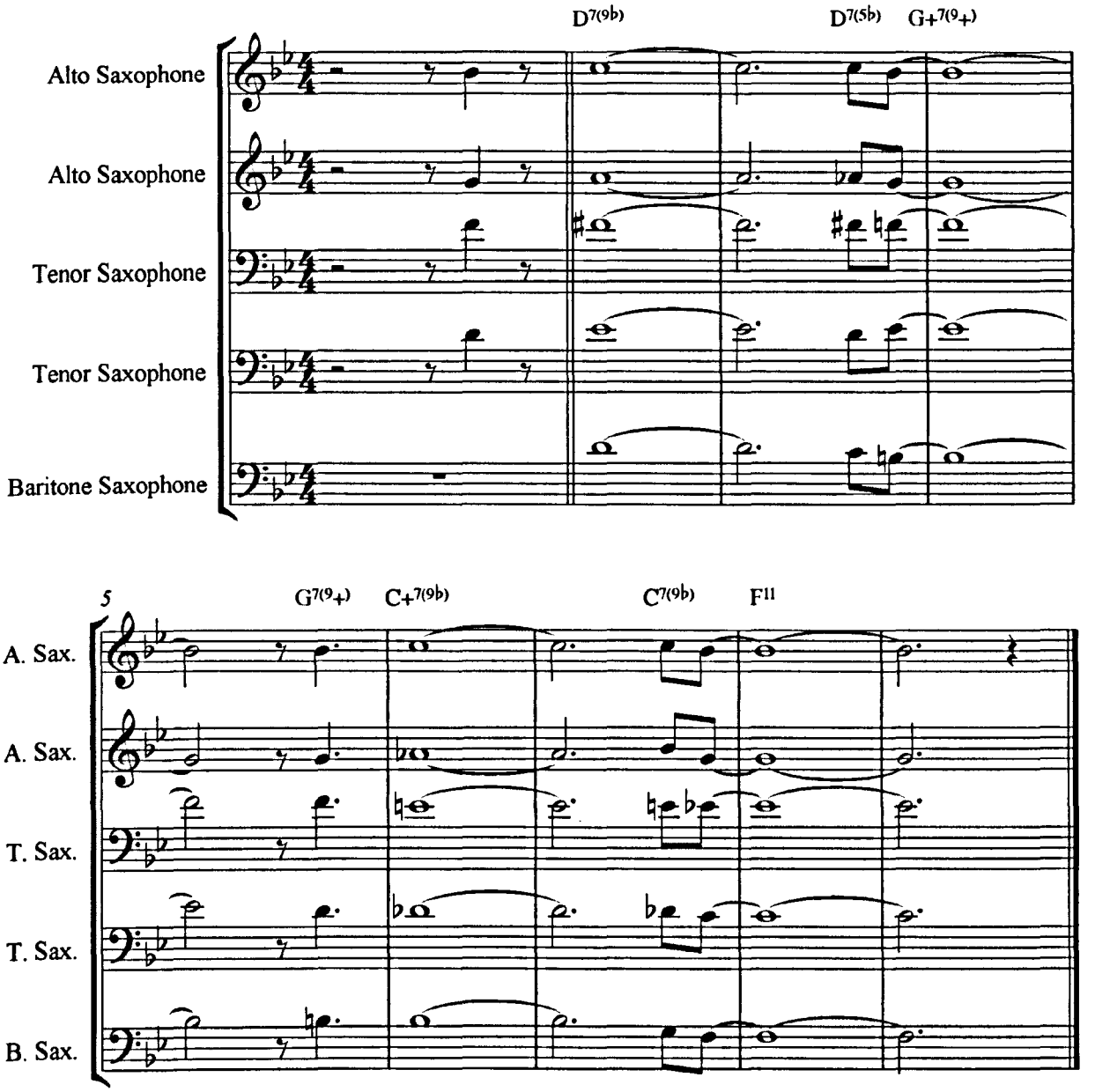
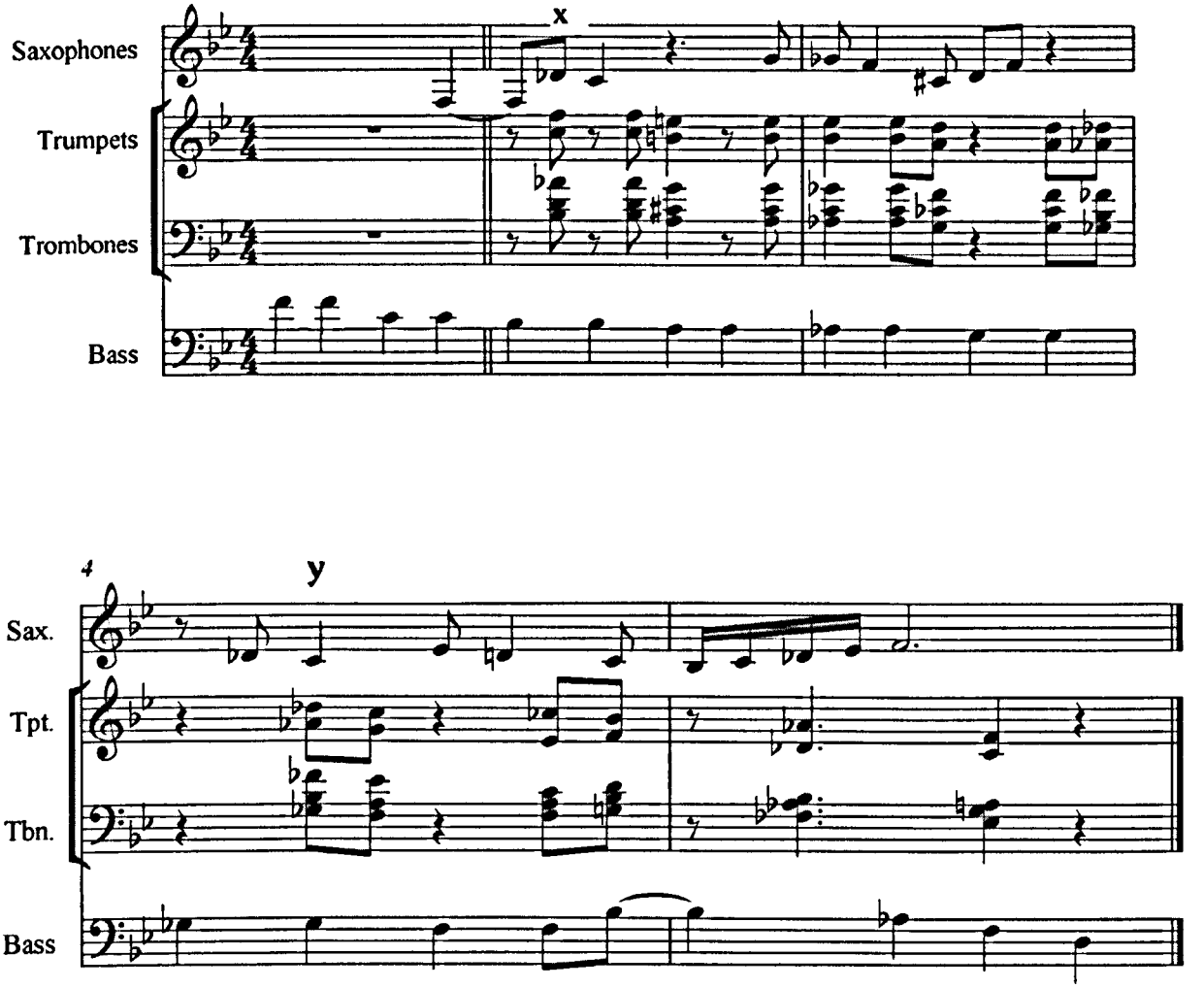
[84] Gunther Schuller's transcription (*ibid.*, p. 128) incorrectly shows a four-part harmonisation and omits numerous chord alterations.

Figure 113: *Cottontail*, saxophone background figures for trumpet solo
(cf. score, rehearsal letter B, mm. 16–24)



The four-bar link, Figure 114, acts as a springboard into the featured soloist's two choruses. The angular unison saxophone phrase imitates facets of the *Cottontail* theme. Both feature the ♪♫ pattern, and include a similar use of escape notes: the opening phrase in Figure 114: F D♭C, and m. 5 of the main theme (E G F in Fig. 114).

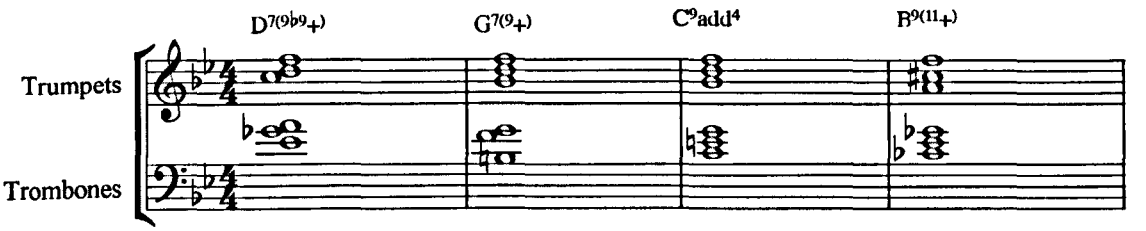
Figure 114: *Cottontail*, four-bar link section
(cf. score, rehearsal letter C, mm. 24–8)



This four-bar link section features descending dominant-quality ninth chords, played by two trumpets and three trombones. These descending chords are pianistic and, presumably, Ellingtonian in origin. It is possible that the unison saxophone line was dictated, perhaps by Webster himself, rather than scored. Harmonic clashes at **x** and **y** suggest that this section was perhaps never written on a score, as any vertical appraisal would have revealed augmented and major ninths at **x** and an augmented eleventh combined with a perfect fifth at **y**. This section acts as a springboard into the featured soloist's two choruses, shown in full in Figure 121 below.

The rhythm section accompanies Webster through his first 16 bars. Drummer Sonny Greer changes from brushes to sticks while guitarist Fred Guy and bassist Jimmie Blanton create a simple four-in-a-bar feel punctuated by Ellington's sparse, staccato interjections. In the first bridge section, the III-VI-II-V chords are played by three brass, with Barney Bigard playing the lead line on clarinet. The first chorus ends with eight fortissimo, staccato crotchets played by the brass section, once again with clarinet lead. For the first eight bars of Webster's second chorus, Jimmie Blanton plays a tonic pedal throughout; Ellington punctuates with low, sforzando, tonic chords with added sixths and ninths. Webster builds tension by repeating a rising sequential diminished-chord figure.[85] In the following eight bars, soloist and rhythm section follow the chord changes; Ellington makes very few interjections. When the brass, once again, play the chords of the bridge section, it is without any syncopation. Ellington uses an upper dominant pedal in each of the four dominant-quality chords.

Figure 115: *Cottontail*, dominant-quality chords used in brass voicings
(cf. score, rehearsal letter J, mm. 77–83)



This results in very rich and complex harmonies. The G^7 chord, for example, contains both diminished and augmented ninths. The C^7 chord includes both third and fourth: the fourth is an upper, tonic, pedal. Webster completes his solo, playing the last eight bars with rhythm section only.

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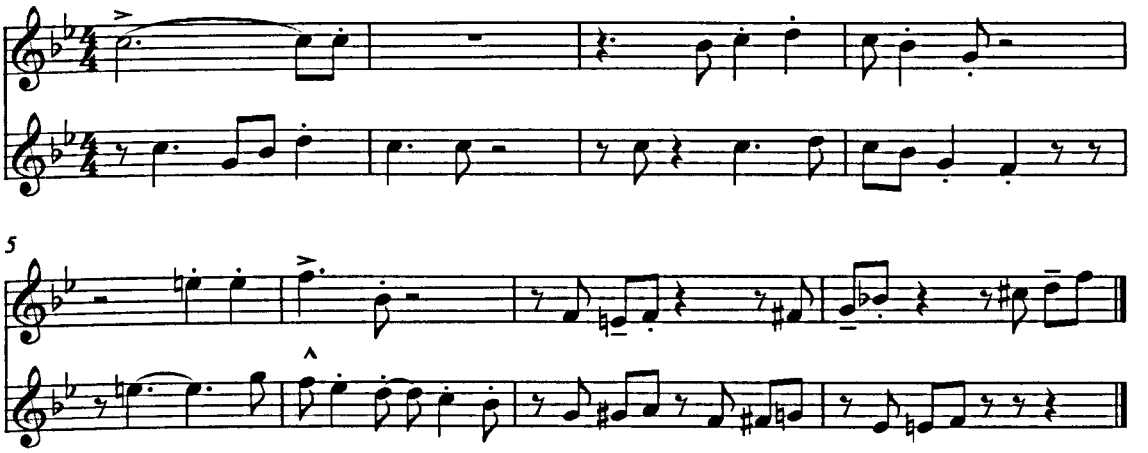
[85] There is a detailed analysis of Webster's *Cottontail* solo in the *Great Soloists* section (*ibid.*, p. 582).

At rehearsal letter L, the six brass begin their 16-bar soli. For this brass ensemble, the trombone section invert: Juan Tizol plays the lead line on valve trombone, and Lawrence Brown plays the third part. The melody is a development of the main *Cottontail* theme, as illustrated in Figure 116.

Figure 116: *Cottontail*, first section of brass soli illustrating similarities with main theme of Cottontail
(cf. score, mm. 93–100)



It seems likely that Ellington scored this section, as there are a number of identifying features consistent with his work of this period:

- Plural tertian triads are used, e.g. in score m. 100, C major in trumpets over E♭ major in trombones, followed by E♭ major in trumpets over F major in trombones.[86]
- The contrary motion between the trumpets and the trombones is similar to Ellington's writing in *Congo Brava* (15 March 1940).

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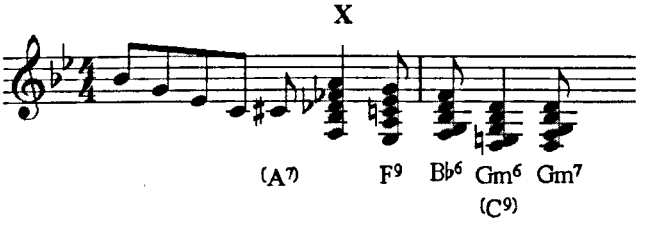
[86] Mercer Ellington told David Berger that 'his father showed him this technique when he was studying with him at this time' (personal communication with David Berger, email, 6 June 2003).

- The final four bars feature the 'three over four' syncopation that Ellington first used in *Old Man Blues* (July 1930) and *It Don't Mean A Thing If It Ain't Got That Swing* (2 February 1932).

Although there are a number of quartal triads, more often associated with the writing of Billy Strayhorn, they do also occur in Ellington's work of this period. An arpeggiaic solo by Harry Carney fills the following eight bars, followed by eight bars of Ellington's hard-swinging stride piano.

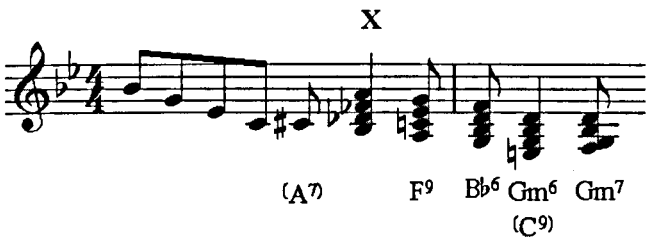
Ben Webster's soli for the saxophone section spans one-and-a-half choruses (48 bars). The reintroduction of Webster's trademark sequential treatment of material, seen in much of his solo, gives the piece unity (mm. 141–52). The soli was written using mainly thickened-line harmonisation, with the melody doubled an octave lower by the baritone saxophone. There are sections when the baritone does not double the melody, e.g. the last two notes in m. 126, and mm. 165–70. There has been much debate as to who is the composer of the *Cottontail* saxophone soli. The only evidence that supports the suggestion that Ellington wrote this section is the presence of a couple of Ellingtonian nuances. Firstly, there is a synthetic harmony voicing in m. 126; similar voicings can be found elsewhere in Ellington's work.

Figure 117: *Cottontail*, saxophone soli, mm. 126–7



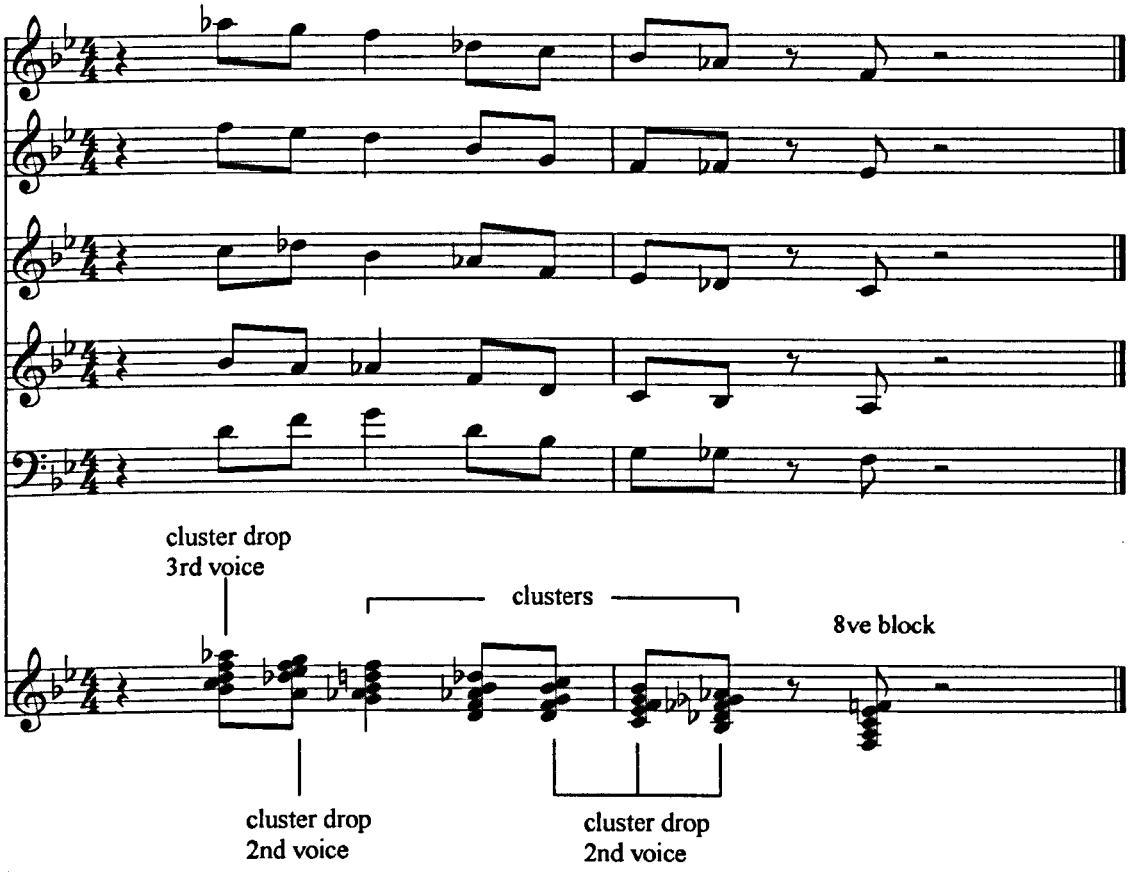
With the fifth voice removed:

Figure 118: *Cottontail*, saxophone soli, mm. 126–7 with fifth voice removed



The synthetic harmony at **X** is produced by planing all supporting harmony voices up, by a semitone, from the target chord that follows (F^9). There are a number of possible explanations for this: Webster may have been familiar with this harmonic device, Ellington may have altered the section during rehearsal, or perhaps Ellington showed Webster the technique. Some unusual voicings can also be found in the final 16 bars of the soli. In mm. 157 and 158 (Fig. 119) the baritone plays a typically Ellingtonian independent line. Even if these voicings are considered as cluster voicings with a dropped voice, they are quite different to those found in the preceding 32 bars.

Figure 119: *Cottontail*, saxophone soli, mm. 157–8



More cluster voicings are used to harmonise sections of the *Cottontail* melody variation that begins in m. 161 and continues to m. 168. Generally, the writing style in this closing 16-bar section of the soli is very similar to that used in the brass soli, score mm. 93–108, and there is some doubt concerning the authorship.

The full brass section accompanies the last 16 bars of the saxophone soli. They create a 'shout chorus' effect using the syncopated chords shown in Figure 120.[87]

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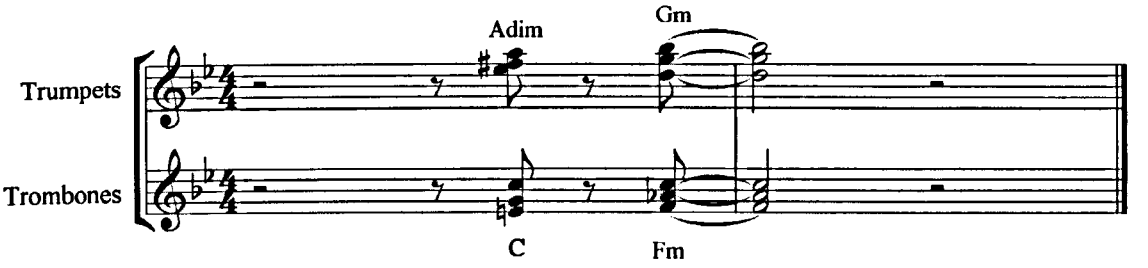
[87] In the *Jazz at Lincoln Center Library* score of *Cottontail*, prepared in 1998 by David Berger and Brent Wallerab, the third trumpet line plays C - D.

Figure 120: *Cottontail*, plural triads in brass section voicings
(cf. score, mm. 156–62)



The first chord is an altered A^7 chord, followed by a $B^{\flat 13}$ voicing; both chords are expressed using plural tertian triads. The *Cottontail* saxophone section soli ends with a unison dominant pedal accompanied by syncopated brass punctuations, score mm. 171–2. This leads into the climax of the piece, an eight-bar tutti section, mm. 173–80.

These eight bars of concerted writing, mm. 173–80, form the climax of the arrangement, and contain some of the most complex harmonies found in any of Ellington's work. It is difficult to establish exactly how these dense harmonies were generated. The confusing mixture of surviving scores and parts gives few clues.

The melodic material is clearly a development of a fragment taken from Ben Webster's solo. Webster's solo features what Gunther Schuller describes as one of Webster's 'favourite devices; a descending chromatic line, usually evenly spaced, and often set in cross-rhythms'.[88] Examples of this are identified below in Figure 121. In the first eight bars of the solo there are two examples of a decorated, descending chromatic line. The first descending line is clearly visible when part of the opening phrase of the solo is repeated a minor third lower. The second example is not as obvious but descends similarly by a perfect fourth. Both examples are identified with arrows below in Figure 121.

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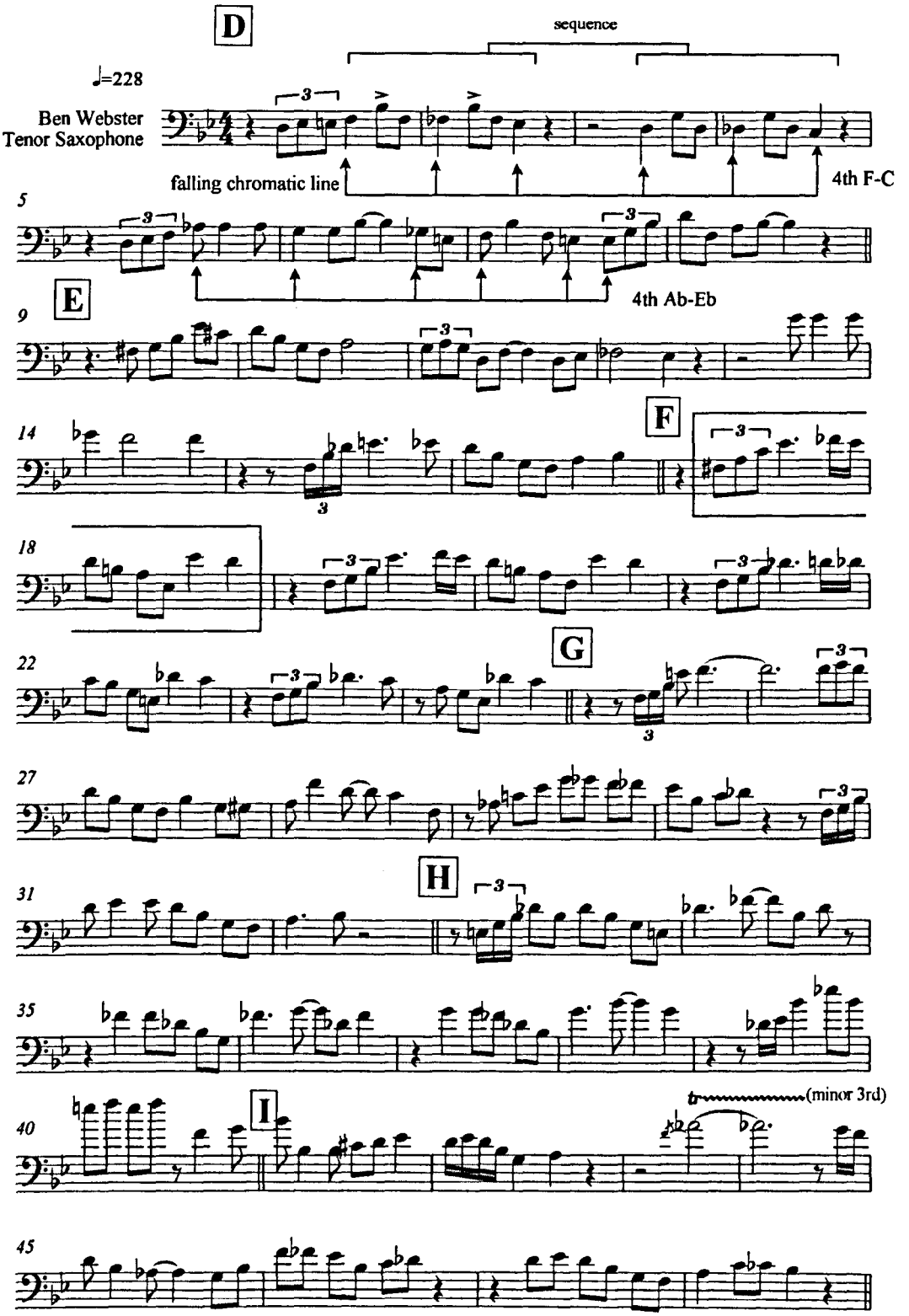
[88] Schuller, *The Swing Era*, p. 582.

Figure 121: Transcribed solo, Ben Webster



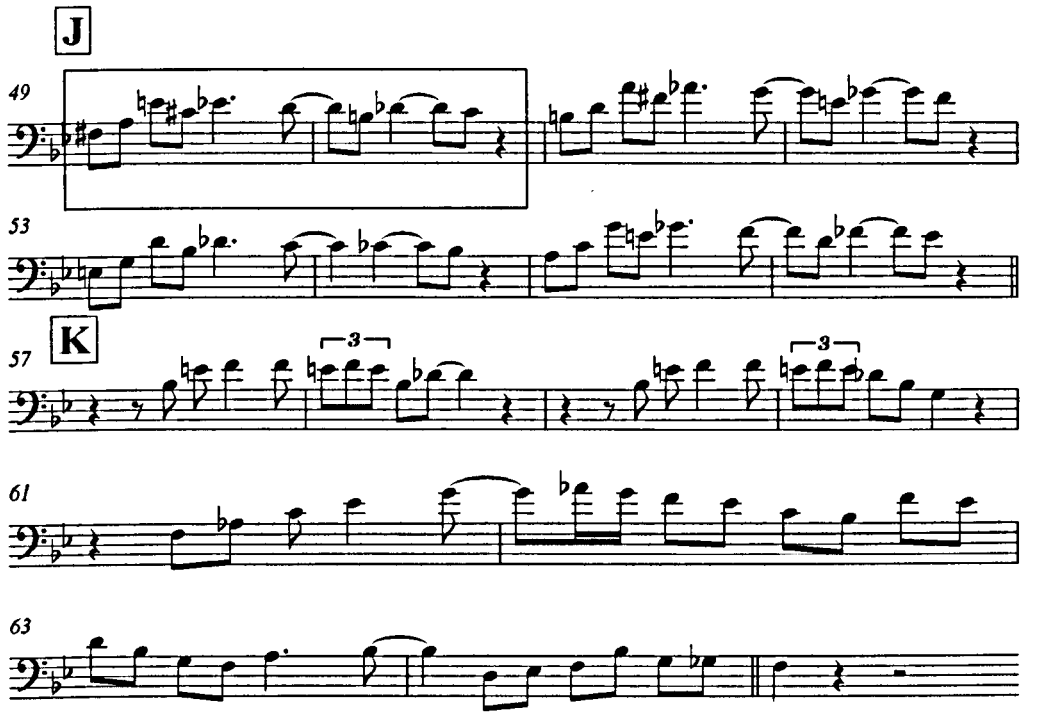
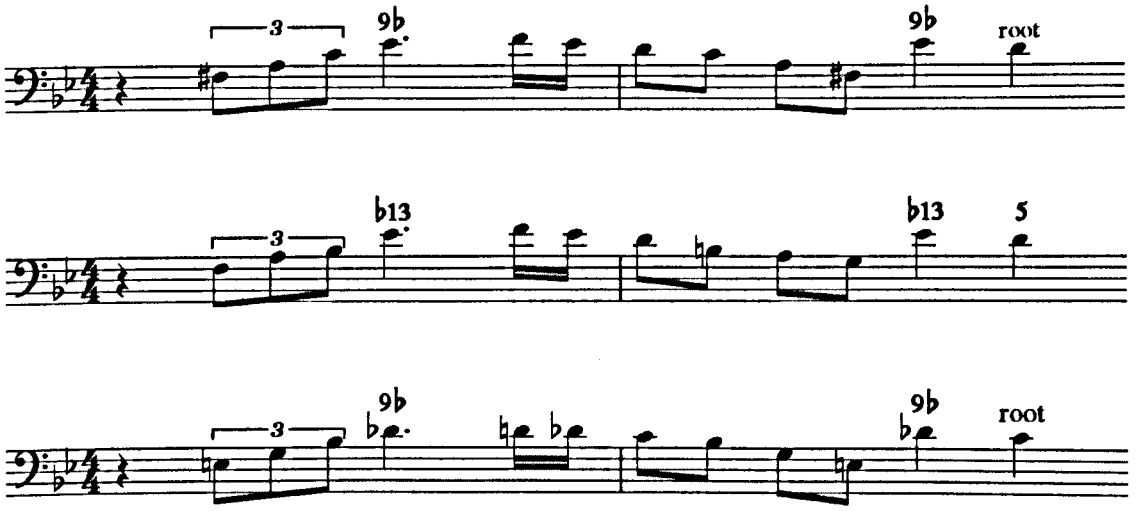
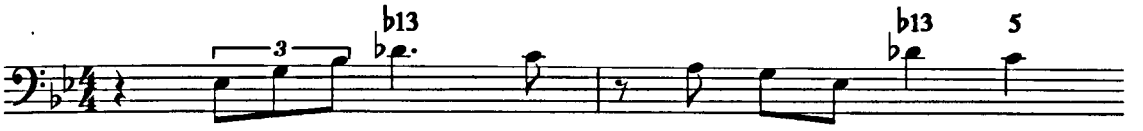


Figure 122 shows how the eight-bar bridge section (score, rehearsal letter F) is created from four two-bar phrases. Each time the phrase appears it is modified slightly to fit the underlying, altered, III-VI-II-V sequence. A descending pattern can also be found here; the opening note of each phrase appears a semitone lower each time.

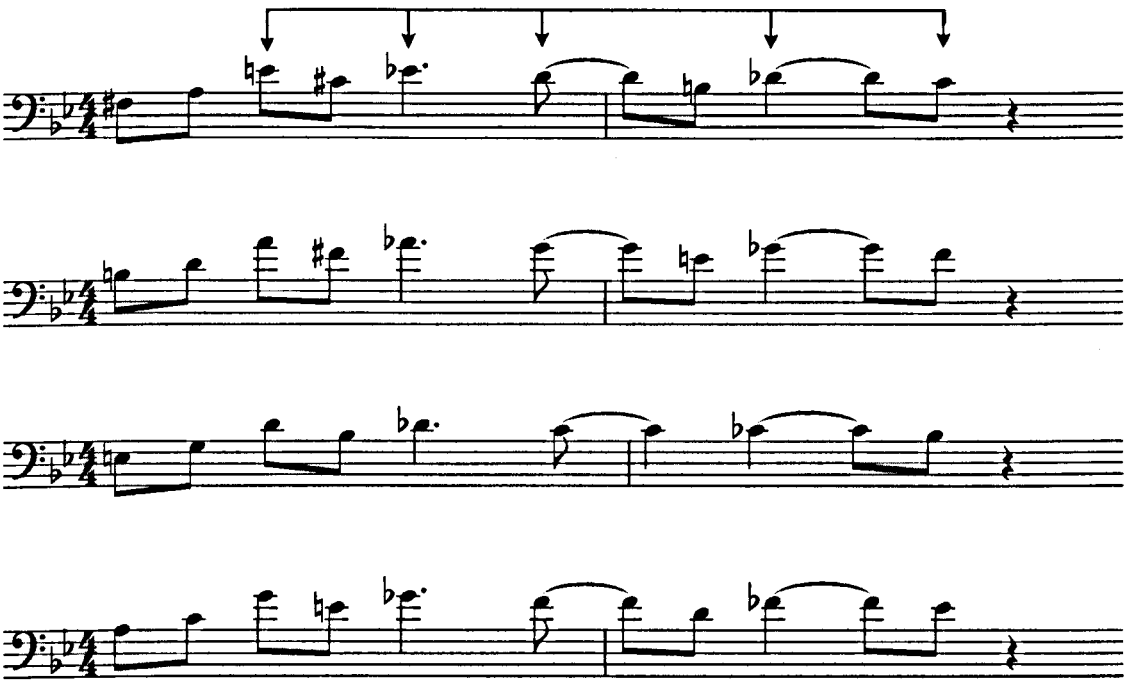
Figure 122: *Cottontail*, phrases used in Webster's solo
(cf. score, mm. 45–52)





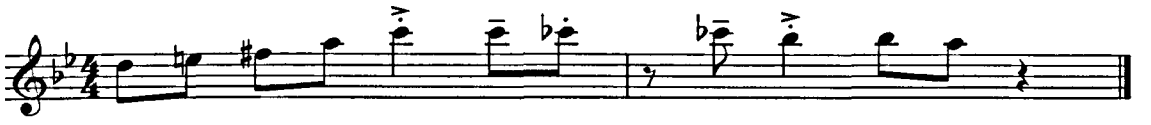
The target chord note on the third beat does not change until the third statement of the phrase, when it falls by a tone to D♭. The phrase Webster used to construct the second bridge section of his solo (rehearsal letter J) features a similar descending pattern. This descending chromatic line is identified in Figure 123.

Figure 123: *Cottontail*, phrases used in Webster's solo
(cf. score, mm. 77–84)



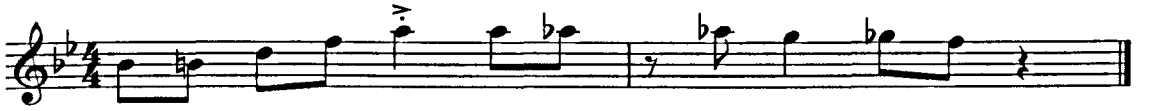
This sequence of phrases follows the chord progression, beginning each time on the third of the chord of the moment and ending on its seventh. Each time the descending chromatic line falls by an interval of a major third from major ninth to minor seventh. The ensemble section, mm. 173–80, is a development of *this* phrase, as can be seen in Figure 124.

Figure 124: *Cottontail*, lead line of ensemble section
(cf. score, mm. 173–4)



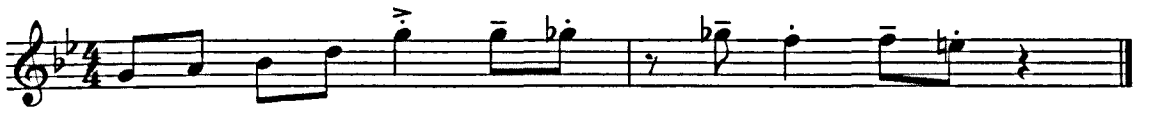
The phrase begins on the root of the chord of the moment, D^7, the target note, on the third beat and is the seventh of the chord; from this point, the descending chromatic line features a similar syncopated rhythmic pattern. The phrase is amended as the harmony progresses through a cycle of fifths. Over the G^7 chord, it begins on the minor third, $B^{\flat}$, and the target note is the ninth: this falls by a major third and ends on the seventh.

Figure 125: *Cottontail*, lead line of ensemble section
(cf. score, mm. 175–6)



Over C^7 the phrase's starting note of the phrase falls by an interval of a major third to G, the fifth of the chord of the moment; the target note is also the fifth.

Figure 126: *Cottontail*, lead line of ensemble section
(cf. score, mm. 177–8)



Over the final dominant chord, F^7, the starting note is also G, the ninth of the chord of the moment. The chromatic line descends from the target note, the root of the chord, and ends on an augmented fifth.

Figure 127: *Cottontail*, lead line of ensemble section
(cf. score, mm. 179–80)

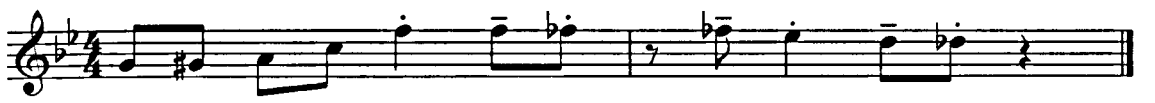
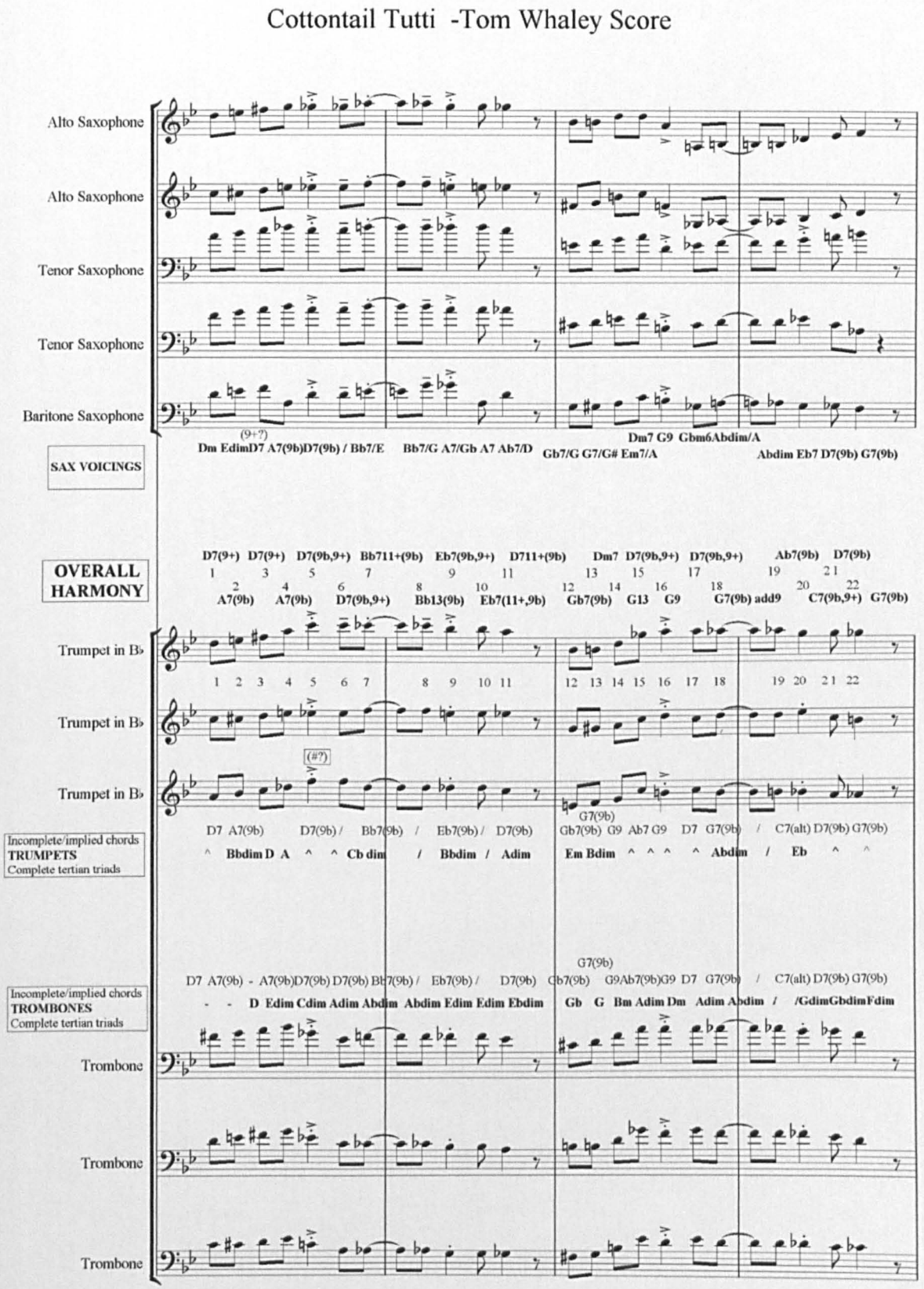
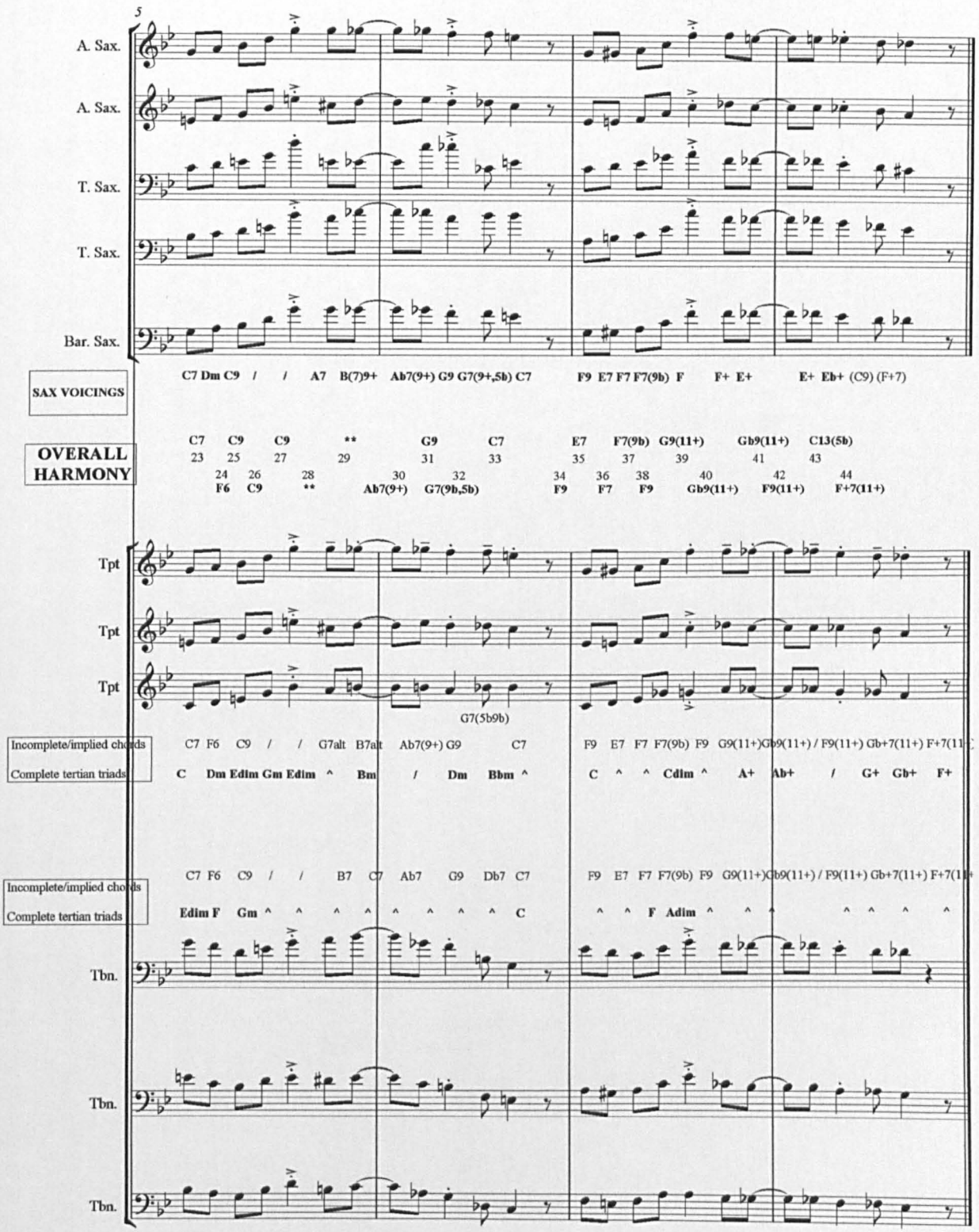


Figure 128 shows a transcription of Tom Whaley's score of the tutti ensemble section. There appear to be copying errors, however. The last two notes in the lead trumpet line, m. 4, are G natural to G flat; these notes clash with the underlying $D^7 - G^7$, harmony. It seems likely that the trumpet should play the same notes as the lead trombone and baritone. The first three notes of Harry Carney's baritone line also include what appear to be copying errors. In this type of thickened-line harmonisation the baritone usually doubles the lead alto line; this would suggest that the (F) sharp is missing from the baritone part. However, as will be seen in the following analysis, it *is* possible that Ellington wanted the baritone to play an F natural, the augmented ninth of the chord.

Figure 128: *Cottontail* tutti (Tom Whaley score)




5
A. Sax.
A. Sax.
T. Sax.
T. Sax.
Bar. Sax.
SAX VOICINGS
C7 Dm C9 / / A7 B(7)9+ Ab7(9+) G9 G7(9+,5b) C7 F9 E7 F7 F7(9b) F E+ E+ E+ Eb+ (C9) (F+7)
OVERALL HARMONY
C7 C9 C9 ** G9 C7 E7 F7(9b) G9(11+) Gb9(11+) C13(5b)
23 25 27 29 31 33 35 37 39 41 43
24 26 28 30 32 34 36 38 40 42 44
F6 C9 ** Ab7(9+) G7(9b,5b) F9 F7 F9 Gb9(11+) F9(11+) F+7(11+)
Tpt
Tpt
Tpt
G7(5b9b)
Incomplete/implied chords
Complete tertian triads
C7 F6 C9 / / G7alt B7alt Ab7(9+) G9 C7 F9 E7 F7 F7(9b) F9 G9(11+) Gb9(11+) / F9(11+) Gb+7(11+) F+7(11+)
C Dm Edim Gm Edim ^ Bm / Dm Bbm ^ C ^ ^ Cdim ^ A+ Ab+ / G+ Gb+ F+
Incomplete/implied chords
Complete tertian triads
C7 F6 C9 / / B7 C7 Ab7 G9 Db7 C7 F9 E7 F7 F7(9b) F9 G9(11+) Gb9(11+) / F9(11+) Gb+7(11+) F+7(11+)
Edim F Gm ^ ^ ^ ^ ^ ^ ^ ^ C ^ ^ F Adim ^ ^ ^ ^ ^ ^ ^
Tbn.
Tbn.
Tbn.

There are many differences between what appears on Whaley's score – presumably created using musicians' parts – and what the musicians actually played on the recording. In the following score, Figure 131, these differences are identified: all amendments are enclosed in boxes. It is very difficult to establish exactly what brought about these alterations. On the score prepared by Whaley, Figure 128, the tutti begins with what appears to be a development of a simple, four-part, thickened-line harmonisation.

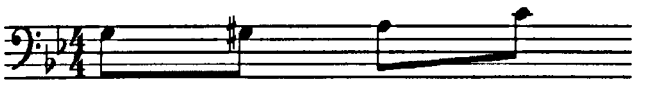
1st part:	Trumpet 1	Alto 1	Trombone 2	Baritone
2nd part:	Trumpet 2	Alto 2	Trombone 3	
3rd part:	Trumpet 3	Tenor 1		
4th part:	Trombone 1	Tenor 2		

The voicing on the third beat, however, is harmonised independently. This creates contrary motion to the rising melody in all but the baritone saxophone and the trumpets' lines. After the third beat, each instrument once again 'doubles' a part from another section.

1st part:	Trumpet 1	Trombone 2
2nd part:	Trumpet 2	Trombone 1
3rd part:	Trumpet 3	Tenor 1
4th part:	Trombone 3	Alto 1

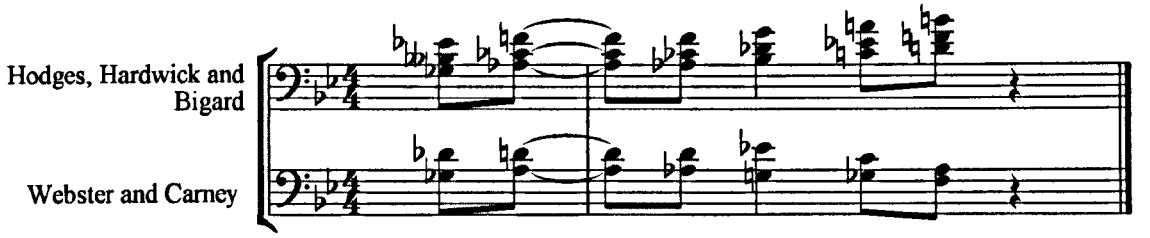
In mm. 3 and 4, this pattern is repeated; each instrument drops an interval of a third or fourth and begins to repeat the phrase. The first chord of $G^{\flat 7}$ is planed up by a semitone to the G^7 voicing used to harmonise the second quaver. The baritone saxophone has the line shown in Figure 129, however.

Figure 129: *Cottontail*, baritone saxophone line, ensemble section
(cf. Fig. 128, m. 3)



Initially, this appears to be a copying error as both opening notes clash with other harmonies: the baritone moves chromatically from G to G♯ while the rest of the band plane a G♭7 chord up to a G7. On the transposed part marked *Carney Cotton Tail 38*, in the Smithsonian's Ellington Collection, the notes are G, G♯, A and C, as shown in Figure 129. This is not an error, however, as the baritone is doubling the second trumpet line and plays the flattened ninth in the first two voicings. Once again, the chord on the third beat, m. 3, is harmonised independently, as in the first statement: here a G9 voicing is used. After this chord, however, while the brass plane their voicing down chromatically, the saxophone section play something quite different. The top three saxophones, Hodges, Hardwick and Bigard, plane diminished triads upwards using intervals of whole tones, while Webster and Carney have an independent two-part harmony line.

Figure 130: *Cottontail*, saxophone harmonies, ensemble section
(cf. Fig. 128, mm. 3–4)



In the final four bars, once again some of the musicians share lines:

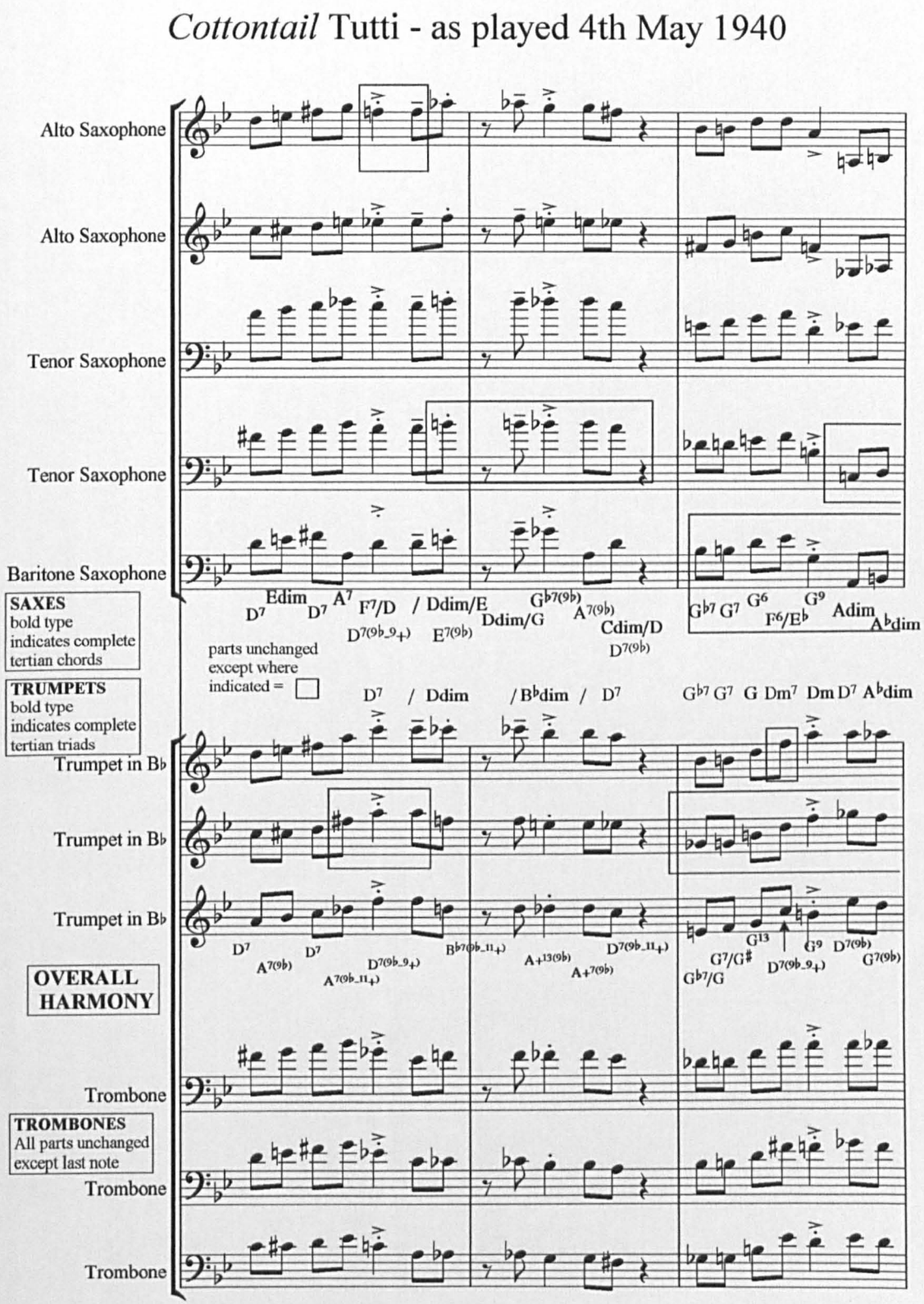
1st part:	Trumpet 1	Alto 1	Baritone
2nd part:	Trumpet 2	Alto 2	

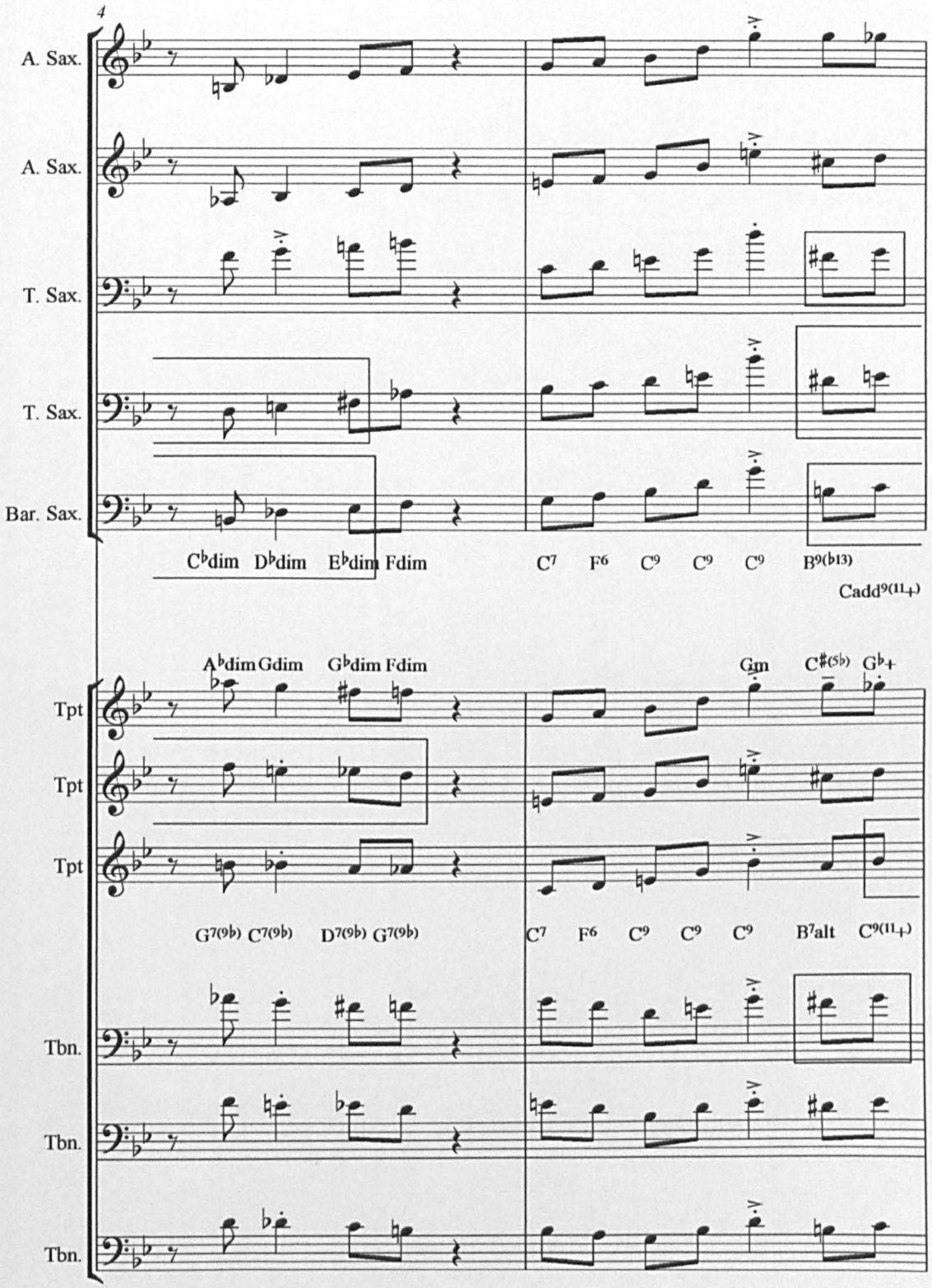
3rd part: (Trumpet 3 Tenor 1 opening quavers only)

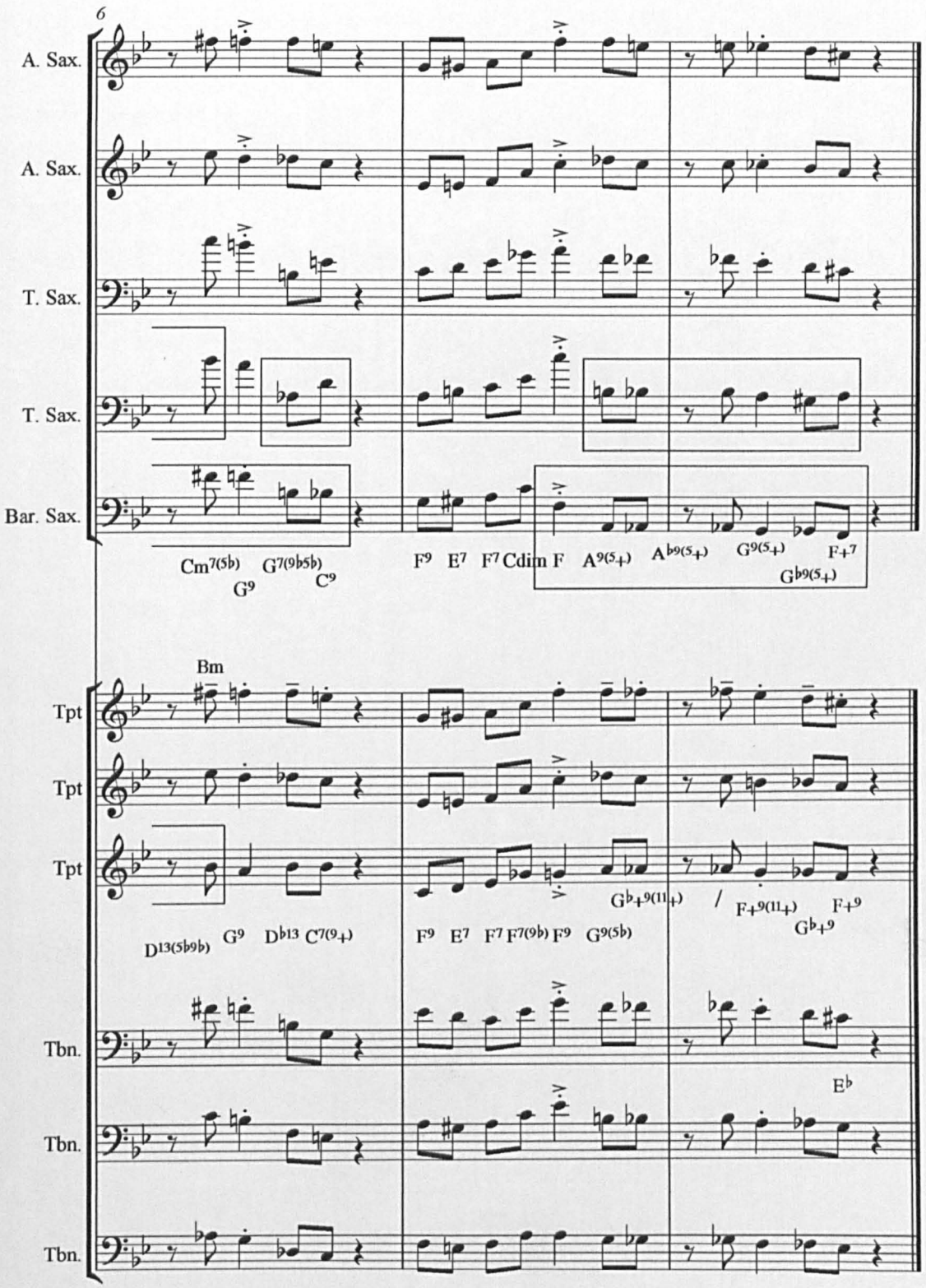
During the last two statements of the phrase, the trombones play an independent, contrapuntal role.

The differences between the Tom Whaley score and what was actually played, Figure 131, are found mainly in the saxophone section. There are fewer occasions when the written part differs from the line played on the recording by the brass section; in fact, there are only two occasions when the written and recorded trombone lines differ, i.e. first trombone, m. 5. Despite the alterations and errors, Tom Whaley's score reveals how Duke Ellington assigned lines and created harmonic complexity by linear amendment to simple thickened-line harmonisations.

Figure 131: *Cottontail* tutti, 4 May 1940




4
A. Sax.
A. Sax.
T. Sax.
T. Sax.
Bar. Sax.
C♭dim D♭dim E♭dim Fdim
C7 F6 C9 C9 C9 B9(♭13)
Cadd9(11+)
A♭dim Gdim G♭dim Fdim
Gm C♯(5♭) G♭+
Tpt
Tpt
Tpt
G7(9♭) C7(9♭) D7(9♭) G7(9♭)
C7 F6 C9 C9 C9 B7alt C9(11+)
Tbn.
Tbn.
Tbn.


6
A. Sax.
A. Sax.
T. Sax.
T. Sax.
Bar. Sax.
Cm7(5b) G7(9b5b) G9 C9
F9 E7 F7 Cdim F A9(5+) Ab9(5+) G9(5+) F+7 Gb9(5+)
Bm
Tpt
Tpt
Tpt
D13(5b9b) G9 Db13 C7(9+)
F9 E7 F7 F7(9b) F9 G9(5b)
Gb+9(11+) / F+9(11+) F+9 Gb+9
Tbn.
Tbn.
Tbn.
Eb

The 14 boxes in Figure 131 identify the amendments made in the section. The reasons for some of the changes are clear. The amendments to the second trumpet line, mm. 1, 3 and 4, created improved triadic voicings. Similarly, the amendment to Lawrence Brown's lead trombone in m. 5 created parallel major triads, compatible with other harmonies. Changes to the saxophones' lines were made for similar reasons. The changes in Ben Webster's line (second tenor), in mm. 1 and 2, produced full chords, and allowed his line to move chromatically parallel to the other tenor and altos. The independent two-part line, shown in Figure 130, appears to have been abandoned and replaced with a mixture of thickened-line and chorale harmonisation. Finally, the changes in mm. 7 and 8 resulted in Webster and Carney's lines moving chromatically parallel to the other saxophones. It is difficult to establish whether the changes were made by Ellington or by the musicians themselves. The majority of the changes to lines in the saxophone section, shown in Figure 131, appear in the baritone and second tenor parts (Ben Webster). If Webster developed his own lines, as quoted earlier, it is possible that *he* created the harmony line to Harry Carney's maverick bass line in Figure 130.

The dense and complex harmonies in this eight-bar section are unlike anything encountered in the numerous scores examined in the course of this research. One possibility that must be considered is that the musicians in each section created heterophonous harmonisations of the four two-bar phrases: such a process could have generated such complex harmonies. If the musicians in each section did harmonise their own parts, independent of the other sections – and evidence cited in previous sections suggests that this is conceivable – it is possible that the musicians created the voicing numbered 29 in Figure 128, m. 5. This could explain the trombones playing a C^7 voicing below a B minor triad in the trumpets, and B major, with augmented ninth, in the saxophones. It is also unlikely that Ellington would have made such note selections. Although Ellington occasionally included fourths in dominant-quality chords, the fourth was usually a dominant pedal. It could be argued that the B naturals were considered as fourths in the tritone related $G^{\flat}$; however, this seems unlikely. The most likely explanation is that this was an error, and, as a result, the third trumpet part in mm. 5 and 6 was modified to create a $G^{\flat}$ augmented triad which introduced a ninth and

augmented-eleventh quality to the chord. Similar changes were made to the lower saxophones, replacing the $A^7 - B^{7(9+)}$ with $B^{9(\flat 13)} - C^{9(11+)}$. The writing for saxophones in mm. 1–4, in Tom Whaley's score (Fig. 128), is uniquely Ellingtonian, however: four saxophones plane chords diatonically and chromatically while the baritone plays an independent line. This line includes minor, natural and augmented ninths, a thirteenth and an augmented eleventh; in voicing 18 (mm. 3–4) the baritone's natural ninth (A) is the lowest note in a $G^{7(9\flat)}$ voicing. The presence of crossing parts also suggests that the section was orchestrated (tenor saxophones, mm. 5–8).

The presence of so many tertian triads in the brass parts could suggest that the musicians developed their own parts and created consonant triadic harmonies, but equally Ellington's writing involved the use of the same technique. This is hardly surprising if, as suggested previously, Ellington often transcribed what the musicians had created themselves. The following list shows the number of tertian triads found in the brass sections in both scores:

Tom Whaley score: 44 voicings
Trumpets
17 voicings are complete tertian triads in root position.
12 voicings are inverted, complete tertian triads.
29/44

Trombones
19 voicings are complete tertian triads in root position.
7 voicings are inverted, complete tertian triads.
26/44

As played, 4 May 1940: 44 voicings
Trumpets
14 voicings are complete tertian triads in root position.
16 voicings are inverted, complete tertian triads.
30/44

Trombones

21 voicings are complete tertian triads in root position.

7 voicings are inverted, complete tertian triads.

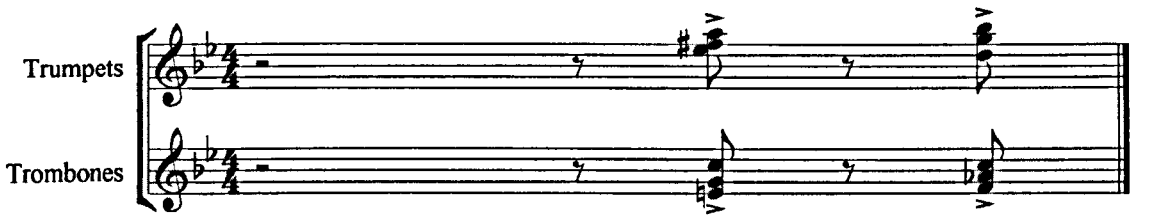
28/44

The piece ends, like many Ellington works, quite suddenly; in this case a mezzo forte restatement of the theme without brass punctuations. In a footnote in *The Swing Era*,[89] Gunther Schuller notes that:

> Ellington was certainly aware of his difficulties with endings, although he seems never to have seriously grappled with the problem. Throughout his career, but especially in the last twenty years or so, most noticeably in the extended or suite compositions, otherwise interesting pieces suffered from weak endings, often non-endings. They simply stopped somewhere, unfinished. One often had the sense – and sometimes knew – that in Ellington's hectic schedule time had run out, and compositions due for some particular occasion or recording date would be hastily 'finished', some ending or other tacked on – sometimes at the record date.

In some performances of *Cottontail* in the decades that followed, the tenor soloist returned after the ensemble tutti. The brass 'shout chorus' backgrounds accompanied this final solo section, as mm. 156–62. The ending was created when the band stopped abruptly (Fig. 132) followed by a tenor saxophone cadenza, and a final chord from the orchestra.

Figure 132: *Cottontail*, example of final chords in brass accompaniment to saxophone solo



[89] On p. 128.

Cottontail was an ambitious work recorded, at the height of the swing era, by Ellington's unique musical collective: an ensemble in which musical material and ideas were shared. The recordings of *In A Mellotone* and *Cottontail* are the product of the symbiotic, artistic cross-fertilisation that took place under Ellington's direction in his role of arranger and animateur. Ellington had learned a great deal from working with, and writing for, the same musicians for prolonged periods. He had developed an unparalleled awareness of their idiosyncrasies and strengths. This understanding enabled him and his orchestra to create works specifically tailored to the individual character of the musicians: '... you write just for their abilities and natural tendencies and give them places where they do their best – certain entrances and exits and background stuff'.[90]

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[90] Clifford A. Ridley, 'The Duke's Dominion Was All of Music', *New York Post*, 1 June 1974 (also in John E. Hasse, *Beyond Category: The Life and Genius of Duke Ellington* [New York: Simon & Schuster, 1993], p. 84).

5. Reflections In D

> Stan Kenton can stand in front of a thousand fiddles and a thousand brass and make a dramatic gesture and every studio arranger can nod his head and say, 'Oh yes, that's done like this.' But Duke merely lifts his finger, three horns make a sound, and I don't know what it is![95]

The unique sound that Duke Ellington created in his 'blue' or 'mood' pieces was instantly recognisable. As illustrated in previous chapters, this 'Ellington Effect' was developed using essentially simple techniques. These techniques are examined in greater detail in the following analysis of *Reflections In D.* The techniques are applied to the **writing for the *Mood Indigo* trio** exercise, from Chapter 1, to decorate and develop the composition. The analysis of *Reflections In D* is based on the recording made on 14 April 1953, and released in the UK as one of the eight tracks on an album called *The Duke Plays Ellington.* A piano score, transcribed from the recording, is bound in a separate volume.

By 1953, the line-up of the orchestra had changed. Many of the great soloists had left, including Cootie Williams, Lawrence Brown and Johnny Hodges. Their replacements introduced new colours to Ellington's tonal palette. Ellington's band now included: trumpets (Clark Terry, Willie Cook, Cat Anderson and Ray Nance); trombones (Quentin Jackson, Britt Woodman and Juan Tizol); reeds (Rick Henderson, Russell Procope, Jimmy Hamilton, Paul Gonsalves and Harry Carney); rhythm (Duke Ellington, Wendell Marshall [bass], Butch Ballard [drums]) and vocalist (Jimmy Grissom). In the same year, Ellington ended his contract with Columbia records, following disagreements over

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95 André Previn, quoted in an article by Ralph J. Gleason, 'The Duke Excites, Mystifies without any Pretension', special issue of *DownBeat*, 5 November 1952.

promotion, and signed with Capitol Records.[96] The band made their first recording for the label in Hollywood, California, on 6 April 1953; it was Billy Strayhorn's *Satin Doll.* The other compositions recorded on these first sessions were:

6 April 1953	*Without A Song* (vocal), *Cocktails For Two*
7 April 1953	*Flamingo, Bluejean Beguine, Liza*

The following week, for the first time in his life, Duke Ellington began to record extensively as a soloist. He recorded 16 titles during 1953; only two were not his own compositions.

13 April 1953	
Capitol 11431	*Who Knows?* (Ellington); Ellington (piano), Wendell Marshall (bass), Butch Ballard (drums)
Capitol 1143	*Retrospection* (Ellington) (Ballard omitted)
(Ballard added)	
Capitol 11433	*B Sharp Blues* (Ellington)
Capitol 11434	*Passion Flower* (Strayhorn)
Capitol 11435	*Dancers In Love* (Ellington)
14 April 1953	
Capitol 11436	*Reflections In D* (Ellington); Ellington (piano), Wendell Marshall (bass)
Capitol 11437	*Melancholia* (Ellington) (Ballard added)
Capitol 11438	*Prelude To A Kiss* (Ellington)
Capitol 11439	*In A Sentimental Mood* (Ellington)
Capitol 11440	*Things Ain't What They Used To Be* (Mercer Ellington)
Capitol 11441	*All Too Soon* (Ellington)
Capitol 11442	*Janet* (Ellington)
3 December 1953, New York City	
Capitol 20246	*Kinda Dukish* (Ellington); Ellington, Wendell Marshall, Dave Black (drums)

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[96] Capitol Records was established by songwriter Johnny Mercer, with Buddy DeSylva and Glenn Wallichs in 1942 and gained a reputation for vigorously promoting artists that included Nat Cole, Peggy Lee, Stan Kenton and Jo Stafford.

Up To Date 20247 *Montevideo*, also known as *Night Time* (Ellington); Ellington, Wendell Marshall, Dave Black (drums)

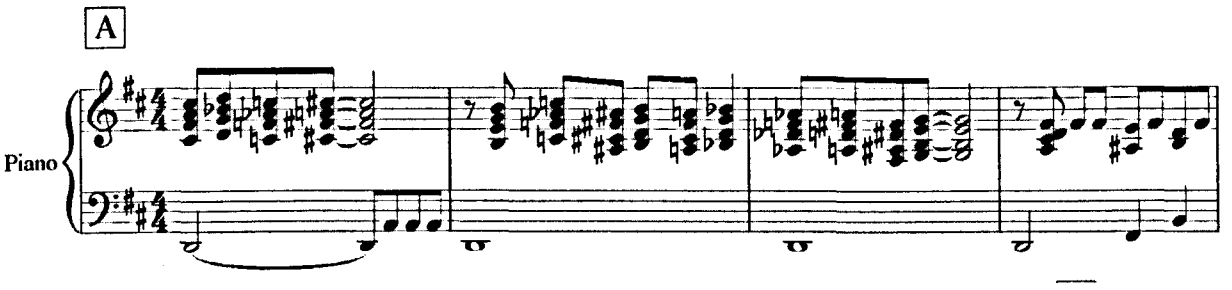
Up To Date 20248 *Title No. 3* (Ellington); Ellington, Wendell Marshall, Dave Black (drums)

28 December 1953, New York City

Capitol 12247 *Night Time* (Ellington); Ellington, Wendell Marshall, Dave Black (drums), Ralph Collier (congas)

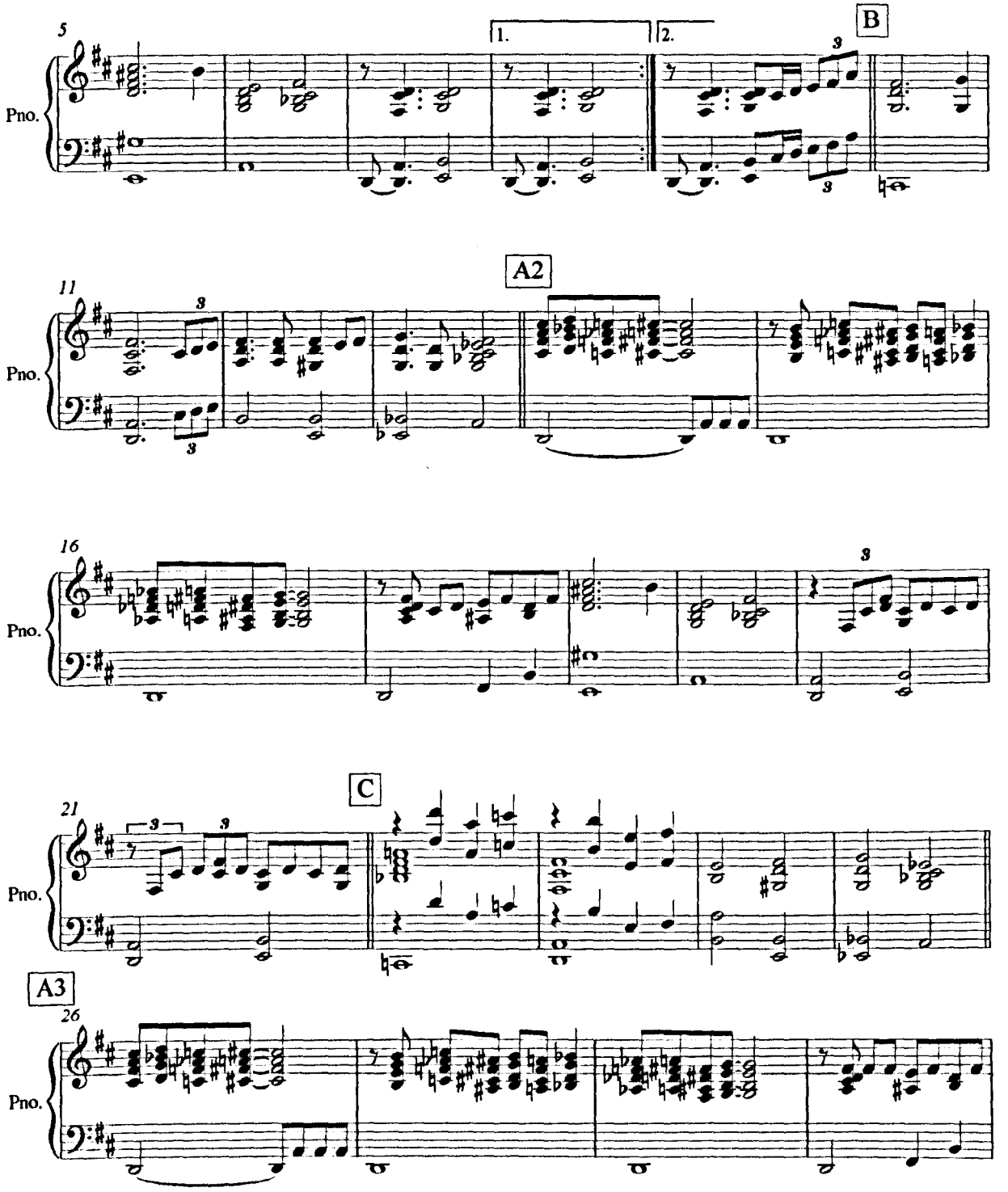
Reflections In D was described by Gerald Lascelles as 'Debussy-esque';[97] however, its limited use of thematic material; simple structure and the chromatic planing of plural tertian triads make this a piece of pure Ellingtonia. Far from being an 'out-of-tempo piano solo with the Duke quietly meditating over random thoughts, developing them and marking them down for future use',[98] *Reflections In D* is a carefully organised and arranged development of a beautifully crafted eight-bar theme. Figure 133 shows the piece set out in 4/4 and excludes decoration and ornamentation. The analysis that follows examines the accompanying score which is transcribed using various time signatures to reflect the rubato nature of the performance.

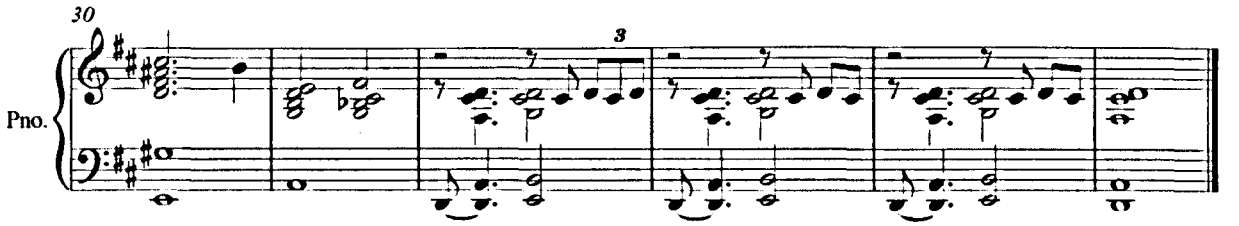
Figure 133: *Reflections In D*



[97] Gerald Lascelles, 'Duke Ellington as Pianist', in Peter Gammond, *Duke Ellington: His Life and Music* (London: Phoenix House, 1959), p. 121. Gerald Lascelles's brother, the Earl of Harewood, organised the Leeds Festival in 1958. Gerald Lascelles suggested that Ellington perform at the festival.

[98] Alun Morgan, record review, *Jazz Monthly*, July 1965; also in Gammond, *op. cit.*


5
Pno.
1.
2.
B
11
A2
16
21
C
A3
26

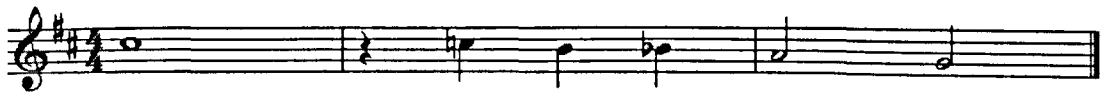


The delicate nature of the composition is established in the first bar. The chord note, (a) in Figure 134, is the major seventh of the tonic key of D major. It is harmonised using an F♯ minor triad, (b); the melody is doubled one octave lower.

Figure 134: ***Reflections In D***
Score, m. 1

This note is embellished using neighbouring notes (c); these notes are harmonised by planing parallel minor triads (d). In mm. 2 and 3, the melody is also generated by chromatic planing. If the embellishments are removed, mm. 1–3 can be reduced to the descending line shown in Figure 135, played over a tonic pedal.

Figure 135: ***Reflections In D*****, mm. 1–3 without embellishments**



As seen previously, many of Ellington's earlier works also featured descending

chromatic lines (Figs. 136 and 137).

Figure 136: *Sophisticated Lady*, 1933[99]

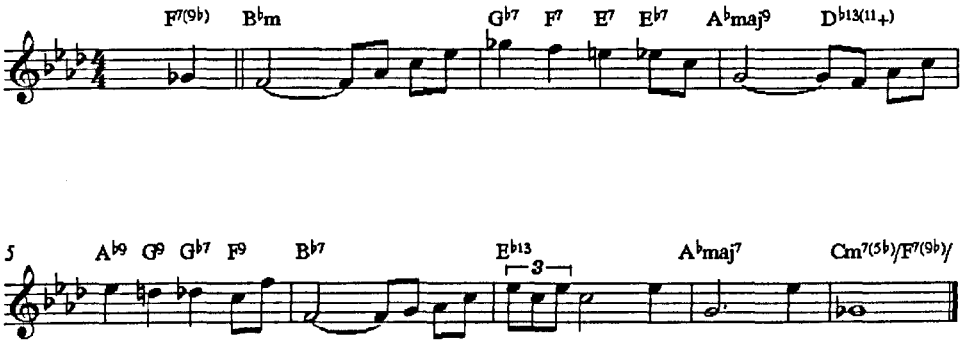
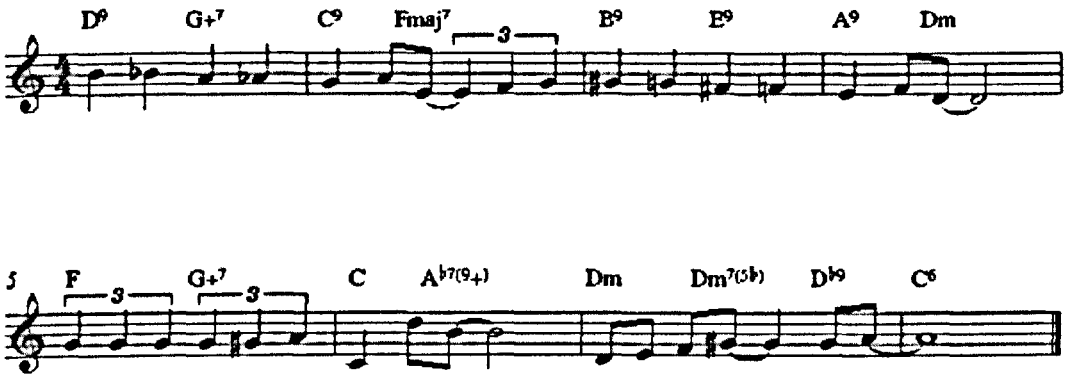


Figure 137: *Prelude To A Kiss*, 1938



The ethereal, dreamlike atmosphere that Ellington achieved in many of the works described as 'blue' or 'mood' pieces was created by his manipulation of major and minor tonalities, and his subtle use and appreciation of each musician's timbre. This harmonic

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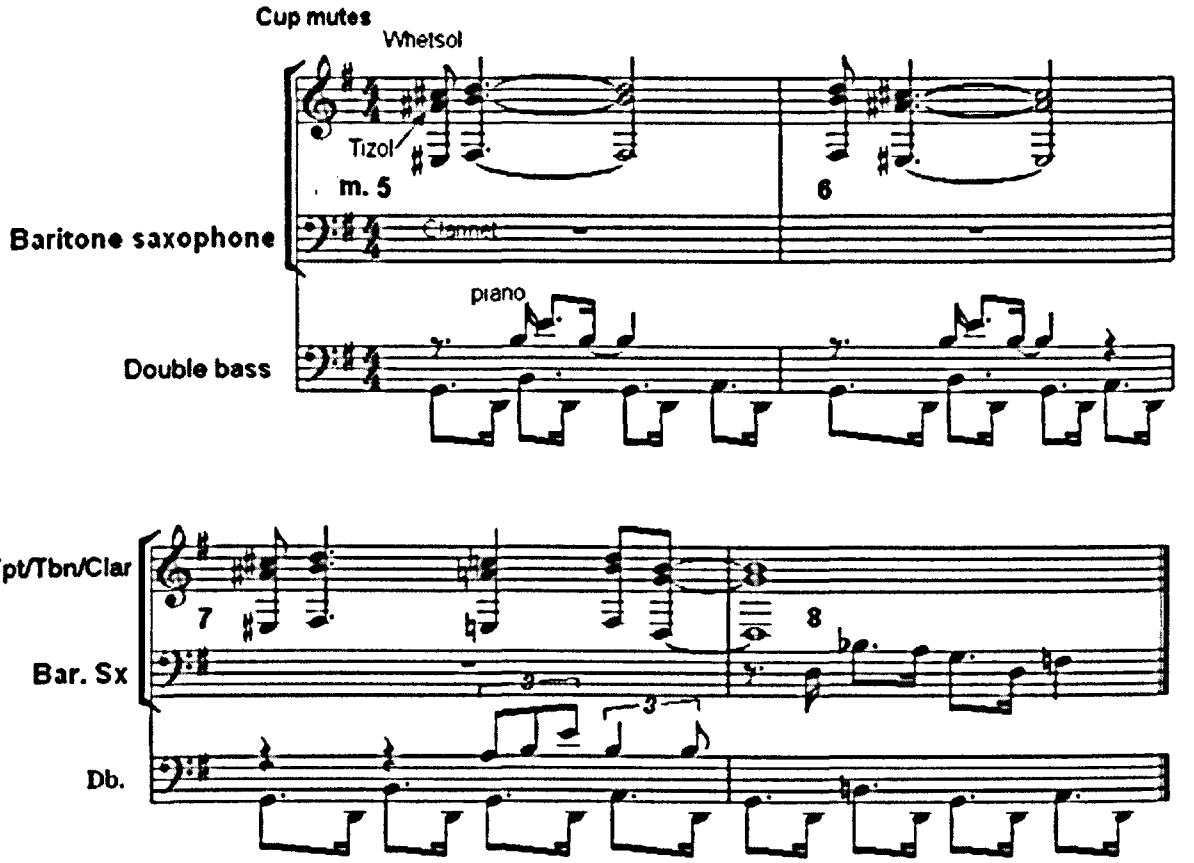
[99] *Sophisticated Lady* was contributed by Lawrence Brown and Otto Hardwick. Lawrence Brown received a 'terrific check of $15 for the first eight of *Sophisticated Lady*' (Kurt Dietrich, *Duke's 'Bones* [Rottenburg: Advance Music, 1995], p. 80).

sleight of hand relies upon the tonal ambivalence created by Ellington's use of plurality. In *Azure*[100] (Fig. 138), Ellington achieved the 'blue mood' quality by planing minor triads over a major tonic pedal.

Figure 138: *Azure*, 1937

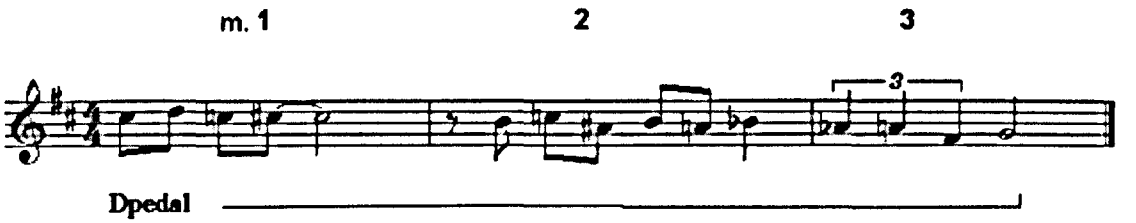


This technique can clearly be seen in the first three bars of the *Reflections In D* opening theme. The harmonic tension created by planing any tonic chord up or down by a semitone is very strong. Whether this tension can be seen as having a structural harmonic function – for example, that of an altered upper chromatic dominant – or is merely generated through voice-leading pressure, the process is used here to generate

[100]Although arranged by Ellington, *Azure* was composed by Juan Tizol.

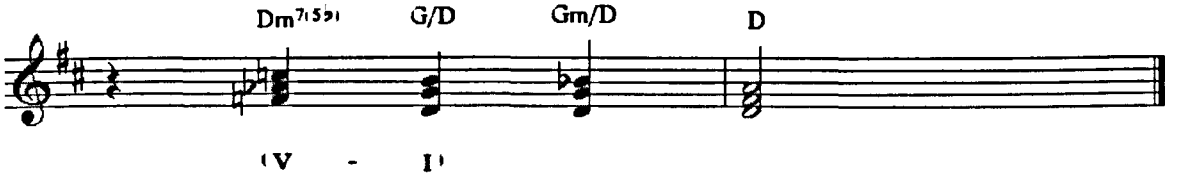
melody. Each of the notes in mm. 2 and 3 are approached by a semitone from below, as shown in Figure 139.

Figure 139: *Reflections In D*, mm. 1–3 with embellishments



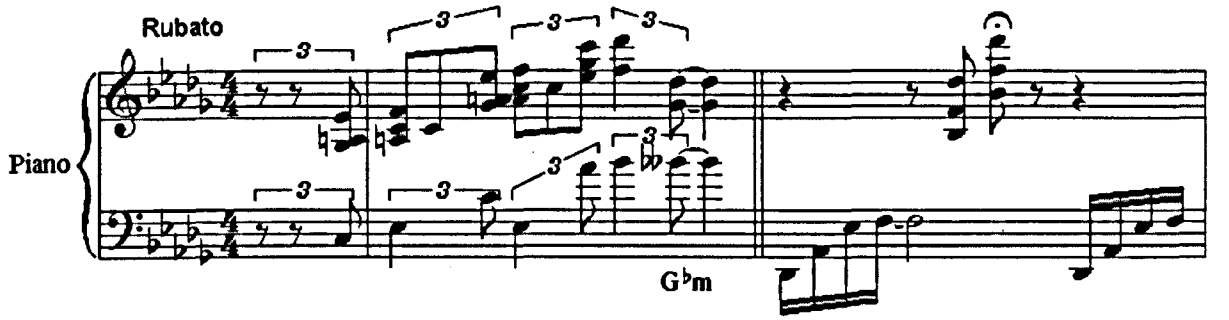
In m. 2, the principal chord is the subdominant, G major on the third beat; this chord is harmonised using a basic G triad (5-1-3).

Figure 140: *Reflections In D*, mm. 2–3



The melody note C which precedes it is harmonised using the technique of tonicisation. An Fm triad over a D pedal produces a $Dm^{7(5\flat)}$ chord which progresses cyclically to G. The B♭ melody note on the fourth beat is harmonised using a Gm chord which creates the voice-leading pressure of an upper chromatic dominant chord. Ellington used a similar voicing in the introduction to *The Single Petal Of A Rose* from *The Queen's Suite*.

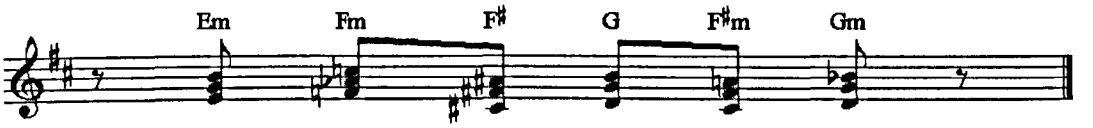
Figure 141: *The Single Petal Of A Rose*, 1958



In *Reflections In D,* when the bass moves briefly to A (mm. 10, 24 and 39), the Gm chord now functions as $A^{11(9\flat)}$, i.e. ii^7 chord over the dominant pedal in D (minor).

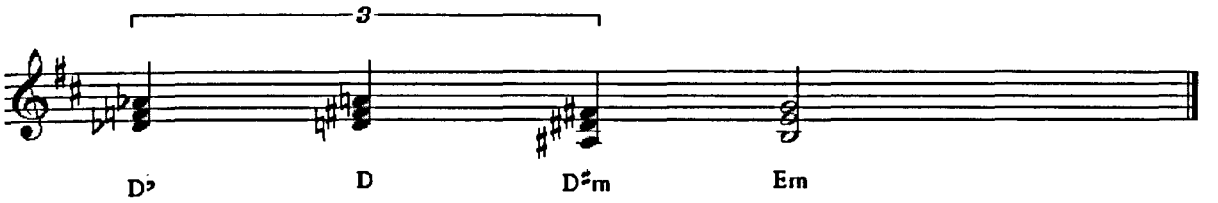
Once the main notes of m. 2 have been harmonised (Fig. 140), each of these chords can now be approached using the technique of chromatic planing.

Figure 142: *Reflections In D*, m. 2



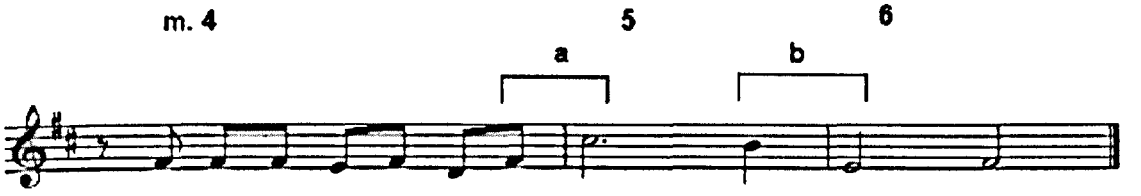
The same process is used in m. 3 where the principal melody notes, A and G, are harmonised using tonic and supertonic triads respectively. These are also approached using chromatic planing.

Figure 143: *Reflections In D*, m. 3



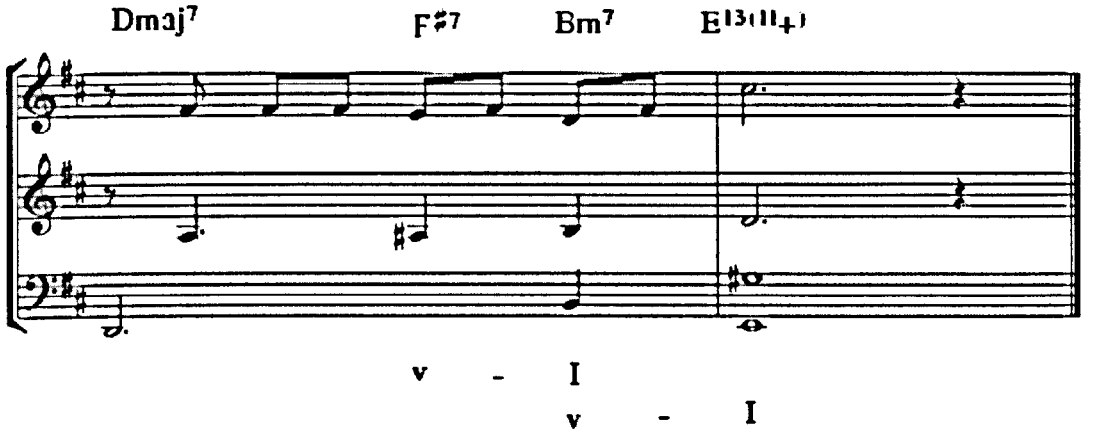
The melody in m. 4 is constructed around the D major chord note of F♯, and uses passing notes from the scale of D major. This re-establishes the tonality of D major after the chromaticism of mm. 1–3, and links the descending line of mm. 1–3 with the long notes that follow.

Figure 144: *Reflections In D*, mm. 4–6



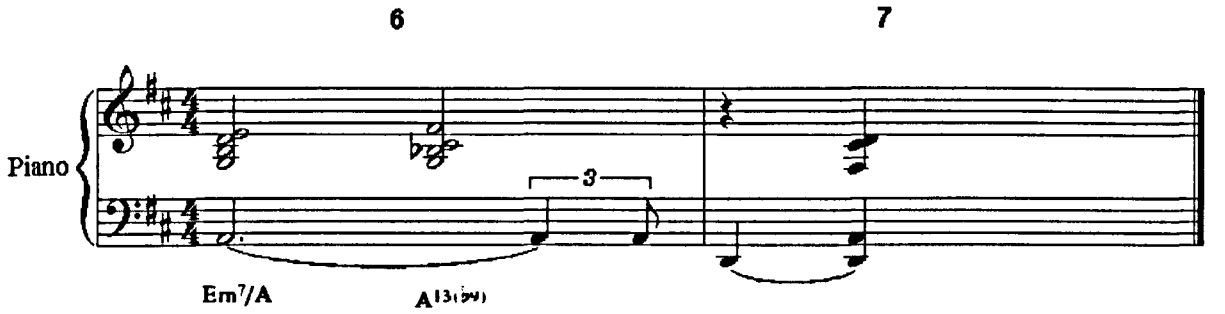
This phrase acts as a springboard to the appoggiatura of m. 5. These final quavers, D and F♯, also function as the lowest notes of a $Dmaj^{7(5+)}$ arpeggio and anticipate the harmony of the altered II chord in m. 5. The pattern marked **a**, in Figure 144, is inverted to create the interval marked **b**. The reflection continues with the stepwise scalar movement in m. 6 from E to F♯, i.e. perfect fifth up – whole tone down – perfect fifth down – whole tone up. The harmony in m. 4 is developed using tonicisation, i.e. the Bm^7 chord is approached using a chord a perfect fifth above. The quality of this iii chord is altered as a result of linear consideration; see middle staff in Figure 145.

Figure 145: *Reflections In D*, mm. 4–5



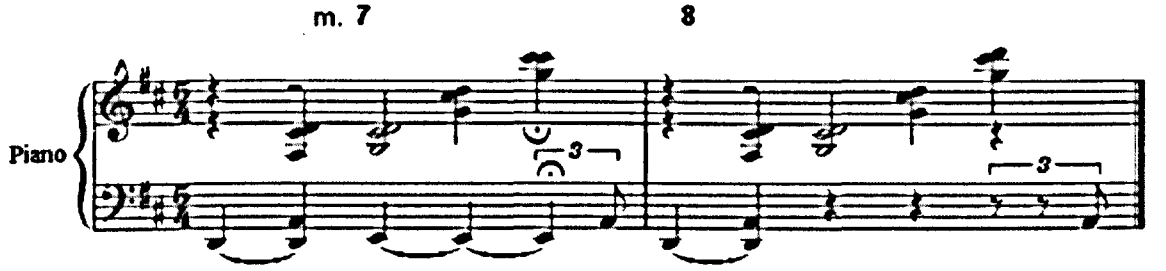
As a result of this subtle alteration, the basic substitute, or plural, chord (iii for I = F♯m for Dmaj7) becomes F♯7, the dominant of the relative minor. The climax of this eight-bar theme is reached at this halfway point by harmonising the dissonant appoggiatura with a complex polytonal voicing of E13(11+). The dissonance is created by using a tonic major-seventh chord with an augmented fifth, above the left-hand open tenth of E and G♯. The subtle use of chord notes, borrowed from the dissonant target chord, in the ascending line that precedes m. 5, helps to temper the harsh dissonance. The tension of the stressed dissonance of m. 5 is sustained for three beats, before resolving downwards by a tone to B, the dominant of E, in anticipation of the ii V progression in the next bar. The first chord (m. 6) is a basic 3-5-7-1 voicing of Em7 played over a dominant pedal; this moves smoothly to a colourful Ellingtonian voicing: a dominant thirteenth with a minor-ninth chord in which the outer voices form an interval of a major seventh. To create smooth movement the two middle voices plane downwards by a semitone, the melody moves up by a tone, and the lowest voice, the third of E minor, remains in place, and becomes the seventh in the dominant chord.

Figure 146: *Reflections In D*, mm. 6–7



In mm. 7 and 8, the melody rests on the tonic for two bars. The semitone grinds between the major seventh and tonic of D major become the sixth and minor seventh of E minor and create tension in anticipation of the return to the tonic chord.

Figure 147: *Reflections In D*, mm. 7–8



In *Reflections In D*, the relaxed mood and chromatic tension of the theme are established in the first bar by the reflective symmetry of the opening phrase. This pattern is continued in the next two bars: intervals no greater than a tone are employed until the end of the descending phrase, when an interval of a minor third is used. The gradual development of intervallic growth leads to the climax at the halfway point. The climax is reinforced by employing the largest interval, a perfect fifth, and the most colourful polytonal harmony. This form – small chromatic steps, gradually becoming greater, through m. 4, and finally coming to rest on the dissonance of m. 5 – is then reversed and the size of interval is gradually reduced.

Many pieces of Ellingtonia feature awkward intervals and were perhaps never intended for vocalists; this is hardly surprising as many compositions were developments of phrases played by instrumentalists. Alec Wilder, in his classic work *American Popular Song*, refuses to consider Ellington a songwriter at all:

> Very few of them are essentially songs, nor were they meant to be. They were composed as instrumental pieces to which words have been added and for which simplified releases were often substituted.[101]

Figure 148: *Black Butterfly*, 1936 (bridge)

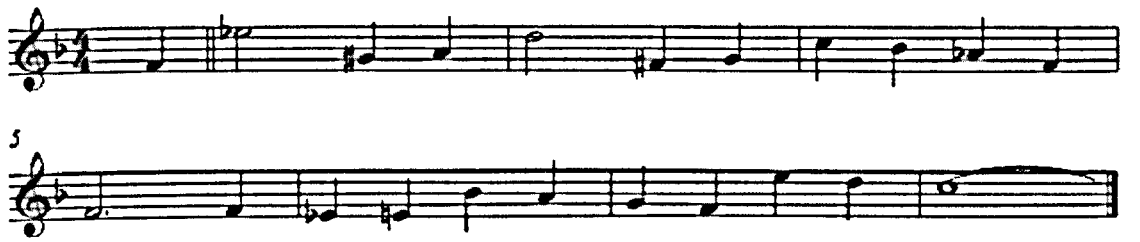
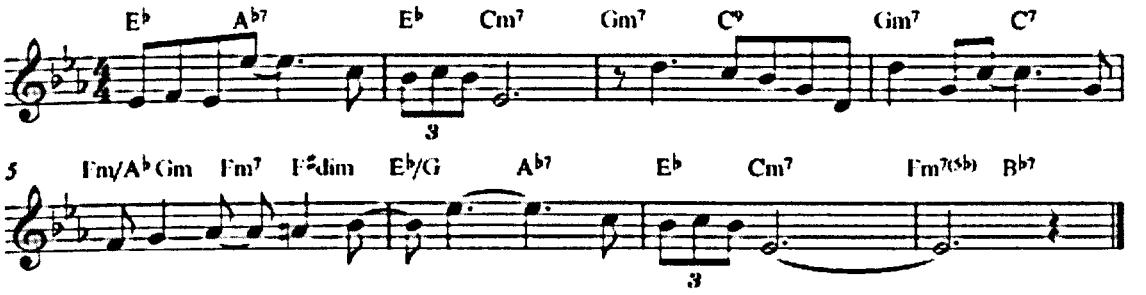
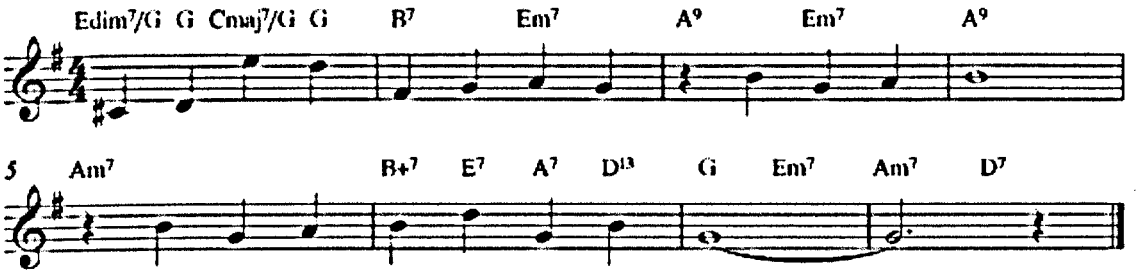


Figure 149: *I Let A Song Go Out Of My Heart*, 1938



[101] Alec Wilder, *American Popular Song: The Great Innovators 1900–1950* (New York: Oxford University Press, 1972), p. 412.

Figure 150: *I Got It Bad (And That Ain't Good)*, 1941



The recording of *Reflections In D* has the following form:

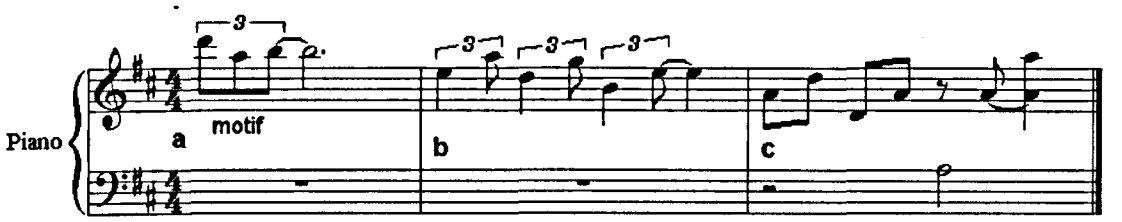
The arrangement is 54 bars long, the overall form includes:

- Three-bar introduction;
- Eight-bar theme A, stated four times;
- Six-bar interlude B, stated twice;
- Four-bar ending (variation of the introduction);
- There is no modulation;
- The bowed bass of Wendell Marshall accompanies Ellington, providing long pedal notes.

Intro – A – A – B – A – B – A (+ additional bar) – ending

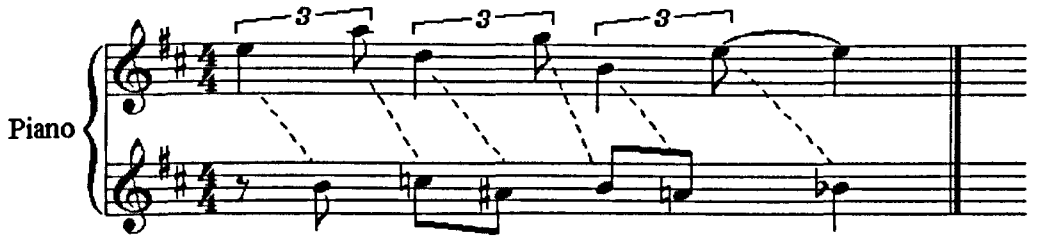
The brief three-bar introduction uses the notes of a pentatonic scale expressed in fourths. The use of perfect fourths helps to establish the pensive mood of the piece. It also contrasts the tertian harmonisation, chromatic planing and semitone grinds in the main theme. The **'Reflections' motif** in m. **a** is significant as it introduces the major/minor conflict which is evident in this, and many other Ellington compositions.

Figure 151: *Reflections In D*, introduction



The tonal ambivalence achieved by this use of pentatonic patterns continues through the rest of the introduction. The phrase in m. **b** presages the rhythm of the main theme, m. 2

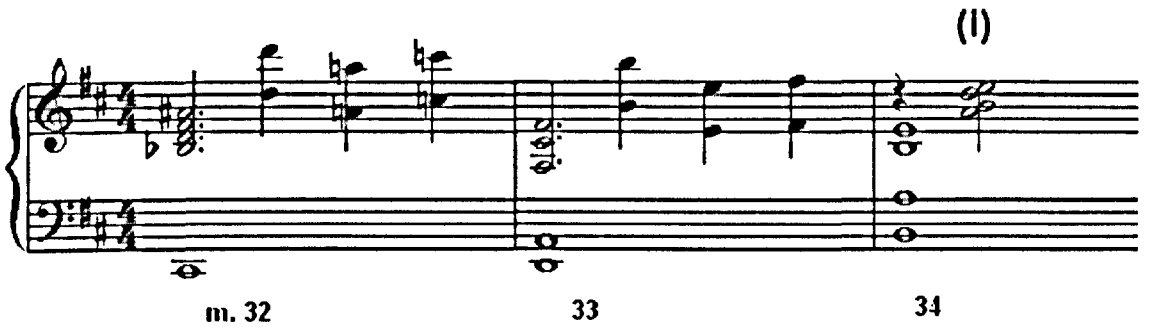
Figure 152: *Reflections In D*



The distorted reflection continues as m. **c** presages m. 3. The rhythm is imitated and the intervals between notes are amplified, as in m. **b**. The introduction ends with a dominant pedal/'bell' note.

The importance of the 'Reflections' motif cannot be overstated. Its shape, a perfect fourth down followed by a step up of one tone, reappears in various forms during the performance, and is fundamental to the development of this piece. The motif is most clearly restated in the second interlude where it is stated in double-octave 'bell' notes.

Figure 153: *Reflections In D*, mm. 32–4



The motif is modified slightly in m. 32, i.e. DAC and not DAB, as the major seventh, B, would clash with underlying harmony of $C^{11}+$. A bar later it is restated in the relative minor key of Bm, over a tonic major chord. The minor eleventh voicing (E, B and A) in m. 34 can be seen as the notes of the 'Reflections' motif played over the chord root, and the following chord **(i)** also combines the quartal and stepwise movement of the 'Reflections' motif: D A B combined with notes of an inverted motif beginning on B – B, E and D. The arpeggio that follows is also a development of this quasi-quartal chord **(i)**. The motif appears elsewhere in the performance (Fig. 154).

Figure 154: *Reflections In D*, mm. 36–7

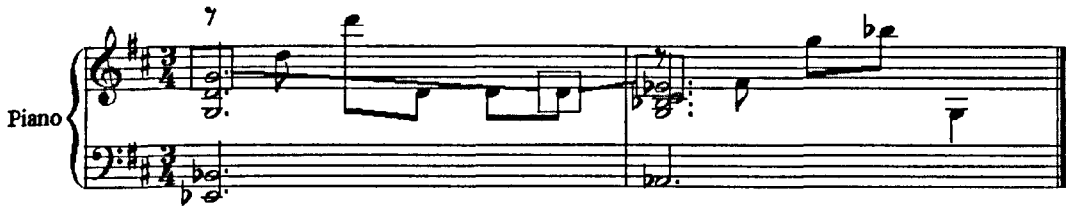


Figure 155: *Reflections In D*, mm. 30–1

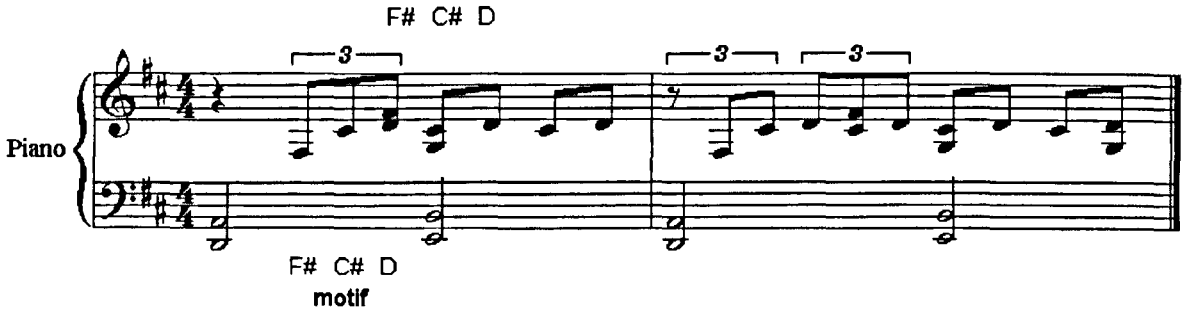
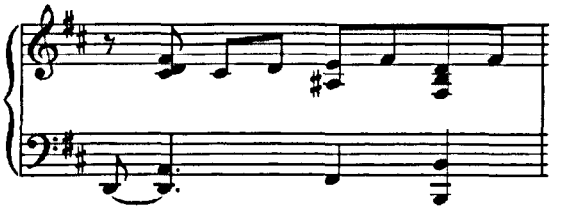


Figure 156: *Reflections In D*, mm. 26 and 41



Interlude

This six-bar section is similar rhythmically to mm. 5 and 6 of the main theme. Its long notes are all from the scale of D major, predominantly F♯; interest is maintained by harmonic development. The six bars are built using two bars of the tonic, followed by a VI-II-V turnaround. The $C^{9(11+)}$ chord in m. 17 is built using a B♭ augmented triad over an open fifth of C and G. This chord is a substitute for the chord of the moment, $Dmaj^7$. The origin of this substitution can be seen in two ways:

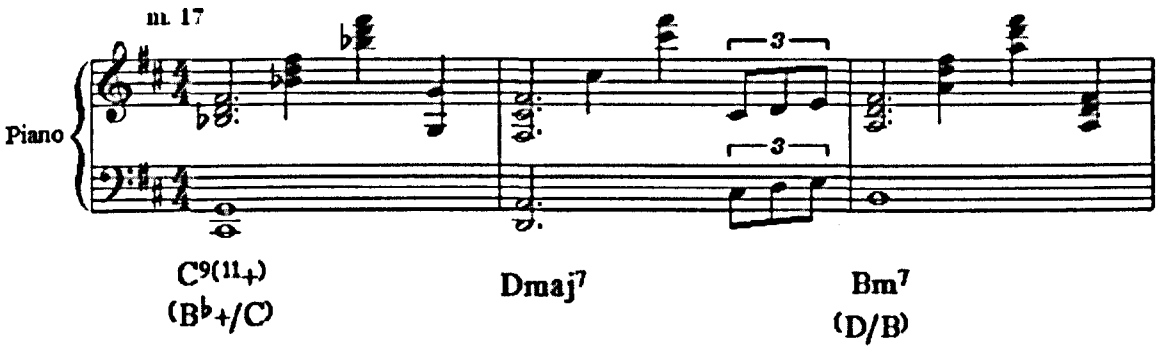
1. The $^{5\flat}$ substitute for D is A♭. A standard substitute chord for a major chord is a minor chord built on the third degree, e.g. $Dmaj^7$ could be substituted by a F♯ minor chord; this substitute can then be chromatically altered.

Dmaj^7– F$^\sharp$m – altered major F$^\sharp$ chord

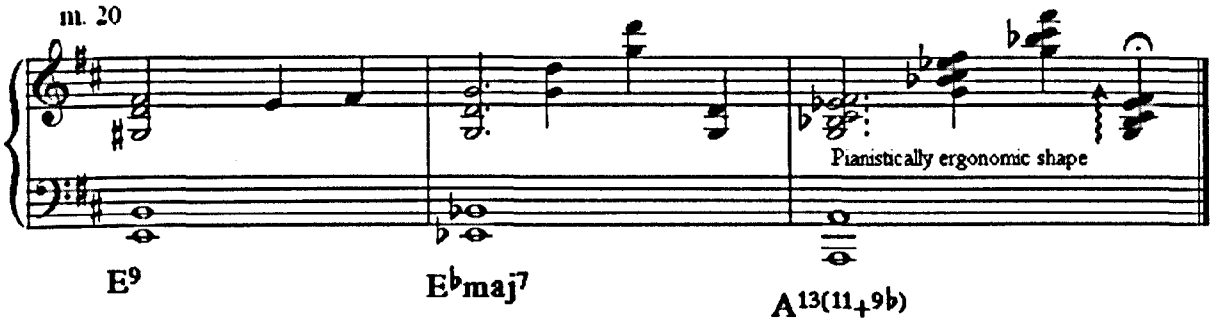
2. The upper notes of Dmaj^7 form an F$^\sharp$ minor triad. If this iii chord is altered to F$^{\sharp 7}$, a common practice in **post-bop jazz**, the third and seventh, A$^\sharp$ and E, can be treated as the seventh and third of C^7, B$^\flat$ and E; thus the Dmaj^7 chord can be replaced by a dominant-quality chord a tone lower.

The tension of the first bar of the interlude is resolved, in the second, with a consonant 1-5 / 3-7-3 voicing.[102] In the third bar of the interlude (m. 19) the vi chord which begins the cadence is voiced as a D major triad over B bass. Here, in a reversal of the main theme's 'minor triad over major' structure, a minor tonality is enhanced by placing a major triad over a minor tonality. The progression continues through the cycle of fifths to the ii chord of m. 20. This chord quality is, once again, altered in anticipation of the V-chord-variant of m. 21, and the dark chromatic harmony of the final V chord.

Figure 157: ***Reflections In D*****, mm. 17–22**



[102] This voicing features regularly in the post-Strayhorn piano style of Duke Ellington, e.g. *Melancholia* from the same recording session, and Strayhorn's vocal background piano accompaniment on *Mood Indigo* (*Masterpieces '51*).



The following examples demonstrate how the chromatic planing and ornamentation encountered in *Reflections In D* can be used to develop harmonic and melodic lines. The techniques are applied to the **writing for the *Mood Indigo* trio** exercise from Chapter 1, shown below in Figure 158. Figure 159 includes melodic and harmonic decoration.

Figure 158: Writing for the *Mood Indigo* trio exercise
(cf. Fig. 55)

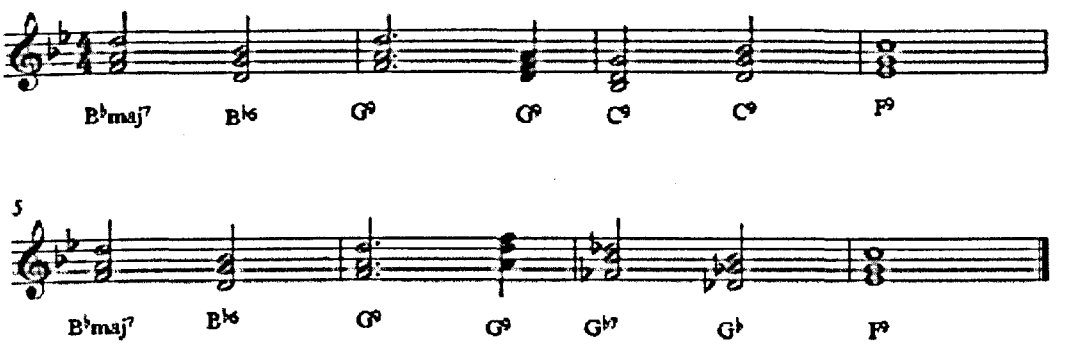
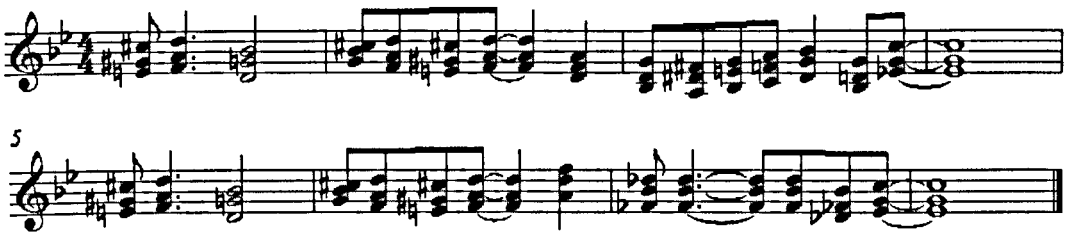
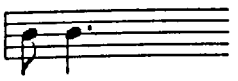


Figure 159: Writing for the *Mood Indigo* trio exercise with melodic and harmonic decoration



The approach chord in mm. 1 and 5 is created using the technique of chromatic planing; the target chord is planed down by a semitone. In Figure 159, the following rhythmic phrase is used (Fig. 160).

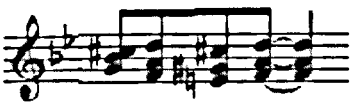
Figure 160: Rhythm introduced in mm. 1 and 5.



The melody in m. 2 is also developed using the technique of planing. To avoid the repetition, illustrated in Figure 161a, the first note is harmonised with a diminished chord, Figure 161b; this also helps create linear interest in the harmony parts.

Figure 161a: Writing for the *Mood Indigo* trio exercise, m. 2 embellished using chromatic planing

Figure 161b: Writing for the *Mood Indigo* trio exercise, m. 2 embellished using diminished chord and chromatic planing



In m. 3, repetition is again avoided by using a linear approach. Rather than following the outer voices, as shown in Figure 162a, the second part rises chromatically: Figure 162b. The voicing on the first beat describes a C^9 shape, as in the original example, but as the melody line rises the second voice moves from the ninth of the chord on the first beat to the third on the second beat.

Figure 162a: Writing for the *Mood Indigo* trio exercise, m. 3 embellished using chromatic and diatonic planing

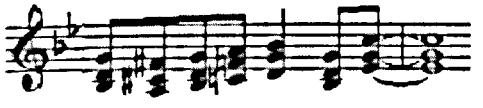
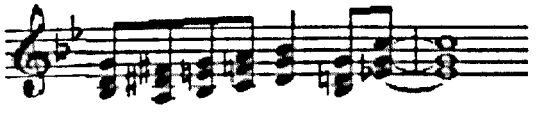
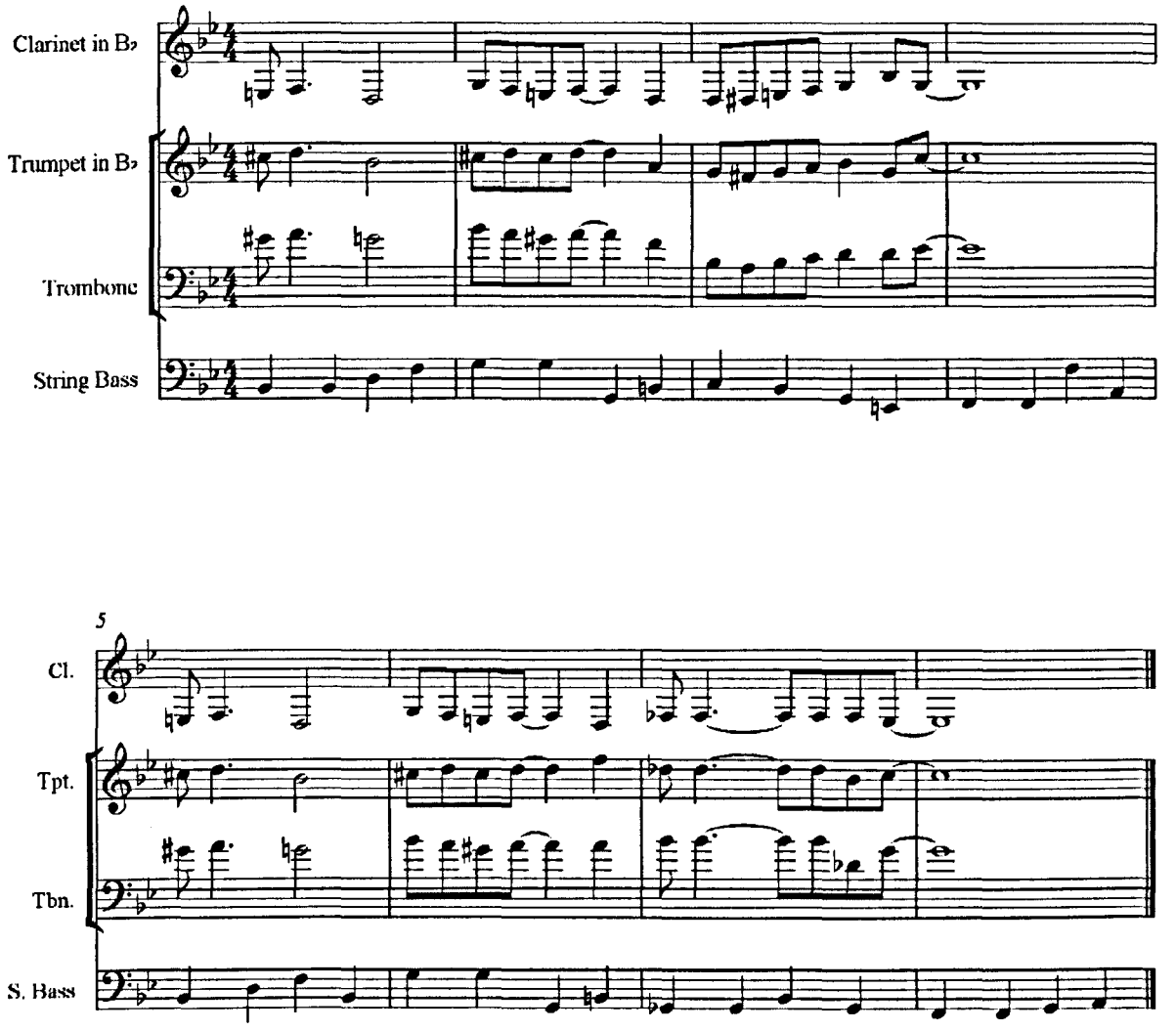


Figure 162b: Writing for the *Mood Indigo* trio exercise, m. 3 embellished using diatonic planing and a linear approach



This C^7 shape moves, using diatonic parallelisation, up to a G minor (plural C^9) shape on the third beat. Melodic interest is developed by repeating the first chord note (G) before the F^9 shape of m. 4 is anticipated. The complete eight bars are shown in Figure 163.

Figure 163: Writing for the *Mood Indigo* trio exercise, with lines distributed to trumpet, trombone and clarinet



The above example is merely Ellington pastiche; even if it *were* possible to create an Ellingtonian carbon copy it would be impossible to recreate the unique timbres of the stellar musicians that Ellington united in his symbiotic, synergic orchestra. A strange creative osmosis took place within the ensemble, and it lasted for more than 50 years. During this time, Ellington fashioned his musicians' material and musical ideas into pieces that always bore his distinctive imprint. Furthermore, Ellington, a larger-than-life

and charismatic figure, inspired his musicians, eliciting from them the greatest performances of their lives. Many who left Ellington to pursue solo careers eventually returned, never having quite sounded as mighty as they did when playing works specifically tailored for their individual voice while in the Duke's ranks.

Conclusion

The best Ellingtonia was created out of a dialogue between the inventive composer and his gifted musicians. Their contribution to music, and the jazz repertoire, was enormous; compositions like *Cottontail*, *Satin Doll* and *Take The 'A' Train* have become staples for improvisation in jazz venues around the world. Although Ellington claimed credit for writing many pieces that were the work of others, he was the catalyst in the creative process: a unique cross-fertilisation that he managed to sustain from 1926 to 1974. Ellington often funded his work by the publication and performance of original and popular compositions, many of which are still popular today. Ellington himself believed that there should be no funding for the arts as it would 'hinder the artistic motivation' and remove the 'excitement of the competition'.[95]

Ellington's skill as an orchestrator, 'his voicings, his subtle rhythmic patterns, his unique understanding of voicing of voices',[96] has influenced many jazz writers that followed. When Gerry Mulligan scored *Jeru* for Miles Davis's seminal Nonet recording, *Birth Of The Cool* (1949–50), the 'new' linear writing for Bill Barber's tuba can be traced back to 1927, when, as a 17-year-old Bostonian clarinet player, Harry Carney began playing the baritone saxophone with Duke Ellington's orchestra.

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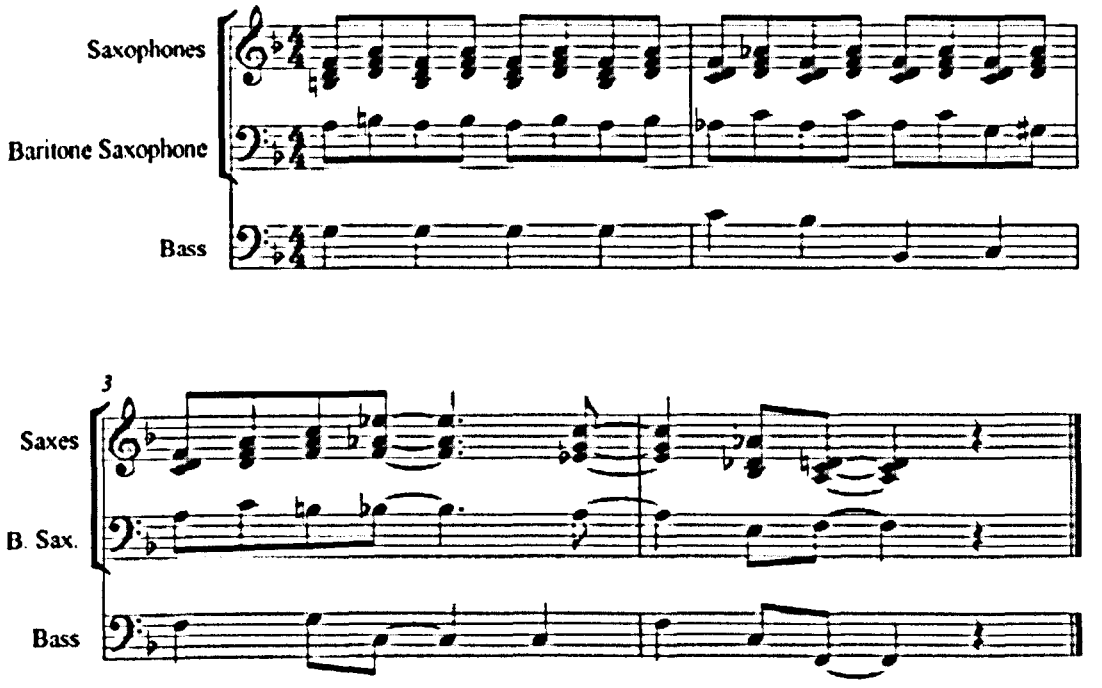
[95] Interview with Duke Ellington by Carter Harman, Atlantic City, 2 November 1964, 'Tape 8'; repository of the Duke Ellington Collection, Smithsonian Institution, Washington, DC.

[96] Interview with Clark Terry by Dr Marcia M. Greenlee, New York, 6 March 1990, 'Tape 4'; repository of the Duke Ellington Collection, Smithsonian Institution, Washington, DC.

Figure 164: *In A Mizz*, 12 June 1939, mm. 13–16

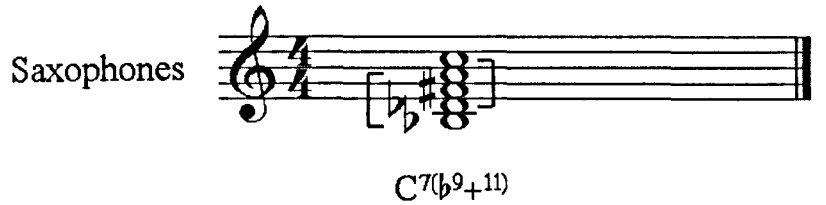


Perhaps Ellington's influence is most apparent in Thad Jones's writing for the orchestra he assembled in 1965 with (drummer and co-leader) Mel Lewis. There are many similarities that can be drawn between the two ensembles. The Jones–Lewis orchestra also features a stellar line-up that included the great lead trumpeter Eugene 'Snooky' Young (formerly with Count Basie); Jerome Richardson on lead alto saxophone; and baritone saxophonist Park 'Pepper' Adams, and distinctive soloists like valve trombonist Bob Brookmeyer and Thad Jones himself. Both Ellington and Jones enjoyed relative stability within the ranks of their orchestras and were able to fashion works that were specifically tailored to feature soloists or sections of their ensembles.

Many of the writing techniques that helped create the 'Ellington effect' can be found in Jones's scores. Thad Jones's writing for the saxophone section – especially in his writing for soli passages – features chromatic and diatonic planing, semi-open block harmonisations and cluster voicings; and the harmonic texture he achieved owes a great deal to Ellington's (and Strayhorn's) exploitation of the interval of a major seventh and/or minor second in his chord structures. Jones developed this technique further and

often included multiple major-seventh intervals within vertical structures as identified in Figure 165.

Figure 165: A chord structure used by Thad Jones that includes two major-seventh intervals[97]



Similarly, the use of plural major or minor triads, in the trumpet section's chord voicings, feature in Jones's writing for the brass section. For example, a $C+^{7(9+)}$ voicing might include an $A^{\flat}$ major triad played by the trumpets – D, $E^{\flat}$, $G^{\flat}$ or A major triads would introduce different chord qualities. A $C^{13(\flat9\,11+)}$ voicing might include an $G^{\flat}$ minor triad played by the trumpets – $D^{\flat}$, $E^{\flat}$, G or A minor triads could be used to introduce different chord qualities. This use of plural consonant shapes – which can also be found in his writing for the saxophone section – is a feature of Jones's work. An examination of Jones's scores reveals that he also developed *this* technique further and used it to produce dense and harmonically complex (and, arguably, more sophisticated) structures.

The use of diminished chords is also a very important part of Jones's harmonic vocabulary and can also be traced back to Ellington's exploitation of the diminished chord's harmonic ambiguity. Just as Webster, Blanton and Ellington disregarded the

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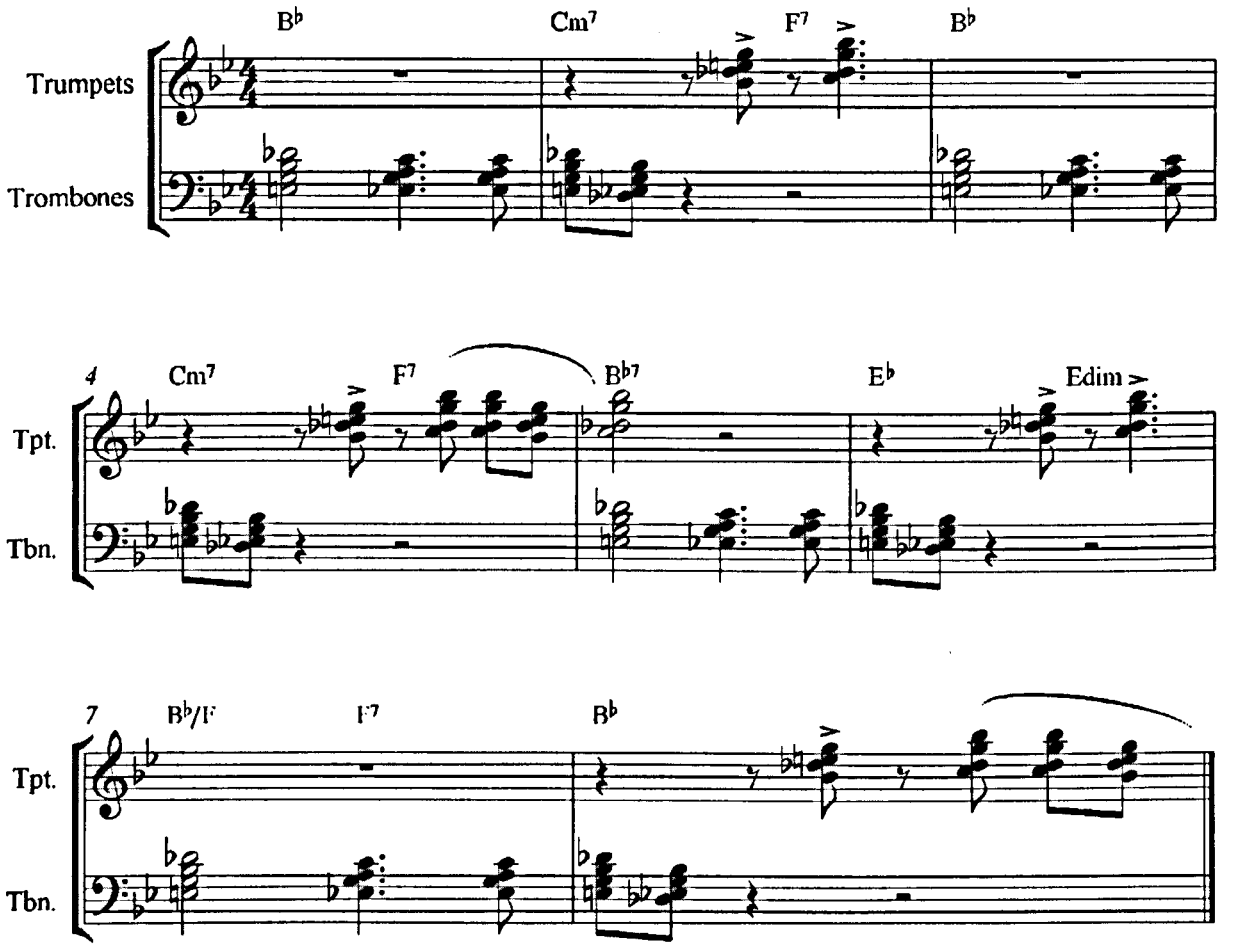
97 The structure is described by a founder member of the Jones–Lewis orchestra, tenor saxophonist Joe Farrell: 'For instance here's a C7th chord that he uses. From the bottom up it reads: $B^{\flat}$, $D^{\flat}$, $F^{\sharp}$, A and C on top. It's gigantic, but it's really close position. That's Thad, so typical' (quoted in Ira Gitler, 'Thad's Thing', *DownBeat*, 22 February 1968, p. 18;, also in Tony Faulkner, 'Thad Jones and the Ellington Effect' [unpublished master's thesis, University of Leeds Department of Music, September 1996]).

chord sequence in mm. 61–8 of *Cottontail*, and replaced it with a tonic pedal and Webster's diminished sequence, Thad Jones maintains the same patterns in trumpets and trombones throughout in the corresponding solo sections of his composition *Fingers* (also built on the chord sequence to *I Got Rhythm*).

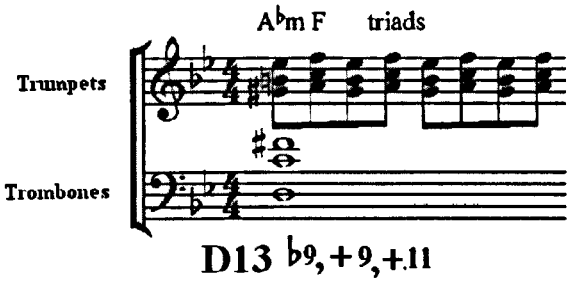
Figure 166: *Fingers* by Thad Jones (solo backgrounds), mm. J9–16



As identified in the previous chapters, Ellington regularly used a passing diminished chord to harmonise non-chordal passing notes: these chords usually functioned as

rootless dominant-seventh-quality chords.[98] Jones, however, extended this use of diminished chords and combined two parallel diminished seventh chords, one built on the dominant chord root, and another on the dominant chord third – in his composition *Three And One*, for example – to use every note of a diminished scale to express a dominant-quality chord. In *Dusk* (see Fig. 167), Ellington also uses every note of the diminished scale to produce sounds that would not sound out of place in a Thad Jones score written 40 years later.

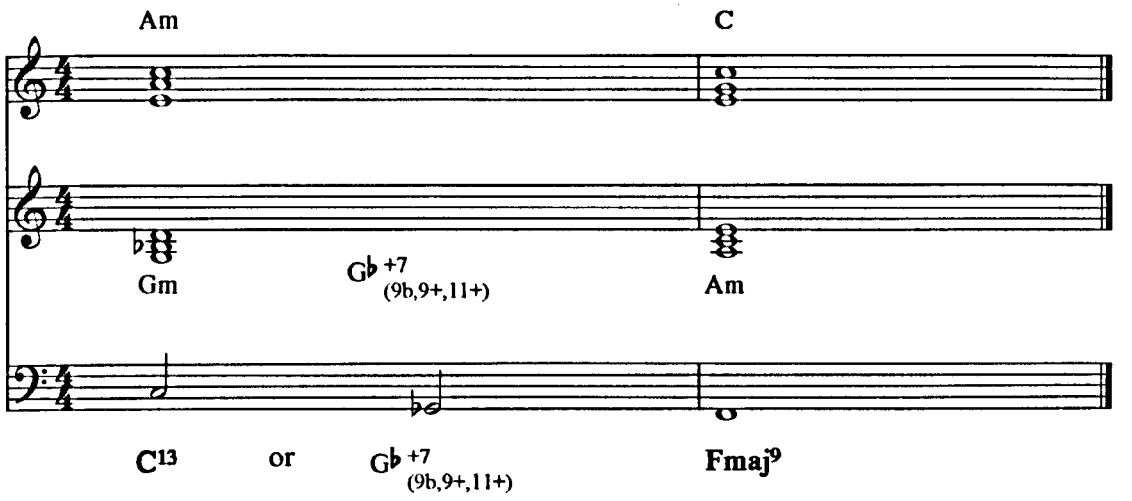
Figure 167: *Dusk*, 1940, m. 41



Harmonies such as those illustrated in Figure 168, bear the unmistakable fingerprint of Duke Ellington's unique artistic aggregation: the Ellingtonians.

[98] In m. 49 of *In A Mellotone*, the diminished chord used to harmonise the chord note B♭ (B♭9) functions as rootless E♭7(♭9) chord.

Figure 168: V - I cadence harmonised using plural triads and tritone substitution



It is perhaps due to the linear origins of the voicings in Figure 168, wherein each section moves from one consonant triad to another, that the problems of convincingly resolving complex dissonance are simply solved. What is certain, however, is that echoes of Ellingtonian sonorities can be heard in many of the jazz works created in the last half of the twentieth century. The double muted, growling brass, wailing clarinets and tom-toms – the jungle sounds that began in the Cotton Club – and the rich harmonies that Ellington and his men created through their symbiotic musical exchanges have become part of the jazz arranger and composer's palette.

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Collection #301
Series 1 Music Manuscripts

Bojangles Jimmy Hamilton's instrumental part (copyist Tom Whaley)
Box 59, folder #5
Reproduced here in Figure 1

Perdido Ben Webster's instrumental part (copyist Juan Tizol)
Box 220, folder #3
Reproduced here in Figure 2

Rockin' In Rhythm Duke Ellington autograph score
Box 311, folder #2
Reproduced here in Figures 6, 8 and 9

In A Mizz Duke Ellington autograph score
Box 165, folder #2
Reproduced here in Figure 10

In A Mellotone Duke Ellington autograph score
Notebook 2, c. 1940–3
Reproduced here in Figure 14

Reminiscing In Tempo Duke Ellington autograph score
Box 305, folder #3
Reproduced here in Figures 16 and 17

Dusk Duke Ellington autograph score
Box 108, folder #7
Reproduced here in Figure 19

Azure Duke Ellington autograph score
Reproduced here in Figure 24
Box 26, folder #7

Braggin' In Brass transcribed from instrumental parts (copyist Juan Tizol)
From *Cotton Club Parade*
Box 84, folder #1
Reproduced here in Figure 25

East St Louis Toodle-oo Duke Ellington autograph score
Box 109, folder #10
Reproduced here in Figure 26

Transblucency Duke Ellington autograph score

Box 392, folder #4
Reproduced here in Figure 27b

Mood Indigo Duke Ellington autograph score
Box 228, folder #5
Reproduced here in Figure 34a

Black Butterfly Duke Ellington autograph score
Box 49, folder #2
Reproduced here in Figure 39

Solitude Duke Ellington autograph score
Box 346, folder #6
Reproduced here in Figure 40a

Azure Duke Ellington autograph score
Box 26, folder #7
Reproduced here in Figure 40b

Dusk Duke Ellington autograph score
Box 108, folder #7
Reproduced here in Figures 41 and 44

Transblucency Duke Ellington autograph score
Box 392, folder #4
Reproduced here in Figures 48 and 50

Tonight (I Sleep With A Smile On My Face) Duke Ellington autograph score
Box 389, folder #4
Reproduced here in Figure 51

Rocks In My Bed Duke Ellington Billy Strayhorn autograph score
Box 185 (*Jump For Joy)*, folder #5
Reproduced here in Figure 61

Black Butterfly Duke Ellington autograph score
Box 49, folder #7
Reproduced here in Figure 63

Cop Out (also known as *Night Stick*, also known as *Holiday Ballroom Goody*)
Duke Ellington autograph score
Box 82, folder #11
Reproduced here in Figure 68

Rockin' In Rhythm Duke Ellington autograph score
Box 311, folder #2
Reproduced here in Figure 76

Rocks In My Bed Duke Ellington, Billy Strayhorn autograph score
Box 185 (*Jump For Joy*), folder #5

Reproduced here in Figure 77

Reminiscing In Tempo Duke Ellington autograph score
Box 305, folder #3
Reproduced here in Figure 78

The Man I Love Tom Whaley score
Box 214, folder #11
Reproduced here in Figure 82

In A Mellotone Duke Ellington autograph score
Notebook 2, c. 1940–3
Reproduced here in Figures 96, 97, 98, 99 and 100a

In A Mellotone Duke Ellington autograph score
Box 164, folder #10
Found on reverse of *All Too Soon* sketch (Box 15, folder #4)
Reproduced here in Figure 101a

Cottontail Tom Whaley score
Box 85, folder #4
Reproduced here in Figure 128

Interviews

Bigard, Barney (interviewer Pat Willard, 1976); Smithsonian Institution, Oral History Project, Institute of Jazz Studies, Rutgers University.

Ellington, Duke (interviewer Carter Harman, Las Vegas, 1956; Chicago, 31 May 1964; Atlantic City, New Jersey, 21 July 1964; Atlantic City, New Jersey, 2 November 1964); Smithsonian Institution, Oral History Project, NMAH Archive Center, Washington, DC.

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Video

A Duke Named Ellington (1988). Two-part documentary. Videotape in the repository of the Duke Ellington Collection, Smithsonian Institution, Washington, DC.

Sources for other examples

Transcriptions – Tony Faulkner

Paradise
Reproduced here in Figure 81

A Tone Parallel To Harlem
Reproduced here in Figure 18

Happy Reunion
Reproduced here in Figures 64 and 65

Rediscovered Ellington (project manager Tony Esposito; Florida: Warner Brothers, 1999)

Black Beauty (p. 90)
Reproduced here in Figure 37

Awful Sad (p. 44)
Reproduced here in Figures 30, 31 and 32

What A Life! (p. 49)
Reproduced here in Figure 33

Black Beauty (p. 90)
Reproduced here in Figure 66

Walter van de Leur, *Something to Live For: The Music of Billy Strayhorn* (New York: Oxford University Press, 2002)

Pretty Girl (also known as *Star Crossed Lovers*) (p. 157)
Reproduced here in Figure 83

Gunther Schuller, *The Swing Era*: *The Development of Jazz 1935–40* (New York: Oxford University Press, 1989)

Daybreak Express (p. 63)
Reproduced here in Figure 5

Subtle Lament (p. 106)
Reproduced here in Figure 26

Blue Light (p. 109)
Reproduced here in Figure 29

Cottontail (Ben Webster Solo) (pp. 581–2)
Reproduced here in Figure 121

Gunther Schuller, *Early Jazz: Its Roots and Musical Development* (New York: Oxford University Press, 1968)

Rocky Mountain Blues (p. 344)
Reproduced here in Figure 38

Miles Davis: Birth of the Cool. Scores: From the Original Parts (ed. Mark Davis, Mark Vinci, Rob DuBoff and Josh Davis; New York: Hal Leonard Corporation, 2002)

Jeru
Reproduced here in Figure 84

CD Track Information

1. *In A Mellotone* — Victor 053428-1
Duke Ellington and his Famous Orchestra
5 September 1940
Chicago, Illinois

2. *Cottontail* — Victor 049655-1
Duke Ellington and his Famous Orchestra
4 May 1940
Hollywood, California

3. *Reflections In D* — Capitol 11436
Duke Ellington with rhythm accompaniment
14 April 1953
Hollywood, California

4. *Mood Indigo* — Victor 64811-4
Duke Ellington and his Cotton Club Orchestra
10 December 1930
Hollywood, California

5. *Blue Light* — Brunswick M958-2
Duke Ellington and his Famous Orchestra
22 December 1938
Hollywood, California

6. *Dusk* — Victor 053020-2
Duke Ellington and his Famous Orchestra
28 May 1940
Chicago, Illinois

7. *In A Mizz* — Brunswick WM1038A
Duke Ellington and his Famous Orchestra
12 June 1939
Chicago, Illinois

8. *Cop Out* — Columbia CO 57533
Duke Ellington and his Orchestra
13 March 1957
New York City

9. *Rockin' In Rhythm* — Capitol W521
Duke Ellington and his Orchestra
2 February 1954
(unknown venue)

10. *Rocks In My Bed* — Victor 061685-1
Duke Ellington and his Famous Orchestra
29 June 1939
Hollywood, California

11. *Take The 'A' Train* — SRT 055250
Duke Ellington and his Orchestra
15 January 1941
Hollywood, California