

VIDEO GAME MUSIC ANALYSIS
- **For Educational Use Only** -

Hydra's Swamp
from Chrono Cross

Composed by Yasunori Mitsuda
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Maqam Hijaz (loosely equivalent to a scale in western music) is the basis for this ostinato.

Formed from two Jins (loosely equivalent to tetrachords).

First is Jin Hijaz - D, Eb, F#, G

Second is Jin Nahawand (only first two notes used) - G, A (the G overlaps, which is how Maqam'at are formed)

Taken out of cultural context, this "scale" is equivalent to Phrygian Dominant

Intro ♩ = 55

E. Piano

Vox Men

Shaker

?????

Kick

E. Bass

Iqa Karachi (arabic rhythmic pulse)

Iqa Malfuf (another arabic pulse)

Bass line entirely in D minor pentatonic. Lovely juxtaposition against the arabic ostinato.

Yasunori Mitsuda's thoughts on this track, from the Chrono Cross OST liner notes:

I broadly synchronized this to the movements of the dwarves. If the timing's right, it should look like the dwarves are dancing. I hope, anyway... This map had both a sense of pop and a sense of mystery, so it was tough trying to attend to both of those elements.

I'm not sure what he meant by "sense of pop", but I certainly hear the mystery. I can also hear the lovely musical eclecticism that makes these soundtracks so great loud and clear in this track. In Mitsuda's own words:

When I listen to this collection of music, the one thing I admire is that I'm able to achieve a well organized form out of seemingly disparate sounds. Could that be my greatest accomplishment!?

One of them (accomplishments), I would say, and certainly an inspiring one. In Chrono Trigger, Mitsuda wanted to create a "timeless" feel to the music, mainly through the creative combination of traditional and modern compositional techniques. In Chrono Cross - a game that takes place almost entirely on an exotic, fantastical archipelago and centers around the search for a mystical, storied relic called the Frozen Flame - he wanted to draw upon every folk music tradition he get wrap his ears around to make the player feel like they were truly "not in Kansas anymore". To that end, he succeeded greatly.

When I turn off the music and look at the notes and instrumentation, the whole thing looks so silly. A concert harp paired with an electric piano? An Udu, Darabuka, and Kick Drum? And what about the harmony? An arabic maqam playing right alongside a funk-inspired minor pentatonic bass line? But what's "silly" on paper turns to magic in the hands of a creative, sincere, and fearless composer like Mitsuda, whose heartfelt desire to move the player emotionally and challenge pre-conceived notions of what's musically "acceptable" in a soundtrack has forever changed the medium of video games for the better.

3 **A**

The musical score is arranged in a multi-stem format. The instruments and their parts are as follows:

- E. Guitar:** Treble clef, 8/8 time signature. Part 1 is mostly rests. Part 2 has a few notes at the end.
- E. Piano:** Treble clef. A melodic line with eighth and sixteenth notes, including a sharp sign (#).
- Vox Men:** Bass clef. Two whole notes, one in each measure.
- Udu:** Percussion clef. Two notes with stems, one in each measure.
- Shaker:** Percussion clef. A continuous eighth-note pattern.
- Darabuka:** Percussion clef. A complex rhythmic pattern with accents.
- ?????:** Percussion clef. A pattern of 'x' marks with stems and accents.
- Kick:** Percussion clef. A simple rhythmic pattern of quarter notes.
- E. Bass:** Bass clef, 8/8 time signature. A melodic line with eighth notes and some slurs. Includes markings for 1/2 and 1/4 note values.

No Muscore General SF for an Udu, sorry...
There should also be a Jaw Harp in here, but no SF for that, nor notation.

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By emphasizing the m2 interval and contrasting it with a P4 leap, this motif sounds very mysterious and vaguely threatening.

The musical score is arranged in a vertical stack of staves. From top to bottom, the staves are: E. Guitar (treble clef), E. Piano (treble clef), Vox Women (treble clef), Vox Men (bass clef), Udu (percussion clef), Shaker (percussion clef), Darabuka (percussion clef), a percussion instrument labeled '????' (percussion clef), Kick (percussion clef), and E. Bass (bass clef). The score is in 4/4 time and consists of two measures. The E. Guitar part features a motif with a minor second interval and a perfect fourth leap. The E. Piano part has a steady eighth-note accompaniment. The Vox Women part has a dotted quarter note melody. The Vox Men part has a sustained bass note. The Udu part has a single note. The Shaker part has a steady eighth-note accompaniment. The Darabuka part has a steady eighth-note accompaniment. The '????' part has a steady eighth-note accompaniment. The Kick part has a steady eighth-note accompaniment. The E. Bass part has a steady eighth-note accompaniment with some grace notes.

So what's the point of all this eclecticism?

- Bass line keeps the music fun, enjoyable; the player doesn't take this area too seriously (as that would detract from the seriousness of *other* areas of the game - important to keep a sense of grand tonal perspective for an entire soundtrack)
- The kick keeps the rest of the reverb-drenched rhythm "glued" together. The '????' (I have no idea what it's supposed to be) acts as a "snare", while the Darabuka takes hi-hat duty. Udu and Jaw Harp are decorative, adding colorful sounds that sound distinctly non-western.
- The choir adds a layer of menace, especially the bass.
- The electric piano and guitar have a tone (much easier to hear in the actual track) that adds a "haziness" to the overall timbre, selling the listener further on the environment of a mysterious, dangerous marsh.
- The percussion is not your average timpani, snare, and cymbals. This is not Kansas (the Jaw Harp and Udu sell that especially well)

This musical score is arranged in a vertical stack of ten staves, each representing a different instrument or voice part. The staves are labeled on the left as follows: E. Guitar, E. Piano, Vox Women, Vox Men, Udu, Shaker, Darabuka, ?????, Kick, and E. Bass. The score is divided into two measures by a vertical bar line. The E. Guitar staff uses a treble clef and a key signature of one flat (Bb). The E. Piano staff uses a treble clef and a key signature of one flat (Bb). The Vox Women staff uses a treble clef and a key signature of one flat (Bb). The Vox Men staff uses a bass clef and a key signature of one flat (Bb). The Udu staff uses a percussion clef. The Shaker staff uses a percussion clef. The Darabuka staff uses a percussion clef. The ????? staff uses a percussion clef. The Kick staff uses a percussion clef. The E. Bass staff uses a bass clef and a key signature of one flat (Bb). The score includes various musical notations such as notes, rests, and accidentals. The E. Bass staff includes dynamic markings of 1/2 and 1/4.

9 **B**

E. Piano

Harp

Ab Mixolydian b6
This time, roughly equivalent (note-wise)
to Raga Charukeshi (Carnatic tradition)

Quartal/Quintal harmony keeps tonality somewhat ambiguous, allowing
for multiple tonal centers to be dwelled upon.

Vox Women

Vox Men

Pizzicato strings, in this context, are mysterious. The
deccendos make them sound like distant creatures chirping
at the player.

Vlins. *mp*

Vlas. *f*

Vcs. *f*

Both bass and cello hover around Db, suggesting that as tonal center.
This suggests the scale this measure is based in is Db Melodic Minor.
This supports the Mixolydian b6 in the harp (it is a mode of Melodic Minor)

E. Bass

Dm7 Fm7 Ebm7 Dm7

A short measure of planing m7 chords bridges to a new, more
mellow section. Instead of dwelling on one mood throughout,
Mitsuda keeps it interesting and tells a bit of a story. It's as if
the player is taking a bit of a rest after navigating a particularly tough
area of the swamp.

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The musical score consists of eight staves. The first staff is E. Piano, the second is Harp, the third and fourth are Vox Women and Vox Men (chords), the fifth is Vlins., the sixth is Vlas., the seventh is Vcs., and the eighth is E. Bass. The score is divided into two measures. The first measure has a key signature of one flat (Bb), and the second measure has a key signature of two flats (Bb, Eb). The E. Bass part features a melodic line with a long note in the second measure.

In this measure, all the elements combine to suggest a C Dorian scale.
 Thus, we have a vamp between a Db tonal center and a C tonal center.
 Straight-laced function harmony is obscured by a wealth of quartal harmony as well as
 extended tones emphasized in high and low registers (which are heard better than middle).
 Straight out of Mitsuda's playbook.

The musical score is arranged in a vertical stack of staves. The instruments and their parts are as follows:

- E. Piano:** Treble clef, playing a rhythmic pattern of eighth notes with slurs and accents.
- Harp:** Treble clef, playing a melodic line with slurs and a key signature change to two flats.
- Vox Women:** Treble clef, holding a sustained chord.
- Vox Men:** Bass clef, holding a sustained chord.
- Vlns.:** Treble clef, playing a rhythmic eighth-note pattern.
- Vlas.:** Bass clef, playing a rhythmic eighth-note pattern.
- Vcs.:** Bass clef, playing a rhythmic eighth-note pattern.
- Shaker:** Percussion staff with a rhythmic pattern of eighth notes and accents.
- Darabuka:** Percussion staff with a rhythmic pattern of eighth notes and accents.
- Dum.:** Percussion staff with a rhythmic pattern of eighth notes and accents.
- Low Drum:** Percussion staff with a rhythmic pattern of eighth notes and accents.
- E. Bass:** Bass clef, playing a sustained low note.

The score is divided into two measures. The first measure is in 2/4 time, and the second measure is in 4/4 time. The key signature changes from one flat to two flats in the second measure.

Percussion returns to bridge the listener into the next main section.

15 8

Fl. Flute staccato sounds mischevious and quirky, strongly suggesting the character and tone of the Dwarves that live in the marsh.

E. Piano

Harp rhythmic punctuation helps delineate sections

Shaker

Gro.

Darabuka

Dum.

Low Drum

Kick

E. Bass Climbing chromatic 5, b6, 6 degrees juxtaposed against tonic creates infamous "James Bond" sound.

POLYTONALITY

Is this section in C Minor or D Phrygian?

Both!

The Bass and Harp suggest C as the tonic, while the Flute and E. Piano suggest D as the tonic.

The two scales differ only by one note (Ab in C Minor, A natural in D Phrygian). This allows the two to juxtapose without sounding like a cat on a keyboard.

Why do this?

Not only because it sounds cool, but because it sounds *unique*. It serves to help make the music sound more exotic and unusual.

17 8

Fl.

E. Piano

Harp

Shaker

Gro.

Darabuka

Dum.

Low Drum

Kick

E. Bass

HETEROPHONY (SORT OF)

A musical texture under-utilized in a lot of western music, in which multiple lines are variants of the same melodic contour.

This isn't *strictly* what's going on in this section, but it's close enough to warrant study.

1) Notice the notes in red. All the melodic lines are aiming towards that chromatic lilt. They arrive at **slightly** different times, however, and from slightly different places (some by leap, some by step).

2) The flute contour is hardly syncopated and quite smooth (for intelligibility's sake). However, the Bass, E. Piano, and Harp share *similar* kinds of arpeggiation: bouncing from a tonic (C or D) to some kind of tension note. There's hardly any truly contrary motion (a staple of counterpoint). They all generally match each other's melodic direction.

3) The ties in the Bass and E. Piano line up, but the Harp is offset a bit in *some beats*.

4) Like in Polyphony, the harmony is incidental. *Unlike* Polyphony, the lines are not meant to contrast and stand out on their own. Instead, we get this dizzying tapestry of interweaving similar-yet-different lines that all arrive at the same place melodically. This leads to harmony that is *much* less distinct and segmented, hardly chordal at all; it blends and flows horizontally a lot more fluidly than in other musical textures.

So what's the point? Not just novelty - this *also* creates the distinct feeling of "music from a far-off land" (to western ears, at least). It's also a texture that's suggestive of the denizens of the swamp - the Dwarves - and their chaotic, free-flowing yet loosely communal nature.

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Guit.

Harp

Shaker

Gro.

Darabuka

Dum.

Low Drum

Kick

E. Bass

$B^{\flat}_{sus^2}$

$A^{\flat}_{sus^2}$

$G^{\flat}_{sus^2}$

$C^7_{sus^4}/G$

Not actually sus2 chords (there's no resolution of the suspension)
Instead, just handy names to remember the specific chord voicings.

ALSO not actually a sus or dominant chord. Again, just a label to be used as shorthand. In actuality, Mitsuda is doing what he always does: using abrupt modulations between different quartal harmonies as transitions between sections.

There's a synth sound in the actual track I can't reproduce here.