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# Was Johann Sebastian Bach an Organ Expert Or an Acquisitive Reader of Andreas Werckmeister?

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CARL PHILIPP EMANUEL BACH's picture of his father as a man (*a*) learning by assiduous observation, (*b*) largely self-taught, (*c*) practical and practically minded as well as learned, (*d*) not given to idle speculation, and (*e*) inventive and original, is clear not least from the son's references to his father's understanding of instruments and how they work, including organs and organ building. Two things are particularly striking about this picture: first, all of these qualities are characteristic of the virtues admired and claimed by the new nationally aware Germans; and second, these were areas in which C. P. E. Bach himself had no special interest in establishing his own right of Apostolic Succession to his father in German Music in general.<sup>1</sup> For C. P. E. Bach, his father's knowledge of organ building was part of his skill as an organist and part of his wide understanding, as a musician, for the science of his art (if one may so express it). Thus:

Er verstund . . . die Art die Orgeln zu handhaben, die Stimmen derselben auf das geschickteste mit einander zu vereinigen, und jede Stimme, nach ihrer Eigenschaft hören zu lassen, in der grössten Vollkommenheit.<sup>2</sup>

(He understood the art of handling the organ, of uniting the stops together in the most clever way, and of allowing each stop to be heard according to its own nature in the greatest perfection.)

Niemand konnte besser, als er, Dispositionen zu neuen Orgeln angeben, und beurtheilen.<sup>3</sup>

This essay is an expanded version of my article "J. S. Bach—Orgelsachverständiger unter dem Einfluss Andreas Werckmeisters?" which appeared in the *Bach-Jahrbuch* 68 (1982): 131–42.

1. Whether or not it is correct to see the "claims of Apostolic Succession" as being a key factor in human history (particularly in Western cultures?), one can certainly see them affecting C. P. E. Bach's outlook, for example in his method of fingering, which was much indebted to Rameau but not admitted to be so. Cf. C. P. E. Bach, *Versuch über die wahre Art das Clavier zu spielen*, vol. 1 (Berlin, 1753), facsimile ed., ed. Lothar Hoffmann-Erbrecht (Leipzig: VEB Breitkopf & Härtel Musikverlag, 1969), p. 17; also C. P. E. Bach, et al., "Nekrolog auf Johann Sebastian Bach und Trauerkantate," *Bach-Dokumente*, ed. the Bach-Archiv, Leipzig, 3 vols. (Kassel: Bärenreiter; Leipzig: VEB Deutscher Verlag für Musik, 1963–72), 3: 88.

2. *Bach-Dokumente*, 3: 88.

3. *Ibid.*

(No one knew better than he how to draw up and judge stoplists for new organs.)

Das Registriren bey den Orgeln wuste niemand so gut, wie er. Oft erschracken die Organisten, wenn er auf ihren Orgeln spielen wollte, u. nach seiner Art die Register anzog, indem sie glaubten es könnte unmöglich so, wie er wollte, gut klingen, hörten hernach aber hernach einen *Effect*, worüber sie erstaunten. Diese Wissenschaften sind mit ihm abgestorben.<sup>4</sup>

(No one understood so well as he the registering of organs. Often organists were terrified when he wished to play on their organs and drew the stops in his manner, since they believed it could not possibly sound well in the way he wanted; but little by little they heard an effect that amazed them. These sciences died out with him.)

. . . er kannte auch den Bau der Orgeln aus dem Grunde.<sup>5</sup>

(. . . he also knew the construction of organs thoroughly.)

Noch nie hat jemand so scharf u. doch dabey aufrichtig Orgelproben übernommen. Den ganzen Orgelbau verstand er im höchsten Grade.<sup>6</sup>

(Never has anyone undertaken organ testing so severely and yet at the same time so fairly; organ building as a whole he understood in the highest degree.)

Durch die Aufführung sehr vieler starcken Musiken . . . ohne systemathisches Studiren der Phonurgie hat er das arrangement des Orchesters kennen gelernt. Diese Erfahrung, nebst einer natürlichen guten Kenntniss der Bauart, in wie ferne sie dem Klange nützlich ist, wozu seine besonderen Einsichten in die guten Anlagen einer Orgel, Eintheilung der Register und *Placirung* derselben ebenfalls das Ihrige beygetragen haben, hat er gut zu nutzen gewusst.<sup>7</sup>

(Through performance of many fine pieces [but] without systematically studying the science of sound, he also learned the placement of an orchestra. He knew how to profit well from this experience, together with a naturally good knowledge of architecture as far as it contributes to sound, to which his special insights into the good layout of an organ, dispersal of stops [on the chests, etc.], and placing of the same also contributed its share.)

There are several themes here that need consideration, not least the age-old view that certain abilities “died out” with the great of the past; but this essay concentrates on the question of organ building. While certain details of C. P. E. Bach’s picture ring true—particularly the personal details about recommending extra payments for builders (see below, with refer-

4. Letter to Johann Nikolaus Forkel, late 1774, *ibid.*, p. 284.

5. *Ibid.*, p. 88.

6. *Ibid.*, p. 284.

7. *Ibid.*, pp. 288–89.

ence to Zschortau)—the picture can be seen as a typical part of any late eighteenth-century eulogy on the gifts of a deceased composer. For example, some years later, Christian Friedrich Daniel Schubart (now much respected as an early *soi-disant* aesthete) wrote in a similar vein about none other than Wilhelm Friedemann Bach:

Der Natur der Orgel hat er sich ganz bemächtigt; sein Registerverständnis hat ihm noch niemand nachgemacht. Er mischt die Register, ohne sein Spiel nur einen Augenblick zu unterbrechen . . . und bringt dadurch ein bewundernswürdiges Ganzes hervor.<sup>8</sup>

(He made himself master of the organ's nature; no one has yet imitated him in his understanding of the stops. He mixes them without interrupting his playing for even a moment and thereby produces a wonderful whole.)

Here we have the same idea of musical genius: it is an ability to be very competent technically, combined with the ability to impress or move the listener.

If it was the case that J. S. Bach took his first musical steps not as an organist but, like his own father, as a violinist, then one can see that there was a special point behind the remark in the Obituary that it was under the instruction of his brother Johann Christoph Bach in Ohrdruf that “the foundation in keyboard playing” (*den Grund zum Clavierspielen*) was laid.<sup>9</sup> And although it is not documented quite where he obtained what is usually called his “profound knowledge” of organ building,<sup>10</sup> it is not far-fetched to imagine his learning much from the then frequent rebuilding of organs with which he happened to be associated from an early age:<sup>11</sup>

***Eisenach, Georgenkirche: rebuilding 1696–1707***

Influenced the Mühlhausen scheme of Bach?<sup>12</sup> Long, drawn-out work, with only unsatisfactory results requiring much later repair, according to Jacob Adlung.<sup>13</sup>

8. Christian Friedrich Daniel Schubart, *Ideen zu einer Aesthetik der Tonkunst* (Vienna, 1806), p. 90.

9. *Bach-Dokumente*, 3: 81.

10. Friedrich Blume, “J. S. Bach's Youth,” *Musical Quarterly* 54 (1968): 1–30.

11. Even if there was nothing particularly exceptional about the rebuilding going on under his eyes at that period, the activity is nevertheless very striking. It cannot often have been given to composers to have been so surrounded by organological activity: one cannot make such a connection between Dowland and lute making, Corelli and violin making, Beethoven and piano making, Wagner and tuba making, etc.

12. Walter Kwasnik, “Johann Sebastian Bach als Orgelrevisor,” *Instrumentenbau-Zeitschrift* 20 (1966): 222.

13. Jacob Adlung, *Musica mechanica organoedi* (1726), ed. Johann Lorenz Albrecht (Berlin, 1768), facs. ed., ed. Christhard Mahrenholz (Kassel: Bärenreiter, 1961), 1: 214–15.



**Ohrdruf, Michaeliskirche: 1688 (contract), 1690–1706**

Also drawn out.<sup>14</sup> Reported on by Johann Christoph Bach's teacher, Johann Pachelbel, in 1693.<sup>15</sup>

**Arnstadt, Bonifatiuskirche: 1699 (contract), 1701–3**

Tested by J. S. Bach.<sup>16</sup>

**Lüneburg, Michaeliskirche: 1705 (report)**

Report by M. Dropa for a modernization, including removal to a west-end gallery.<sup>17</sup>

**Lüneburg, Johanniskirche: 1710 (report)**

Report by Georg Böhm, pointing out the old-fashioned elements (e.g., the pedal's stops went only to *F*, and the lower keys pulled down only the Hauptwerk).<sup>18</sup>

While the last two items in the above list are not known to have had any connection with J. S. Bach, they do serve as examples of the widespread modernization of organs in central Germany over the years of Bach's youth. No doubt the topic was much discussed amongst church musicians, not least in Weimar before and after Bach's appointment there (main rebuild of the organ in 1712–14, but much work before and after) and at the Leipzig Thomaskirche (work on the organ in 1721–22 and 1730) and Nikolaikirche (organ work 1724–25).

But what would have been the nature of those “discussions amongst church musicians”? Are we to imagine, for example, Georg Böhm and the young Bach<sup>19</sup> talking with organ builders, examining the interiors of organs, and discussing the technicalities of wind raising, pipe alloys, mixture designing, and so on? Does present knowledge of class hierarchies and professional demarcations during the period suggest that organists—and, even more particularly, cantors—worked so directly with organ builders? And if that were the case (something by no means certain), was the knowl-

14. E. Lux, “Das Orgelwerk in St. Michaelis zu Ohrdruf,” *Bach-Jahrbuch* 23 (1926): 145–55.

15. Werner David, *Johann Sebastian Bachs Orgeln* (Berlin: Brüder Hartmann, 1951), pp. 12–14.

16. *Bach-Dokumente*, 2: 10–11.

17. David, *Johann Sebastian Bachs Orgeln*, pp. 14–16.

18. *Ibid.*

19. Why C. P. E. Bach should cross out a reference to “his Lüneburg teacher Böhm” and replace it by “the Lüneburg organist Böhm” in a letter to Forkel about his father's early biography (see *Bach-Dokumente*, 3: 290, 288) can only be guessed. Perhaps the reason was not that Böhm was not his teacher (*Lehrmeister*), but because it would go against the picture that C. P. E. was drawing of his father's learning by his own observations and efforts—the independence of genius, moreover a German genius!

edge an organist might have, based on personal experience of the builder's art or on books telling him about parts of that art? Of course there must have been *some* understanding amongst organists: Adlung, for example, remarks on Johann Adam Reincken's careful keeping in tune of the battery of reeds at the Katharinenkirche in Hamburg,<sup>20</sup> and one must assume that this was often the case. And yet even here, assumptions might not be justified: how do we know that Adlung did not comment on this (half a century after Reincken's death) precisely because it was unusual? If C. P. E. Bach and his generation commented on J. S. Bach's knowledge of organs, are we to take it that he was (a) more knowledgeable than his contemporaries would have allowed themselves to be, (b) more knowledgeable than his successors, (c) exceptional in that it was new for musicians in Germany to involve themselves in technical organology, (d) exceptional in that he was (one of) the last to be so involved, or (e) exceptional in that for his information he relied less on books than most musicians did?

### *Theoretical Guides to Organ Building*

In an uncharacteristically succinct note (was organ building beneath him?), Johann Mattheson<sup>21</sup> devoted a single paragraph to advising the kapellmeister to acquire knowledge by means of Johann Philipp Bendeler's *Organopoeia*,<sup>22</sup> Michael Praetorius's *De organographia*,<sup>23</sup> Andreas Werckmeister's *Orgel-Probe* (1698),<sup>24</sup> Caspar Ernst Carutius's *Examen*,<sup>25</sup> and a manuscript treatise by David Schmidt. Werckmeister himself refers to Praetorius for several technical details, to Bendeler for chest dimensions, and (without naming him) to Christian Förner of Leipzig for the wind gauge. Bendeler claimed Werckmeister for his friend<sup>26</sup> and, like Arp Schnitger, wrote a prefatory poem for the *Orgel-Probe*. Both must have

20. Adlung, *Musica mechanica organoedi*, 1: 187.

21. Johann Mattheson, *Der vollkommene Capellmeister* (Hamburg, 1739), facs. ed., ed. Margarete Reimann (Kassel: Bärenreiter, 1954), p. 469.

22. Johann Philipp Bendeler, *Organopoeia oder Unterweisung, wie eine Orgel nach ihren Hauptstücken . . . aus wahren mathematischen Gründen zu erbauen* (Frankfurt and Leipzig, ca. 1690).

23. Michael Praetorius, *Syntagma musicum*, vol. 2, *De organographia* (Wolfenbüttel, 1619), facs. ed., ed. Wilibald Gurlitt (Kassel: Bärenreiter, 1968).

24. Andreas Werckmeister, *Erweiterte und verbesserte Orgel-Probe* (Quedlinburg, 1698), facs. ed., ed. Dietz-Rüdiger Moser (Kassel: Bärenreiter, 1970).

25. Caspar Ernst Carutius, *Examen organii pneumatici oder Orgelprobe* (Küstrin, 1683).

26. Bendeler, *Organopoeia*, p. 38.

known the *Unterricht* of 1656, published by Werner Fabricius,<sup>27</sup> organist of the Leipzig Nikolaikirche. How far J. S. Bach would have been familiar with any such work, including further the specialized studies of Leibnitz, Neidhardt, and Euler, is often asked. The absence of these works from his final library inventory is inconclusive: one cannot know that he never possessed them at any point in his life. But in the case of all the books referred to here—with one exception—he would have been helped, or his knowledge formed, only in over-general or over-partial terms, and in some cases of course only in his later Leipzig years. Thus Praetorius<sup>28</sup> makes some general observations on the testing of organs and notes that he has been encouraging his friend, the builder Esias Compenius, to produce a guide for such testing.<sup>29</sup> Bendeler gives useful detail on pipe scaling, preparation of pipes, measurements of chests, supply of wind, and organ tuning, without an overall survey of how to build an organ or what to look for in an examination. That treatises on organs were—and perhaps are by nature—incomplete is already suggested in Arnolt Schlick's *Spiegel* of 1511,<sup>30</sup> where, for example, there is a disproportionate amount of (rather vague) information on tuning, which, though undoubtedly a subject of greater importance in the history of organs than is now usually appreciated, has jostled equally important factors (such as mechanism) out of the limelight. Literary traditions before the encyclopedia culture of the late eighteenth century seem to have ensured that authors always concentrated on certain things and not others, and those whose profession (indeed very life) hung on literary traditions—i.e., the literate, as today too—will always have wanted more coverage in theoretical than in practical matters.

The exception referred to above is Werckmeister's *Orgel-Probe* of 1698. There are some very striking parallels between his coverage, even as to actual terminology, and that of J. S. Bach's reports at Mühlhausen, Halle, and Leipzig (Paulinerkirche). The parallels have not been systematically

27. Werner Fabricius, *Unterricht, wie man ein neu Orgelwerk . . . in- und auswendig examinieren, und so viel möglich, probieren soll* (Frankfurt and Leipzig, 1756 [*sic*; this is the only surviving edition]). Fabricius died in 1679. His "Gigue belle" in the Möller MS (in Arnold Schering, *Musikgeschichte Leipzigs*, vol. 2, *Von 1650 bis 1723* [Leipzig: Kistner & Siegel, 1926], pp. 424–28), whether or not composed for clavichord as Schering supposed, shows an advanced idea of tuning (modulations from G major to E♭ minor).

28. Praetorius, *De organographia*, pp. 158–60.

29. Michael Praetorius and Esaias Compenius, *Orgeln Verdingnis*, ed. Friedrich Blume (Wolfenbüttel and Berlin: Kallmeyer, 1936).

30. Arnolt Schlick, *Spiegel der Orgelmacher und Organisten* ([Speyer], 1511), facs. ed., ed. Paul Smets (Mainz: Rheingold-Verlag, 1959).

examined previously, as far as I know, despite general acknowledgements or references to Werckmeister in some of the Bach literature. Sometimes, the parallels between Werckmeister and Bach can be strengthened by negative conclusions. For example, no more than Werckmeister does J. S. Bach go into details of pipe scaling, which one might expect if he were relying on Bendeler for suggestions on setting about an organ examination. Werckmeister's chapter 9 holds the examination of an organ's pipe scales with a ruler (*Maass-Stäbchen*) to be unnecessary since every builder has "his own particular way of going about things" (*seinen sonderlichen Process*), which is not to be expressed in strict proportions or constants. In other words, it is an empirical matter for builders, not for literate musicians. On the other hand, he does speak more generally in the same passage of the "sharp" (*scharff*) or "full" (*gravitätisch*) effects of particular scaling, as does Bach. Clearly, such matters are of concern to musicians. Perhaps any allusion to Werckmeister at Halle and Leipzig (Paulinerkirche) ought to be traced back to the influence of Kuhnau, who co-examined at Halle (writing out the report, which Bach merely co-signed) and presumably oversaw the Leipzig rebuild, since he was the chief Leipzig organist of the day. Was J. S. Bach deferring to Kuhnau (whose title, *director musices*, he himself took a few years later) in this way?

### *Parallels with Werckmeister: Bach's Mühlhausen Report (1708)*

Altogether, Bach's Mühlhausen report<sup>31</sup> accords very closely with the clear recommendations on renovating organs given in Werckmeister's *Orgel-Probe* of 1698, recommendations to be found in no other book except (less succinctly) Werckmeister's own report on the rebuilt organ of Gröningen, published in 1705.<sup>32</sup> The recommendations are that the organist should decide exactly and specifically what needs replacing (e.g., which chests and which bellows, if any); defects must be spelled out and not vaguely generalized about; the organist should explain clearly what of the old organ is fit to keep; and in the case of bellows, he should spell out what is to be required of them in the newly renovated organ. A cursory reading of the Mühlhausen report would show that the young Bach also thought about these points, and the following parallels, including some striking verbal similarities, may be observed between Bach (**B**) and Werckmeister (**W**):

31. *Bach-Dokumente*, 1: 152–53.

32. Andreas Werckmeister, *Organum Gruningense redivivum* (Quedlinburg and Aschersleben, 1705).

Lack of adequate wind in existing organ

**B:** p. 152 (*der Mangel des Windes*); **W:** p. 26 (*Mängel am Winde*)

One bellows for each chest

**B:** p. 152; **W:** p. 26

Separate bellows for pedal

**B:** p. 152; **W:** p. 51

Adequate wind for large pipes

**B:** p. 152 (*mit stärkerem Winde*); **W:** p. 32 (he carefully distinguishes between *der starke Wind* and *der Zufall des Windes*, which must be sufficient since the former is not adequate by itself—an important and subtle point not made by Bach)

Specifying whether any new chests are needed

**B:** p. 152; **W:** p. 60

Windtrunks must be adequate for varying numbers of stops, from one to full organ

**B:** p. 152; **W:** pp. 26–27

Stopped 32' of wood

**B:** p. 152; **W:** p. 52

Spelling out of metal alloy for pipes

**B:** p. 153; **W:** p. 57

Keeping ranks separate for the Sesquialtera

**B:** p. 153; **W:** p. 74

The term *Mensur* used for the pace of the Tremulant

**B:** p. 153; **W:** p. 37

Characteristic stops in the scheme: Posaune, VioldiGamba, Fagott, Quinta (gedackt), Tertia, *Still* or *Gelinde* Gedackt, and Mixture III

**B:** pp. 152–53; **W:** (all found in the fifty-stop specification on p. 50)

More typical of ca. 1710 than of ca. 1680—or more in Bach's taste than in Werckmeister's—are the following aspects of Bach's Mühlhausen report:

*Gravität* is desirable in large pipes (p. 152). Werckmeister notes that larger pipes should have by nature a *gravitatisch* effect (p. 21), but perhaps tastes were moving more generally in that direction.<sup>33</sup>

33. Cf. Kuhnau's request for a 32' at Merseburg and Silbermann's larger shallots for the Posaune at Freiberg (Ulrich Dähnert, *Der Orgel- und Instrumentenbauer Zacharias Hildebrandt* [Leipzig: Breitkopf & Härtel, 1962], p. 11).

The Brustwerk contains the stops (p. 153) found in Werckmeister's model Brustwerk specification (p. 50): 4', 8', 8', 4', 3', 2', 2', 4', 1', 1<sup>3</sup>/<sub>5</sub>', III, and Regal 8'. The Mühlhausen case-front Schalmei, however, gave a different emphasis to the whole.

The Nassat may be used instead of the Quinta 3' (p. 153). For Werckmeister, the Nassat was in addition to it.

The *Fleute douce* (p. 153) was perhaps more colorful and imitative of an actual recorder than Werckmeister's 4' flutes.

The entire Rückpositiv can remain (p. 153). Cf. Werckmeister's comment that "in this day and age, people will not willingly tolerate it" (p. 51).

All three manuals can be coupled (p. 153), an idea not found explicitly in Werckmeister, although his reference to coupler wires on p. 38 is ambiguous (are they for the Hauptwerk/Brustwerk coupler, since the Rückpositiv/Hauptwerk coupler would be a simple shove-coupler?).

### ***Parallels with Werckmeister: Bach's Halle (Liebfrauenkirche) Report (1716)***

That the third signatory of the Halle report in 1716<sup>34</sup> was Christian Friedrich Rolle, organist at Quedlinburg (where the *Orgel-Probe* had been published in 1698), may also strengthen the Werckmeister connection. Parallels between Bach (et al.) and Werckmeister include the following:

Sufficient time for testing

**B:** the test took three days?; **W:** pp. 38–39 (careful, unrushed testing recommended)

The written report

**B:** written report for the church officials, who will examine the builder<sup>35</sup>; **W:** p. 69

Damage from the heat of the sun

**B:** p. 157 (inspection of the bellows-chamber, guarding against *Sonnen Hize*); **W:** pp. 2–3 (the inspection should start with an observation of possible damage from the elements, including *Sonnen Hitze*, to the bellows-chamber)

Testing by wind-guage

**B:** p. 157; **W:** p. 4

34. *Bach-Dokumente*, 1: 157–59.

35. *Bach-Dokumente*, 2: 59–61.

Checking the size of the bellows

**B:** p. 157; **W:** p. 26

Checking wind pressure by means of a water-guage

**B:** p. 157 (*den Liquorem*); **W:** p. 64 (*den liquorem*)

Wind pressure should measure 35°–40°<sup>36</sup>

**B:** p. 157; **W:** p. 64

Noting wavering in the bellows

**B:** p. 157 (*Schwancken der Bälge*: the phrase is elliptical); **W:** p. 23 (the description is more precise: a defect in wind pressure can be so great that when one pulls all the stops and presses down the keys with the arms, *die Bälge davon schwanken*)

Visible fault in the wind supply

**B:** p. 157 (*vitium visible*); **W:** pp. 26–27 (*Vitium*), p. 10 (*quoad visum*)

Testing the valves by pressing down all of the keys without any stops drawn

**B:** pp. 157–58 (*Durchstechen*); **W:** p. 22, p. 13 (*Durchstechen*), p. 19 (explanation accords with examiners' suggestion for correcting the fault at Halle)

Testing for double or triple springs

**B:** p. 158; **W:** pp. 10–11

Not presuming to give the builder advice for lightening the action

**B:** p. 158; **W:** p. 16

Warning of cipher if action is made too light

**B:** p. 158 (*Heülen*); **W:** p. 21 (*Heulen*)

Pipes should not be placed too close to each other

**B:** p. 158 (*so tichte zusammen*); **W:** p. 4 (*zu dichte in einander*)

Chests should be easily accessible

**B:** p. 158 (*dass . . . man bequemer zu allem kommen können*); **W:** p. 13 (*dass man im Nothfall wohl dazu kommen könne*)

Materials specified in the contract

**B:** p. 158; **W:** p. 57

Thickness of pipe metal

**B:** p. 158; **W:** pp. 4–5, 67

36. Kuhnau also noted the pressure in 1714 in Silbermann's organ in the Freiberg Cathedral: 41° and 46°; see Ernst Flade, *Der Orgelbauer Gottfried Silbermann* (Leipzig: Kistner & Siegel, 1926), p. 55.

The examiners at Halle probably did not need Werckmeister to tell them to look for voicing faults, especially in large pipes (*Orgel-Probe*, pp. 32, 52), but they follow him in recommending immediate improvement (p. 71) by the builder, who would traditionally be present during the examination (p. 39). The builder should also be expected to have found a good temperament and to be able to leave the organ in perfect tune throughout (pp. 30–32). They bear witness for the sake of truth—*der Wahrheit zu steüer* (**B**: p. 159); *wegen der lieben Warheit* (**W**: p. 68)—which has a very Lutheran flavor to it. On the other hand, the Halle examiners' complaining about the thickness of the pipe metal was of no practical use at this stage; while it may prove the examiners to have been diligent and knowledgeable, it also suggests that they (or Kuhnau) were by no means reluctant to parade their expertise.

A final, fuller quotation will show how Werckmeister's advice on the quality and thickness of the pipe metal seems to have been paraphrased by the Halle examiners:

**(B**: p. 158) *dass man . . . nicht so wohl das Bley als vielmehr das Zinn gesparet; Also hätten in diesem Wercke die bleche derer Corporum der Pfeiffen etwas dicker seyn können oder sollen.*

**(W**: p. 4) *Auch habe man wol acht, dass das Pfeiffenwerck nicht zu dünne ausgearbeitet sey, bevorab, wenn das Metall schlecht, und viel Bley hat.*

### ***Parallels with Werckmeister: Bach's Leipzig (Paulinerkirche) Report (1717)***

Many of the details and terms found in Bach's Leipzig report of 1717<sup>37</sup> coincide with those of Werckmeister's *Orgel-Probe*, as outlined above with respect to Mühlhausen and Halle; therefore they are not separately listed here below. However, there are some additional points of similarity and coincidence, springing from the particular nature of the Leipzig rebuild. Thus, Bach's note that the builder, Johann Scheibe, had disclaimed responsibility for the dimensions of the case and had been refused permission to enlarge it<sup>38</sup> recalls Werckmeister's advice that the examiner should consult with the organ builder and find out "why this or that has been done or been allowed to stand" (*Orgel-Probe*, p. 39), in accordance with the need to respect a good workman who has worked well (pp. 70–71). Similarly, the note on Scheibe's rollerboards, (indicating that they should have been fas-

37. *Bach-Dokumente*, 1: 163–65.

38. *Ibid.*, p. 164.



tened in frames to avoid problems due to wet weather, but that Scheibe's method of construction was adequate) may well show that Bach was aware of Werckmeister's remarks on the subject:

(**B**: p. 164) *die Wellen Breter solten zwar in Rahmen gefasset seyn, um alles Geheule bey schlimmen Witterungen zu vermeiden, da Herr Scheibe aber nach seiner Arth solche mit Tafeln verfertiget, und dabey versichert, dass solche eben das thäten, was die mit Rahmen sonst thun müsten, so hat man solches passiren lassen.*

(**W**: p. 15) *Die Wellbreter müssen fein gerichtet . . . sonst pflaget es greulich zu heulen, wenn etwa das Holz von feuchten Wetter quillet. . . . Etliche machen gar keine Wellbreter, sondern disponiren die Wellen auf einem Eichen starcken Rahmen, und dieses scheint ziemlich gut zu seyn.*

Yet it is not quite certain that Bach had understood the point: why should the rollerboard be fastened in a frame? Perhaps he misinterpreted Werckmeister. On the other hand, Bach or Scheibe (or both) evidently agreed with Werckmeister about making a Brustwerk chest without *Fundamentbrett*:

(**B**: p. 165) *die alte Windlade, so statt der neuen hat kommen sollen, vors erste mit einem Fundament Brete, und also falsch und verwerflich.*

(**W**: p. 19) *Hierbey ist zu mercken, dass man heutiges Tages keine fundament-Breter mehr machet, . . . darum werden . . . von den vornehmsten Orgelmachern . . . die fundament-Breter verworfen.*

Other details offer similar parallels:

The wind should be made even, to remedy irregular pressure

**B**: p. 164 (*der Wind durchgehends aequaler gemacht werden muss, damit dem etwanigen Windstossen abgeholfen werden möge*); **W**: p. 42 (*wenn der Wind . . . sich sossset . . . und dannenhero seine aequalität verlieret*)

The voicing should be regulated here and now

**B**: p. 164; **W**: pp. 69–71

Bass reeds should not be too harsh or wide-sounding

**B**: p. 164 (*nicht so grass und blatterend ansprechen*); **W**: pp. 36–37 (*recht ansprechen nicht zu sehr schnarren, flattern oder grellen, die tiefen Claves nicht überschreyen und überruffen. . . . Organ builders err when they make Schmarwercke that in der Tiffe sehr pralen*)

While it may not be because of any statement by Werckmeister (*Orgel-Probe*, pp. 31, 33) that Bach mentions the effects of weather, the latter's note on the action weight and keyfall, as well as the tightness of space allowing no improvement in the inner construction of the organ, does seem to

allude to Werckmeister's advice for adjustment devices on the roller-arms (p. 16). Similarly, Bach's approval of Scheibe's reasons for making a new Brustwerk chest could well reflect Werckmeister's remarks in chapter 24 that organ advisers should check whether a builder's new work is really necessary.

In the Leipzig report, J. S. Bach recommends Scheibe for extra payment; this certainly illustrates C. P. E. Bach's comment to Forkel:

Hatte ein Orgelbauer rechtschaffen gearbeitet, und Schaden bey seiner Bau, so bewegt er die Patronen zum Nachschuss.<sup>39</sup>

(If a builder had worked conscientiously and incurred a loss in his work, he stirred the clients to pay a supplement.)

Perhaps this was unusual, for Werckmeister speaks only in general terms of an organ builder's receiving good payment and a bonus (*Discretion*) for work well done, in addition to a banquet (as at Bach's examination at Naumburg in 1746). C. P. E. Bach may have heard of such recommendations for extra payment decades later in Leipzig. That the Paulinerkirche authorities were also recommended to draw up a guarantee for the work (*ein Jahr wenigstens die Gewähre leiste*<sup>40</sup>) agrees with Werckmeister's assumptions that any new organ has a year's guarantee (*Gewähr-Jahr*, p. 33; *ein Jahr-Gedinge . . . wenn die gewöhnliche Gewährzeit verflossen*, p. 75) and that was the period in which minor defects could be dealt with (p. 71).

### *Craftsmen and Literacy*

While presumably neither the organist nor the authorities at Zschortau in 1746 needed Werckmeister to tell them that it was useful for examiners to have the contract before them when they began their inspection—as Werckmeister says (*Orgel-Probe*, p. 2) and as the report says was the case on that occasion<sup>41</sup>—it may well have been on his advice (pp. 70–71) that the examiner Bach distinguished between minor and major faults. The minor faults were to be corrected immediately without further ado; and at Zschortau, there were no major faults.

The question is therefore how far Werckmeister was giving a merely commonsense and common-property viewpoint of what was necessary for

39. *Bach-Dokumente*, 3: 284.

40. *Bach-Dokumente*, 1: 165.

41. *Ibid.*, p. 168.

organ examinations, and how far J. S. Bach was actually using his handbooks as a guide. Werckmeister's *Orgel-Probe* was certainly respected. It looks as if Kuhnau, who was not only the scribe but (judging by the legal terminology) also the author of the Halle report, had a copy of the *Orgel-Probe* with him. One can imagine a situation in which the three organists at Halle saw the organ, discussed the issues, and then left it to Kuhnau to write out in formal language, for which, when it came to organological details, Werckmeister served as a model. For Adlung, the *Orgel-Probe* was still valuable despite its less-than-perfect organization.<sup>42</sup> Later editions of the little treatise had appeared in 1716 and 1754, and it seems that Lorenz Mizler planned to reprint it<sup>43</sup> as well as Praetorius's *Syntagma musicum*. For us, the nature of any such handbook is that it should by nature convey "commonsense and common-property viewpoints," but in periods when literacy was more exclusive professionally, a literate musician may well have been even more influenced by what he read. This is a paradox not easy to grasp in the later twentieth century.

In his *Organum Gruningense redivivum* of 1705,<sup>44</sup> Werckmeister was still finding it necessary to justify what he had done, i.e., giving craftsmen's secrets to the wider world, explaining technical details of how an organ (and thus its maker) could be properly examined, showing how an instrument's defects were to be dealt with, and so on. Spilling such secrets was not likely to endear him to the craftsmen's circles. His justification was that churches needed to be protected from the unscrupulous, just as the good builder needed protection from organists' interference. The better the organ examiner knew his job, the more likely the *Ehre Gottes* was served. *Organum Gruningense redivivum* also rehearses many of the issues involved in organ reports, of course, and it would have guided Kuhnau or J. S. Bach well in on-site inspections; yet it is the *Orgel-Probe* that was evidently used as a source for information and actual words.

It is extraordinary that organists should have alluded to or even quoted verbatim from Werckmeister for matters that they could have been expected to understand from their own experience, without the need for books. But that was certainly the case with Johann Christian Kluge, the organist of the Naumburg Wenzelskirche, in 1746, when he complained that Gottfried Silbermann and J. S. Bach had too hastily examined the new or-

42. Adlung, *Musica mechanica organoedi*, 1: 14.

43. Arnold Schering, *Musikgeschichte Leipzigs*, vol. 3, *Johann Sebastian Bach und das Musikleben Leipzigs im 18. Jahrhundert* (Leipzig: Kistner & Siegel, 1941), p. 204.

44. See n. 32.

gan built by Zacharias Hildebrandt.<sup>45</sup> Kluge found that the *organo pleno* could not be played with enough wind, and “when one repeats full chords a great deal, the bellows flutter and collapse quickly.”<sup>46</sup> Kluge’s words may be compared with those of Werckmeister (pp. 27–28):

(Kluge) *und wenn man mit vollen Griffen offte repetiret, so spielen die Bälge und fallen schleinigst nieder.*

(Werckmeister) *wenn . . . mit vollen Griffen offte repetiret wird, . . . so spielen die Bälge, und fallen hastig nieder.*

What is one to understand from such verbal overlap? That an organist would quote Werckmeister to give his words authority? That he would read Werckmeister to know what to look for and then merely quote him unconsciously when he came to write up the report (which, because it was a literate activity, naturally involved literary authorities)? That he actually learned from Werckmeister—as he, in turn, did from Förner, and he from Praetorius, etc.—and not from practical experience, which was somewhat *infra dignitatem* for a literate professional? Or is the whole thing coincidence? The last seems by far the least likely, and the truth, for Kluge as well as for J. S. Bach, must lie somewhere in the other possibilities. The fact that authorship, whether of a report or of a book, brings the writer into a kind of automatic relationship to what previous authors have written, is clear time and time again in all literate cultures, sometimes to an almost ridiculous degree. For example, it seems strange that when talking about contrast and the use of two manuals, Mattheson<sup>47</sup> should call on the authority of Johann Gottfried Walther’s *Lexicon*<sup>48</sup> to make the point that those two manuals can be effectively alternated. Did he not know that himself from decades of practical music-making?

### *Kuhnau and Silbermann*

On August 17, 1714, Kuhnau and Gottfried Ernst Bestel(l), court organist in Altenburg, tested Silbermann’s early masterpiece in the Freiberg

45. *Bach-Dokumente*, 2: 429–31.

46. *Ibid.*, p. 429. This translation of *spielen* as “flutter” takes into consideration a particular use of the word in connection with wind; cf. Jacob and Wilhelm Grimm, *Deutsches Wörterbuch*, vol. 10, section 1, ed. Moriz Heyne, et al. (Leipzig: Verlag von S. Hirzel, 1905), cols. 2336–38.

47. Mattheson, *Der vollkommene Capellmeister*, p. 220.

48. Johann Gottfried Walther, *Musicalisches Lexicon oder musicalische Bibliothec* (Leipzig, 1732), facs. ed., ed. Richard Schaal (Kassel: Bärenreiter, 1953).

Cathedral.<sup>49</sup> As at Halle, some twenty months later, Kuhnau not only lays out the report in a formal-jurist way, but betrays a liking for foreign terms that one can surely see reflected in Bach's report the following year on the Leipzig Paulinerkirche organ. It is difficult to compare the Freiberg and Halle reports with a view to guessing what might have been Bach's contribution to the latter, for one particular (and unexpected) reason: the Freiberg organ was more or less faultless (the examiners express delight in their duties), while the Halle organ was only too faulty. Yet perhaps the amount of technical criticism at Halle suggests more than the fact that Silbermann was a superior builder to Christoph Cuncius: perhaps the hard (if courteous) critique at Halle reflects the presence of a hard critic, one who was not present in Freiberg.

Moreover, in at least one detail Kuhnau may have been persuaded by the strong-willed Silbermann into accepting something less than perfect: he praises the *Gravität* of the pedal Posaune 16', pointing out that its reeds were not leathered as usual, nor did they have wooden boots, but metal ones. But these were the very grounds on which, only three years later, the Posaune had to be renewed.<sup>50</sup> That Bach knew very clearly what he wanted from a Posaune is already apparent at Mühlhausen, where he noted that the reeds (*Mundstücke*) needed to be remade very differently. At the same time, it is clear that Silbermann too knew what he wanted—for example, remaking the Freiberg Jacobikirche organ's Tremulant only on request (he himself was "not in agreement" with the idea of making it faster). It is no surprise that Bach and Silbermann, when they did meet, had their differences.

The Halle report of Kuhnau and Bach has subsections numbered 1–5, after which the organization of the report is not very orderly; the Mühlhausen and Leipzig reports have numbered items (paragraphs). Now although this distinction may seem insignificant, in fact it suggests that the Halle report was specifically copying the Freiberg or some similar report, as subsections 1–4 are the same in both. According to Kuhnau himself,<sup>51</sup> this Freiberg report followed the layout of a *Requisitis*, i.e., guidelines laid down and presented to the examiners by an official at the church. Was this a document prepared specifically for the region (kingdom of Saxony, diocese of Meissen)? If so, this would help to explain why for the major *Thurin-*

49. Werner Müller, *Gottfried Silbermann: Persönlichkeit und Werk* (Frankfurt am Main: Verlag Das Musikinstrument, 1982), pp. 42–43.

50. Flade, *Der Orgelbauer Gottfried Silbermann*, p. 55.

51. Müller, *Gottfried Silbermann*, p. 420.

gian organs of Erfurt (Augustinerkirche, 1716) and Naumburg (Wenzelskirche, 1746), Bach's reports are so short, even cursory. The kind of detail with which Bach's co-examiner at Naumburg (Silbermann himself) answered charges that their examination had been partisan in its superficiality, seems to show that in an organ report, brevity did not necessarily indicate careless testing. Moreover, even a brief report (as at Zschortau) could have more allusions to Werckmeister's methods than may at first appear. In fact, from the brief reports at Zschortau by J. S. Bach in 1746<sup>52</sup>) and Rötha (by Kuhnau in 1721<sup>53</sup>), it looks very much as if Bach was more under Werckmeister's influence than Kuhnau had been a quarter of a century earlier.

*The Russell Collection of Harpsichords and Clavichords  
University of Edinburgh*

52. *Bach-Dokumente*, 2: 168–69.

53. Müller, *Gottfried Silbermann*, pp. 431–33.