

The advent of the self-playing piano.

Kees Nijssen, AES Life-member and closely connected with Philips Sound Recording activities ever since the first professional machines up to the successful Audio Cassette system, has also a Second-Life interest: the restoration of mechanical music Instruments like Player Pianos and anything else controlled by perforated paper music rolls.

In a presentation for Dutch AES-members in the Utrecht Museum from Musical Clock to Street Organ, where all relative artefacts can be seen and heard in working condition, he gave an overview of all forms recorded music has taken in the past, since the application of pinned cylinders, phonograph discs, tapes and rolls for automated pianos. A very rare tape was reproduced, containing a BBC broadcast of Sept. 17, 1944, announcing the dropping of Allied Paratroops near the Rhine River in Holland, illegally recorded by Nijssen's colleagues on a Philips-Miller studio machine.

During the first quarter of the 20th Century, the Player Piano or Pianola was the sole medium to which famous piano soloists entrusted their playing. At first a bit shy to accept a fully pneumatic system and perforated paper rolls, artists like Paderewski, Horowitz, Rachmaninov, Busoni and hundreds of others could soon fully endorse the fidelity of their recordings by placing their signature on the rolls. This confirmed that a piece was reproduced from copies of the roll exactly the same way it was played by them in the studio. Only after the invention of radio and gramophone things were changing, but then roughly a number of 2 million expensive pianola's and reproducing pianos had been sold in America, Great Britain and Continental Europe. Only around 1930 piano recordings on disc and paper rolls existed next to each other, but the self-playing real instrument was highly preferred by the soloists of the day and the public who could afford it. Restored reproducing pianos containing Welte, Ampico and Duo-Art reproducing systems (with dynamic tracks punched on the sides) still provide a true-to-life and beautiful rendition of the original playing, as could be heard in the Museum. Kees Nijssen who also has a collection of these instruments at home - where he receives historians and piano experts for the International Vintage Phonograph & Mechanical Music Society - is now trying to become up-to-date with computer possibilities of the 4 modern piano versions that have made attempts to replace the pneumatics by electronics. Firms like Bösendorfer, Yamaha, QRS and Pianodisc have applied floppy discs and CD's to control relays for each piano key, mostly at the instigation of an American Wayne Stahnke. Piano hammer speeds, measured during recording, require exacting mechanical control during replay, since magnets and relays are clumsy elements as compared with computer signals. Voltages for the magnets are measured in 128 stages of force as a consequence of hammers crossing a light beam to provide signals for the recording computer. Opto-electronic recording provides via MIDI fantastic extra possibilities for couplings with an orchestra and DVD combinations.

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