

## A question of dates

By Friedrich Engel

A Brahms recording by Furtwängler could be four years older than has been assumed

*Between autumn 1940 and January 1945, Wilhelm Furtwängler and the Berlin Philharmonic Orchestra performed Johannes Brahms's First Symphony in only two concert series: on 15, 16 and 17 December 1940 and on 22 and 23 January 1945. A recording of the fourth movement of this symphony by the Reichs-Rundfunk-Gesellschaft (RRG – German Radio) has been preserved on magnetic tape; the following discussion concerns the actual recording date.*

*In favour of December 1940 is the fact that this Brahms movement was the last musical example in a public demonstration of the new tape technology on 10 June 1941, which has been extensively documented. This contrasts with the date of January 1945, under which the symphony movement has already been released several times, most recently in 2019 in the new CD edition of the "Radio Recordings" of the Berlin Philharmonic.<sup>1</sup> As far as can be seen, the only reason given for this is that the Brahms Symphony was played in full at this concert.*

*A tape recording was rediscovered in Berlin in the late 1950s. The magnetic tape original from the 1940s was copied at that time, but then thrown away together with the archive box, which makes the correct dating extremely difficult. So far, the provenance of the tape has not been clarified beyond doubt.*

*There the matter now stands. However, there is enough evidence to establish and, if necessary, correct the attribution to one of the two performances, despite the insufficient documentation. It will be helpful to begin with a look at the internal organisation of the RRG.*

In addition to the official music administration of the RRG, another department sometimes made music recordings on the sound recording media then available: wax discs, sound foil, steel tape and wire, beam-of-light sound, Tefifon, Selenophon, the Philips-Miller process, and finally Magnetophon<sup>2</sup>). This was the electrical laboratory of the RRG Technology Centre in Berlin, led by Hans Joachim von Braunmühl with Walter Weber and other high-ranking experts. As is usual with development work, these samples, since they were not intended for broadcasting, probably remained in the possession of the laboratory. Accordingly, their labelling was handled "pragmatically" and they did not appear in the RRG's own sound archives and catalogues.



A complete Magnetophon unit of the first radio design, consisting of two R 22 Magnetophons in R 63 chests (front right) and an amplifier rack that accommodated the V 7 amplifiers, among others. - Reichssender Hamburg, the picture is dated 1939.

On the outside there were only minor differences from the high-frequency Magnetophons.

From 1939 onwards the RRG used tape recorders, a joint development of AEG and I.G. Farben (spelled "Magnetofon" in their in-house style). The devices were technically very innovative, and promised to make operation easier thanks to their relatively simple operation and remarkable flexibility, but they could not compete with wax records in terms of quality.<sup>3</sup> As a consequence, Weber

searched for and found – with inventor's luck – an economically practical process at the beginning of 1940, which led to a leap in the quality of tape technology. Between May and November, after internal demonstrations and initial tests, the development of tape technology was at least far enough advanced that by mid-December it was possible to record demanding concerts.<sup>4</sup> Von Braunmühl and Weber were able to record part of the Furtwängler concert of 16 December 1940,<sup>5</sup> which was broadcast on the radio, unofficially – i.e. not for broadcast purposes – with their laboratory Magnetophon.<sup>6</sup> Furtwängler himself was impressed with the playback. Inevitably at such an early stage of development, the process was not yet fully developed, but the Brahms recording was played in public on 10 June 1941 to a large audience with unanimous success and with prestige gain for the RRG. Knowledgeable critics, however, were said to have complained of distortions in the middle registers; this may have been the reporter's way of describing occasional unsteadiness in the reproduction.<sup>7</sup> As a result, AEG, I.G. Farben and the RRG Laboratory remedied these deficiencies so thoroughly that even technically demanding stereo recordings became possible on magnetic tape.

With hindsight the laboratory staff appear to have seen the Brahms recording, a first and largely successful recording, as a "*complete revolution in sound recording*",<sup>8</sup> and regarded it with justifiable pride in their own achievement not only as a technical milestone, but also as a testimony to an unusual, possibly unique interpretation, tempered by a quiet regret that it was not yet possible to record the entire symphony.<sup>9</sup> In every respect, therefore, a unique achievement of considerable cultural and historical value.

Friedrich Schnapp (1900 ... 1983), Furtwängler's sound engineer (Tonmeister) from 1939 onwards for the broadcasts of the Philharmonic Concerts, including the concert of 16 December 1940 from the Philharmonie Berlin.

Furtwängler had scheduled the First Brahms Symphony for three concerts on 15, 16 and 17 December 1940, together with the first performance of the "Rondino giocoso" by Theodor Berger (1905 - 1992) and Bach's Fifth Brandenburg Concerto, in which he played the piano part. The RRG broadcast the first repeat performance on 16 December 1940 and recorded it in the Funkhaus on Masurenallee with an experimental high-frequency Magnetophon.



A remark that Braunmühl made to the AEG shows that, as head of the RRG laboratory, he had the experimental recordings of his department at his disposal, rather than the RRG sound archive: "For the end [i.e. of the presentation], I have promised a part of the Brahms symphony and dance music."<sup>10</sup> As mentioned above, the RRG laboratory managed its own stock of high-quality music recordings, which were not kept in the official archive. Evidence of this includes a tape-recording of the Adagio of Anton Bruckner's Seventh Symphony with the Berlin Philharmonic under Wilhelm Furtwängler, from 23 February 1941, which was played back in private on 21 July 1944, and a large number of stereo recordings to which the RRG laboratory had access. It was relocated with its entire holdings to Kosten (today Kościan in Poland) after heavy bombing raids on Berlin on 23 August to 4 September and 18 to 26 November 1943, and later to Speinshart in Upper Franconia. What happened to the majority of these tapes has never been established.

So while it is clear that a recording was made on 16 December 1940, there is no concrete confirmation that a possible concert recording took place on 22 or 23 January 1945 in the Admiralspalast in Berlin, according to journalist and musician Karla Höcker "an operetta theatre of faded red-velvet ele-

gance". Her diary notes that a concert on "Tuesday", i.e. 23 January 1945, which began "at three o'clock", was interrupted by a power failure, but there is no reference to a live radio broadcast or recording. 11 The Admiralspalast probably did not have its own sound control room (there was a relatively simple "transmission facility" in the destroyed Alte Philharmonie, connected to the Magnetophons in the Funkhaus 12). An outside broadcasting vehicle would therefore have been required for a radio transmission, and this would also have been the case for the recording of Furtwängler's concert of 12 December 1944 at the same location. Whether recording and/or broadcasting were even practicable in late January 1945, given the circumstances of the time, must remain an open question.

On 2 May 1945 Soviet units took over the radio station in Masurenallee. Four days after Germany's capitulation, on 13 May 1945, the first broadcasts of the newly established "Berliner Rundfunk" could be received. At that time a considerable proportion of the RRG's sound archive was still there. But when the broadcasting centre was handed over to the West Berlin Senate on 5 July 1956 after years standing empty, the building complex was almost gutted and had to be renovated from the ground up. There was nothing left of the sound archive's recordings;<sup>13</sup> among other things, the Russian officer Konstantin Adzhemov had selected hundreds of the most valuable recordings around 1947 / 1948 and shipped them to the USSR. <sup>14</sup>

One of the "founder employees" of Sender Freies Berlin (SFB – Radio Free Berlin) was Helmut Krüger, who had been one of the most experienced sound engineers at the RRG. He was instrumental in building up a collection of stereophonic magnetic tape recordings since 1942, and also worked closely with Walter Weber at the RRG laboratory. <sup>15</sup> After Russian imprisonment and six years at the Berlin station RIAS (Radio in the American Sector), Krüger was employed as a "sound engineer with special tasks" at SFB from 1955, back at the building on Masurenallee. With the introduction of commercial stereo records, the time had come to offer stereophonic broadcasts on the radio. Among other projects, Krüger had to investigate methods for achieving this via VHF. The technical director of the SFB at that time was Udo Blässer, who had been with the RRG since 1932 and whose planning tasks as chief engineer and head of the RRG central technology department<sup>16</sup> had also included the construction of the RRG laboratory in Kosten and possibly its further relocation to Speinshart.



left: Walter Weber (1907 ... 1944), to whom we owe the (re)discovery of high-frequency bias and its introduction into magnetic tape technology.

right: Hans Joachim von Braunmühl (1900 ... 1980) during his time as head of the RRG's electrical laboratory. As Walter Weber's superior, he played a leading role in the patenting of high-frequency bias and the awarding of the licence to AEG.



So back to late 1944! Udo Blässer managed (perhaps with one of the lorries used to move equipment and materials) to have a package of about five or six RRG tapes, whose contents were then unknown, brought to safety in the cellar of his Berlin house as "private luggage".<sup>17</sup> After the war, this turned out to be the meagre remnant of the Berlin stereophonic archive: Beethoven's Fifth Piano Concerto (by Walter Gieseking with Arthur Rother conducting the Berlin Radio Orchestra, from 1944) and the fourth movement of Bruckner's Eighth Symphony (Herbert von Karajan conducting the Preu-

Bische Staatskapelle (the Staatskapelle of Prussia), recorded on 29 September 1944).<sup>18</sup> The artistic value of these sound documents is beyond question; technically, they represent the peak of magnetic tape sound development up to 1945.

Around 1956 / 1957, when the renovation of the building on Masurenallee was completed, the project of broadcasting stereophonic programmes via VHF came up at the SFB. Could this have been why Blässer remembered his "private luggage"? Or was this perhaps even the impetus for these plans? Stereophonic productions and broadcasts require extensive upgrades of studio technology, including at least two, and preferably three two-channel magnetic tape recorders, which replaced the monophonic equipment. So now, after many years, the RRG stereo recordings could again be heard as they were originally recorded. Who would have been more likely to deal with these tapes than Helmut Krüger, who after some preparations (due to differences in the width of the tapes and their playing speed) arranged for their transfer to modern tape material? The tapes from Kosten were to be the most representative heirlooms from RRG times for years, even if little was made public of their existence and significance at first.

However, almost certainly the "private luggage" included another tape, the monophonic recording of the fourth movement of Brahms's First Symphony with Wilhelm Furtwängler and the Berlin Philharmonic Orchestra. And the earlier the vehicle from Kosten arrived in Berlin, the more certainly it had to be the recording of 16 December 1940. So perhaps Blässer's "private luggage" was not simply a haphazard assortment of material, but rather a careful and systematic collection of evidence of the development of this technical innovation? It told the story from its beginning with the Brahms, music recording of hitherto unimaginable quality, to the almost complete exploitation of its potential in the stereophonic Bruckner recording – and demonstrated in extraordinary interpretations by two equally extraordinary conductors? Or did a Kosten laboratory employee perhaps compile this collection and arranged for Blässer to take it to safety?



Externally, the drive of the first HF Magnetophon - according to archive documents - is almost identical in construction to the widely used Magnetophon K 4. It probably resembles the version with which the new recording method was presented to the public on 10 June 1941. © Archive GFGF



The amplifier set for the HF Magnetophon. From top to bottom: Playback amplifier (V 5), recording amplifier (V 7b), power supply unit (N 7b). The pairs of sockets at the bottom left were probably intended for testing and measuring purposes. © Archive GFGF

After the original recording, playing at 77 cm per second, was copied to a modern 38.1 cm/s tape, it was catalogued in the SFB's archives, but then the original tape and archive carton were apparently discarded. When a dedicated Furtwängler researcher asked for more detailed information about the provenance of the recording around 1970,<sup>19</sup> he was told that nothing had been noted on the old archive box except "tape by Ing. Krüger, Technik". This probably meant that Krüger had not been able to give the archive any information about the date and place of the recording. And so the shocking care-

lessness of not having archived the original came to haunt them. I.G. Farben printed batch numbers on the back of the Magnetophon tapes, which could be used to determine the period of manufacture. A number around 368 would then indicate the turn of the year 1939/1940. Tapes manufactured in late 1944 would have been identifiable by certain typical properties of the material.

### Approximation of the dating

When the Brahms tape appeared, reportedly in the late 1950s or early 1960s, no-one seemed to remember the demonstration event of 10 June 1941 (staged primarily by AEG and UFA) when the Brahms tape was played. And even if they had, they would not have found the recording date of 16 December 1940 in the programme.<sup>20</sup>

So how could the date of 23 January 1945 have come about? Due to the lack of standard equipment, magnetic tape recordings with high-frequency bias (clearly the case here) were only officially produced by the RRG around the turn of the year 1941/1942. It was therefore a matter of finding out when Furtwängler and the BPO had performed Brahms's First Symphony *since* that time, which was on 22 and 23 January 1945. This is probably how this problematic dating came about, due to a lack of reliable information.

The Brahms tape is definitely not one of the RRG tapes that the SFB received in the form of Soviet-made copies in 1987, nor is it one of the approximately 1,500 recordings that found their way back to Masurenallee from Soviet archives in 1991,<sup>21</sup> after lengthy negotiations carried out mainly by Klaus Lang. Remarkably, the recording of the Schubert Symphony No. 7 in B minor D 759 "Unfinished" from the preceding Furtwängler concert of 12 December 1944 belongs to this set of tapes. And so a question arises: surely a hypothetical recording from the concert of 23 January 1945 would have been found near that "Unfinished" in the RRG's sound archive, and caught the eye of the Russian specialist Konstantin Adzhemov, who meticulously picked up all of the Furtwängler tapes? And should it not have resurfaced with this stock?



Helmut Krüger (1905 ... 1996, right), instrumental in the stereo magnetic tape recordings of the RRG, in 1988 as a visitor and guest of honour at a congress of the Audio Engineering Society in Paris (author on left).

The discovery of the 16 December 1940 recording was the result of a comprehensive search by the author in 2014.<sup>22</sup> At that time, the Brahms torso had already been published several times (always dated 23 January 1945), but he only learned of its existence in 2019, after the publication of the "Radio Recordings" of the Berlin Philharmonic.<sup>23</sup> He spoke to Helmut Krüger several times in the last years of his life, but missed the chance to clarify the matter because of this gap in his knowledge.

Today's listeners have to "tune in" to the sound of the Brahms recording. Experts with a trained ear may be able to confirm the critical observations which were made in 1941, mentioned above. A striking example is the rather disjointed flute solo from bar 38 onwards (03:30 from the beginning), which can probably be attributed to significant irregularities in the Magnetophon tape of the time. This would be a further indication of the recording date of winter 1940, because Karajan's stereophonic Bruckner recording of 29 September 1944, taken as a yardstick for recording quality, clearly shows progress in amplifier design and Magnetophon tape production between mid-1940 and autumn 1944. Original recordings from January 1945 should no longer show such irregularities.

Finally, and with all due caution, to the question of the musical value, indeed the musical-historical significance, of the Brahms recording. To summarise what Richard Taruskin has written and quoted in the book accompanying the CD publication of the "Radio Recordings", one seems to experience a musical apocalypse, where in other interpretations an almost radiant apotheosis is to be expected. Certainly Taruskin's evaluation would accord with the inescapable catastrophe and all the fears that are surely reflected in Furtwängler's interpretation, and that might be taken to support a date of January 1945.

On the other hand, what could have prompted Furtwängler to subject his audience to an almost disturbing concert finale shortly before Christmas 1940 is not and cannot be discussed here. Was it Furtwängler's foresight, or a kind of sixth sense of for the consequences of the orders that were being prepared in those days: "*Adolf Hitler announced his decision to begin this war of aggression to the Supreme Command of the Wehrmacht (OKW) on 31 July 1940 and on 18 December 1940 ordered them to make military preparations from then until May 1941 under the code name "Operation Barbarossa".*"<sup>24</sup> On 22 June 1941, twelve days after the Brahms recording was played in public, the invasion of the Soviet Union began.

In conclusion, and despite the lack of definitive proof, everything seems to point to 16 December 1940 as the recording date of an interpretation and recording that is unique in several respects. Could there still be proof of a recording date "at the eleventh hour"? This would, however, have to explain the following: if the recording was possible for technical reasons – as was the case with the Furtwängler-BPO concert of 12 December 1944 – why has nothing more than the final movement of the Brahms Symphony survived? Could a recording have been made on 22 January 1945? Is 23 January a secure recording date, and if so, on the basis of which documents? Is there evidence of a later radio broadcast of one of the two January 1945 concerts ?

For the time being, then, this gigantic torso, in a certain sense timeless, hovers in Furtwängler's musical legacy, without revealing how he shaped the three preceding movements of the Brahms First Symphony at the time, how he led them towards the fourth movement.

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- <sup>1</sup> Wilhelm Furtwängler - The Radio Recordings 1939-1945; Berliner Philharmoniker Recordings, 2019
- <sup>2</sup> Braunmühl, Hans Joachim von, Der heutige Stand der Schallaufnahmetechnik und ihre Anwendung beim deutschen Rundfunk (The current state of sound recording technology and its application in German broadcasting), Akust. Zeitschr. 3, S. 250 (Sept. 1938)
- <sup>3</sup> Engel, Friedrich: Prelude and Finale (in German: Auftakt und Ausklang, [https://furtwaengler.org/download/Auftakt\\_und\\_Ausklang.pdf](https://furtwaengler.org/download/Auftakt_und_Ausklang.pdf), 2014 rev. 2022
- <sup>4</sup> Weber, Walter (RRG): Aktenvermerk: Besprechung am 8.10.1940 über Magnetofon, DTMB AEG 04456
- <sup>5</sup> The Furtwängler-BPO concert on 16 December 1940 (Berger: Rondino giocoso; Bach: Fifth Brandenburg Concerto; Brahms: First Symphony) was both directly broadcast and recorded by the RRG, and parts of it were broadcast on 1 May 1941; Danish Radio was connected to the direct broadcast, recorded it and broadcast it as early as 28 December 1944. The Reichssender Wien broadcast the Brahms Symphony on 29 December 1944. Nothing is known about the technical details of the transmission of the recording to Vienna and Copenhagen. - Quelle: Smidth, Henning: Furtwängler Broadcasts & Broadcast Recordings 1926-1954 / Latest revision: December July 7, 2022; [http://www.smidth.dk/furt/FurtBroadcasts\\_20220707.pdf](http://www.smidth.dk/furt/FurtBroadcasts_20220707.pdf)
- <sup>6</sup> · Braunmühl, H. J. v., Brief an R. Schmidt, FTZ, 1941-02-28, Sammlung Dr. Jörg Weber: „Die schon mit laboratoriumsmässigen Apparaturen erreichte Qualität ist in jeder Beziehung allen anderen zurzeit bekannten Aufzeichnungsverfahren überlegen.“ (The quality already achieved with laboratory equipment is superior in every respect to all other currently known recording methods.)  
· Eggert, John, [Notiz:] Besuch bei der AEG vom 3.7.1941, BA Wolfen, A 19 711; Nr. 822, 1941-07-07: „An Geräten war bisher (seit November 1940) nur ein Laboratoriumsmodell vorhanden, mit dem die verschiedenen Versuche, unter anderem auch einige Vergleichsaufnahmen bei der Tobis Filmkunst sowie die Vorführung im Ufapalast am Zoo, gemacht worden sind.“ (Up to now, the only equipment available (since November 1940) was a laboratory model with which the various tests were made, including some comparative shots at Tobis Filmkunst and the presentation at the Ufapalast am Zoo.)
- <sup>7</sup> Dr. Ho., AEG, Aktennotiz Nachbereitung der Pressevorführung des Magnettonverfahrens im Berliner Ufa-Palast vom 1941-06-10, 1941-06-16, AEG-Archiv (DTMB) 03859
- <sup>8</sup> Dr. Ho., AEG, Aktennotiz Nachbereitung der Pressevorführung des Magnettonverfahrens im Berliner Ufa-Palast vom 1941-06-10, 1941-06-16, AEG-Archiv (DTMB) 03859
- <sup>9</sup> In the production "Radio Recordings" (see endnote 1) the place of the concert of 16.12.1940 would be between the 2nd concert of 13.09.1939 and the 3rd concert on 15, 16, 17 February 1942.
- <sup>10</sup> Braunmühl, H. J. v., Brief an Walter Weber, 1941-04-11, anlässlich des Beitrags der RRG zur Vorstellung des Hochfrequenzvormagnetisierungs-Magnetophons am 10. Juni 1941 im UFA-Palast, Berlin. Sammlung Dr. Jörg Weber.
- <sup>11</sup> Höcker, Karla: Beschreibung eines Jahres. Berliner Notizen 1945, Arani; 1. Edition 1984, zitiert von Richard Taruskin, *Espressivo in Tempore Belli*, im Begleitbuch zu Wilhelm Furtwängler – The Radio Recordings 1939-1945; Berliner Philharmoniker Recordings, 2019
- <sup>12</sup> Ferger, Fritz, Rundfunkübertragungstechnik, Reichsrundfunk 1942/43, Heft 25 (7.3.1943), Seite 495, dort auf zugehöriger Bildseite
- <sup>13</sup> Bauernfeind, Wolfgang, Tonspuren, das Haus des Rundfunks in Berlin, Ch. Links, Berlin, 2010
- <sup>14</sup> Lang, Klaus: Nur für Archivzwecke? Die Geschichte von der Wiederentdeckung, Rückführung und folgenreichen Sendung der historischen Tondokumente; Dezember 1991; in: *Musikschätze der Reichs-Rundfunk-Gesellschaft (RRG), Sender Freies Berlin, Schallarchiv*, Seite XX (20)
- <sup>15</sup> Lang, Klaus: Ein Pionier des Rundfunks – Helmut Krüger erzählt von Erbsen, Wachsplatten und seinen ersten Tonbandaufnahmen mit Wilhelm Furtwängler und Herbert von Karajan (Interview, gesendet am 5. September 1989, SFB 3)
- <sup>16</sup> N. N., 25jähriges Rundfunk-Jubiläum – Udo Blässer, Rundfunktechnische Mitteilungen, 6. Heft 1957
- <sup>17</sup> Wilms, Herman A.O., La tecnica della registrazione su nastro magnetico e 50 anni di Sterefonia a Berlino (Inhalt englisch), Seminario "Acustica ed elettroacustica" della Sezione Italiana dell' AES1993-10-16 – Wilms, for many years secretary general of the Audio Engineering Society Europe, got this and other information reproduced here in 1993 in the course of a lengthy conversation with Helmut Krüger.
- <sup>18</sup> Lang, Klaus: Rettung auf abenteuerlichen Umwegen / Zum 50. Jahrestag von Stereo-Tonbandaufnahmen; in: *Zum 50. Jahrestag von Stereo-Tonbandaufnahmen (Booklet zur gleichnamigen CD); AES Europe Region Office, 1993*

<sup>19</sup> Smidth, Henning, personal communication 2019-03-20, according to a currently untraceable letter from the SFB from 1970

<sup>20</sup> AEG (N. N.), Einladung mit Programm: „Erste Vorführung des neuen Tonaufzeichnungsverfahrens" (First demonstration of the new sound recording process), ca. Juni 1941; Sammlung Dr. Jörg Weber

<sup>21</sup> Lang, Klaus: Nur für Archivzwecke?, Die Geschichte von der Wiederentdeckung, Rückführung und folgenreichen Sendung der historischen Tondokumente; in: Musikschätze der Reichs-Rundfunk-Gesellschaft; Sender Freies Berlin, 1992

<sup>22</sup> Engel, Friedrich: Prelude and Finale (in German: Auftakt und Ausklang, [https://furtwaengler.org/download/Auftakt\\_und\\_Ausklang.pdf](https://furtwaengler.org/download/Auftakt_und_Ausklang.pdf), 2014 rev. 2022 – ders., 10. Juni 1941: Musik vor dem Abgrund – Die Vorstellung des HF-Magnetophons im Juni 1941; FKTG; <https://fktg.org/historie-magnetbandtechnik-75-jahre-oeffentliche-vorfuehrung-des-hf-magnetophons> [24.05.2016] sowie Funkgeschichte 227/2016, Seite 93 ff.; rev. 2018

<sup>23</sup> The author owes the reference to the existence of this Brahms recording and its doubtful dating or identity with the recording presented in 1941 to a personal communication from Mr. Philippe Jacquard, Société Wilhelm Furtwängler; siehe auch:

ders., Jacquard, Philippe: The Wartime Concerts Issued By The Berliner Philharmoniker; [www.furtwangler.fr](http://www.furtwangler.fr), February 2019

<sup>24</sup> [https://de.wikipedia.org/wiki/Deutsch-Sowjetischer\\_Krieg](https://de.wikipedia.org/wiki/Deutsch-Sowjetischer_Krieg), Deutsch-Sowjetischer Krieg [Zugriff 2022-09-24]