

CONLON NANCARROW

Post-Performer Music?

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1 Biography and Influences

*The biography, selected by Tom Rodwell (August 1999) is from
<http://www.furious.com/PERFECT/conlonnancarrow.html>
Accessed on: January 3, 2008
My comments and additions to it are shown in italic typeface with a
narrower text-width.*

Conlon Nancarrow, (1912-1997) was born in Texarkana, studied composition from an early age, with Slonimsky, Sessions, Piston privately in Boston and played jazz trumpet in local bar bands.

*Among his composition teachers Nicholas Slonimsky is the author of one interesting book *Thesaurus of Scales and Melodic Patterns*. The book is an extensive catalog of scales created by symmetrical divisions of one or more octaves. Slonimsky's unique and interesting approach to harmony will probably have a strong influence on Nancarrow's musical language.*

He joined the Lincoln Brigade and fought Franco's fascists in 1930's Spain, also becoming a member of the Communist Party.

Upon his return to the USA, he resumed composition, and associated with other new radicals in the New York scene, including **John Cage** and the long friend **Elliot Carter**.

The friendship with Carter is interesting here. For Carter has made very interesting researches in musical rhythm, temporal ratios and metrical divisions. Nancarrow's work is similarly very intensive on rhythmical investigations as well.

Nancarrow's political leanings gradually attracted the interest of the state, and he was refused a passport upon application in 1940. Nancarrow moved to Mexico City, home until his death of heart failure at age eighty four.

Early performances of his highly complex work were failures, often due to incompetent musicians, and his attempts to relaunch his compositional career

ground to a halt in the (understandably) underfunded and ill-equipped Mexican contemporary music scene of the day.

Frustrated by years of indifference and incompetence, Nancarrow withdrew from *normal* musical circles, and, inspired by the writings of **Henry Cowell**, ordered an *Ampico Reproducing Piano* and the required hole-punching equipment for the pianola rolls.

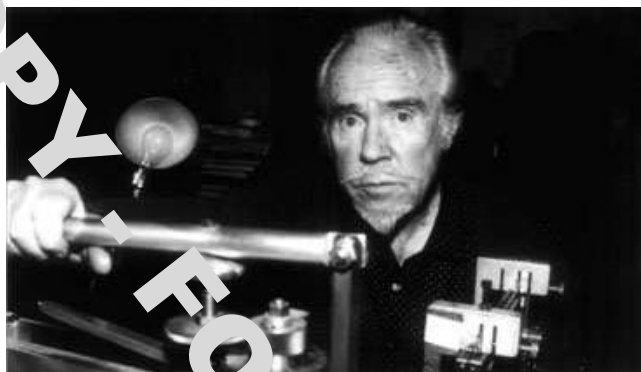


Figure 1: Conlon Nancarrow working his “piano-roll” making device.

The player piano became his sole musical outlet, and he wrote over 50 *Studies* exclusively for the mechanical instrument until a sudden explosion of commissions in the 1980’s and 1990’s saw live musicians once again tackle his formidably polyrhythmic works.

There is an interesting point to note here. Why did Nancarrow selected the player-piano as his (almost) only instrument? Why didn't he tried to get into electronic music?

I think there are two aspects to those question. One is practical the other musical. The practical answer is that there were simply no way for Nancarrow to get a foot in a decently equipped electro-acoustic music studio were there any such studio in Mexico city in the early fifties? The other aspect of the question obviously more interesting to debate on, is was he really interested with the electro-acoustic music?

I believe not. Nancarrow was actually interested in creating previously unheard musical textures. For this the player-piano was the best choice possible. He was not interested with “sound-color” neither with “timbre”. For him exploring complex textures, polyphonies and polyrhythmies were his main compositional interests.

Nancarrow’s quest for a post-performer music combined with the practical possibility to have his music best performed with an affordable automated instrument (the player-piano) where he could freely conceive any complex musical structure made his “specialization field” a true success.

His history of writing impossible music (*post-performer music*) did not fade, and one of the high points of his late-period recognition was a series of collabora-

tions with instrument builder **Trimpin**¹, whose computer-controlled percussion ensembles were the ideal realisation of some of Nancarrow's most challengingly extreme scores.

Trimpin's work with Nancarrow was an appropriate culmination, recalling Nancarrow's own 1940's attempts to build mechanical percussion instruments, and also maintaining the grinning **dadaism** of the player-piano works, (one of Trimpin's ensembles is an "orchestra" of tuned wooden shoes).

There we see the continuation of the fascination created with mechanical automata fabrication. Music automates were highly in demand since pre-Baroque era.



Figure 2: Instrument builder and composer Trimpin

As has been remarked by Nancarrow scholar Kyle Gann, Nancarrow had perhaps the strangest career of any known composer. It was strange in a subtle, dadaist way, not the brash *craziness* of rock or jazz figures (or indeed figures). Whilst we often laud the achievements of great *performers*, Nancarrow's music has remained hidden, obscure, like the patient and diligent character who produced it.

Given the method and manner of his work, it is no surprise that where he is considered at all, he is considered another unusual, even brutal "American

¹Trimpin (born Gerhard Trimpin, 1951 in Istein, Germany, now part of Efringen-Kirchen) is a Seattle, Washington-based kinetic sculptor, sound artist, musician, and composer, most of whose pieces integrate both sculpture and music in some way, and many of which make use of computers to play these instruments. He uses only his last name, and has legally changed his name accordingly.)

original". Nancarrow's music is, however, perhaps some of the most significant of the century. What kind of music would prompt **Ligeti** to rave:

This music is the greatest discovery since Webern and Ives... something great and important for all music history! His music is so utterly original, enjoyable, perfectly constructed but at the same time so emotional...for me it's the best of any composer living today.

Ligeti's remark is interesting in more than one way. Ligeti is known for creating scores simultaneously very dense but also amazingly structured. In his music nothing is left at a random state. Even the most seemingly chaotic textures Ligeti has created are in fact organized and "composed" to the smallest detail.

On another point, Ligeti's music, in a very similar way to Nancarrow's, is about creating a new texture by combining many known ones. The 48-voice polyphony in *Atmosphères* for Large Orchestra (1961) is such an example. Each of the 48 independent parts is playing a very much defined and structured "melody". However what we actually hear in listening to the whole "cloud of sound" is... a cloud of sound.

Similarly Nancarrow is also creating such over-dense textures and what we perceive in listening to them in some of his late "Studies" for the Player-Piano are textures previously unheard.

Ligeti's remark "perfectly constructed but at the same time emotional" is utterly accurate. This fusion of what are elsewhere often aesthetic opposites is the remarkable characteristic of the sum of Nancarrow's music. It is a product of his exploration of polyphony, and polyphonic perception.

Nancarrow's limited instrumental means dictated a set sound-world. Although he did occasionally have the hammers inside the pianos modified, in order to achieve a more percussive or mallet-like sound, essentially he dealt with the specific characteristics of the pianola: **measured, sharp and thinly reverberant.**

Here we have again the limited sound-set for Nancarrow's music. That may seem a strange connexion at first but if we think about Chopin's sound-set (the piano) we may get to the same conclusion. The choice of the piano for Chopin or the player-piano for Nancarrow is actually not a limitation dictated by outside factors.

What makes Chopin's works "work" perfectly on the piano is not his lack of orchestration knowledge. If his orchestration skills are said to be weak, and they are probably so, this is not a failure because he was not interested with orchestration. He knew his ideas were best conveyed by the piano.

Same point with Nancarrow. He was not interested for composing for the orchestra or in the electronic medium. He thought and it proved that he was right, the player-piano was the best instrument to convey his ideas.

However, he somehow managed to coax a remarkable depth and breadth of sound from the aged machine(s). It has been speculated that the room in which

all original recordings of the *Studies* were made significantly affect this depth. Early (for instance 1970's) recordings are overwhelmingly dynamic, while the later WERGO recordings are more close-focused, but less dense.

The sound breadth, however, is heard in the ear. One of the more interesting examples of immediate textural polyphony is *Study no. 20*.

Nancarrow employs small, repeated motifs in different registers, gradually building to a spinning plane, with no specific moment of climax. His gentle introduction of phrases, and use of repeated notes at specific octaves, with attendant specific dynamics allows the listener to latch on to small relations, small connections. These structures gradually vary, and new echoes are heard in lower registers. Smaller and smaller changes occur, growing away from the abstract introduction. But the ear (or rather the brain) "remembers" key notes, key phrases.

When new voicings appear, we continue to hear the original phrases... as if the music remains bouncing around inside the piano and then off the walls.

Study no. 20 is also a clever exploration of duration-perception, with Nancarrow playing with the ear's sense of **expectancy**.

Again where we "heard" notes from before, now we "hear" notes filling in "registral gaps", (bass-line seems to continue, chordal events hang in the air).

Nancarrow's music is concerned with this **complex game of perception**, setting up expectations, or producing useful and intriguing event-sequences from seemingly disparate and coolly abstract elements. These perceptual explorations function because of the unique space Nancarrow constructs. And the main demarcations of this space are his unique approaches to rhythm, harmony, and style.

This is very close to Ligeti's experiments and to techniques he discovered in the electronic music studio at the WDR in Cologne.

Nancarrow's experiments were parallel to Ligeti's ones. From many of his Etudes for the Player-Piano emerged a new kind of texture. A sort of "layered" polyphony which Ligeti, regarding his own experiments in the electronic music studio, described as:

By using different intensity levels for each note and each sound, and by integrating sounds which are harmonic, sub-harmonic and non-harmonic in between a succession of sinus waves, it is possible to create a "fake" polyphony inside a monophony. This is possible because of the mental connexions at higher levels that we can create between different kinds of sounds.

If the higher level signals are not too dense we perceive, inside the true single voice, a complex of several voices. By creating a more detailed sequence we reach a saturation point where the shape of the super-signals² start to blur, too many layers neutralise each other and the phenomenon of "fake" polyphony is gradually lost.³

Study no. 37 for instance employs twelve different tempos for twelve different voices. Other studies use strongly contrasting but interlocking phrases, usually with the unifying central pulse implied but never stated. Even in pieces that use

²Complex sounds

³Ligeti, György. 2001. *Neuf Éssais Sur La Musique*. Genève: Éditions Contrechamps.

few voices (or “parts”), the rhythmic complexity is intense, for instance *Study no. 18*.

But there remains a unique *groove* to it all, a jazzy, almost flamenco-like syncopation, evidently due to Nancarrow’s affection for jazz trumpet (and jazz pianists such as Art Tatum and Earl Hines) and the music of his now native Mexico (he became a citizen in 1956).

Harmonically, Nancarrow retained a constructivist interest in bitonality and polytonality, (few of his works can be called tonal), and a serial *Study* does exist. However, with the method of the player-piano focusing so much of his attention on repetition, unusual harmony or melody became less of a concern (remember that few of his studies last more than 5 or 6 minutes, and even that could take a year to write and hole-punch).

Experimenting with such dense textures as Nancarrow and Ligeti did there was no point in the “pointillistic” serial methods. The serial style in vigor at the time, the “Darmstadt” school is intently oriented towards “chamber-music like” rarefied sound-space

Kyle Gann reminded me that, like Cage and Partch, Nancarrow was forced to “jump-ship” in the post-war world of serial harmonic clearing ground. New forms of experimentation were required to escape the formalised predictability of serialism.

His harmonic experiments, like their rhythmic counterparts, force a new attention to interrelated events, but they also allowed Nancarrow to indulge his jazz fantasies.

Gann: “I think Conlon started off with a case of *jazz envy*. The early studies give the impression that he wanted to make jazz, but didn’t have the right training to do it in the conventional way. He played jazz trumpet, but didn’t have the responsibility to put together a band, nor did his musical education prepare him to write chord changes. The player piano gave him a way he could make pseudo-jazz, and justify it by including things too fast and complex for any jazz pianist to ever achieve. Besides, jazz was a more exciting direction than the serialism music had been moving toward when Conlon was still in the U.S.”

Many of those early *Studies* are glorious example of the young Nancarrow trying to find a middle-ground between Stravinsky Bartok-like linearity and jazz velocity and harmonic sensitivity.

Nancarrow’s humour also appears in many *Studies*, with 3a and 3e being terrifyingly fast and often atonal 12-bar blues jams.

The true quality of Nancarrow’s harmonic sensibility is to be found in the “fully-formed” sound of his phrases. He writes with the authority and velocity of a jazz soloist, playfully orchestrating the group around his line. He was able to incorporate the power of atonality and the evocative logic of melody, and he even managed to incorporate noise (cluster chords, mistake noises) and mock-effects (some pieces use ultra-fast repeated notes like a primitive kind of echo). His harmonic and orchestrational skill is perhaps most evident in the later live-musician-realised pieces, which draw out the clever touches that often hidden by the potent shock of the pianola-only recordings. Great “*Studies*” like *No. 7* finally reveal their big-band heritage, while Nancarrow’s late works for musicians

like *Piece no.2 for Small Orchestra* confirm his undiminished awareness of actual instrumental interplay.

Nancarrow's early pieces are affective, even rather touching (2 and 6 are astonishingly beautiful pieces of music, with hints of, dare I say it, sentimentality).

But Nancarrow's late work remains the most intense, authentic and fully realised.

The later works deal with deeper issues than simple *impossibility*. There are works for multiple player pianos, both synchronised and unsynchronised, works with many complex levels of polyrhythmic temporal ratios, works with the same section being played simultaneously at different tempos, etc... They incorporate various touches, such as monstrously large chords, ludicrously fast glissandi, impossibly accurate tuplets and repeated lines. The pianola's dextrous rendition of 128th notes mocks mere musicianship.

Here we find the similitudes with Ligeti's researches. Those two composers were going in the same direction but in different paths.

For all the ultra complexity much of the music is rooted in a personal, referential language, since all of his experimental methods were aimed at exploring polyphonic perception, not as ends in themselves.

The composer James Tenney described Nancarrow's work as employing an "event polyphony." Thus while there is constant simple polyphonic activity, for instance just two interlocking lines, ultimately there is a polyphony of passages, of structures, of compounds of events, and perhaps even a stylistic polyphony.

I will rather say micropolyphony. I quote myself from the paper I wrote about Ligeti's Atmospheres.

Micropolyphony is a well fit name for the technique.

In biology microscopic creatures are life forms having all their own, sometimes fairly complex structures, individual lives and behaviors. They appear to naked eye only as a (measurable) volume of liquid, solid or gas.

Micropolyphony is similarly a mass of a musical texture made of a high number of individual parts which can not be analysed as such.

Actually white noise can be thought as the ultimate micropolyphony for it is made of a great number of random sine waves at random amplitudes and frequencies. Yet it is not "polyphony", it is *noise*.

That is precisely because of its random nature. Furthermore filtered noise is still *noise* up to the point where the filtering goes deeper on and reduce the mass to only distinct waves which then appear as they (still) are: random waves.

The most important aspect of the Micropolyphony procedure of Ligeti is that it is actually composed in all its aspects, not a random process at all. In this sense it differs considerably from similar procedures used by some composers notably by Iannis Xenakis

In both Nancarrow and Ligeti all structures are clearly defined and even in what seems "aleatoric" like the music for two unsynchronized player pianos (Nancarrow) or for (obviously unsynchronized) 100 Metronomes (Ligeti).

Nancarrow drew in disparate elements and evolved a method that logically and fluidly span out a transformative music. He does not use style as a support, but instead subsumes those personally resonant references (jazz trumpet, barrelhouse piano, flamenco-like strums) into a fully developed and unique music of his own. It is a music that can only increase in significance.

The hole-puncher required to perforate pianola rolls was an old and tough mechanical. Adult male visitors to the Nancarrow home report struggling to even make the usually automatically-driven device even budge. But Conlon Nancarrow spent almost his entire adult life manufacturing these amazing rolls. His patient produced a hugely muscular forearm, and a body of work of astounding intensity and importance.

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