

## Johann Sebastian Bach and the Ursula Erbstollen

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*‘The development and maintenance of mining is not a task for one man but inevitably requires many from all stations in life to lay out their money for the sake of the common weal and with a good heart.’*

Minerophilus: *Bergwercks-Lexicon*, Chemnitz 1743

In 2010, in the Mining Archive at Freiberg in Saxony, the discovery was made of thirty-eight documents that mention Johann Sebastian Bach forty-four times in various connections.<sup>1</sup> The documents are registers (*Zechenregister*) from a silver mine, the Ursula Erbstollen.<sup>2</sup> In the mid-eighteenth century they were published every quarter, in a regular annual cycle bearing the successive names of Reminiscere, Trinitatis, Crucis and Luciae. They gave information about the income, expenditure and stocks of the pit. They also listed the names of the shareholders and their holdings, often together with some indication of their occupations, titles and addresses. Today, the registers help us to see how Bach took a part in the Saxon mining industry and why he did so. Bach’s involvement in the Ursula Erbstollen lasted from 1741 to 1744 and again from 1746 till his death in 1750.

Even before the discovery it was known, from the inventory of Bach’s possessions made after his death, that he had acquired some sort of interest in the Ursula Erbstollen.<sup>3</sup> It was assumed, however, that this had been a speculative interest, expressed by the purchase of a share somewhat in the modern manner. The documents discovered at Freiberg contradict the assumption.

<sup>1</sup> The discovery was made and the subsequent research carried out by Eberhard Spree, a member of the Leipzig Gewandhaus Orchestra.

<sup>2</sup> The Ursula Erbstollen, near the village of Kleinvoigtsberg, is about 50 miles south-east of Leipzig and about 5 miles north of Freiberg, a town at the edge of the Erzgebirge (Ore Mountains). Reached through the valley of the River Mulde, the mine is no longer accessible.

<sup>3</sup> Philipp Spitta, *Johann Sebastian Bach: His Work and influence on the Music of Germany, 1685-1750*, trans. Clara Bell and J A Fuller-Maitland (London: Novello, 1899), vol. III, p.351. Repr. in *NBR/279*, p. 250 and *BDok II/627*. See also Christoph Wolff, *Johann Sebastian Bach: the Learned Musician* (New York and London: W. W. Norton, and Oxford: Oxford University Press, 2000), p. 455.

Like most pits in Saxony, the Ursula Erbstollen had to rely on additional quarterly payments from subscribers (*Gewerken*) in order to keep its operations going.

Ownership of the mine was divided into 128 parts (*Kuxe*), of which each subscriber normally held one or more (though over time some *Kuxe* were divided into fractions). The subscribers formed the company (*Gewerkschaft*) exploiting the mine. If there had been richer discoveries of ore, they could have got back a dividend proportional to their holdings. But the Ursula Erbstollen was never able to pay any dividends. It remained a mine dependent on the additional subscriptions (*Zubusszeche*).<sup>4</sup>

The amount of the additional subscription for any quarter was fixed separately on each occasion as necessary. If a shareholder stopped paying these amounts his share was put on reserve, and could become subject to a judicial process possibly ending in its confiscation. If he remained in debt for his contributions during a certain period (somewhat indeterminate because the limits of time were often waived), he did lose his share. It was then understood as remaining on reserve.

In the first quarter of 1741 in the mining area of Freiberg, containing about one in three of all Saxon mines, there were more than a hundred pits reliant, like the Ursula Erbstollen, on additional subscriptions. Only fifteen pits did without them because they could carry on their business from the silver they produced. In two pits there was a surplus, so that they could repay the contributions from subscribers. In eight mines the subscribers received a dividend as well. Very seldom over the years did a mine go from requiring additional subscriptions to paying out dividends.<sup>5</sup>

The mining area of Freiberg produced about 7000 kilograms of silver *per annum* in Bach's time.<sup>6</sup> In this period deposits of ore were seen as a gift from God. Hard work, patience and endurance would be needed to exploit them, but also money. The high number of mines financed by numerous subscribers, even if most could expect no dividends, was a precondition for the discovery of exploitable deposits. At the same time these mines employed many miners earning a living for themselves and their families. And the output of silver from the Ore Mountains helped to make Saxony a rich country.

Saxony was an absolutist state, ruled by the Elector who in Bach's time also became King of Poland. He governed Saxony with the help of ministers responsible solely to himself, as well as with a bureaucracy, of which a Mining Office formed part. The economy was a pre-capitalist one, managed by privilege and protection. The Elector himself set a good example of how it could work in his support of the mining industry. He, too, financed a number of pits because

<sup>4</sup> [Translator's note: These technical terms should be interpreted with caution because mining in the English-speaking world has never been organised in the same way as it was in Saxony, the main source of mineral wealth in the Holy Roman Empire, with its essentially pre-capitalist economy. In the cases of *Zubusse*, *Gewerken*, *Kux* (plural *Kuxe*) and so on, the nearest English equivalents are given in the paragraph above, but it should not be assumed that the equivalence is exact.]

<sup>5</sup> Sächsisches Staatsarchiv, Bergarchiv Freiberg (hereinafter SS BF), 40165 Ausbeutbögen sächsischer Bergreviere, no. 14, Ausbeutbogen Reminiscere 1741.

<sup>6</sup> SS BF, 40166 Erzlieferungsextrakte sächsischer Bergreviere, no. Ü 03, S. 6/7

they could not be run at a profit. In this sense he was the earliest subscriber to make any additional payments.

The application to open the Ursula Erbstollen was made in 1737. It needed a licence, and for this also some evidence that it contained enough precious metal to make its exploitation worthwhile. The resources here were not in fact all that great, as at length became clear. But the usable content of silver in Bach's time, at 0.04 per cent, lay well above the average for the area round Freiberg. Even so, the mine never produced enough silver to finance itself.

In *Reminiscere* 1741 the register of the Ursula Erbstollen for the first time includes an entry for Johann Sebastian Bach, Capellmeister in Leipzig ... 1 *Kux*.<sup>7</sup>

In 1741 Bach turned 56 years old. He still had six children living at home (another daughter was born in 1742), and therefore needed to provide for a large family. We may assume that he was careful in financial matters, a personal trait which is confirmed by occasional statements in his letters. He was not poor, but not rich either – and obviously not a man to let others tell him how to spend his money.<sup>8</sup>

While in the normal course the Ursula Erbstollen could offer its subscribers hardly any prospect of a profit, their regular additional subscriptions were still needed to run the mine. That being so, it seems unlikely Bach first became a subscriber of the Ursula Erbstollen on his own initiative. Somebody would have approached him.<sup>9</sup>

During this quarter of *Reminiscere* 1741 efforts were redoubled to find new owners for the 45 *Kuxe* of the Ursula Erbstollen that had accumulated on reserve. The efforts proved successful, and by the end of the quarter nearly 40 of them had been allocated. Those placed on reserve would initially be offered to the existing subscribers to the mine. The remainder was then to be sold. If that failed, at least people had to be found who would settle the arrears of subscriptions. As a last resort, the holdings could actually be given away for nothing on condition the subscriptions were resumed. The register of the Ursula Erbstollen for *Reminiscere* 1741 contains no indication of any revenue from the sale of *Kuxe*. Nor did the repayment of outstanding debts increase markedly. It is most probable, then, that the *Kuxe* were given away for nothing.<sup>10</sup>

<sup>7</sup> SS BF, 40186 Zechenregister sächsischer Bergreviere, no. 134982.

<sup>8</sup> See *BDok* I/43 and 50.

<sup>9</sup> It cannot, however, be excluded that Bach already had some experience as a mining investor.

<sup>10</sup> These procedures need to be reconciled with the practice of the Mining Office which in principle set on each share an official valuation; at the time for the Ursula Erbstollen it was 30 thaler. But, in this and other mines dependent on additional subscriptions, the Mining Office did not in its valuation employ an exchange value (which logically would have been nil). As a surrogate the valuation was based rather on the buildings and on the mining facilities of the particular pit: there are documented examples at Huthaus, gemauertes Radhaus, Stangenkunst. See Johann Georg Krünitz, *Oeconomische Encyclopädie* (Berlin, 1792), vol. LVII, pp. 660–3. There was a different practice in those mines able to pay out profits to their subscribers. Here the value of a *Kux* could rise to well over 1000 thalers; at that level, sometimes an even higher one, it was actually traded. The owner could get better than 30 thalers a quarter in dividends. But it was also possible for the value of the holding to fall steeply, for example if there were no finds of silver. In these cases, purchase of the *Kux* can be regarded as speculation.



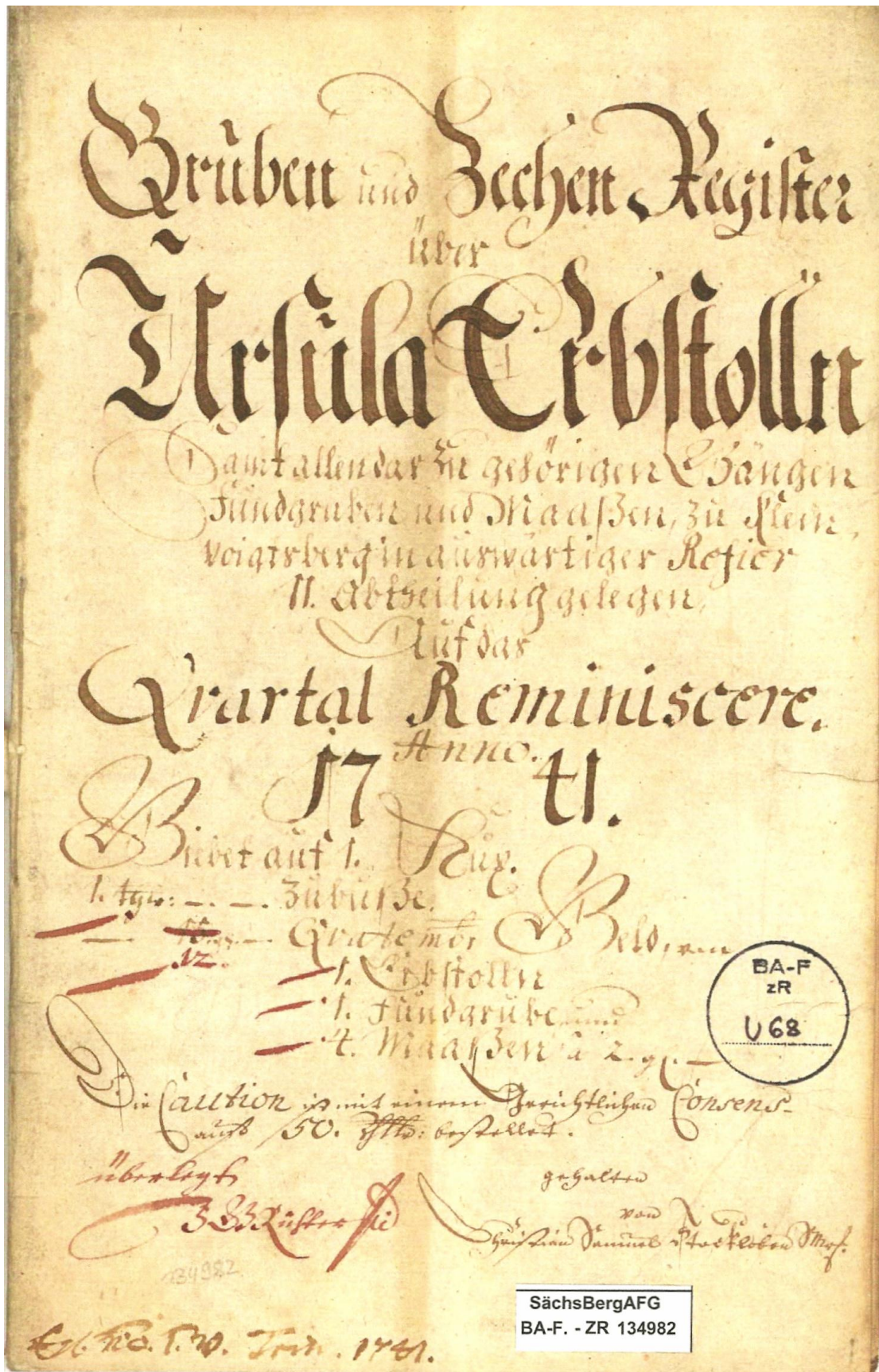


Figure 1: Title-page of the register of the Ursula Erbstocken for Reminiscere 1741 (Reproduced with the permission of the Bergarchiv Freiberg)





Usually it was the manager of the pit that undertook to dispose of the holdings placed on reserve. At the Ursula Erbstollen this had been, since Crucis 1740, Johann Samuel Schönlebe; he also appears in the register for Reminiscere 1741 as the new holder of  $2\frac{1}{4}$  *Kuxe*. Yet it may be more likely that Bach acquired his holding not from Schönlebe but from another man, Johann Christoph Stiehl, who was responsible for collecting the mining subscriptions in Leipzig.<sup>11</sup> In the same quarter Stiehl gave up his holdings (*Kuxe*) and, as the owner, was allowed himself to sell them on. In doing so he had to 'exhibit a true account of the pit during the last four weeks', as authorised by the Mining Office. In the case of any irregularity, Bach would have had the right to return the *Kux*.<sup>12</sup> He must have been aware that he would be liable for additional subscriptions, even though the prospects of profit were dim.

Whether or not Stiehl was the agent, he would anyway have had an interest in finding subscribers in Leipzig ready to pay additional subscriptions regularly. For every thaler he collected for the Ursula Erbstollen he received a commission of 1 groschen and 6 pfennigs. It is easy to see why Bach, too, could have become the object of Stiehl's attentions.

During the next three years Bach paid additional subscriptions of around 14 thalers.<sup>13</sup> But then he stopped these payments, at a time when the Ursula Erbstollen was producing less silver and then none at all. Had he found this out and lost confidence in his investment? At any rate he took no further part in financing the mine for the time being. A while later he let his holding expire. Probably he had made known that he wanted to get rid of it. In a mine like the Ursula Erbstollen dependent on additional subscriptions, arrears in them of four quarters did not mean the holding was put on reserve as a matter of course (though that did happen with Bach's holdings in Reminiscere 1745). At this point there were some subscribers seven or eight quarters in arrears. It was not unusual for subscribers to acquiesce in the expiry of their holdings. In the Ursula Erbstollen, that was the course followed by nearly all those with a secure financial status, so far as we can judge from their titles, occupations or origins. Between 1741 and 1744 there were more than a hundred cases of expiry.

In Luciae 1746, Bach's name once more appears as a subscriber in the register.<sup>14</sup> From 1745 the output of silver in the Ursula Erbstollen had again risen markedly, so there may well have been a link between the level of production and his financial involvement. In that case he must have seen hard information about the output of the mine before he resumed his support, and have regarded it in some broader sense as useful to him. It is possible the information came from Stiehl, who in this way managed to get Bach back as a subscriber. At the same time three

<sup>11</sup> It is possible Stiehl and Bach already knew each other. If in the past Bach had indeed been a mining investor then Stiehl, as the agent in Leipzig, would have collected the sums due.

<sup>12</sup> According to the Saxon state's Mining Resolution of 1709.

<sup>13</sup> The sum cannot be exactly determined because we do not know for certain that Bach paid the subscription for the quarter of Reminiscere 1741; this would have depended on when exactly he acquired his holding. Nor can it be excluded that he agreed to pay the additional subscriptions due from the previous owner.

<sup>14</sup> In this year Elias Gottlob Haussmann painted the portrait of Bach which today hangs in the Municipal Museum of History in Leipzig.

other investors, Johann August Gastel, Johann Heinrich Linke, a tax-farmer from Freiberg, and George David Dachzelt, a cooper, got rid of holdings in the Ursula Erbstollen. It seems likely Stiehl was entrusted with the disposal of their 1¾ *Kuxe* because in 1744 he got a second job as Leipzig's official dealer in them, a post for which he had to be nominated by the mining authorities and to be bound by oath.

Through the existing personal contact, Stiehl would have known just why Bach had stopped his subscriptions in 1744 and let his holding expire. That would then explain why Bach again became a subscriber to the Ursula Erbstollen when there were many alternative silver mines to invest in.<sup>15</sup> A miller from Rosswein became a new subscriber with a quarter of a *Kux* and Archdeacon Johann Jacob Weller of Freiberg, an investor in several other mines, raised his holding by half a *Kux*. No other changes of ownership occurred in Luciae 1746. It is striking that the holdings acquired by the new owners equalled in size the holdings relinquished by the old owners. We may infer that Bach acquired the holding, that is to say 1 *Kux*, relinquished by Gastel.

The basic condition of ownership continued to be the payment of regular additional subscriptions—which makes it more likely that Bach acquired his holding for little or nothing. What we can be sure of is that he did not pay the Mining Office's valuation of 55 thalers.<sup>16</sup> Evidence that this was never the traded value can be found in a register of the mine a short time later. In Trinitatis 1747 Ludwig Ehregott von Burgsdorff from Weissenfels simply let four *Kuxe* expire, even though each at this point was valued at 60 thalers by the Mining Office. They were not transferred to new owners in the following quarters.

On the other hand it is striking that between Crucis 1745 and Crucis 1749 no further holdings in the mine expired. Obviously there were hopes that things would take a turn for the better. Yet in Luciae 1746 additional subscriptions of 222 thalers, 3 groschen and 9 pfennigs were still due from various subscribers. According to a contemporary document, 'the conditions of the reserve were not exactly observed during shortages of minerals'.<sup>17</sup> That was clearly true in the case of the Ursula Erbstollen.

As a dealer, Stiehl was only liable in his transactions for the sums his clients had voluntarily handed over to him. If we recall that at this period exchanges of property generated little or no income, the profits would hardly have kept Stiehl in drink. But in his other job as agent for the additional subscriptions he could collect a commission, credited to him by the mine. So he had an interest in attracting subscribers from Leipzig.

If things had continued to improve the Ursula Erbstollen would probably have been able to do without additional subscriptions in the following quarters. Later on subscriptions paid in might have been repaid before the subscribers received a dividend. But in Luciae 1746 the records show only five pits in the area of Freiberg where this happened. The Morgenstern-Erbstollen was one, for example,

<sup>15</sup> SS BF, 40186 Zechenregister sächsischer Bergreviere, no. 135002.

<sup>16</sup> See note 13.

<sup>17</sup> Minerophilus, *Neues und wohleingerichtetes Mineral- und Bergwercks-Lexikon* (Chemnitz: Stößel, 1743), p. 447.



but it could only pay dividends of between 1 and 2 thalers per quarter and per pit.

The more positive trend did not last long either. Yet Bach continued to pay the additional subscriptions asked of him till his death. That made him an exception among the subscribers to the Ursula Erbstollen, many of whom stopped payment while formally remaining proprietors of the mine.

In *Reminiscere* 1750 Bach increased his share by one-eighth of a *Kux* and so had to pay a higher subscription too. At this time there seems to have been another and more determined effort to find new owners for shares placed on reserve. We can assume that Bach as a loyal subscriber had received his extra portion for nothing.

In the spring of 1750 Bach underwent an operation on his eye. This and the following treatment weakened him so much that he died on July 28, 1750. For the distribution of his estate, an inventory was made of his entire property. It included the item, 'a *Kux* by the name of Ursula Erbstollen at Klein Voigtsberg', valued 60 thalers.<sup>18</sup> Yet according to the register of the pit Bach owned  $1\frac{1}{8}$  of a *Kux*.<sup>19</sup> With a valuation of 60 thalers per *Kux*, according to the report of production for *Crucis* 1750,<sup>20</sup> the *Kux* ought have been counted at 67 thalers and 12 groschen. That equals the combined value of a laundry cupboard (2 thalers), a wardrobe (2 thalers), twelve chairs covered in leather (2 thalers) and a large tin basin (1 thaler, 8 groschen) as recorded in the inventory. The family decided to keep the *Kux*. It was to remain the common property of the family, though the widow, Anna Magdalena Bach, would be responsible for paying the subscriptions. She was to supply one-third of the sums due and the remaining heirs, Bach's children, would supply two-thirds.

In the first quarter of 1751 the heirs paid off the 2 thalers and 6 groschen, together with the additional subscription now due of 1 thaler and 3 groschen.<sup>21</sup>

In *Trinitatis* 1751 they even enlarged their holding to  $1\frac{1}{4}$  *Kuxe*, but then decided to get rid of the lot. The additional subscriptions were stopped and in *Reminiscere* 1752 the share was placed permanently on reserve.

What had been suggested by the detail of the inventory and the distribution of the estate was confirmed by the course of events: the value of the holding in the mine bequeathed by Bach had no financial value for the heirs. On the contrary, it had brought accumulated debts of 2 thalers and 6 groschen, which were to be deducted at the distribution. They are specifically mentioned in the register of the Ursula Erbstollen for *Luciae* 1750.<sup>22</sup> The same total is not to be found in the debts recorded in the inventory of Bach's property.

It is almost impossible to convert contemporary amounts of money into present-day currency, but some comparisons can be made. We can assume Bach

<sup>18</sup> See note 3.

<sup>19</sup> SS BF 40166 Erzlieferungsextrakte sächsischer Bergreviere, no. Ü 03 .& 40165 Ausbeutbögen sächsischer Bergreviere, no. 13 & 14.

<sup>20</sup> SS BF, 40186 Zechenregister sächsischer Bergreviere, no. 135016.

<sup>21</sup> SS BF, 40165 Ausbeutbögen sächsischer Bergreviere, no. 14, Ausbeutbogen *Crucis* 1750.

<sup>22</sup> SS BF, 40186 Zechenregister sächsischer Bergreviere, no. 135019, compare no. 135018 and no. 135020.



never paid for his holdings the amounts the Mining Office stated as the valuation. It can be shown that he made additional subscriptions of about 30 thalers<sup>23</sup> stretching over seven years. In a letter of 1730 he puts his annual income at about 700 thalers. In the inventory of his property the most valuable instrument – ‘a veneered clavecin, which if possible should stay in the family’ – was valued at 80 thalers, a Stainer violin at 8 thalers. His whole estate came to 1,000 thalers (including the 60 thalers of his *Kux*, though we now know that this represented no financial value).

The estate of the renowned Saxon organ-builder, Gottfried Silbermann, who had no family to provide for, amounted to more than 10,000 thalers.<sup>24</sup> Though the cost of living was markedly higher in Leipzig than in the rural area of the Ore Mountains, and though Bach’s labours are not to be compared with those of a miner, it is worth noting that a time-served hewer in Ursula Erbstollen received a weekly wage of 1 thaler and 3 groschen. If he remained employed for twelve months, which was not often the case given the variable size of the workforce in the mine, he would get an annual income of just about 60 thalers. What Bach handed over as an additional subscription amounted to about six months’ wages for a miner like this.

The financial role that Bach took on in the Ursula Erbstollen would have been unimaginable if in the last years of his life he had withdrawn in bitterness from public life or had lived in financial need.<sup>25</sup> Beneath his involvement lay a basic attitude which in pre-capitalist Saxony must have been widespread: it was a decent thing for the loyal citizen to support the mining industry, to promote it, indeed to make it possible to exist at all to the extent it did. Of course this involvement did not exclude the hope of profit. But Bach was one of thousands of people from Saxony and beyond who did make a contribution in the sense stated, each under the contemporary rubric that ‘he needs to have good hope and confidence in the mine, otherwise fortune will elude him, and to think of what he gives as if he were giving it to poor people’.<sup>26</sup> During the time Bach helped to finance the Ursula Erbstollen at Kleinvoigtsberg, an average of twelve miners earned a living there and they mined 76 kilograms of silver. Johann Sebastian Bach, Capellmeister in Leipzig played his part in that.

Translated by Michael Fry

<sup>23</sup> SS BF, 40186 Zechenregister sächsischer Bergreviere, no. 135023.

<sup>24</sup> See note 13.

<sup>25</sup> Silbermann lived at Freiberg and owned a *Kux* in the Himmelsfürst and Günther-Erbstollen at Weissenborn, another mine dependent on additional subscriptions.

<sup>26</sup> Minerophilus, *Neues und wohleingerichtetes Mineral- und Bergwercks-Lexikon*, p. 86.