Back to Old School Sequencing

OSSeq-Synth.pch2
Back to the future with virtual analogue techniques from the past. But with today's digital precision. This produces very new and perfectly reproducible sequences. Old School Sequencing is all up to date now: sequences I only could dream of long time ago. Analogue electronics was too unpredictable. `OSSeq-Synth.pch2` is a reincarnation of the patches that I couldn't tamed in the seventies.
Todays Clavia modules of are fortunately very obedient. They do exactly what I wanted back then: reproducible algorithmic sequences. This patch shows 8 variants in the 7 keys of Olivier Messiaen, his so-called modes with limited transposition. Read for more explanation these modes the pdf-file 'Messiaen-study'.

CH-Modes [a] and [p]
The two G2 patches `CH-MODES[a].pch2` and `CH-MODES [p].pch2` are a variation on old school sequencing. These two algorithmic patches generate sequences in the ecclesiastical modes within a span of one octave. The variant [a] stands for authentic. That means that the melodies move between the lower and upper tone of the scale. Version [p] plays so-called plagal variations. These melodies move between a fourth below the tonic and the fifth above.

Old School Sequences, the principle
If the output signal of LfoA1, Sample Speed, changes from negative to positive, the sample command input of the S&H (sample and hold) is activated. At that moment, the value of the applied signal, the output of LfoA2, Numbers Roulette, is sampled at the sample input and forwarded to the S&H output. This value remains at the output until a new sample command appears at the Ctrl input.

If both LFOs run at the same speed, there is a constant value on the S&H output. This is the big difference with the Old School analogue variant with a sequence, sample and hold and LFO module. The two speeds of both LFOs were never exactly the same. And, because the two frequencies were in relation to each other, there was always a stepped pattern of different voltages at the S&H output. You could make very nice and complex sequence loops in this way. However, the big disadvantage: it was hardly reproducible.

The Oberheim mini sequencer
If I remember correctly, I saw this patch for the first time in Synapse magazine, an American synth magazine from the seventies. The patch would be from Roger Powell. Undoubtedly, many other synthesists from that time will have discovered and applied this circuit. If you don't have much you will automatically become creative. At that time I had a double 8-step Oberheim mini-sequencer, which enabled me to generate continuously changing melodic patterns consisting of a choice of 1 to 8 steps. With some extra patchwork you could also make it that you alternately sent the two rows of

sequences to a VCO: then you could have up to 16 different steps.
Open the `OSSeq-0to7.pch2` patches and watch and listen to how it works

The Clavia NMG2 KeyQuant module
This note quantization module is the way back to the future and forms the heart of sequencing old school today. The module speaks for itself: an input and output. Plus another Range button and a selector switch closest or. evenly. And then the most important thing: a single octave keyboard, of which you can activate the keys. An input value at the input is rounded off so that connected to the pitch input of an oscillator, exactly the correct selected pitch is rectified. If you do not tick any key, the whole module will do nothing at all, the incoming values will be sent directly to the output. For example, if you have only made the c active, all input values will be quantized on c. With the Range-button you determine the output range in half tone distances. Open `KeyQuantTut.pch2` and see and hear how it works.

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internet

Oberheim mini sequencer
http://www.youtube.com/watch?v=5DbcYQxSEm8

Olivier Messiaen
www.musicteachers.co.uk/resources/messstudy.pdf

ecclesiastical modes
https://en.wikipedia.org/wiki/Mode_(music)