

**MTO 27.4 Examples: Lucas, Performing Analysis, Performing Metal: Meshuggah, Edvard Hansson, and the Analytical Light Show**

(Note: audio, video, and other interactive examples are only available online)  
<https://mtosmt.org/issues/mto.21.27.4/mto.21.27.4.lucas.html>

**Example 3.** Form chart showing 0:00–4:45 of “Clockworks”  
Example numbers appear in the description box for sections that receive detailed treatment in the article

Time	Section	Description
0:02	A	Opening riff based on palm-muted dotted eighths, pattern is 9 ♩ long (Examples 4–5)
0:32	A'	Opening riff continues with addition of high-pitched guitar layer (Examples 4–5)
1:01	B	First vocal segment; new guitar riff shifts focus to groups of triplet sixteenths; pattern is 23 ♩ long
1:31	C	No vocals, angular riff without palm muting, pattern is 23 ♩ long
1:46	C'	Angular riff continues with addition of palm muting and vocals
2:01	B'	Triplet sixteenth 23 ♩ riff returns at lower pitch, vocals continue
2:31	D	New riff: 17 ♩ long, and subdivides into 9 ♩ chords + 8 ♩ worth of sixteenth-note triplets
3:00	E	Guitar solo; palm-muted dotted eighths in rhythm guitars
3:30	A''	Opening riff returns, with vocals and lead guitar (Example 6)
3:45	A'''	Repetition of opening riff continues, new high-pitched lead guitar part added
3:59	F	Transitional riff, introduces minor ninth leap motif
4:14	G	New riff with 15 ♩ of minor ninth leaps alternating with a melodic figure of gradually increasing duration (Examples 7–8)

Example 4. "Clockworks" opening guitar riff, mm. 1-8

Example 4 shows the opening guitar riff in bass clef, 4/4 time, with a tempo of 132. The notation includes a key signature of one flat (B-flat) and a time signature of 4/4. The riff is marked with a "Light Sweep" and "P.M." (Palm Mute) instructions. A dashed blue box indicates a "Riff Duration 9" starting at the first measure. Red circles highlight specific notes in measures 1, 4, and 8. The notation includes triplets and a final measure with a 7-measure rest.

Example 7. "Clockworks," 4:12-4:37 guitar riff

Example 7 shows a complex guitar riff in bass clef, 4/4 time. The notation includes a key signature of one flat (B-flat) and a time signature of 4/4. The riff is marked with a "15" (15-measure rest) and "P.M." (Palm Mute) instructions. The notation includes a key signature change to two flats (B-flat and E-flat) and a time signature change to 4/4. The riff is marked with "8 (upward)" and "10 (downward)" annotations. The notation includes a key signature change to two flats (B-flat and E-flat) and a time signature change to 4/4. The riff is marked with "etc." at the end.

**Example 10.** Form chart for 2:29–4:47 of “Clockworks”  
 Timings are for the video clip, not the song as a whole

Time (Clip)	Section	Description
0:00	D	New riff: 17 ♪ long, and subdivides into 9 ♪ chords + 8 ♪ worth of sixteenth-note triplets
0:31	E	Guitar Solo; palm-muted dotted eighths in rhythm guitars
1:00	A''	Opening riff returns, with vocals and lead guitar (Example 6)
1:15	A'''	Repetition of opening riff continues, new high-pitched lead guitar part added
1:30	F	Transitional riff, introduces minor ninth leap motif
1:44	G	New riff with 15 ♪ of minor ninth leaps alternating with a melodic figure of gradually increasing duration (Examples 7–8)

**Example 11.** “The Hurt That Finds You First,” 0:00–0:17 guitar riff

♩ = 130

Chromatic eighth note melody emphasized in lights

A: 14 ♪

B: 15 ♪

5

7

Example 12. "The Hurt That Finds You First," 0:18-0:47 guitar riff

Musical notation for Example 12, guitar riff. The notation is in bass clef with a key signature of one flat (Bb). It consists of three staves of music. The first staff starts at measure 11 and ends at measure 21. A bracket above the staff spans from measure 11 to measure 21, labeled "Pitch oscillation every two measures". The second staff starts at measure 14 and ends at measure 21. The third staff starts at measure 17 and ends at measure 21. Each staff has a circled measure at the end, labeled "21".

Example 14. "Born in Dissonance," 0:24-0:48 guitar riff

Musical notation for Example 14, guitar riff. The notation is in bass clef with a key signature of one flat (Bb) and a 4/4 time signature. It consists of two staves of music. The first staff is labeled "Electric Bass" and starts at measure 17. The second staff is labeled "E. Bass" and starts at measure 21. Both staves have red beams above the notes in measures 17-18 and 21-22, and yellow Xs above the notes in measures 19-20 and 23-24. Brackets below the staves indicate 9-measure and 12-measure phrases.

Example 15. "Born in Dissonance," 0:48-1:01 guitar riff

Musical notation for Example 15, guitar riff. The notation is in bass clef with a key signature of one flat (Bb). It consists of two staves of music. The first staff starts at measure 33 and the second staff starts at measure 37. Red arrows point up and down to specific notes in both staves, indicating pitch oscillations.

### Example 17. "Pravus," 2:32-3:03 guitar riff

Mm. 1-8: Atmospheric lights emphasize lead guitar

Lead Guitar

Rhythm/Bass Guitars

E. Gtr.

Rhythm

E. Gtr.

Rhythm

Mm. 9-16: Rhythmic lights become more prominent

E. Gtr.

Rhythm

Green pulses on circled notes gradually brought to foreground

E. Gtr.

Rhythm

E. Gtr.

Rhythm

M. 17: lead drops out; new riff begins