Charing Cross

for electronic instruments in just intonation

Kyle Gann
2007
**Charing Cross**

Sometimes I like to use microtones in a songlike, almost pop kind of context to bring the tuning weirdness into even greater relief. *Charing Cross* moves among chords based on the 7th, 9th, 11th, and 13th harmonics, as well as on the tonic and on 15/14 (a virtual 17th harmonic, though actually slightly more exotic). Using software that let me add microtones freely as I went along, I ended up with 39 pitches to the octave. (Only 37 different pitches were used in the realization; when two pitches are closer than five cents I merge them, just to simplify the realization.) The form of the piece is a loose additive process: first the 7th-harmonic and 13th-harmonic tonalities are introduced, later the 9th and 15/14, and the 11th-harmonic tonality is saved for the very end. The opening bass line started ringing in my head as I was sitting outside by the Thames near the *Charing Cross* underground station in London, and I commenced composing the piece on a napkin at the closest outdoor Italian restaurant. That was September 6, 2007. I finished the piece back home in Germantown on the 13th.

The complete scale is given on the following page, in Ben Johnston’s just-intonation notation. In this notation, + raises a pitch by 81/80, - lowers it by 80/81, # raises it by 25/24, b lowers it by 24/25, 7 lowers it by 35/36, L raises it by 36/35, ^ raises it by 33/32, 13 raises it by 65/64, and F-A-C, C-E-G, and G-B-D are all perfectly tuned 4:5:6 major triads.

All accidentals remain in effect until the measure ends.

Selected performances:
October 9, 2007 presented by the Karnatic Lab at De Badcuyp in Amsterdam (world premiere)
October 25, 2007, at the Mendelssohnsaal of the Hochschule für Musik und Theater in Hamburg, Germany
November 7, 2007, at Trinity College in Dublin
February 8, 2008, at the University of Kentucky in Lexington

Duration: 8 minutes
Charing Cross Scale

Pitch:  
Ratio: 1/1 81/80 65/64 33/32 15/14 15/14 143/128 9/8 55/48 77/64 135/112 39/32 5/4
Cents: 0 21.5 26.8 53.3 119.4 155.1 191.8 203.9 235.7 320.1 323.4 342.5 386.3

Ratio: 81/64 21/16 75/56 27/20 65/48 11/8 45/32 91/64 35/24 165/112 3/2 195/128 49/32
Cents: 407.8 470.8 505.8 519.6 524.9 551.3 590.2 609.4 653.2 670.8 702 728.8 737.7

Ratio: 99/64 45/28 13/8 5/3 27/16 12/7 55/32 7/4 25/14 117/64 15/8 121/64 63/32
Cents: 755.2 821.4 840.5 884.4 905.9 933.1 937.6 968.8 1003.8 1044.4 1088.3 1102.6 1172.7
Charing Cross
Charing Cross
Charing Cross
Charing Cross
Glock.

Tablas

E. Org.

E. Bass

Charing Cross
Charing Cross
Charing Cross
Charing Cross
Charing Cross
September 6-13, 2007
London, England / 
Germantown, NY

Charing Cross