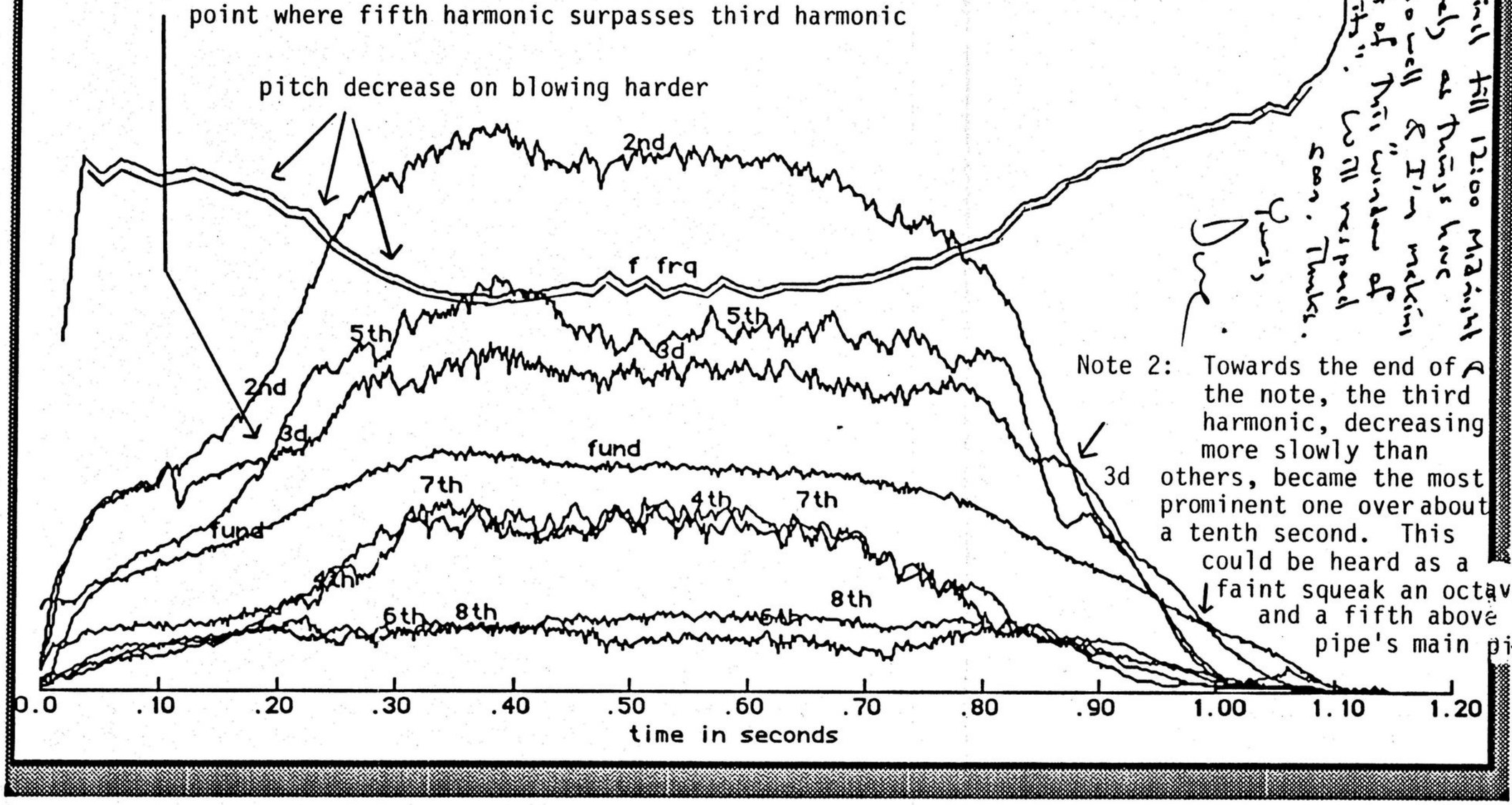
Progress with sound analysis work in preparation for my record production. (1)
David Hill - Center for Music Research, Florida State University April 9th, 1990

console

Note 1: I blew the pipe gently at first and then harder at about .20 seconds into the note. Upon my blowing harder, the pitch went down by about an eighth tone, while the higher harmonics became more prominent relative to the lower ones. Note where the amplitude curve for the fifth harmonic crosses over that for the third harmonic.



Note 2: Towards the end of the note, the third harmonic, decreasing more slowly than others, became the most prominent one over about a tenth second. This could be heard as a faint squeak an octave and a fifth above the pipe's main pitch

Diagram I: Note blown on a pitch pipe used for tuning a guitar at a pitch of E 660 Hertz an octave and a major third above middle C. Amplitudes of the first eight harmonics are plotted against time. The frequency of the fundamental is plotted against time (relative units) as a double line.

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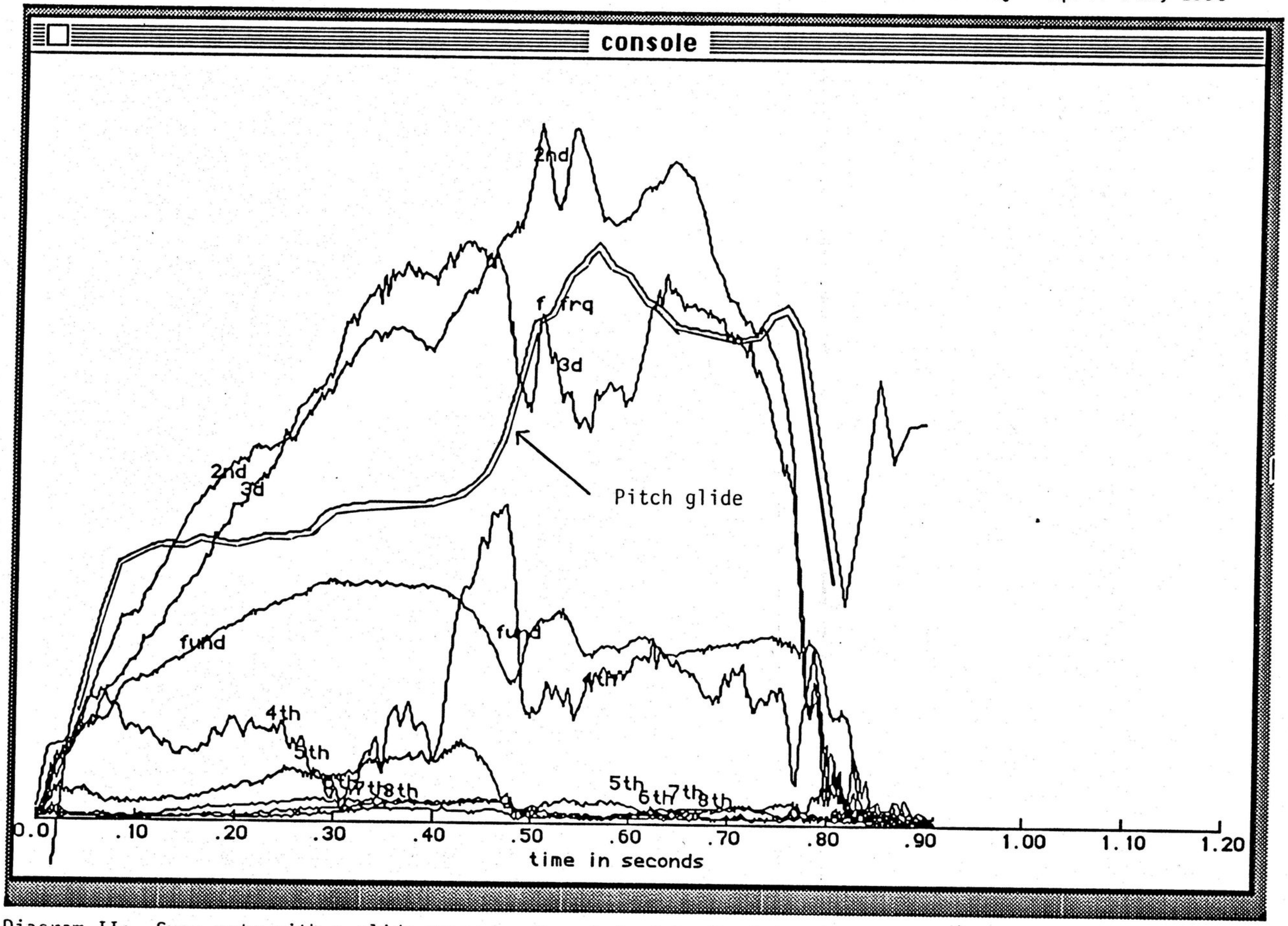


Diagram II: Sung note with a glide upwards of a whole tone from B-flat to middle C. Amplitudes of the first eight harmonics plotted against time. Frequency of the fundamental is plotted against time shown as a double line. Note complexity of the pattern as contrasted with that of the pitch pipe as well as reduced presence of the harmonics above the fourth.