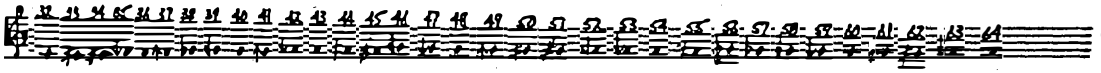
THROUGH THE DOOR OF THE HEART

PAUL GALLAGHER

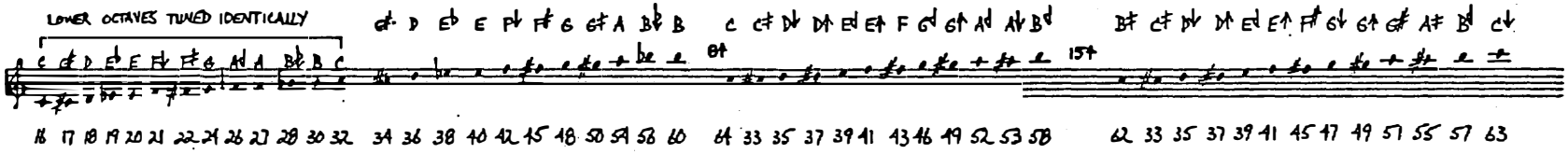
FOR ERIK SKJOLDAN

Premiered as NIERIKA at CAMI Hall, NYC, 1988.

32 TONE JUST SCALE (PARTIALS 32-64 in C)



PIANO TUNING TO ACCOMODATE JUST SCALE (PARTIALS 59 & 61 OMITTED (B↓ & B↑))



ACCIDENTALS APPLY IN THIS ORDER: ♭ 𝄫 ↓ 𝄳 ↑ 𝄪 ♯, BUT SHOULD NOT BE INTERPRETED AS STRICTLY LINEAR DIVISORS OF A WHOLE TONE IN EQUAL TEMPERAMENT.

PARTIALS 5, 9, 15, 27 & 43 (AND OCTAVE EQUIVALENTS) ARE NOTATED AS NATURAL PITCHES TO ILLUSTRATE PRIMARY HARMONIC RELATIONSHIPS. THEIR ACTUAL FREQUENCIES DEVIATE TO VARIOUS DEGREES FROM EQUAL TEMPERED PITCHES (E, D, B, A, F). THIS PRINCIPLE ALSO APPLIES TO THE INTERPRETATION OF ♯ OR ♭.

A SLIGHT DISCREPANCY EXISTS IN SOME RELATIONSHIPS LABELED AS PERFECT FIFTHS OR FOURTHS.

THE HARMONY REFLECTS AN OVERTONE SERIES WITH C AS THE FUNDAMENTAL. MODAL VARIANTS BASED ON G, E, B♭ AND D (THE 3RD, 5TH, 7TH AND 9TH PARTIALS) ARE DERIVED FROM THE PITCHES PRESENT IN THE SERIES ON C. PITCH AND RHYTHM ARE INTERRELATED ON THE LEVELS OF BOTH STRUCTURAL DESIGN AND MUSICAL MATERIAL BY THE USE OF SMALL NUMBER INTEGER PROPORTIONS. THIS CALLS FOR JUST INTONATION RATHER THAN THE NOW STANDARD EQUAL TEMPERAMENT, AND NECESSITATES THE USE OF ADDITIONAL ACCIDENTALS. THE FULL RANGE OF INFLECTION FROM MOST FLAT TO MOST SHARP IS AS FOLLOWS: 𝄬 ♭ 𝄳 𝄲 𝄭 𝄱 ♯ 𝄯, BUT SHOULD NOT BE INTERPRETED AS STRICTLY LINEAR DIVISIONS OF THE WHOLE TONE IN EQUAL TEMPERAMENT. HOWEVER, AS A GENERAL RULE, 𝄳 ≅ .60 FLAT, ♯ ≅ .50 SHARP, 𝄲 ≅ .30 FLAT, 𝄱 ≅ .30 SHARP AND 𝄬 ≅ 130 FLAT. IN THE END, THE EAR IS THE BEST JUDGE, LISTENING FOR THE HARMONIC FUSION THAT IS CHARACTERISTIC OF OVERTONE TUNING.

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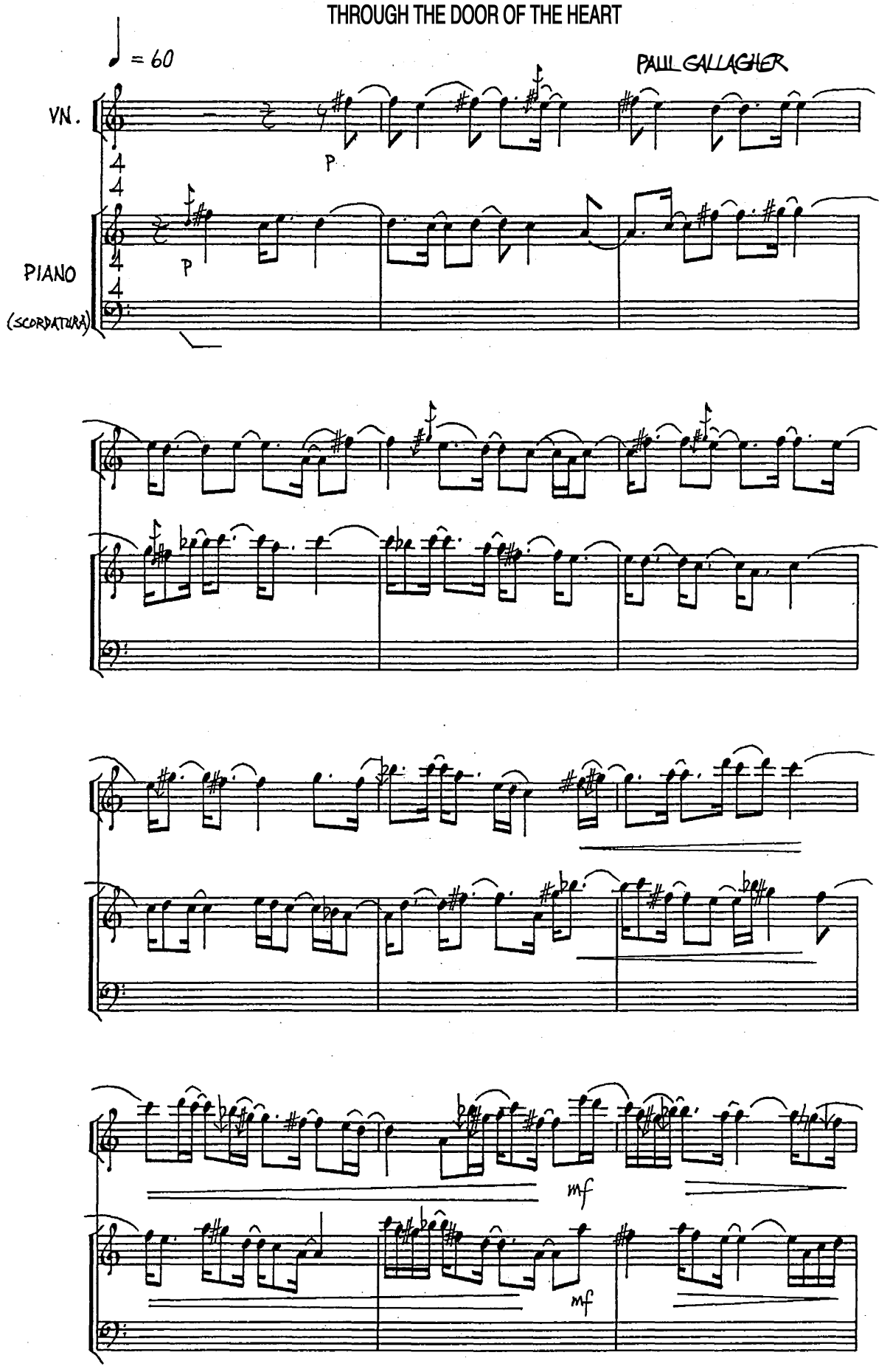

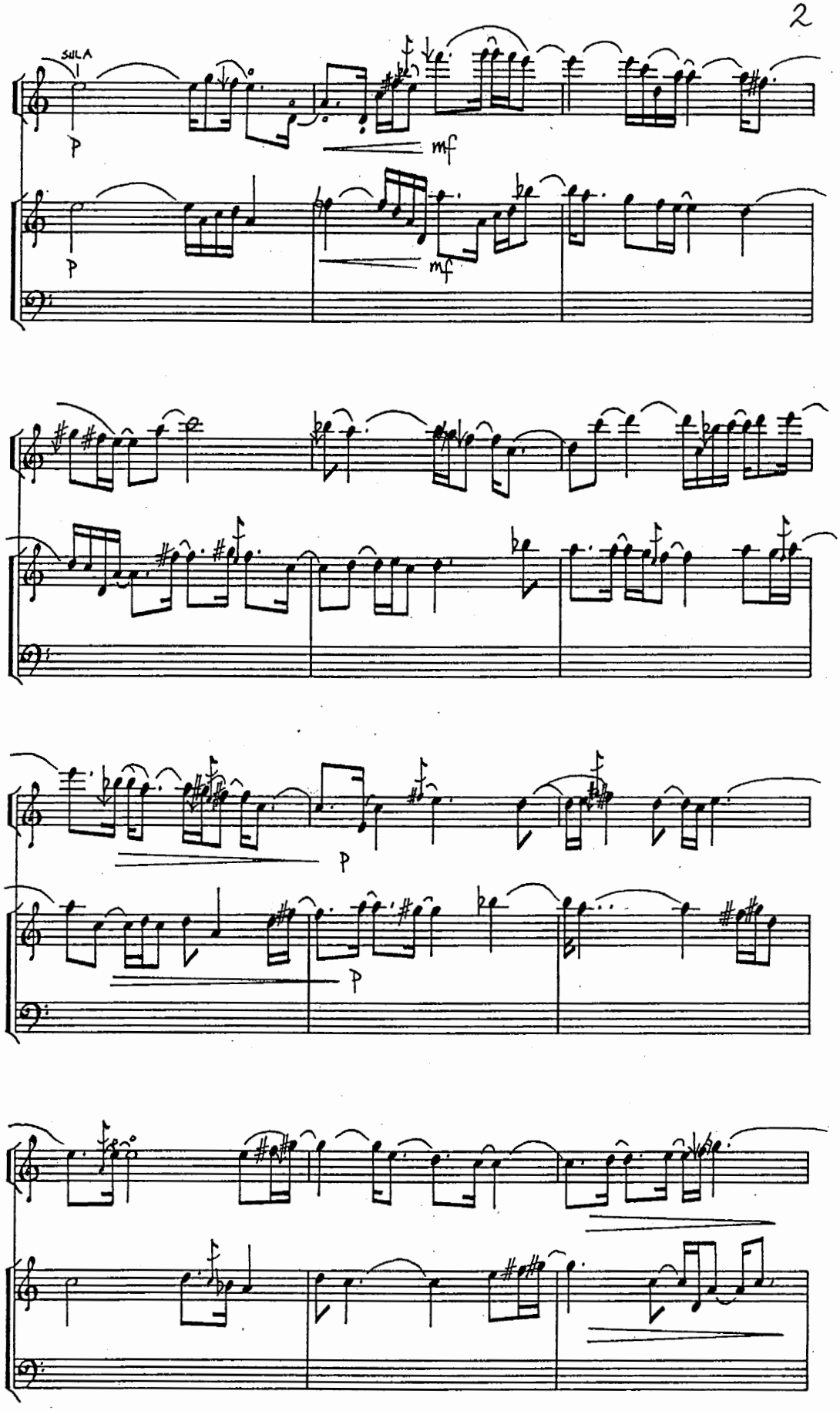
SUL A
p
mf
p
mf
p
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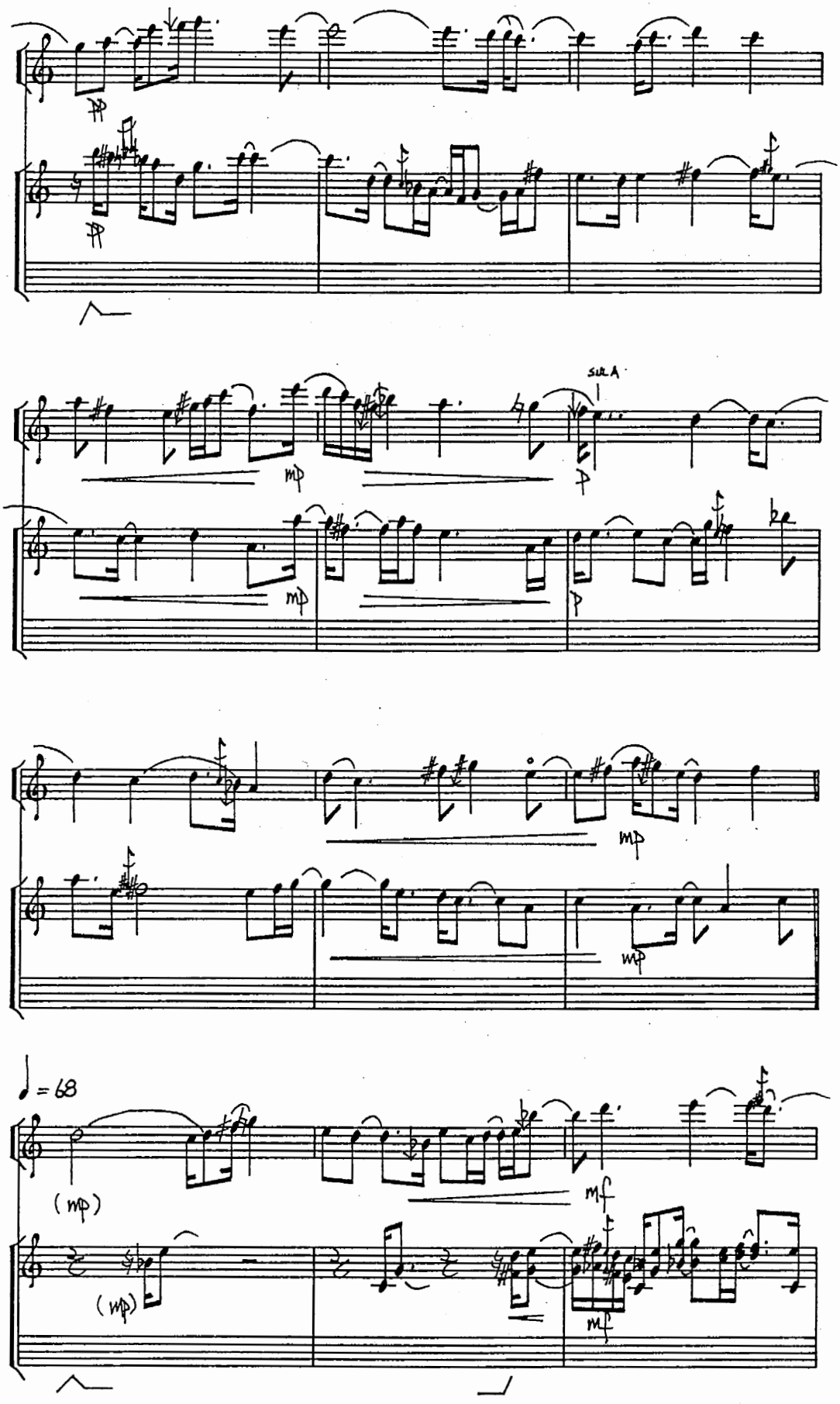
sul A
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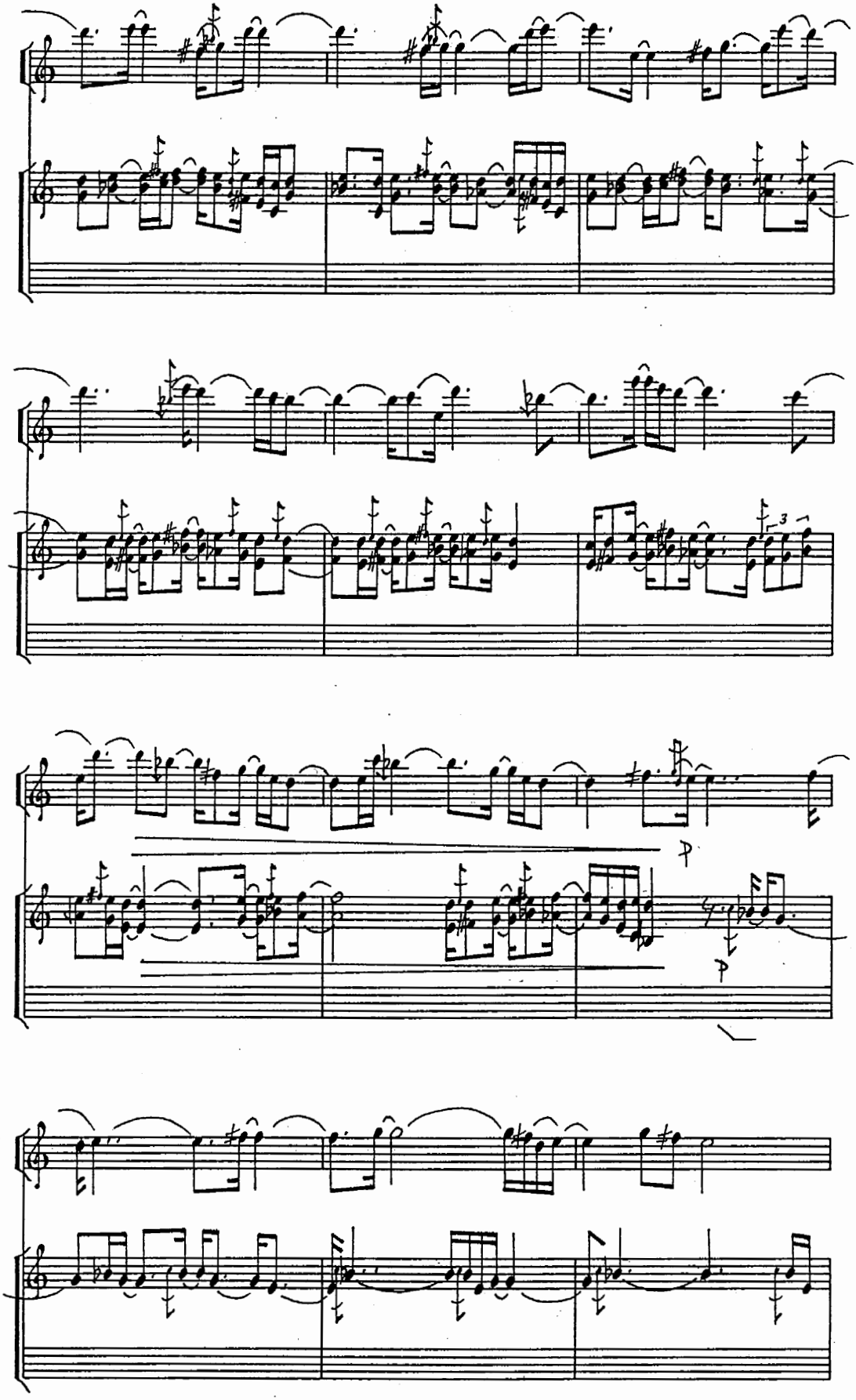
mf
♩ = 68
(mp)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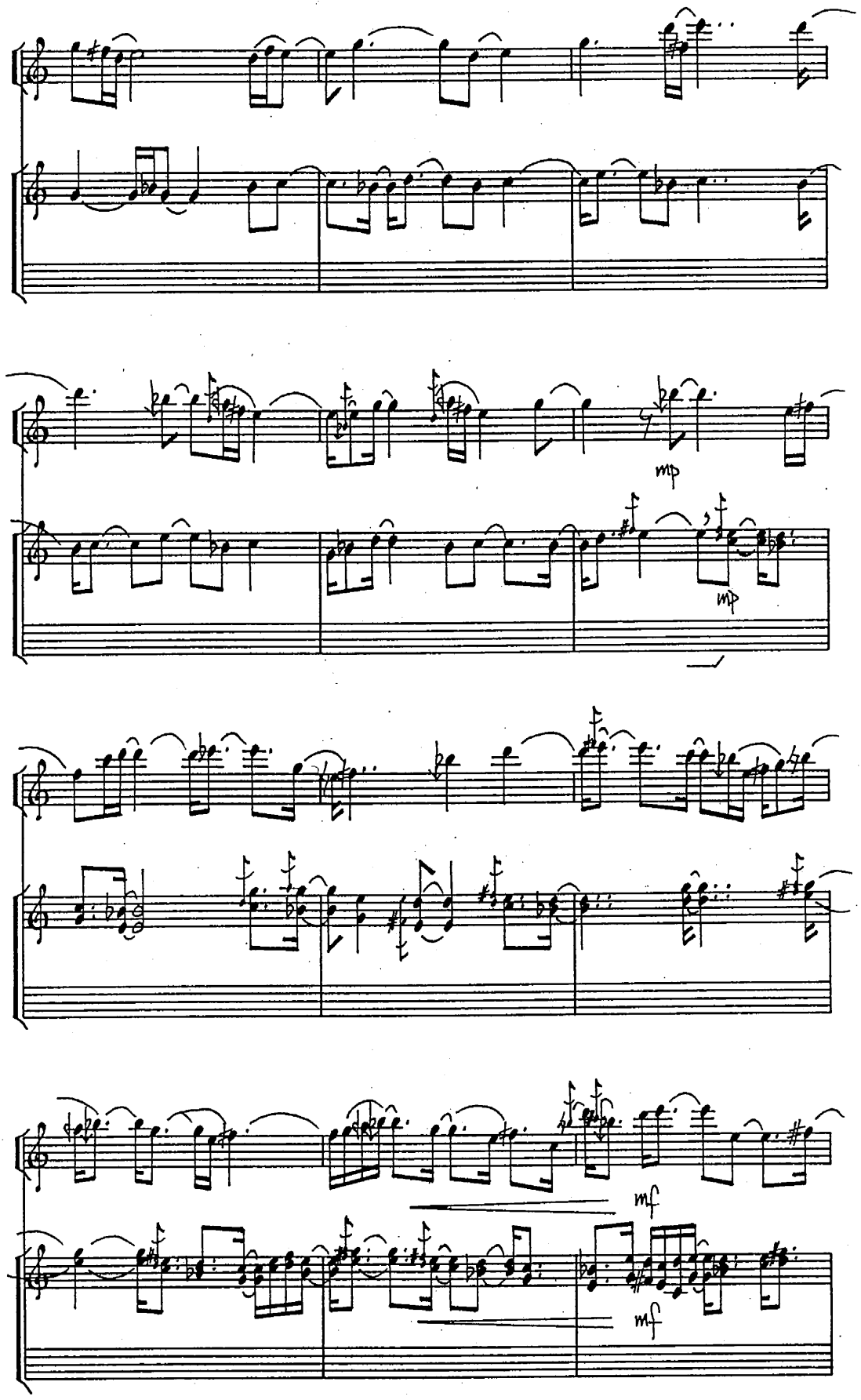
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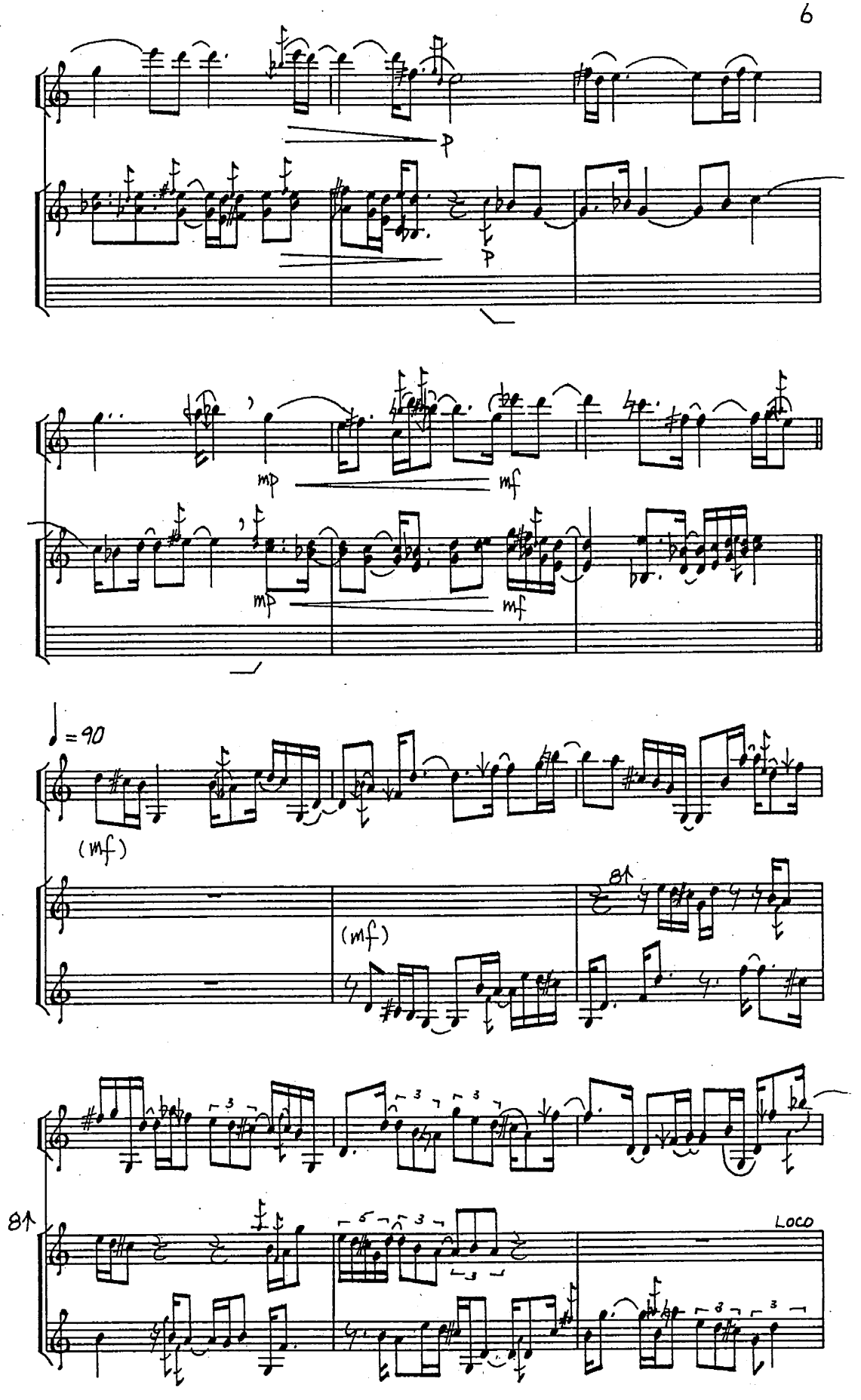
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♩=90
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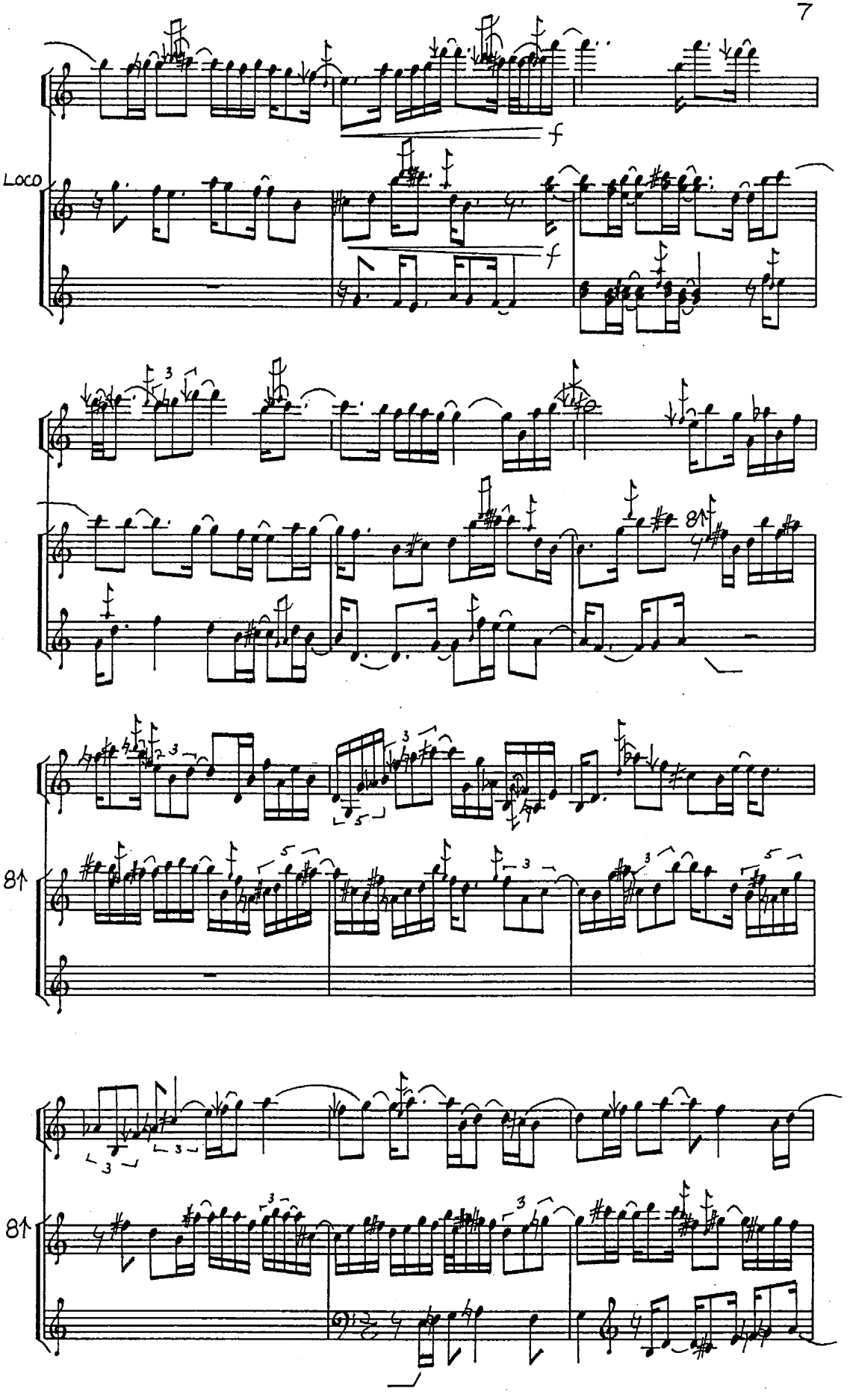
(mf)
8va
8va
LOCO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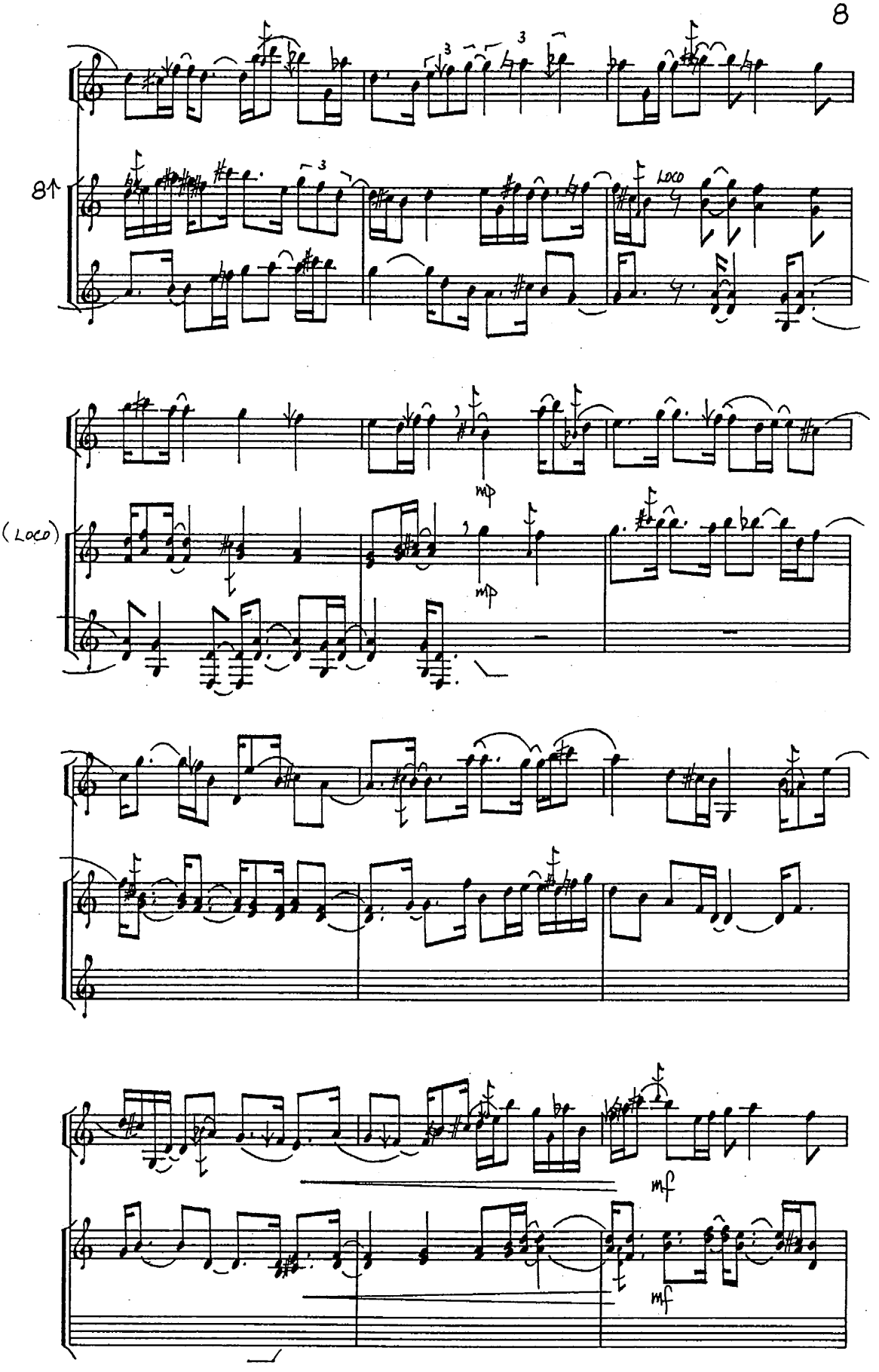
LOCO
f
8va
8va


8↑
LOCO
mp
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(LOCO)
mf
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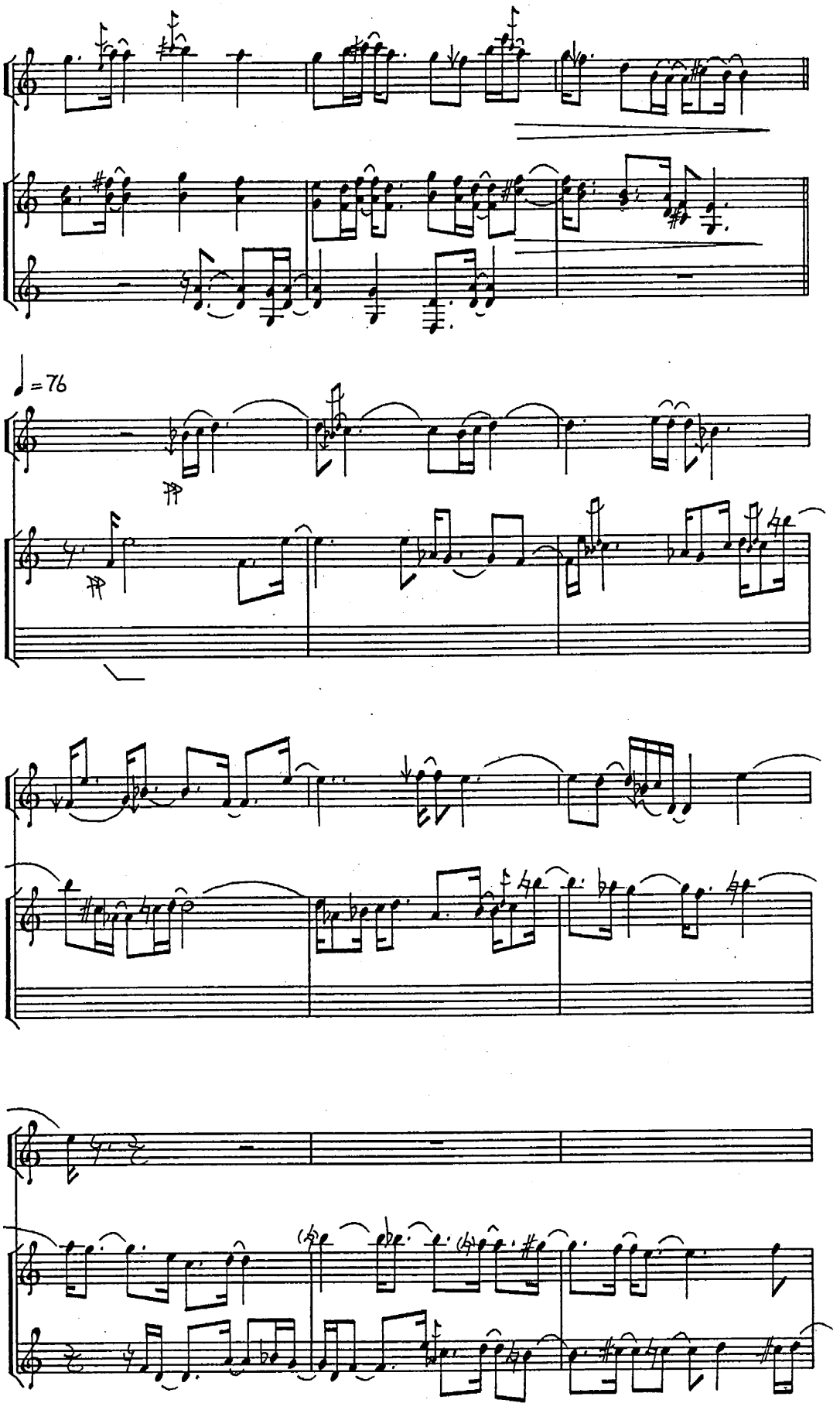
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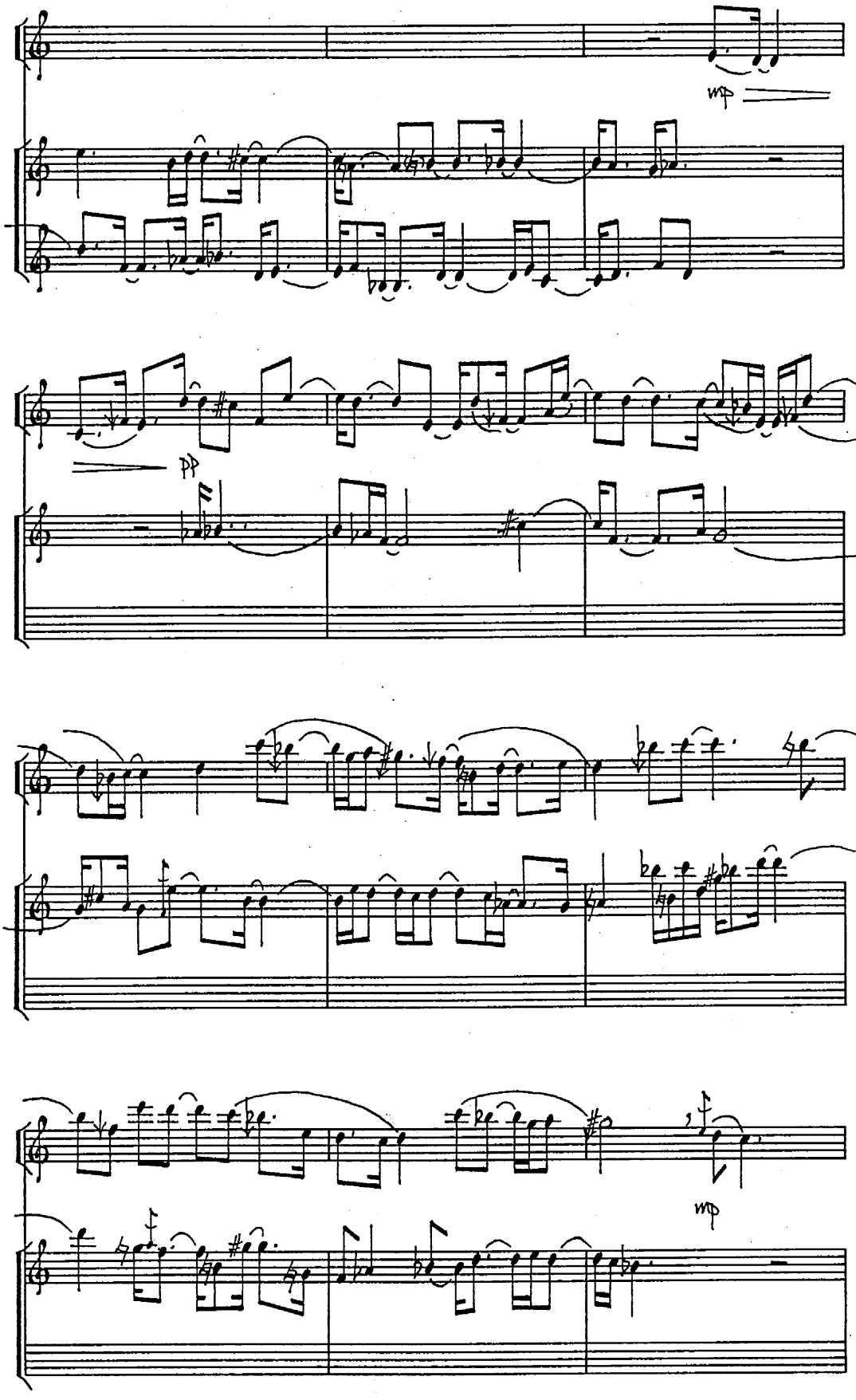
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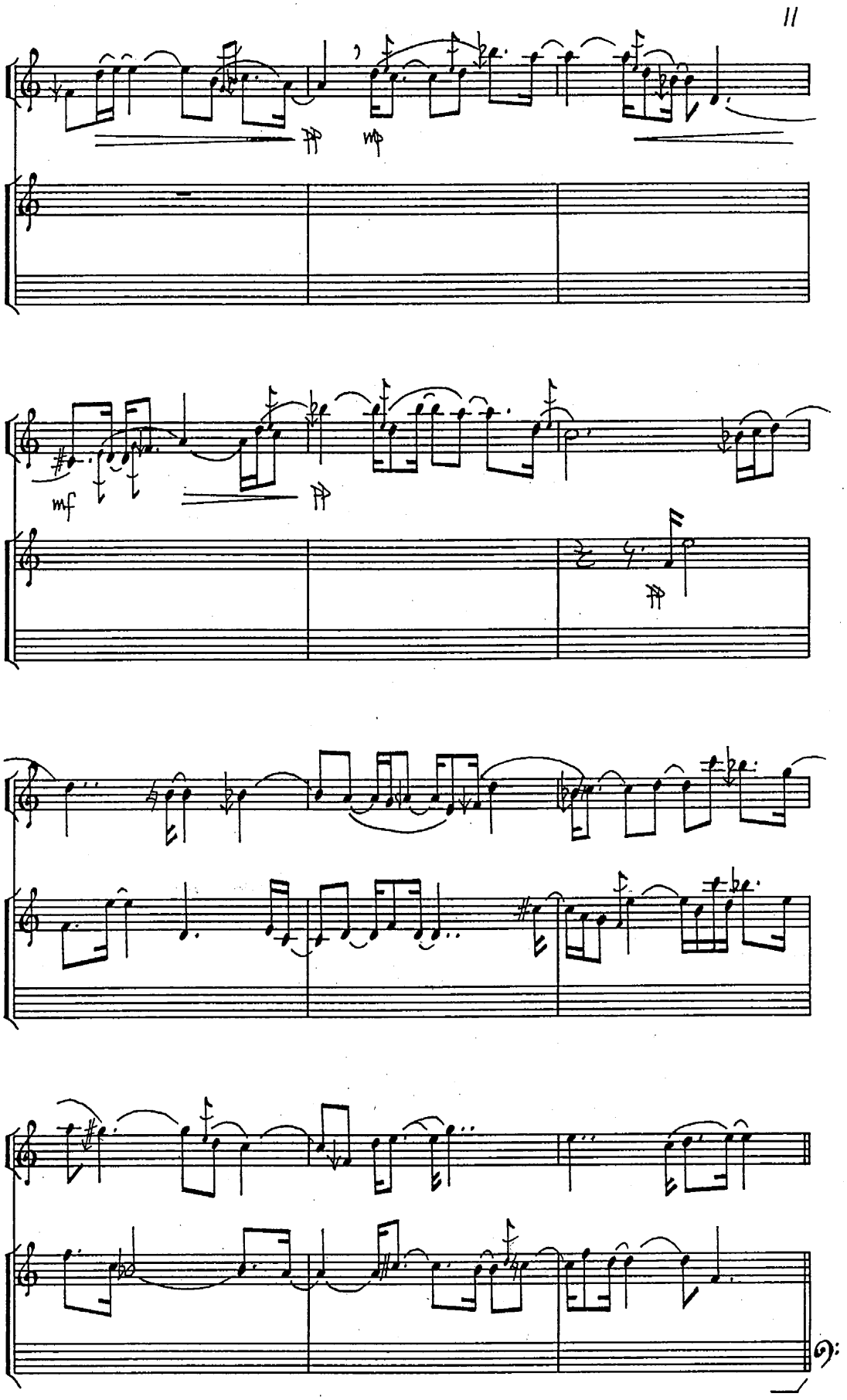
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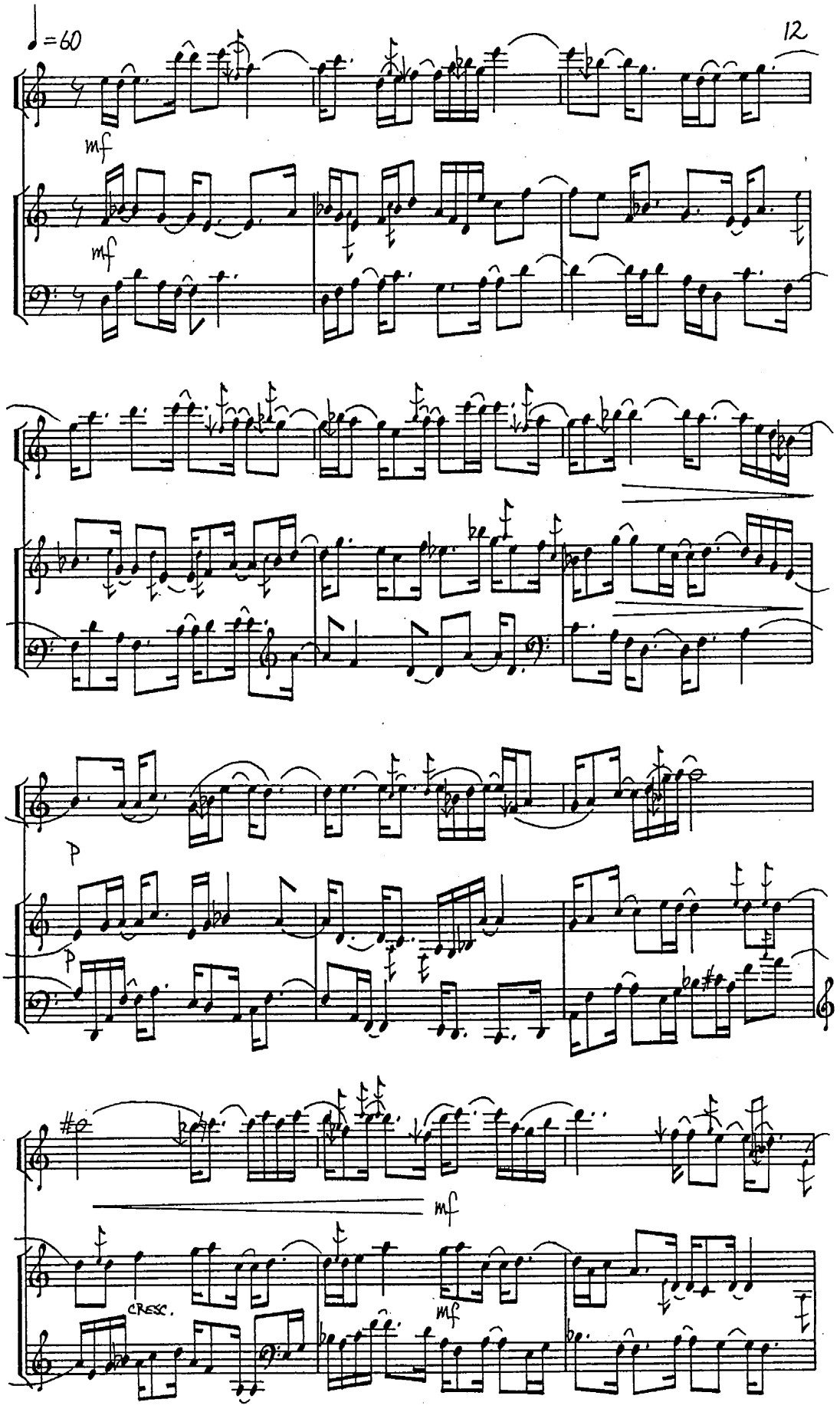
♩=60
mf
mf
p
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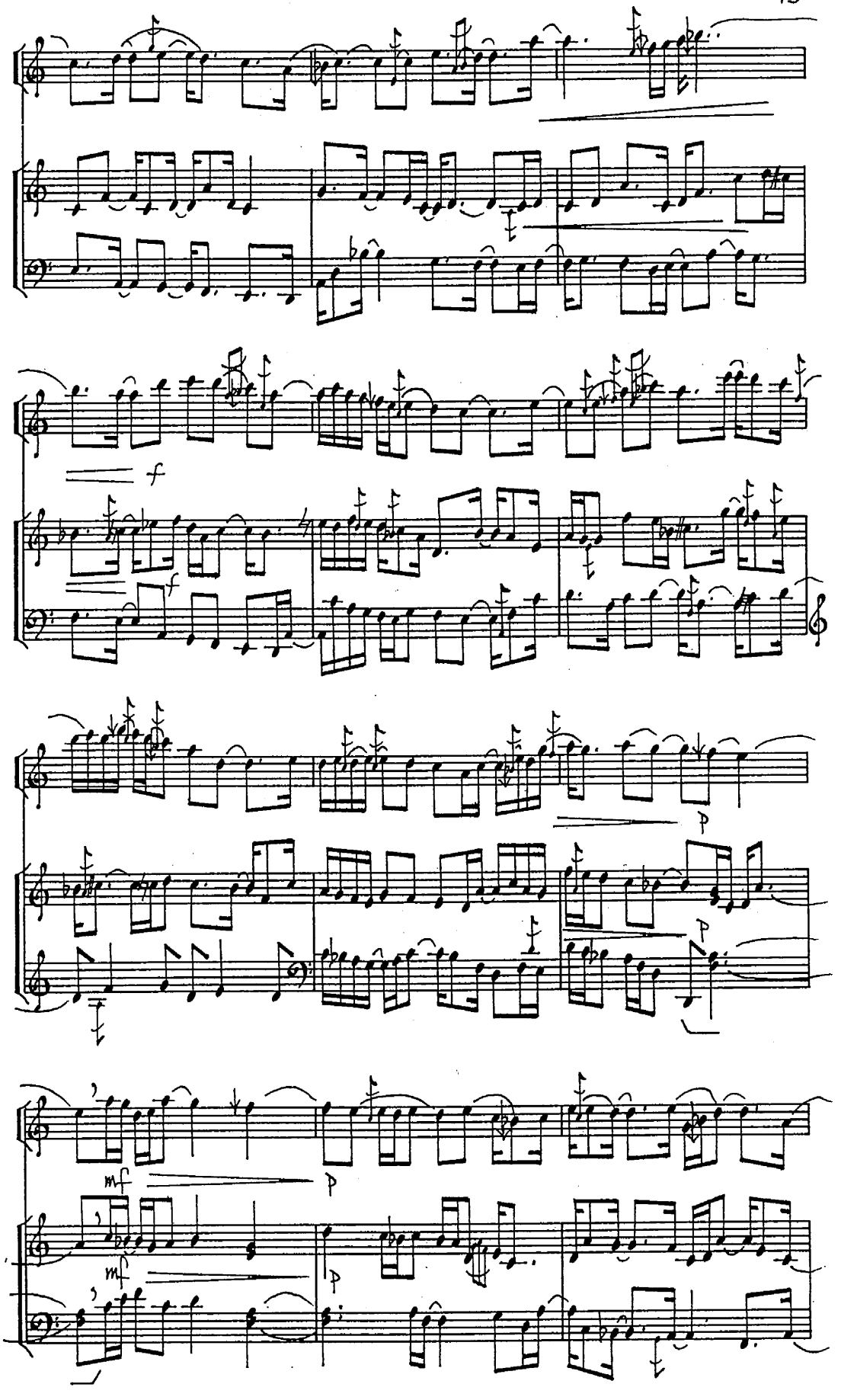
CRESC.
mf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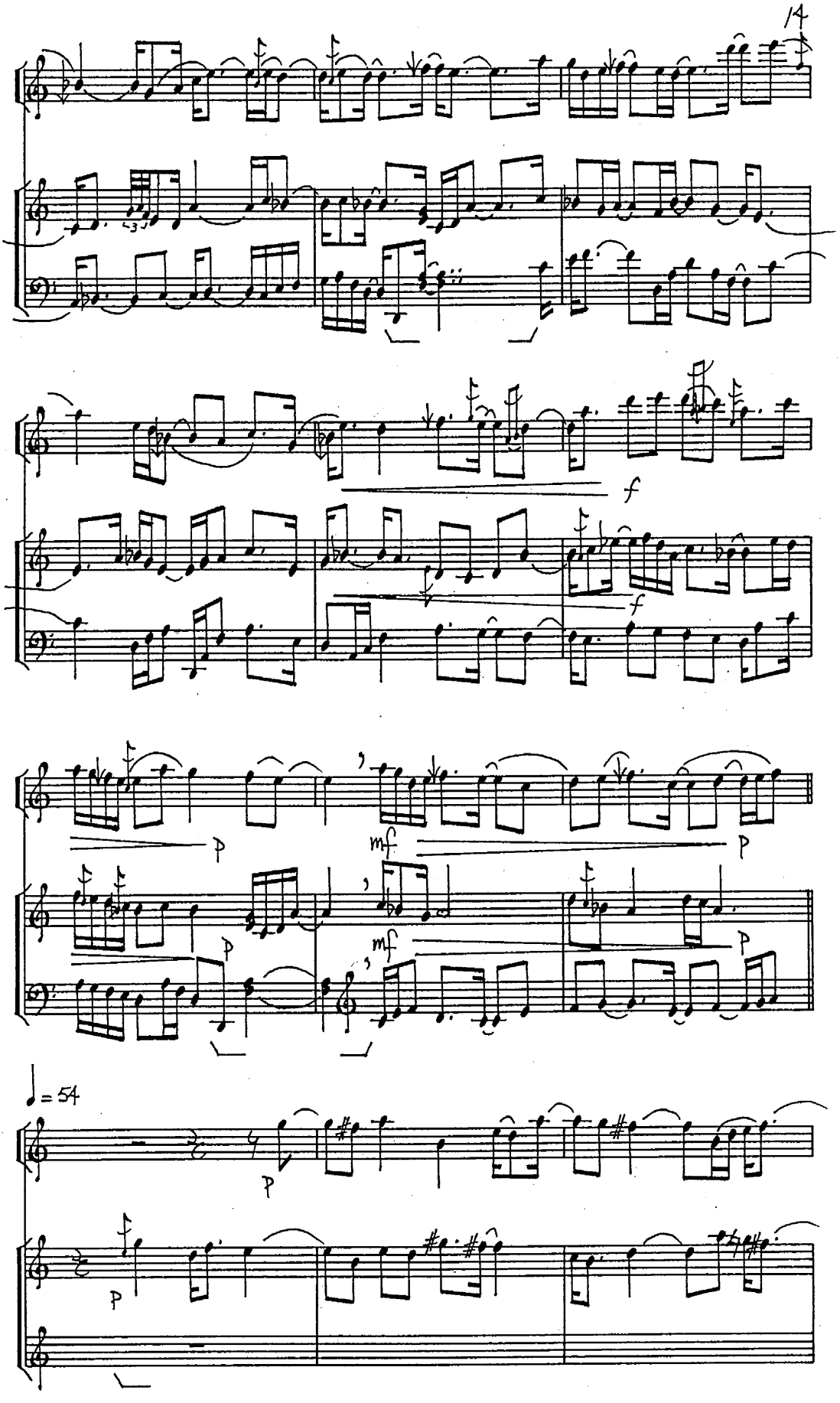
f
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♩= 54
p
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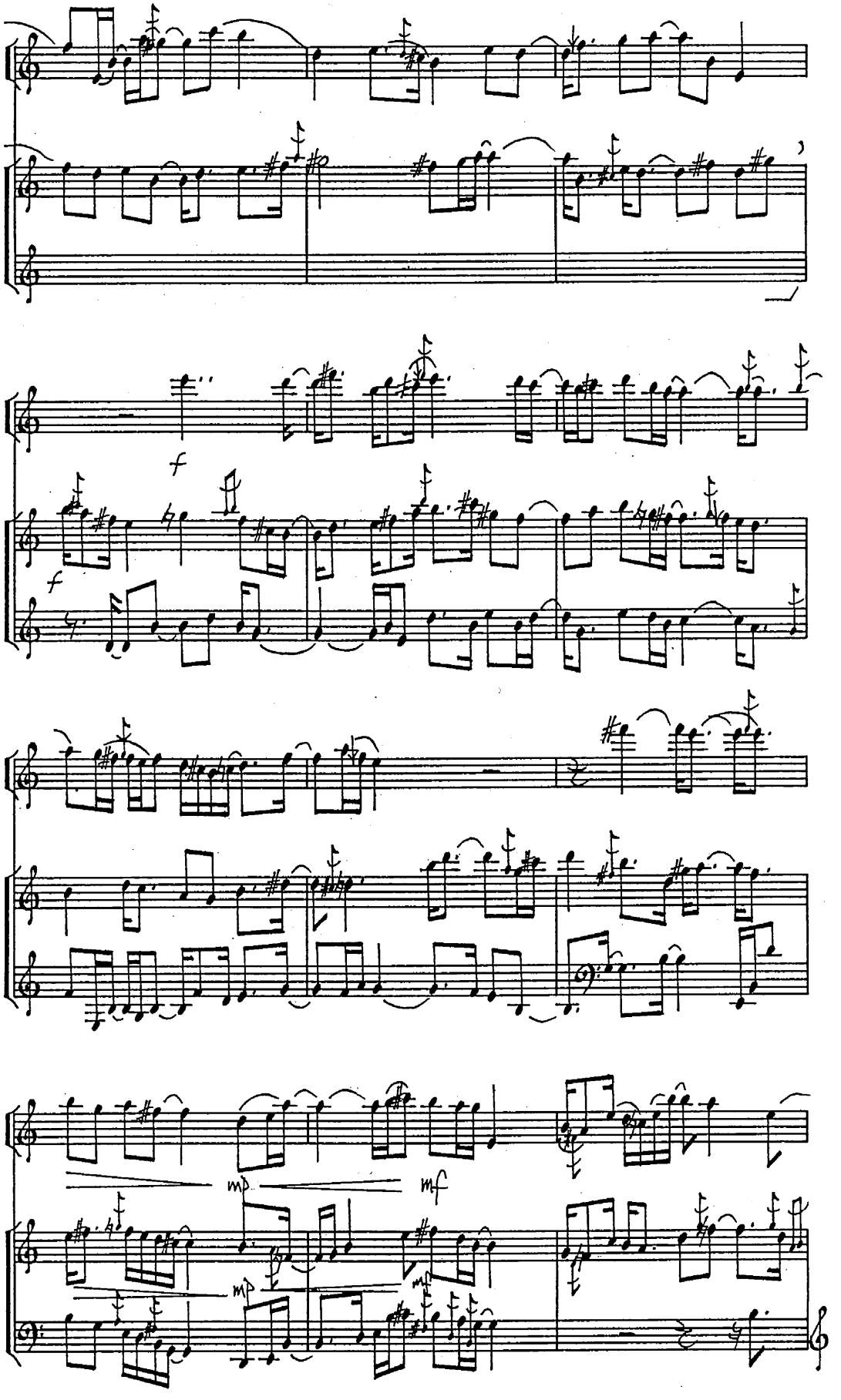
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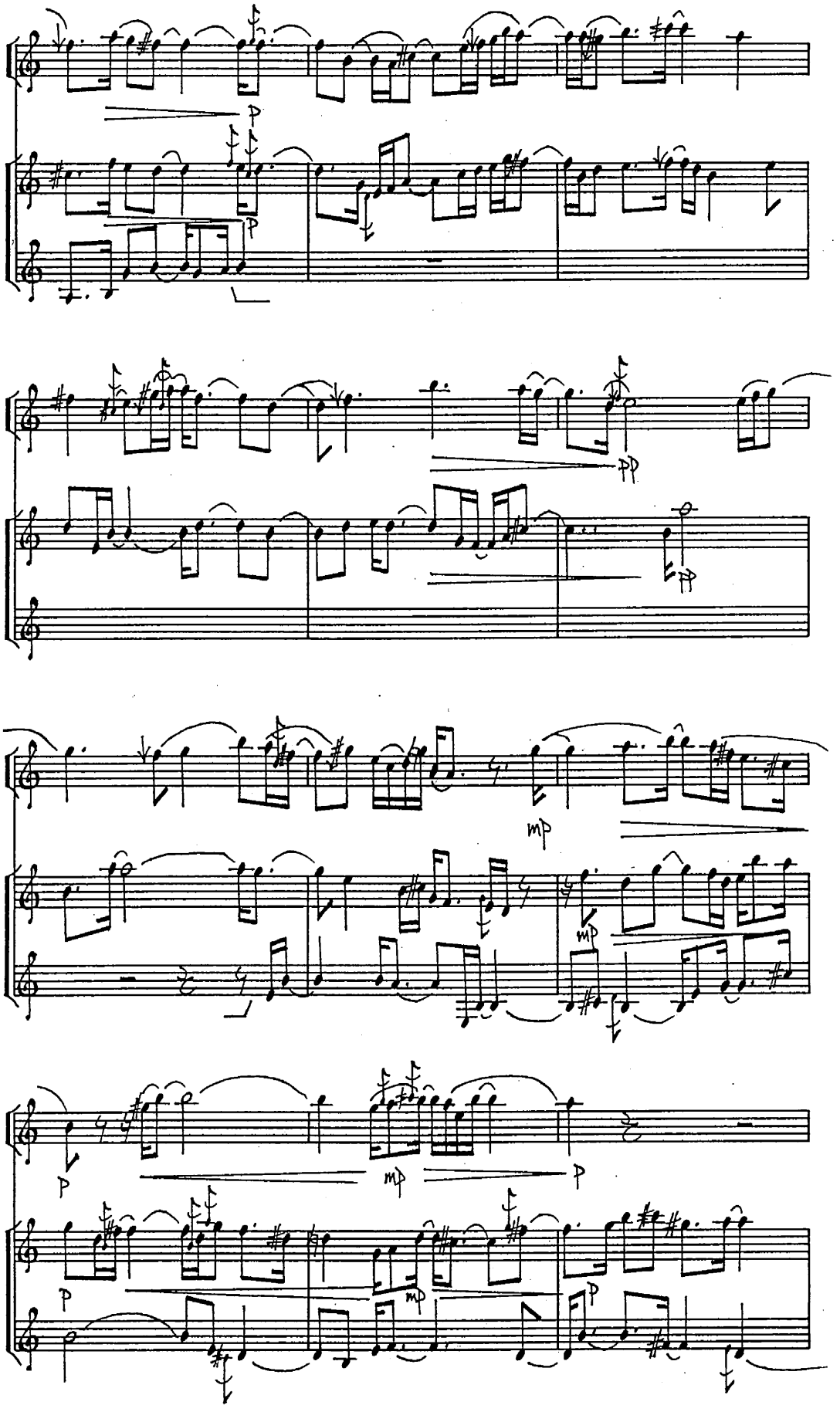
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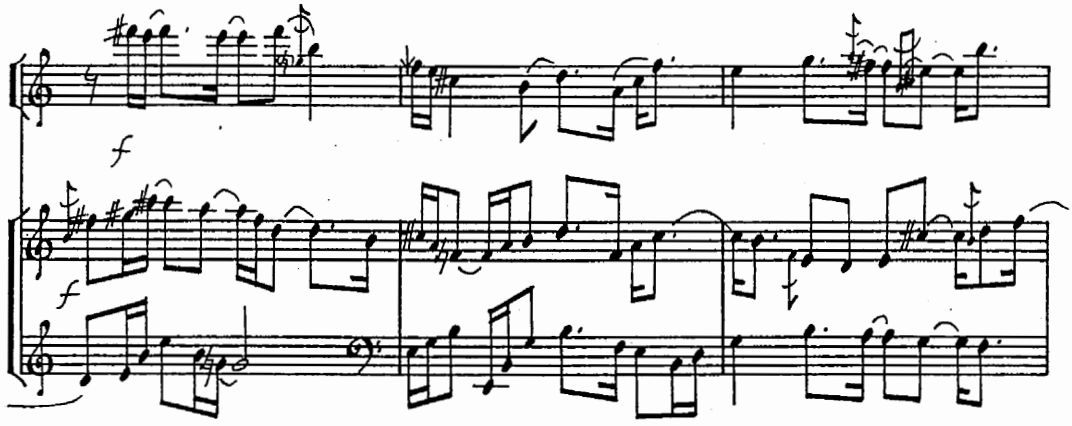

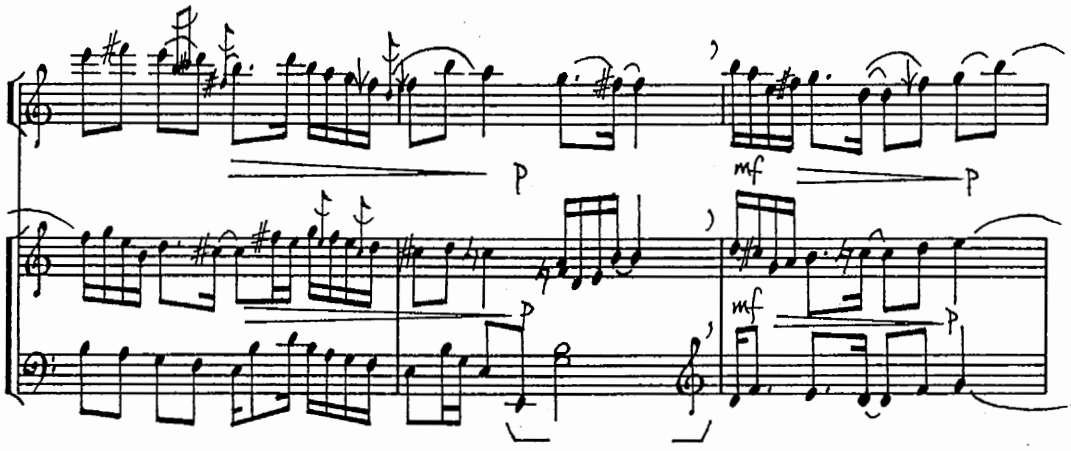

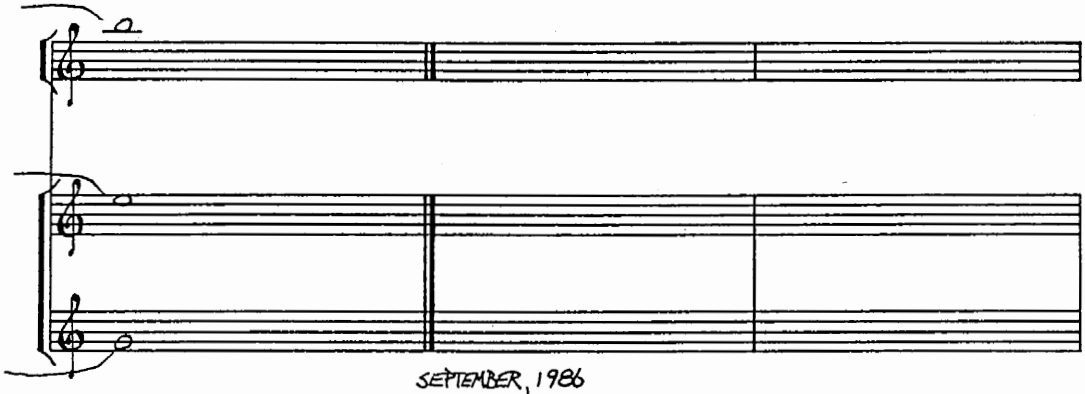
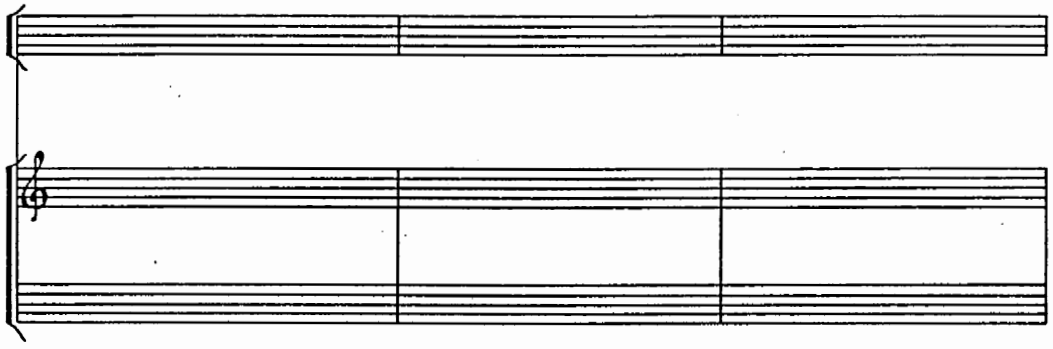
SEPTEMBER, 1986
CHATHAM