ויעל (*V'ya'al*) (and he ascended)
For nine instruments
For Steve Miller

V'ya'al is a non-coincidental, or more precisely, a minimally coincidental canon for nine instruments. The voices are in integral tempo ratios, whose canonic entry points are determined by their relationship to the leading voice (in this case, the violin, which is an 11th harmonic) in such a way that they all end together (as in my four voice canons). The ratios are all relative to the 11th harmonic (of C), and all are primes (2-3-5-7-9-11-13-17-19-23), though some of the ratios are inverted so that the tempi will be less extreme.

Each voice plays only one pitch, the harmonic corresponding to the tempo value. Thus the shortest (fastest) voice is also the lowest (C, played by the piano, the last to enter, which is 2/11[th]s of the leading voice). Each voice is tuned to its prime (thus, the 11th is 49¢ flat of 12ET). Although the pitches are in the octave relationships of the harmonic series, any voice may play another octave at any time if it fits comfortably in the instrument's range.

A computer program wrote a rhythmic configuration for the leading voice, canonically identical in the other voices, scaled by their tempo ratios. That configuration is chosen to engender the minimal number of simultaneities between any two voices. Some other constraints were made for the configuration to ensure playability (only duple values, with the smallest being the 16th note), and for formal reasons (the density of the leading voice is determined by a "half-cosine" probability function; a minimal spacing between events). The number of notes in the voice (the same for each) was also a factor — the program attempted to reconcile having the most events possible with the minimum ratio of simultaneities. When there are simultaneities, the musicians are asked to play some simple noise or resonant sound (using, if they like, small handheld bells, or their voice, or anything), from a collection of 8 such sounds, each corresponding to one of the other instruments — the one with which the simultaneity occurred.

Steve's interest in and beautiful compositional work with the four voice canon idea inspired me to extend that to the form of this piece. The idea of resolving a set of difficult problems (as many notes as possible, many instruments, a specific rhythmic quantization, and a "form") seemed appropriate to me in this dedication. All of us face, in our lives, with whatever courage, dignity and ingenuity we can muster, multiple configurations of obstacles to the lives we wish, try, and imagine to live. We make allowances, devise compromises, and just muddle along as best we can. Like the implausibility and ideological purity of a complex (non-tessilated) non-coincidental canon, in which each event is uniquely heard, most of us do, at best, a mediocre job of attaining the kind of existence we might hope for. There are just too many constraints — solving one creates another, often unexpected.

Years ago Steve ran into substantial and quite unusual personal difficulties in his first marriage. At the time, I thought to myself: "How can he get thru this?" When Steve and Marla's young daughter passed away, I said kaddish for almost a year. When Steve got

sick, and asked me for a piece, I was appreciative that this time he helped me know how to act. As he often did, he found a way to make it easier for a friend, even as life found new ways to make things difficult for him.

V'ya'al is composed in simple acknowledgement of Steve's bravery, strength and humanity, without kidding myself that something so hard can be made any easier.

Larry Polansky
Santa Cruz, CA
10/10/14

Personnel (with accompanying harmonic numbers):
      Chris Brown, piano (2)
      Giacomo Fiore, guitar (3)
      Monica Scott, cello (5)
      Kyle Bruckmann, english horn (7)
      Benjamin Kreith, violin (11)
      Dianne Grubbe, flute (13)
      Amy Beal, synthesizer (17)
      Tom Dambly, trumpet (19)
      Erik Ulman, violin (23)
      LP, conductor

Recorded by Chloe Stamper in the Mills College Concert Hall, Sept. 28, 2014. Thanks to Maggi Payne, Chris Brown and Matt Ingalls (of SFSound) for making this project possible.