## Otfrid Nies

Time in Music - Nancarrow's Studies for Player-Piano

I would like to present to you some music which perhaps you didn't hear until today. The contents of this music are in close relationship with the subject of our workshop. I have got to know about this music in 1980 and I was so fascinated that I presented it at the Kassel documenta 7 in 1982 and later at some other occasions.

As no other composer in the 20th century, the 1912 born American composer Conlon Nancarrow, who lived until 1997, has made researches about time in music and about simultaneousness of different tempi; for this Nancarrow uses the term of "temporal dissonance" and this is the subject of his life-work.

Human interpreters are not able to perform exactly very complex relationships of different tempi at the same time. After disappointing experiences with his performers, Nancarrow resolved his problems about 1946 with support of the player piano. This self-playing instrument, invented about 1895, works with perforated paper rolls and pneumatic systems. Perhaps you have seen instruments such as this in museums. With the player piano and the rolls Nancarrow was now able to present extreme complex temporal and metric relations. From this moment and for his further work, Nancorrow composed nearly exclusively for the player piano. He composed in the following 50 years about 50 pieces numbered in a chronological order and simply called them "Studies".

I would like to present to you now Study 21, which Nancarrow denominated in the subtitle "Canon X" because of the two temporally overcrossing musical lines of the piece. Apart from a very complex organisation in the pitches, this "canon in two voices" is very simple: The lower voice starts slowly ( 3.5 notes per second) and accelerates continuously up to 111 notes per second, the higher voice starts with 37 notes per second and slows down in the process of the piece to 2.33 notes per second. For a short moment, approximately in the middle of the study, the two lines or voices are in the same tempo.
*STUDY 21*
[Wergo 60166/67-50; Conlon Nancarrow: Studies for Player Piano, Vol. III + IV]

Unfortunately, there is not enough time now for going into the details. There are just 2 or 3 points in Nancarrow's music which seemed important to me:

1) The intentions of the composer are exactly "performed" by the player piano, there is no margin for interpretation, there is no necessity for an interpreter. At the same time and as in electronic music, for this suppression of human mediation we are forced to recognise a certain difficulty of propagation of this music.
2) With the temporal and metric aspects of his music, Nancarrow is in fact a real "avantgardiste". At the same time, he uses with the player piano a real "historic" and, from the point of view of technique, an insufficient medium. The making of the piano-rolls with his punching machine was for Nancarrow very hard and time-wasting work. For a complex study of about 5 minutes, Nancarrow had to work for about one year at the punching machine, 8
hours a day, as he told me. In this case, Nancarrow gives me an impression of a medieval artisan.
3) The sound of the player piano is somehow obstinate and rather dry. There is a scale of dynamics but no variability of timbre. At the same time, this poverty of colours allows your fantasy to ornament that which you hear, to orchestrate the piece in your head. You could compare this with a Bach-Fuge for Solo-Violin, where you have to replenish in your mind the incomplete polyphonic structure in your head.

To finish my statement, I want to present you "Study 41b", one of Nancarrow's most inspired compositions. This piece of about 6 minutes consists of two very complex canonic strata. The lower stratum is slower, the later entering higher stratum is faster. The musical material of both strata is the same but the faster is transposed to the tenth.

> *STUDY 41b*
[Wergo 6168 - 2; Conlon Nancarrow: Studies for Player Piano, Vol. I + II]

