

Full text of "[Experimental Musical Instruments \(EMI\) archive](#)"

VOLUME VI #2

AUGUST 1990

PRICE \$3.50

FOR THE DESIGN, CONSTRUCTION AND ENJOYMENT OF UNUSUAL SOUND SOURCES

EXPERIMENTAL

MUSICAL

INSTRUMENTS

I ESPECIALLY ENJOYED Cris Forster's short article on plain string calculations. After having gotten some details on plucked string calculations from Donna Curry [Donna Curry's Music, 1780 Ft. Union Dr., Santa Fe, NM 87501] and from the Journal of the Lute Society of America, I decided to spring the concept of my high school physics class. I borrowed some old weights from the gym, bought some 1 x 4 and constructed half a dozen Pythagorean monochords. We spent 3 weeks finding the relationship between length, tension, string diameter and frequency. It was the scientific method in action - taking data (using my electronic piano to measure frequency) , graphing relationships, deriving and testing formulas. The Forster article gave me the information I needed to plan the lab with precision and keep my students hopping from one discovery to the next. What a coincidence that this issue arrived just as I was about to set the students to work. We all read through it afterward and even tested the tensile strength of our hardware store steel. It broke very near the predicted tension.

Ben Saferstein