

GENUINE



A premiere: for the first time, the Berliner Philharmoniker recorded live in front of an audience using the direct cut method. The result appears exclusively on LP.

A new recording of the Brahms symphonies by the Berlin Philharmonic Orchestra is nothing unusual – indeed it follows a tradition, in that the great composer himself conducted the orchestra several times. Technically, however, this new recording is extraordinary, being based on an extinct technique from the beginnings of audio technology: direct cutting.

A century ago, Enrico Caruso sang powerfully enough into a sound funnel to set up vibrations in membranes that deflected a cutting head, scoring the sound into the grooves on a wax surface. And this basic principle, albeit technically refined, has remained unchanged to this day, as Rainer Maillard, the sound engineer responsible for the Berlin Brahms project, explains. “A single pair of stereo microphones mounted directly above the conductor’s desk converts the sound into electrical oscillations. These vibrations are transmitted directly to the head of a vinyl cutting machine via a cable,” he says. “As the music is played in the Great Hall of the Philharmonie, the LP master – , which serves as a model for the pressing of the records – is cut in real time. There is no shorter - more direct - signal flow for the production of a sound carrier.”

Maillard, and his colleagues from the renowned Emil Berliner Studio, are probably the only ones in the world with

extensive experience of this process, but even so the session with the Berliner Philharmoniker in September 2014 was also something special: “We had to think about how to transport the sensitive and heavy vinyl cutting equipment into the Philharmonie. For the first time it was a direct cut recording outside our studio, and during a live concert. The biggest challenge was to change the master plates between the symphony movements, which takes about 40 seconds even at ‘F1 pit-stop speed’. That’s why we turned on a red light every time we needed to change the slides, so Sir Simon Rattle knew he had to wait.”

The plates were sent to the Optimal pressing plant, where they were used as masters for pressing the records, with no editing possible – something Rattle describes as an “absolutely terrifying and satisfying experience at the same time”. Since each work was recorded at the dress rehearsal and two concerts, it was possible to choose between three versions for each side of the album. Tape recordings recorded in parallel were used for monitoring, because listening to the masters would have destroyed them.

Only two ‘A’s

In view of this background, we were intrigued when the vinyl box finally arrived: it’s heavy, and on the cover there is a photo of Sir Simon Rattle engraving

his name abbreviation on the masters. At the bottom left is the reference to the purist production methodology: “AA”, for analogue recording and analogue master, the third ‘A’ – for subsequent analogue mixing – irrelevant for this direct cut technique.

Inside the box, one first sees the certificate signed by Rainer Maillard, guaranteeing that “this edition represents the optimum analogue sound recording”, followed by two black-and-white photos showing the recording set-up in the Berlin Philharmonie from a bird’s eye view as well as the lathe for cutting the “primal record”, a Neumann VMS 80.

There’s also a 72-page, large-format hardback book with information on the recording process and the works: When was the premiere? Why is Brahms the legitimate heir to Beethoven? It’s a pleasure to browse: thanks to the well-researched, comprehensible and easy to read texts – another advantage of the larger analog format! Remarkable illustrations also adorn this book and some – such as a photograph by Johannes Brahms himself – are even removable!

We put on the B-side of LP 2, and hear extended silence, then beautifully singing woodwinds followed by revelatory strings – the sound gets under your skin, and you wish it would never end. It’s a feeling difficult to describe, as if one had actually achieved the impossible: to capture the aura of the moment, but in no time at all, the side is over and you have to force yourself to adopt an analytical approach.

The aura of the moment

In comparison, a recording of the same works by Kurt Masur and the New York Philharmonic for CD (Warner Classics) sounds harder in the strings, more

LINKS

Available at:

www.berliner-philharmoniker-recordings.com

Price: 499 € (+ shipping costs)



1



2

1 The Berliner Philharmoniker under Sir Simon Rattle recorded the symphonies of Johannes Brahms in September 2014. 2 Direct-to-Disc was recorded using the Neumann VMS 80 cutting machine, the cutting head of which engraved a lacquer. 3 Cutting engineer Maarten de Boer checked their quality.



3

PHOTOS: MONIKA RITTERSHAUS

samples available to us were flat and, since they were recorded at high levels, had minimal rumbling and hissing, even though crackling will never be completely avoided in a record. In reference to Brahms' year of birth, only 1833 copies were pressed, and the recordings will not be available as CD or download.

Olaf Maninger, principal cellist of the Berliner Philharmoniker and managing

director of Berlin Phil Media GmbH, sums up the project in a nutshell: "When perfection is most important to you, you end up with digital recording techniques. But the Brahms box comes closer to the live experience than any other recording I've ever heard."

Sir Simon Rattle agrees: "In my opinion, this is the most honest recording of our orchestra." **Andreas Kunz**

„BEST POSITION“

Sound engineer **RAINER MAILLARD** on the direct cut vinyl project



STEREO: How did you set up the microphones?

I opted for a system often used in orchestral

recordings in the 1950s: setting up two microphones with a figure-eight characteristic at an angle of 90 degrees, so that the stereo impression is only created by level differences. During the orchestra rehearsals I found out the best position, one meter behind Sir Simon's head and four and a half meters above.

What are the special features of direct vinyl cutting?

Normally LPs are written with the so-called Fill script, in order to make optimum use of the space consumption depending on level, phase and frequency response and to avoid bleeds at the same time. For this reason, a preview signal is required in addition to the modulation, which arrives 900 milliseconds earlier at the cutting system and helps to calculate the optimum propulsion. Analogue

input from the tape is triggered by a second playback head, while digital input is triggered by digital delays. Since both are not possible with a pure direct cut, my colleague Maarten de Boer had to adjust by hand the drive and depth of the groove - a tremendous achievement. Meanwhile, I had a hand on the level control to pull back noisy passages and boost quieter ones - a natural way of compression. I studied the score and orientated myself on a digital recording we had made during the rehearsal. Even though the tempo was not exactly the same, we knew how loud it would be.

Were there other challenges?

The longer the playing time of a set, the more difficult it becomes to place it on a lacquer. The longest continuous section - 3rd and 4th movement of Brahms's first symphony - has a duration of 21.30 minutes. Cutting an LP without the usual filling script on an LP is a challenge: at the dress rehearsal we didn't manage that, and at the first concert the groove became so thin that the needle would have jumped out when playing the record! In the second concert it succeeded - and that was fortunately also the best version musically.

angular in the wind instruments and somewhat "sharp" in the treble. Rattle and the Berliners on vinyl, on the other hand, sound much more three-dimensional, warmer and rounder, with strings and other instruments vibrating more naturally. And this despite the fact that the CD is a very good recording from the Avery Fisher Hall in the early 1990s!

The Beethoven symphonies, performed by the Deutsche Kammerphilharmonie Bremen under Pavo Järvi, serve as a benchmark for recent vinyl recordings. Both sets sound exceptional, but while Järvi/Beethoven's sound tends to be tight and analytical, the Rattle/Brahms sound is more holistic. The reasons for this are manifold and not only due to their repertoire and orchestral sound. The recording room (Tonstudio Nalepastraße vs. Berliner Philharmonie), the microphone arrangement (multi-miked vs. one-point stereo), and not least the recording process - all play a role, along with the fact that the Järvi/Beethoven is a digital recording that was only subsequently transferred to vinyl.

There's nothing to complain about in the production of Brahms disks: the