

Metamorphosis

a spatialized interactive music app



inspired by the [M.C. Escher print](#)
written in 2000 for an Electronic Musician article
originally web-based (Javascript/Beatnik plugin)
music re-produced from original MIDI + new recordings
redesigned for immersive environment in Unity (Magic Leap)

The piece consists of three songs, each containing six tracks:

birds (red): pad, melody, harmony, bass, montuno, percussion.
fish (green): ostinato, melody, bass, e.piano, drums A, drums B.
bees (blue): bell, guitar, bass, B3, drums, chugs.

The songs are designed to be both contrasting and complimentary, thus allowing them to morph into one another (or in current vernacular: mashup). "birds" is a salsa tune in A minor, "fish" is a pop song in C major, and "bees" is a raucous 6/8 blues shuffle in G ... yet tracks from any song can be mixed together in myriad ways to produce interesting polyrhythms and surprising harmonic shifts.

Captioned video of the Unity app in use:

[metamorphosis: "next mix" sequence](#)

- demonstrates the "next mix" feature: a programmed series of track on/off commands that provide a mechanism for morphing between songs.
- left screen: overhead view of the scene in Unity (green ray is camera/headpose).
- right screen: user view through VR/AR device.
- current version uses keyboard/xbox controller for navigation and button presses.

[metamorphosis: spatial mixing - harmony](#)

- demonstrates spatial mixing feature: by moving within the virtual environment, the user can remix the currently playing tracks, emphasizing different harmonies.
- any track can be toggled on/off to produce various mixes, BUT only one bass track at a time is allowed, to prevent muddled low-end and harmonic cacophony.

[metamorphosis: spatial mixing - percussion](#)

- as above, but using percussion tracks only, to produce polyrhythmic patterns.

special thanks: Michael Quinby, guitar solo.

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