

We do have some clues that some scholarly drudge should follow up: for instance, the German term *gleichschwebende Temperatur* might show, by the first authenticated quotation date, when the routine started, or at least when someone had the idea that such a routine should be invented. I could put this in my article on second-order temperaments and ask the readership to research the matter.

I wonder if H. Paul Kegley is still in Palo Alto or vicinity. He used to be in L.A.--I met him in 1947 or something like that, and had a letter from him in 1968 or 69. He was interested, during the 1940's, in meantone and stretched octaves and other such piano matters, and together with Wesley Kuhnle probably influenced Peter Yates to wrestle with the problem of 12-tone keyboard instruments getting put in meantone and all this hullabaloo about "characteristic keys" being due to the wolfishness of those keys on keyboard instruments so tuned, which crossed the G#/Eb barrier.

Having tried to teach people to set the 12-tone temperament and having answered innumerable questions about meantone and various compromise-compromises, and having listened to dozens of sad tales of woe from people who couldn't learn to tune any system, equal or not, I think I have a perspective on the question that many theorists lack. Getting down to brass tacks, it is NOT ENOUGH to figure out a temperament, or a just construction. You have to invent a routine for tuning it, a rule-of-thumb if you will, a procedure the tuner in the field can apply without going astray. Usually this will result in a deviation from the theoretical system, a second- or third-order temperament.

Even if some people do not wish to become tuners, just to be able to tell when their instrument needs another tuning, a checking-system has to be invented.

Or, to put it another way, Yates overpleads his case and assumes that Bach's contemporaries possessed chromatic stroboscopes, tuning-forks checked against crystal frequency-standards and electric clocks, and a practical tuning-routine taught with the precision it can be taught with today. Of course he knows better, but the writings sound that way. Also, in the appendices to An Amateur At the Keyboard, he assumes a piano tuning skill (or harpsichord tuning skill) of the casual reader, which can only be gained by a tuner-trainee after about a year's conscientious practice. That is, the difference between a 12-tone-equal tuning as the average piano-tuner can do it today, and Yates' theoretical unequal "well-tempered", and some other compromises such as Novaro's afinaciones, is so subtle that, given the crudely-built harpsichords and clavichords of Bach's time, in the average home or studio, given the rapid decrement of the tones on such instruments, and given the carelessness and errors of the tuners of those days, there wouldn't be much difference in the actual tuning effected by those persons, even though they were conscientious and had every intention of doing this or that system as well as they could at the time. Even sweeping all this aside and giving them too much Benefit-Of-The-Doubt, suppose that the Time-Traveler alighted from his Wellsian time-machine and got out his portable frequency-meter and checked a number of harpsichords and clavichords two weeks after they had been tuned.

Dollars to doughnuts, ~~and~~ it would be impossible to tell after two weeks whether a harpsichord had been put in equal or well-tempered as Yates defines these, or whether it was put in $\sharp$ -comma meantone or $1/5$ comma or some variant.

Also, at that time there were viols with moveable frets, and lutes and guitars and gitterns and citterns and whatnots with fixed or moveable frets, and the 12-tone-equal tuning routine which is effected by dividing the fingerboard of a fretted instrument with a continual $18/17$ ratio, was known. What is the 12th power of $18/17$, by the way? What happened in those households or studios or auditoriums where they had fretted instruments and keyboard instruments too? (The moving of a viol's frets to accommodate strict $\sharp$ -comma meantone $\sharp$ will result in several funny notes on certain strings, as compared with a 12-tone-keyboard instrument in meantone.)

Fortunately, I do not need Yates' arguments to bolster my performances and recordings. I don't care whether they did or didn't mean meantone in 1650 or 1770. Nor do I care whether they will or won't have 19-tone compositions read from 10-line staves in supradiatonic in 3526. Is this, or something like it, the reason for your not trying to decipher Yates' arguments in that recent article? I think I can presume so.

I can understand his position, on the basis of my own situation in 1934 or 1941. And that is when his position was formed. Fiendishly reactionary 12-tone-serial protagonists were thundering their Twelve Commandments. I can understand, from personal experience, exactly why he had to overplead his case and appeal to History in the face of the withering contempt, insults, and ridicule heaped on anyone who dared go outside 12-tone-equal-as-tuned-on-Steinway-pianos. In 1946 or 1950, this appeal to History would still be the right attitude to take in combatting the ridicule and invective and insults. But it is out of place in 1971, because now that I am putting out tapes with the effect of 4 pianos getting tuned at once, whole-tone scales that do not come out even at the octave, "improved" 19- and 22-tone from an organ that keeps retuning itself, and glissando tone-clusters on a 158-stringed psaltery the spacing between whose members varies while the sliding is going up or down, I cannot appeal to history to support my right to do all this. It were better, today, that I ignore Yates' arguments, rather than stealing them.

I just got a letter from my niece in Albuquerque (yes, she gave me a rundown on the riots there, also) and if I can get a favorable reaction on my latest tape from a relative, I think I have it made. I have bridged the Generation Gap. That is, several people have accepted me as part of What's Happening Now.

Suppose I had submitted a project to EAT, as composer only, and I would have requested a computer-user company to compile the fretting-tables and Gibson or Martin or Fender or some such firm to make up the guitars in the 19-, 22-, and other systems. I would have gotten more counter-arguments than a dog has fleas. My tale of woe, had I been exceptionally lucky, might have gotten into the big 300-page book, but dollars to doughnuts again, it probably wooden-of.

This means that your having compiled these tables is a much bigger breakthrough, a much more important demolition-of-the-status-quo, than you may have realized. I wouldn't feel too bad about your not having published articles sooner, but would surmise that right now is a good time to do so--just long enough after that computer-music book appeared with some numerical data, to build upon its impact.

Let us now turn to McLuhan's argument about how corporations and organizations like RCA, IPM, GE, etc. are 19th-century entities who don't realize this is 1971. Recast this theme in another wording: There is allegedly a Generation Gap between those around 20 and those around 50. Well, if McLuhan's remark about the big organizations is even half-true, the equivalent age of these corporations as "legal artificial persons" is about 130. No wonder. And the equivalent-person age of Baldwin, Steinway, and other piano factories would be something like 210 years. That is, they would be as reactionary as a person that old. Generation Gap to the fifth power or so.

Now re-run our "tape" of Yates' argument-via-appeal-to-History. Ouch! that really hurts, doesn't it? No wonder you don't feel like Xeroxing his article. Let's add a few more things, like Ravi Shankar's book and his slavery to the traditions of India. And don't forget the tenacious death-grip of Moody & Sankey hymns in the Protestant denominations and therefore in many of the little splinter churches also, and how this bit of 19th-century idolatry holds back the progress of music by its terrific hypnotic effect on millions of subconsciouses. Or the mind-benumbing daily repetition to housewives around the nation of soap-opera cliché themes on Hammond and other electronic organs--to the point now that a couple of radio commercials have begun to make fun of it. (That's a healthy sign, though.) And the reactionary attitude of jazz-fanciers (they were my worst detractors when I was a teenager or in the twenties, say from 1930 to 1945). Now the jazz-fanciers are in their sixties and walled-off. Various articles have appeared lately, proclaiming the death of rock and the overwhelming return to jazz--wishful thinking, I would say. When jazz became so "respectable" that UCLA started offering courses in its history, that should indicate something. Is that also in the Course Catalog in Berkeley? How old are the people so involved?

This is why I am so skeptical about what my new acquaintance told me a fortnight ago--that jazz groups were at last accepting synthesizers and electronic instruments and gadgets. He is about 25 or 30, so may be viewing the situation through rose-colored glasses. None of those I have talked with are willing to keep up with the 70's--they are back there in 1928. You should hear them putting down the longhaired young-un's. The debacle of the Neophonic Orchestra, a group assembled in L.A. about 5 or 6 years ago to play in the Music Center and do Third-Stream stuff (another stillborn term, meaning the synthesis of jazz and 19th-century romantic) -- it was patronized by uptight establishmentarians and lasted barely a year -- should also be a clue to the situation.

So, we are in a position to congratulate ourselves on a miracle--that there should be a few active non-12-ists in spite of all the harm done by Barbour, and the misleading done by Yasser.