

Friday 9 September 1983

NOTES FOR JONATHAN GLASIER

Announcements in magazines etc. concerning the Kurzweil imitation piano
Hillier Productions requested loan of Glen Prior record and some
leaflets--possible TV program about new instruments, because of
Connoisseur and Glendale News-Press articles -- borrowed 8 Sep 83
19-tone on keyboard: first step is to place it on retunable
synthesizers. 61-note keyboard gives three octaves of 19 plus three
more notes. Possibly, center keyboard on Middle D as done on my
organ.

Layout for 88-note keyboard (as on Frender-Rhodes): Take cello low
C 66 Hz approx as lowest note and go up 4 octaves and a Fifth.
88 is 4 times 19 then one more to complete octave, then a fifth left
over.

5 octaves of 19 is 96 notes with top C added.
7 octaves of 19 is 134 notes with top C added.

Considerable confusion for last 50 years or so because of Joseph
Yasser's **Theory of Evolving Tonality** which laid out a scheme of
harmony and keyboard patterns and notation and even design of timbre
for instruments, all in advance of any serious experimentation with
new and existing music on new or modified instruments. This, in my
opinion, has **retarded** progress with 19 and hence other non-12 tuning,
making 19 seem far more complicated and difficult to use than it
really is. (For instance: Schafer Undevigintivox set of round rods,
specially made to have no trace of third or sixth harmonics to have no
definition of Fourths or Fifths--unfortunately, this also ruins the
best intervals of the system, the minor third and the major sixth,
by removing all definition from: fifth, fourth, major sixth, and
minor third.)

19, as well as 17, are compatible with piano tone-quality and therefore
with the new imitation-pianos of various kinds.

19 probably needs or would do well with stretched octaves. Tables
now exist for 30th root of 3 and 44th root of 5. Stretched octaves
not feasible on master-oscillator-and-divider instruments, but on
quite a number of electronic keyboard instruments would be possible.
Unequal 19 has been considered also. Probably a stretched stretch
as used on pianos today, would work.

Despite theoretical similarity of 19 and 31 (both members of the
meantone family such that 19 is the "poor man's 31") 19 being
aggressive and 31 calming and restful, means opposition of **moods**.
Hardly any theorists or textbook writers are aware of this at all!

12 is symmetrical, as having 6 x 2, 2 x 6, 3 x 4, 4 x 3 subpatterns.
This suggests division of tuning-systems into symmetrical and asym-
metrical, so that 8 9 10 12 14 16 18 20 15 21 24 symmetrical and
5 7 11 13 17 19 31 are asymmetrical. Even though 22 is 2 x 11, it
doesn't exhibit very much symmetry of pattern in practice: this is
because its fifth and major third are **odd numbers of twenty-seconds**.

Non-12 atonality has scarcely been explored, much to the disadvantage
of atonality! This is a crying shame. Greater stupidity is hard to
imagine.

Influence of harmony rules, by changing timbre. Make 12 bearable or unbearable, by vibraphone or reed-organ respectively, or stopped diapason and trumpet stops on an organ, respectively. So for other systems: 22 and 24 not suitable for piano tone.

17 turns harmony rules upside-down--thirds resolve **into** fourths and even into seconds. Chords of fourths acquire more importance. The thirds and sixths are dissonances, both major and minor.

Non-12 has **never had a hearing!** Condemned **in absentia!**

We do not have to be nice to our opponents. They cannot prove anything about instruments, sounds, melody, or harmony **on paper in silence.**

If order cannot be **heard**, then all the order on the written page of music manuscript does not matter at all.

The piano is no longer the norm. No regular book on music admits it, since this gradual process started in the 1930's had to build up for 50 years before it became noticeable. There is endless confusion between the harmony and melody and timbre questions as determined or favored or opposed by the piano's tone, and as influenced by their being performed on any other instrument in the twelve-tone equal temperament tuning.

Great decline in musical literacy since I was a boy; this can be used to our advantage by enlisting people untouched by conventional music training. Economy moves have practically killed school music.

There is a note of **desperation** in some current advertising campaigns, as for instance, selling pianos. Go by what the ads OMIT as well as by what they actually SAY. The vulnerable spots are those they carefully ignore in publications.

I am worried about the new campaign to promote such things as the Compact Disk which makes records very expensive as well as the players for them, and greatly shrinks the repertoire for those new disks. The minimum number of records that would have to be sold to get their money back for example. Cassettes permit sale of just one or two copies with no penalty for very small quantities of music for small audiences. We have to fight back on this subject.

The Walkman and the Automobile Cassette trends work in our **favor**. **Also** the decline of the 8-track endless cartridge works in our favor.

Too much emphasis on visual, even by musicians! Paradoxically, the most openminded people to new musical scales are the visual artists! Paradox, but take advantage of it instead of knocking it. Deemphasize notation. Make it second fiddle.

Our thrust with regard to computer music has to be to **keep software and programming free from the defects and limitations of the piano and other conventional instruments**. Things like this Kurzweil: are they or are they not hardware-frozen into 12? Maybe merely a stock program?

I must be able to convey my knowhow and experience to those designing instruments at the present time. If this fails, it will all die with me.

Most instrument and computer music design is a century out of step!