

Fantasia Apocalyptica

a translation of the Greek text of the Revelation of Saint John the Divine into music

composed 2012–2017 by Donald E. Knuth

This piece was written so that it could be performed successfully on the two-manual 26-rank Casavant organ at First Lutheran Church in Palo Alto, California. Of course a larger organ will most likely be even more suitable, as there are frequent changes of registration and frequent changes of manuals. Each organ presents unique opportunities; therefore hints about registration have merely been sketched.

Several special settings have also been noted in the score, because they require further explanation.

- (1) “Delphic registration” appears mostly in Chapters 2 and 3 but also in Chapter 18. The right hand plays one of the oldest known melodies, a haunting theme from ancient Delphi; a (medium-soft) cornet, or a quintadena, are possibilities. The left hand and pedals provide a subdued flute accompaniment.
- (2) “Changering registration,” in Chapters 7 and 14, features a prominent pedal solo that sort of simulates the effect of a peal of sixteen bells — although peals in real life never actually have more than eight bells. The left hand occasionally (and discreetly) sings “Oh, when the saints.”
- (3) “Trumpet registration,” in Chapters 8, 9, 11, is used when each of seven angels sounds his/her trumpet. Ideally it should give the impression of an actual trumpet, not blasting but played with verve.
- (4) “Smoke registration,” in Chapters 8, 14, 19, is a new and experimental effect intended to approximate a so-called Shepard tone — a tone that rises continually without ever seeming to descend. The pedals essentially drone on low C and high C, in order to saturate those harmonics.

The manuals have stepwise transitions that always rise, except when one voice returns to a C. We aren’t supposed to hear that return to C, at least not very well, because the drone is mostly drowning it out.

- (5) “Bowl registration,” in Chapter 16, wants the Swell to sound like an angel playing a harp. Then the Great plays a gurgling theme (in the right hand) that represents God’s wrath. The wrath spills out of a bowl (in the left hand), whose edges confine the wrath at first; eventually, however, wrath spills out. The pedal is soft, yet present as a rhythmic texture.
- (6) The “seismograph effect” in Chapter 16 simulates the greatest earthquake of all time, via wrist-to-elbow note clusters.
- (7) There’s an opportunity midway in Chapter 17 to use six brief, highly varied registrations to show off the organ’s versatility, preferably by choosing some intriguing and contrasting sounds that aren’t used prominently in other chapters.
- (8) “Plainsong registration,” in Chapter 21, is supposed to sound like a dialog between chanting monks and/or nuns.

This music is keyed to the original Greek text by means of the traditional chapter and verse numbers. Details of the translation scheme can be found online at <http://www-cs-faculty.stanford.edu/~knuth/fant.html>.

The metronome markings are rough approximations, not intended to be rigid. Think of them as suggestions for a *maximum* tempo, not a minimum. It’s much better to express the underlying emotions than to be rushed.

D. E. K., December 2016