

THE BOSANQUETIAN 7-RANK KEYBOARD
AFTER POOLE AND BROWN

(Issued by Erv Wilson March, 1974)

This is a keyboard I've more or less neglected; I thot I'd throw it in as an afterthought to a gamut of other keyboards for this paper. It's working out so well tho, that I think I'd rather not distract from it's possible importance to the state of the art, by showing the other keyboards. The point being; IF THE POTENTIAL OF OUR SCALE TO DEVELOP HAS A TENDENCY TO REALIZE ITSELF, THIS KEYBOARD IS THE MOST OBVIOUS ANALOG.

Poole and Brown both imbedded this 7-rank, (tuned by Fourths every 3rd rank) geometry in their more complicated digital geometries. Bosanquet found the fact that they arrived at this geometry independently, not at all surprising for the geometry is, according to him 'obvious'. Bosanquet specifically defines this geometry, Sketch I, on page 46 of Temperament. (An Elementary Treatise on Musical Intervals and Temperament, to be more exact, by R. H. M. Bosanquet, London, Macmillan and Co., 1876).

Apparently, none of these 3 men published sketches of this keyboard, nor did any take enough interest in it to construct it. Had they done so, their efforts might well have been assimilated by Mainstream, and the subsequent course of music development would have been considerably less boring. The absolutely stifling environment we find ourselves in now, would, instead, be one of immense, creative productivity. We find total alienation of the innovators from the traditon-minded; this need not be so, and should not be so. This Split can be corrected by integrating the 7-white-5-black into a single open pattern which permits modular extrapolation. The Poole/Brown Bosanquetian Keyboard is one of 3 very good ways to do this; it is the one which least modifies the treasured fingering habits and conveniences associated with the entrenched Halberstadt keyboard. And these modifications are not all that inconvenient; they do frequently enhance fingering facility - enough to justify the introduced novelty.

Sketch I illustrates the application of this keyboard to our Major/minor idiom. This is obvious.

Sketch II shows the keyboard applied to the Pélog scale continuum, illustrated by systems of 9, 16, and 23 tones. These are not so obvious, and western notation would do nothing to elucidate, leading, rather, to miscomprehension. The Fourths by which Pélog is tuned are larger than those of the 7-tone equal division, varying between $3/7$ and $4/9$ Octave usually, but may vary by as much as between $3/7$ and $1/2$ Octave. The Fourths should not regularly go outside those boundaries, which, however, give room for a very high level of scale invention. (See the Gamelan Music of Java and Bali, Donald A. Lentz, 1965, University of Nebraska Press, and, especially, Music of Java by Jap Kunst.)

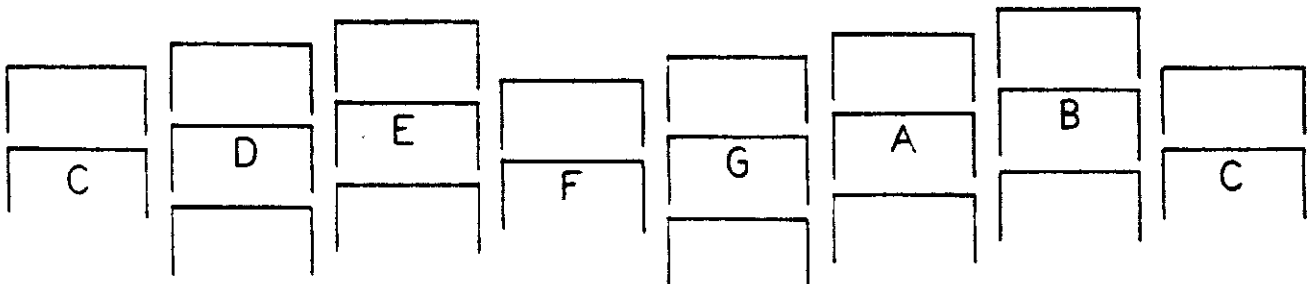
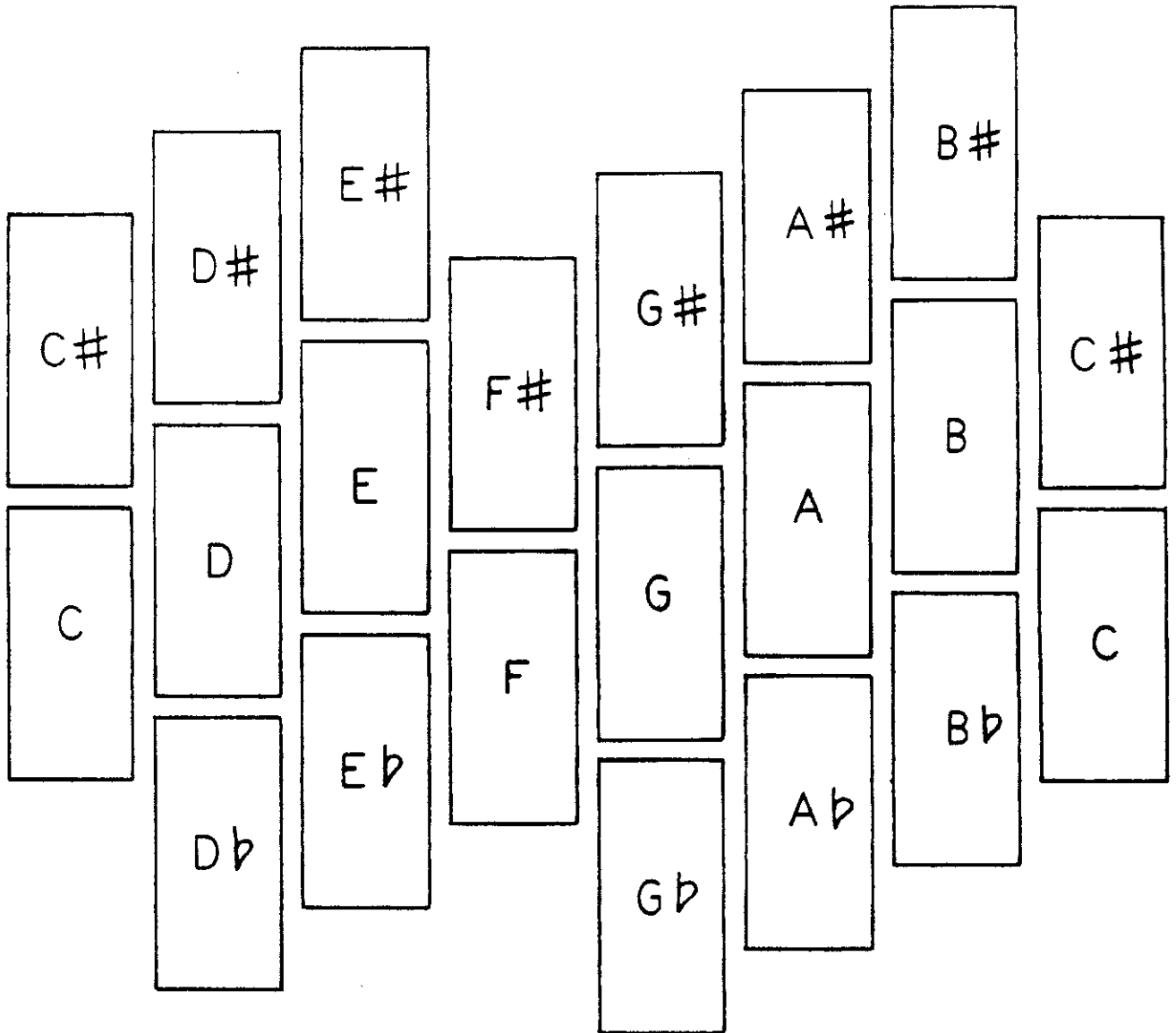
Sketch III is a very useful modification of the shape and slant, which gives a close-packing effect, and is better suited to the shape of the hand and the finger. A scale organization of 12 tones is highlighted by the central geometry of 'naturals'. The 12 'naturals' plus either of the 7 'blacks' show the scale organization of 19 tones.

Sketch IV is analogous to Sketch III, but with Yasser's notation. (See A Theory of Evolving Tonality, by Joseph Yasser, American Library of Musicology, 1932.) It is slightly ironic, that, with Yassers evolution-theories, he did not have a keyboard that could allow that to happen with-a severe shock to the performers fingering habits.

Sketch V is a foreshortening of the Sketch III pattern, carried to 31 places. I laid this keyboard, like an egg, in two hours, while watching the Angel-A's baseball game. It is a very good keyboard.

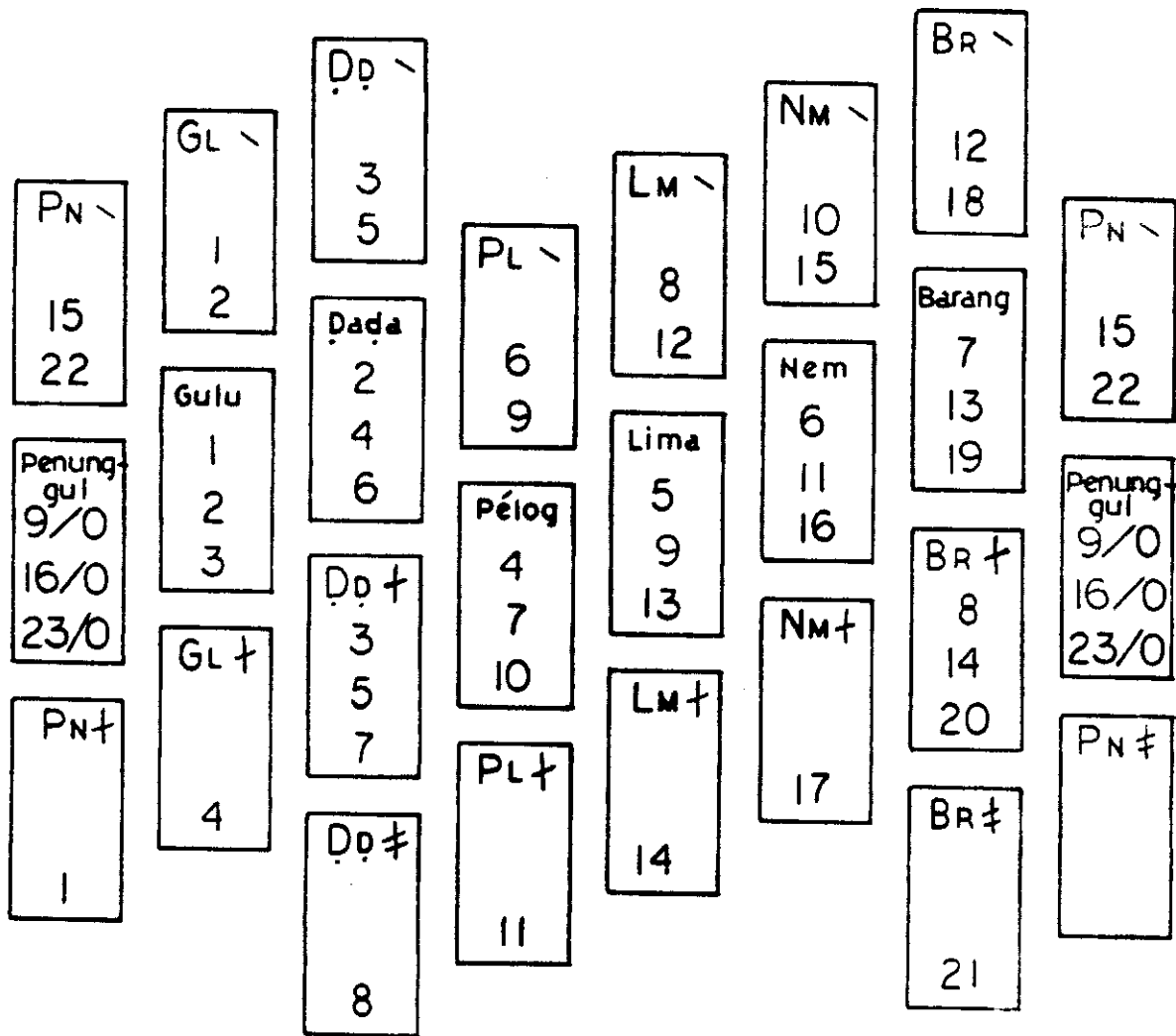
Sketch I

Bosanquetian 7-rank Keyboard after Foole and Brown



Sketch II

Pelog on the 7-rank keyboard, large-Fourths every 3rd rank



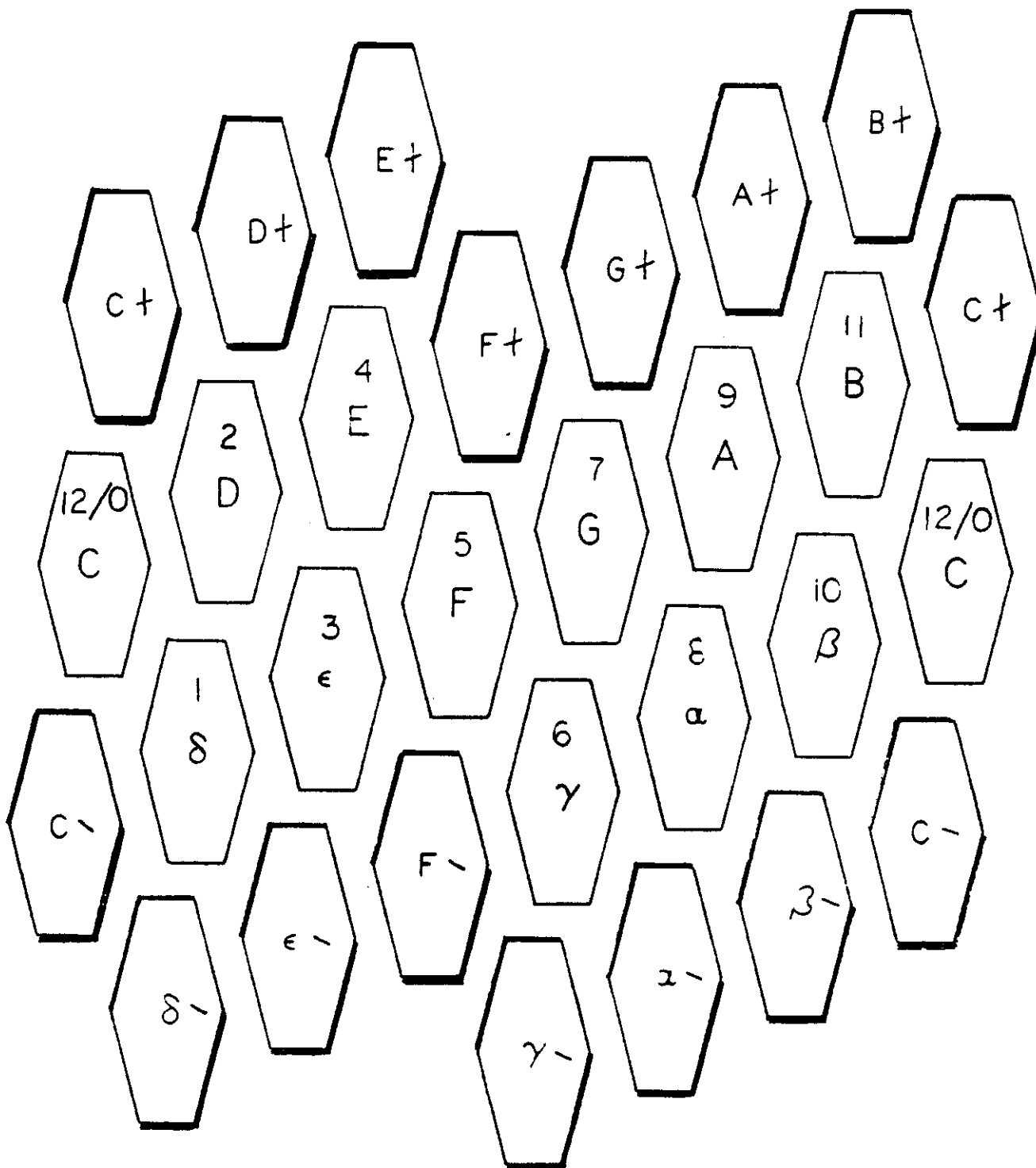
The distance between the ranks here is 8/10 inch. If the distance between your knuckles averages 8/10 inch, this should be a very good scale for you. My knuckles measure 7/8 or 9/10 inch, average, across, and I would ordinarily design a keyboard to best fit my own hand. If you desire a design for your own hand, let the 'whole-tones' be as wide as your knuckles are, average, across.

Refer to figures 1 and 2 for the relation between the occidental Major scale and Pelog. A similar figure was arrived at, independently, by Ig. B. N. Pandji. (Ref. the Gamelan Music of Java and Bali by Donald A. Lentz.

Sketch III

Bosanquetian Poole/Brown Keyboard Emphasizing 12-tone Scale

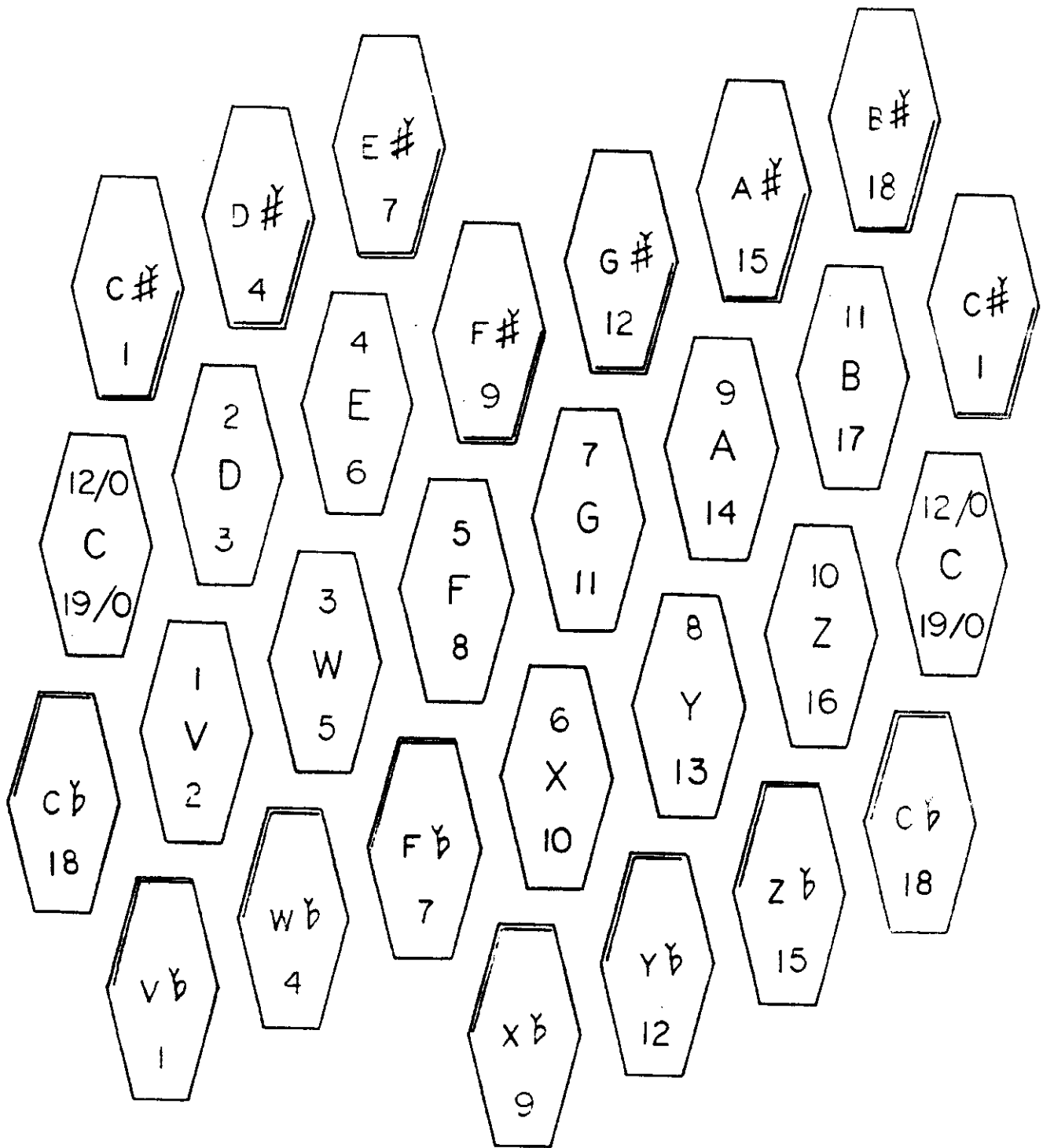
Digital design and innovation by Erv Wilson



These are also the symbols I frequently find it convenient to use. Beta, Epsilon, Alpha, Delta, Gamma, are analogous to B-flat, E-flat, A-flat, D-flat, G-flat, respectively.

Sketch IV

Same as Sketch III except Yasser's Notation



To notate the supra diatonic in all 19 keys, Yasser uses two more supra-sharps and two more supra-flats that shown here. That would be 30 digitals, and would also give us 19-tone scales in 12 keys. But the next system of his series is 31-tone (5,7,12,19,31,50,etc. and the keyboard should be carried out that far.

Bosanquetian, Poole/Brown Keyboard Carried out to 31 Digitals

Digital design and innovation by Erv Wilson

Traditional notation is supplemented by the Fokker equivalent notation

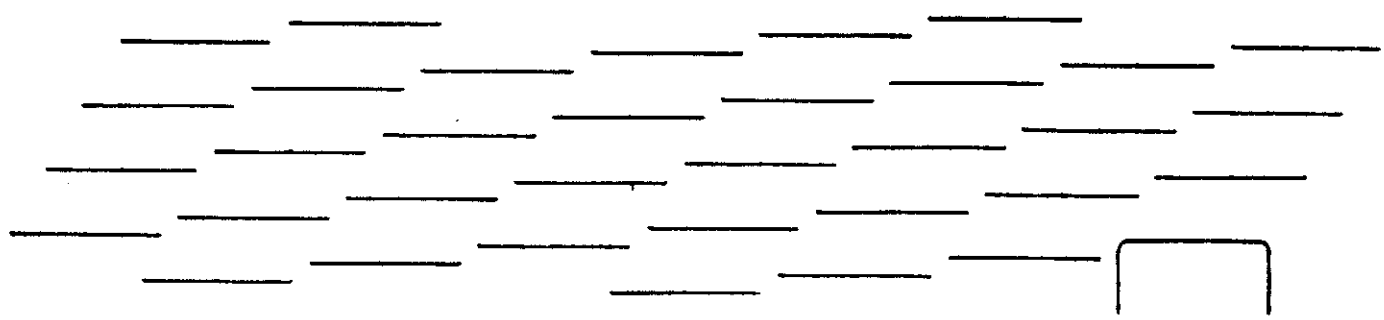
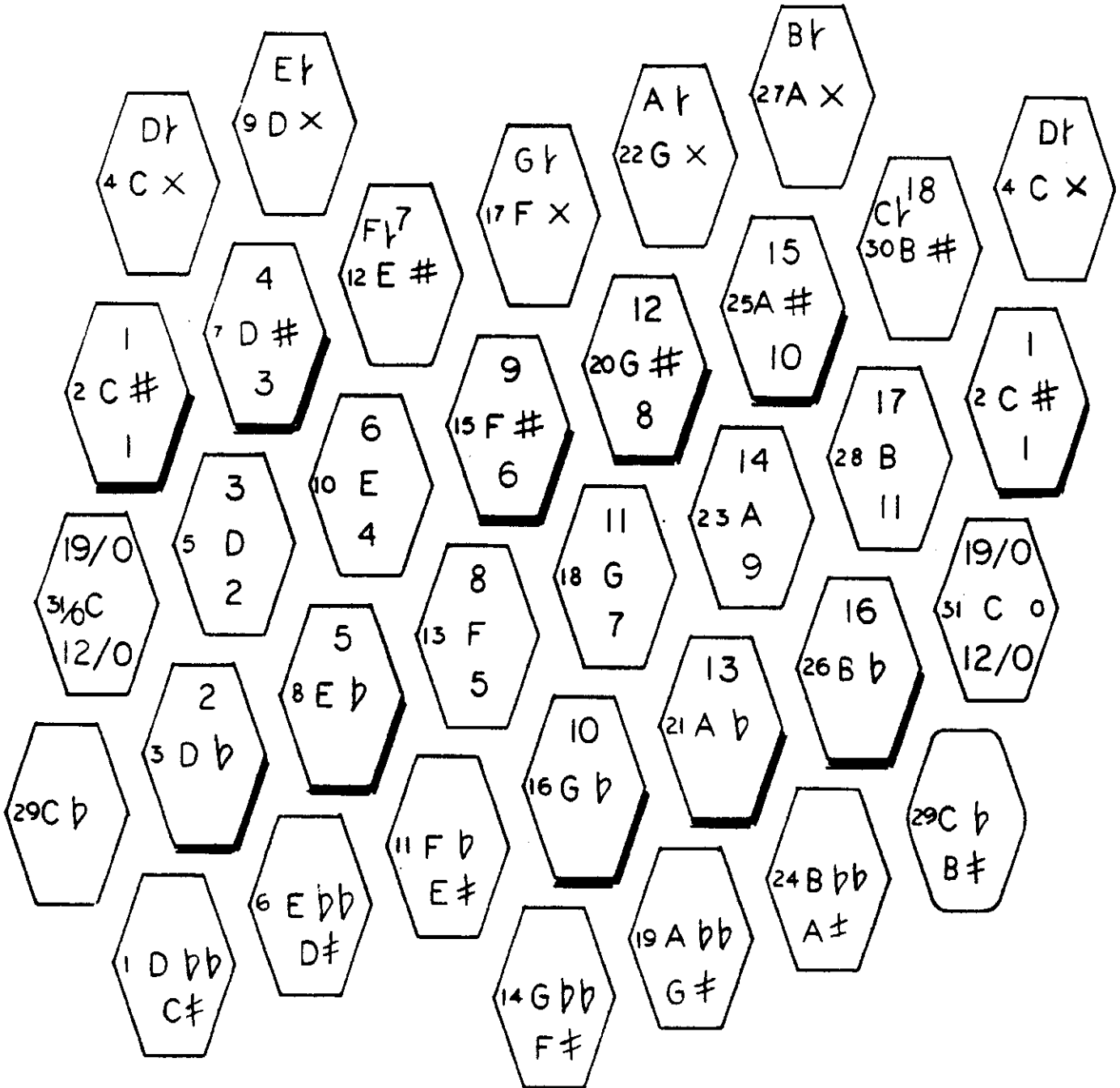
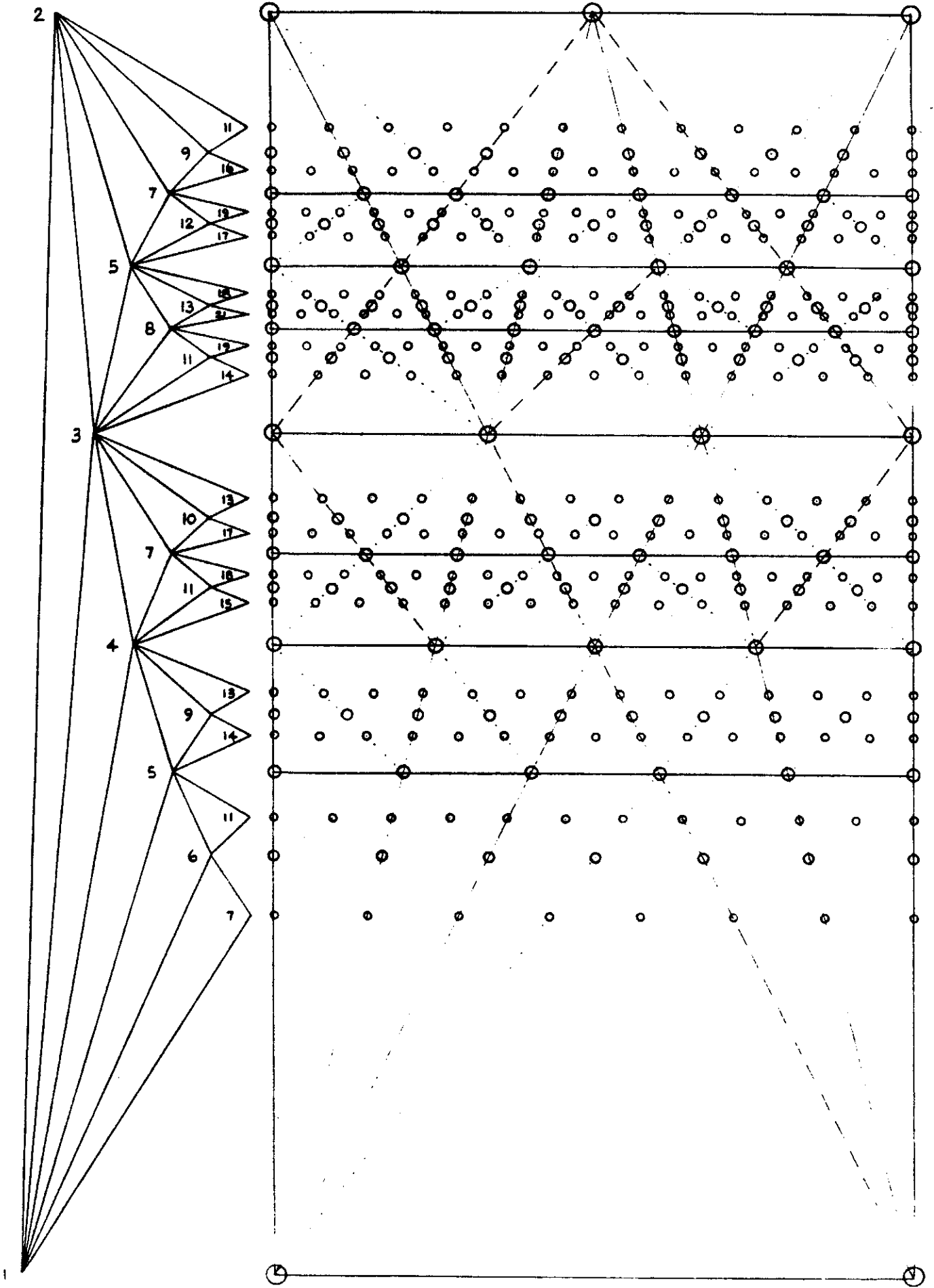
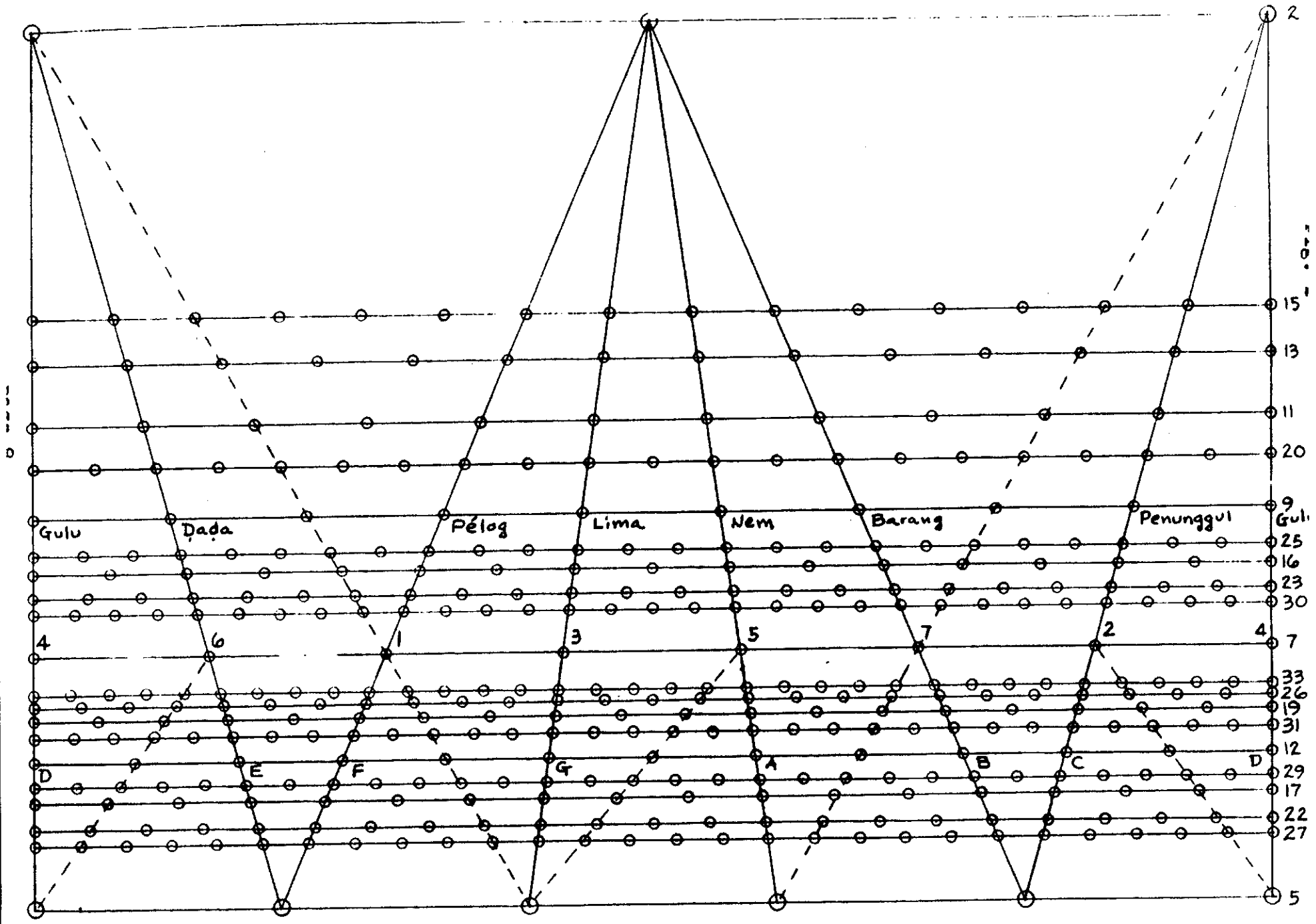


Fig 1. Model of Geometric Scale Development





Gulu Dada Pélog Lima Nem Barang Penunggul

4 6 3 5 7 2 4

D E F G A B C D

2
15
13
11
20
9
25
16
23
30
7
33
26
19
31
12
29
17
22
27
5

Fig 4

Progression of generators, as fractions of an Octave, tuneable by every 5th rank on Bosanquets 12-rank generalized keyboard

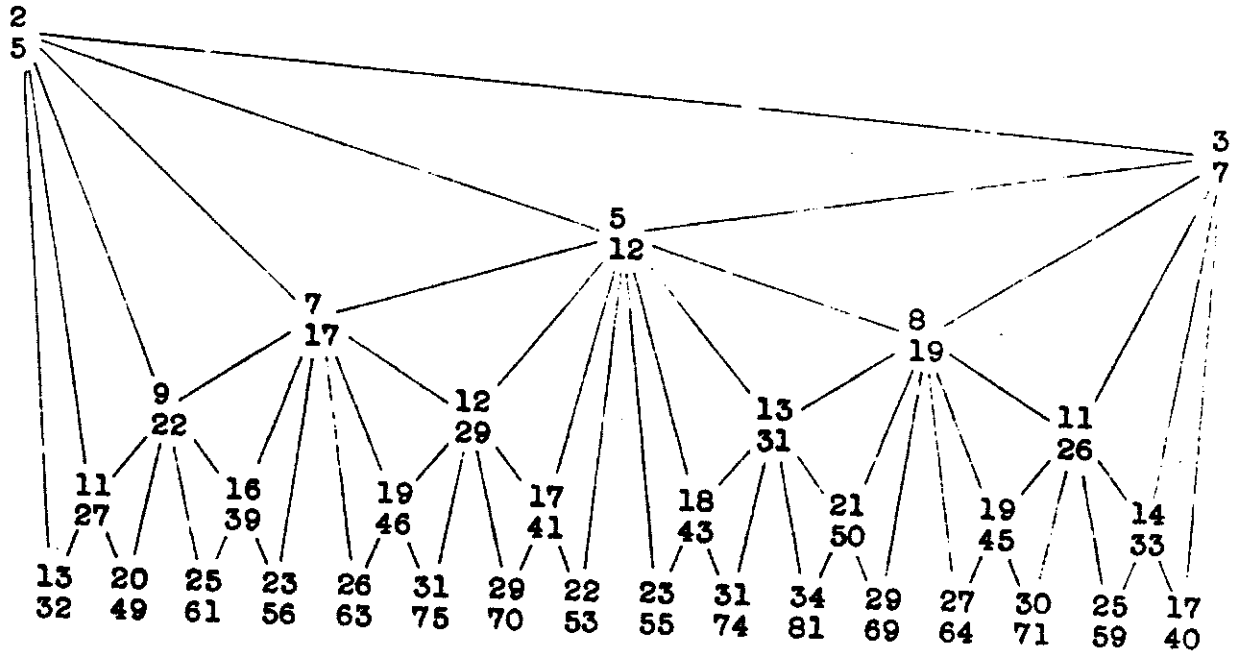


Fig 3

Progression of generators, as fractions of the Octave, tuneable every 3rd rank of the 7-rank Bosanquetian Keyboard

