sidrolz + tetrolz / meng qi

// forewords

I've been working with Ciat-Lonbarde circuits for years, implementing experimental interfaces / combined circuits to suggest special playing styles as well for unusual expressions.

As human our mastery for musical instruments is always limited - if freedom is given on one aspect, it can reduce expression on others. With harpsichords we get lost in structures of complex compositions while a twirl on a GuQin string can say a thousand words. It's different limitations make each instrument different, it's also the reason experimental instruments are valid way to find new musical possibilities.

// introduction of circuits

All 3 circuits are designed by Peter Blasser. http://synthmall.com

Sidrassi is 7 triangle wave oscillators in parallel, each fm'ed by former one with all mod depths controlled by a knob. Full spec in the link below. A special point is : VCAs give silence at 4.5v and volumes increase in each channel towards 0v and 9v, input designed to work directly with piezo.

Tetrazzi is 4 oscillators with symmetry control so they morph from saw to ramp with triangle in the middle. other specs are similar to sid.

Rolz are a collection of simple circuits that "cycle impulses". Without external connections, even rolz pulses in a steady rate, odd rolz are unstable and emits high frequency signal.

official specs :
http://synthmall.com/ciat-lonbarde/sidrax/index.html
http://synthmall.com/ciat-lonbarde/tetrax/index.html
http://synthmall.com/ciat-lonbarde/rollz5/index.html

// guide

capacitors are normally needed between rolz sandrods and sid / tet inputs to remove DC from rolz outputs. but sometimes you may also want direct connection. 104 works nicely, 105 creates a decay that's too long to my taste with piezo inputs. for piezo inputs, add a 330k resistor in serial with the capacitor.

VCA inputs pick up noise easily so it’s good to use shielded cables if wires are many.

Personally I love slow rolz, so for capacitors my choices are :
sidrolz - assorted up to 470uf
tetrolz - 3 sets, uniform within each set

// playing

Same as all nice standalone synth instruments - room for players to travel between tonal or atonal, gestural or generative, controlled or chaotic. In addition to controls from player, part of sensitivity here is from a true electronic perspective - in a complex patch, rolz tend to settle gradually into a variety of semi-stable states with or without user interaction. Natural behaviors of rolz are to be explored and utilized in musical compositions.

Sound ranges from polyphonic melodies to chaotic textures beyond all prediction. Musicianship ranges from composed tonal pieces to full machine decision with player acting the role of a listener and picker - a painter or a photographer and in-between. My builds of sidrolz and tetrolz are purposefully different to experiment with interfaces. sidrolz has all sandrods available as touch points for direct body manipulation, while tetrolz has 4 attenuators for VCA inputs, with 360° conductive plastic pots.

The former type of interface, with touch nodes, is true to electronic theories and the more chaotic of the two. Here is an interesting find : with a single node from 5-rolz controlling a VCA, grounding my body and touching sandrods would open volume and sometimes bend pitch and timber. Touching each side of the patched node would also play audio in each channel at stereo output. It is a way to have organic manual control over all 3 aspects of sound - volume, pitch and timber.

The latter, attenuator type - while meditating for this interface design before building, I planned a way to make use of the edge of 360° pot where the wiper jumps from one end to the other, to create interesting gestures - charging the capacitors, forming a decay envelope as they discharge. Those knobs are not just about the positions you leave them to, but also reacting to the direction and speed of rotation.

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