ITALY

Shortwave Stockhausen

d&b T10 on unique event in Florence, writes Mike Clark

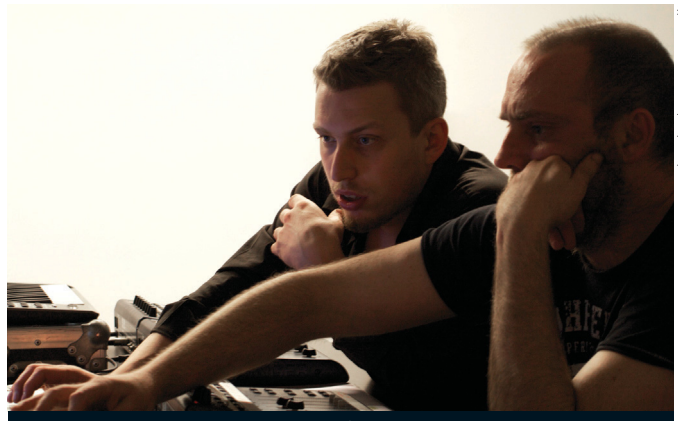
Tempo Reale, a musical research centre founded in Florence by Luciano Berio, recently staged a unique event in a highly original venue.

A protected site because of its historic-artistic value, Stazione Leopolda is just over a mile from the centre of Florence. Completed in 1848, the railway station was named after the reigning Grand Duke and, after being closed in 1861, was used as a warehouse for railroad spares until 1993. It has since been transformed into a venue for exhibitions, entertainment, gala evenings, fairs, fashion shows, product presentations, and cultural and corporate events. Its atmosphere of a huge, abandoned workshop provides an interesting contrast to traditional venues, in which many events could seem out of place.

The concert, staged in the context of the 18-day Fabbrica Europa 2009, a highly varied multicultural event attended by 90,000 people, featured two compositions by the father of electronic music, Karlheinz Stockhausen.

Spiral was originally composed for soloist and shortwave radio receiver for the Osaka Universal Expo in 1968 but, since SW radios are hard to come by and frequencies rarely used by broadcasters nowadays, it was decided to recreate the sometimes unpredictable aspects of listening to SW radio by recording custom sound samples, using Cycling '74's Max 5 interactive programming environment.

A transparent interactive table onstage alongside the saxophone player had a video camera mounted below, enabling the system's software to analyse the movement of two objects on the table and trigger various sounds. The software and table were developed and designed by Nicola Torpei of Florence University's Media Integration and Communication Centre.



Credit: Elisabetta Macumelli

Francesco Canavese and Damiano Meacci of Tempo Reale

Credit: Elisabetta Macumelli

FOH consisted of a Yamaha DM2000 V2, Behringer BCCF2000 and BCR2000 MIDI controllers and a Casio 2-octave keyboard

Moving the first of two wooden blocks horizontally, sax player Giovanni Nardi created the effect of tuning the 'radio' – vertical movement raised or lowered its volume and rotating triggered interference, such as intermodulation, spikes, overlapping signals, etc. Moving the second object into positions indicated by designs on the table triggered a series of SW radio transmissions (mainly French and Moroccan) of speech and music pre-recorded in Tempo Reale's studios by the musician, played back via an Alesis HD24 hard-disk recorder.

Two MacBook Pros were used for audio processing and generation, and one for the projection of the interactive table used by the performer, along with a Mac mini for the table's computer vision system.

Motu 828mkIII and Traveller audio interfaces and a MIDI Express MIDI interface were also utilised.

The concert featured Cosmic Pulses the composer's last 'technological' composition, in which 24 layers of electronic music were spatialized (with the room in total darkness) by means of a sound system comprising eight groups of d&b loudspeakers installed around the 300-strong audience.

Eight D12 amps were used in a mixed top/sub configuration, each powering a Q-SUB and two T10 (linked). Each group had a separate feed from one of the console's 22 buses.

An assortment of microphones were taken to the event, as it was the first time that composition had been worked on with the musician in question, and opted for a single Electro-Voice RE20 dynamic cardioid mic, on which a Lexicon PCM80 was used for some reverb.

Alongside a Yamaha DM2000 V2, the FOH platform used by the Tempo Reale live electronics team (Francesco Canavese, Francesco Giomi and Damiano Meacci, all of whom are also musicians) also hosted three Behringer MIDI controllers (two BCF2000 and a BCR2000) and a Casio 2-octave keyboard.

In perfect sync with the sound events produced by the performer, a projector screened videos created for the concert on a backdrop.

Regarding the choice of speakers for the event, BH Audio's Massimo Carli opined: "It sometimes seems people think it's impossible to do a show without a line array nowadays... but obviously this isn't the case. Although they offer many advantages in certain applications, they're not the universal solution to all live requirements and there are projects – above all, small events – on which a line-array system is less practical than a point-source set-up. Thanks to its acoustic lens, the d&b T10 is the only system on the market able to be used as a line-array or point-source system. On this occasion, we used it as the latter, without dismantling anything – no electronic processing nor grill removal required – this is why it immediately caught our attention. For projects on which our Q1s' SPL isn't required, the T10 offer d&b's precise timbre with a footprint and weight that would've been unthinkable up until a year ago. Although it's been on the market for just a few months, it's already appearing on a large number of riders and in fact the sound engineers of the artists we have worked with have literally fallen in love with it."

After the highly successful concert, Meacci enthused: "The T10 definitely did a great job, giving further confirmation of the quality of d&b systems, which we've used frequently in the past." ✋

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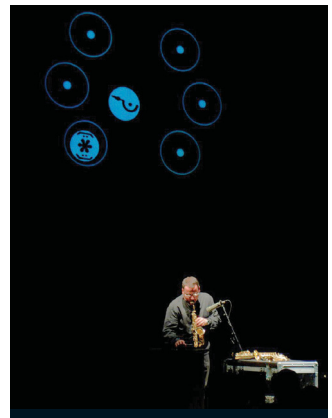

Giovanni Nardi takes to the table

Fabbrica Europa 2009 attracted 90,000 visitors