Reconstruction of a “Winterreise”

It is not seldom that we encounter works which we apparently know well but which often take a long time after their conception to appear to us in their actual, original form, as intended by their creator. Whether these be paintings, cleaned and freed from varnish and overpainting, literary works which have to be reinterpreted due to the emergence of new sources, or musical works taking on a new shape because previously unknown sketches, different versions or reproductions have been discovered.

The fact that such a scenario is also possible with a recording of a musical work might be surprising at first, but we have now become accustomed to viewing the history of recording as a process in which technical faults move more and more into the background, making the music appear in an increasingly objective form.

One example for this is the radio recording of Franz Schubert’s Die Winterreise with Dietrich Fischer-Dieskau and Klaus Billing from 19 January 1948 (Fischer-Dieskau’s first Die Winterreise, but also his first ever radio recording). Broadcast frequently in the late 1940s and early 1950s, circulated across Europe (and perhaps even further afield) thanks to the exchange of programmes, and later copied as a record and CD on the black market, this recording is relatively well-known.

Comparing these tapes to other recordings of Die Winterreise with the same singer, one cannot help but notice considerable differences in pitch in most songs. It was not only that he sang at a different pitch but that, during play-back, the pitch would sit between keys, i.e. a quarter-tone flat or sharp. The reason for this was fluctuations in the frequency of the Berlin power supply which, at the time of the recording – the late 1940s – still came from outside. The tape machines had a frequency display whose readings were transferred into the band-pass. In the process of digitalisation nowadays, however, it often becomes clear that these readings are imprecise and not entirely reliable.

In the first phase of preparation for this project, the keys of the songs in the baritone register had to be worked out using Schubert’s original manuscripts (documented in the works index by Otto Erich Deutsch) and various editions of Die Winterreise. Thereafter, listening to 11 baritone recordings – most of them with Fischer-Dieskau – the keys used were transcribed into a table. This material finally provided an overview of keys, giving clear indications for most songs.

The technical editing of the historical tapes into a CD was executed in two steps. Firstly, the playback speed was altered so that the resulting pitch matched the table. In order to eliminate mistakes, each song
was also played back a semitone higher and lower. By doing this, characteristic features of the voice, such as its natural tessitura, colour and vibrato could be reliably compared and checked.

At the end of the recording process, in which the tapes were transferred into a digital system at a high resolution (24 bit / 96 kHz), it became clear that the frequency of the current on 19 January 1948 had not altered hugely, which would have to have resulted in clearly audible changes in pitch in each song, but instead had descended very slowly during the course of the recording session. It then transpired that some of the songs had been sung in Schubert’s original keys, which was confirmed by the producer and sound engineer of that recording, Ernst Rittel. He recalled the circumstances of the recording exactly in a programme made by the RIAS for Dietrich Fischer-Dieskau’s 60th birthday.

The second step was to analyse the sound of the raw data and “clean” it in an elaborate technical process. The original sound was not changed, but in order to make the music itself clearer, “side” noises such as tape noise, small electric discharges, fluctuations in volume and many others were reduced as much as possible.

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