

William Zeitler asked:

A rather trivial question, but I'm curious about the SIZE of (music) paper Bach used. That is certainly known since many autographs have survived, but I am finding that silly detail harder to find than I would have expected. I'm sure some forum members know that off the top of their heads...

My response:

The reason that even Bach experts would not respond with a simple answer to this questions is that it is virtually impossible to do so because of the numerous variables and variants that preclude any simple answer. The question should be expanded to include the various paper types and the watermarks involved. The most thorough examination regarding Bach's paper types and sizes along with a catalogue of watermarks was undertaken by Wisso Weiss in the *NBA IX/1* (Bärenreiter, 1985) volume where a detailed listing of Bach's autograph scores and original parts including the BWV #, Location (Shelf #), Score and/or Part #s, Paper Size, and Watermark is given.

The introduction to this volume (originally presented in 1954 with only a few minor changes added later to be included in the present volume) makes quite clear how important a very careful study of the paper types and watermarks has been for ascertaining the proper chronology of Bach's works. Philipp Spitta, the great Bach biographer, along with Wilhelm Rust in his preparation of numerous volumes of the BGA, was the first to point out the importance of determining and describing the paper types and watermarks as the most important indicators for a proper chronology of Bach's works. Later Alfred Dürr relied upon specific information yielded by a careful examination of paper types and watermarks for revising the chronology of Bach's cantatas that had been accepted by experts before the results of his research appeared in print.

In his introduction, Wisso Weiss naturally concentrates on the watermarks, the discussion of which will be skipped here; however, he also goes into great detail about papermaking generally and the various types of paper that were used during Bach's lifetime. He discusses machine-made (smooth and even) vs. handmade (rough) paper which has dark and light spots when held up to the light. Bach would have known and used only the latter type. It should also be noted that although beautifully white paper was produced in Germany since the 16th century, particularly in South Germany, the paper mills in Saxony and Thuringia preferred making paper with a yellow tint. So when viewing an autograph score or part by Bach, and determining that the paper had turned yellow with age, the viewer must be very careful not to come to the conclusion that this coloring or tint, unless of course the paper has become brown over time, is due to various other causes originating with exposure to light or candles, etc. The yellow tint in the paper from these mills in Saxony or Thuringia could have been caused by other factors: the iron content of the water used, the use of cotton rags that had not been bleached, etc.

The size of the paper sheets produced by these paper mills depends upon the size of the mesh/screen frame that is used in the process of papermaking. This varies dependent upon the size of paper that is desired. During Bach's lifetime these sizes had become somewhat standardized and reflect the sizes finally recognized in Germany as official sizes in 1883-1884. These dimension terms are:

Kanzleiformat (Chancellery)	33 x 42 cm
Propatria	34 x 43 cm
Median	38 x 48 cm
Royal, Regal, Realpapier	48 x 64 cm
*Super-Royal, Notenroyal	54 x 68 cm
Imperial	57 x 78 cm

Propatria = general writing paper.

Median = the ‘mid’-size paper between Propatria and Royal. This was a ‘strong’ paper type used for accounting books and ‘proof-of-training’ documents.

Royal, etc. = used for city accounting reports, for artwork, maps – the size used for notating music.

*Super-Royal (a size from before standardization in 1883-4) did exist during Bach’s lifetime.

Imperial = only a very few paper mills could accommodate this size.

Another important consideration when examining Bach’s manuscript documents is that the large sheet, called a *Bogen* in German, when folded once becomes a *Folio* size, when folded again becomes a *Quarto* size and when folded once again becomes an *Octavo* size.

Other points worth noting:

Over time the quality of the paper produced by any specific mill began to suffer (a common complaint that was discussed and documented from that period). The materials used in the papermaking process were not always the same (either less materials or other substitutes were then utilized). Sometimes Bach used very thick paper (generally more expensive), but at most other times normal thickness prevailed. What Bach needed was a paper that could ‘take ink’ without bleeding through to the other side. There was also a special problem that Bach encountered with certain inks which ‘ate their way through the paper’ [*Tintenfraß*] so that today only air holes are visible where once the notes had been recorded. Paper quality would play an important role in this delicate balance between ink and paper. It was not until 1807 that any specific mention of this problem had been documented. At that time a specification was demanded that would require a type of paper made exclusively for writing down music. Eventually this led toward producing *Doppelpapier*, which does not mean double in size, but rather double thickness as a standard. Bach had such *Doppelpapier* available to him during the Weimar period, but generally he later used only simple, plain (single thickness) paper and within this type of paper there was a wide range of differences in thickness, tint, etc.

Bach generally used the Folio size (once folded as was customary also in the chancelleries) for his scores. Discounting the slight variations in standard sizes between the various paper mills, this folio size frequently underwent size reductions for various reasons, often undertaken by the manuscript owners or libraries that were attempting to organize the pages or to remove imperfections caused by binding or page turning. For this reason a viewer of Bach’s autograph documents should not be surprised by the variations in size that are documented in Wisso Weiß’s catalogue where the size of each document is meticulously listed.

Another important consideration regarding Bach’s use of paper for composing and performing his music is centered upon the sometimes extremely economical means he employed in apparently attempting to use every available space on the paper. This has led many famous Bach experts and biographers to conclude that paper was a very valuable commodity. However, this overlooks the results obtained from researching

Bach's paper sources. It is quite clear that in Weimar he received paper gratis as necessary for the duties he performed and, although the records are much less clear regarding his stay in Köthen, it can be reasonably assumed that he also was treated there in a similar fashion. His tenure in Leipzig remarkably reveals little or nothing of any purchases of paper either by himself or by the city or church authorities. This may be due to the fact that in Leipzig Bohemian paper mills provided practically almost unlimited quantities of good quality paper at cheaper prices than the more expensive imports from the Netherlands or South Germany. There was certainly a greater demand for paper in Leipzig (as a book printing center with book fairs, for instance) than in most cities of this region. Weiß concludes: „In Leipzig konnte sich Bach jederzeit die von ihm gewünschten Papiere in beliebiger Menge beschaffen.“ [“In Leipzig Bach could at any time obtain the paper he desired in any quantity that he needed.”]

In conclusion, here are some paper sizes from the same Bohemian paper mill used by Bach for his cantata scores in Leipzig:

BWV 2 35.5 x 42 cm
BWV 3 34.5 x 42 cm
BWV 5 36 x 42 cm
BWV 6 35.5 x 41.5 cm
BWV 24 36 x 43 cm
BWV 114 36 x 42-43 cm

Although the original parts generally have the same size as the autograph scores, there are some remarkably small part sizes:

BWV 245 Violino I^a and I^b 5 x 20.5 cm
BWV 195 Flauto tr. 8 x 20 cm

[A final, additional comment: If paper was relatively cheap and constantly available to Bach in Leipzig, and if the original parts display little evidence of use and frequently lack some obvious, necessary corrections by Bach or by the performers, is it possible that these originals were not used in performances, but rather copies of these which the performers could use and mark as they wished – this would include the vocalists spitting on them as they enunciated all the German words with their rough-sounding consonants or the sticky fingers of brass players where some contact with saliva is probable? And what about all the candles used to illuminate the parts? Not a single drop of tallow or candle wax or darkening due to the close proximity of a candle has been detected or reported regarding Bach's original parts. Touching the parts while carrying them or turning pages would tend to leave traces, but these are not in evidence. Eventually these copies of the original parts would be collected and deliberately destroyed by Bach so that they could not be used to reconstruct the cantata. --Remember how W. F. Bach charged a substantial fee for simply looking at his father's cantatas for only a day or so. In this time only very few cantata scores could be copied out of the bundle which probably comprised an annual cycle of them. Could the possible existence of these additional very temporary parts, as limited as the time of their use might have been, remove from discussion the OVPP/OneInstrumentPerPart notion that the number of existing original parts determines the number of singers and other performers as, for instance, extra string instruments? Certainly the relatively cheap cost of paper would enhance the possibility for additional copies of parts for performances with larger vocal and instrumental forces. Also the performers would be able to take home these parts to study and mark them as they wished as they prepared themselves for actual performance with little or no rehearsal time necessary.]

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