

**Johann Eder (1694–1753)**

**The European Career of a Bavarian Glassmaker and his Family<sup>1</sup>**

by Georg Paulus

In a way, this text is a sequel to an article of 2010 on Bavarian glassmakers, who migrated to Portugal in 1739/40 and took part in the development of the national glass industry.<sup>2</sup> That publication has found the attention of both genealogists and glass researchers in several European countries, who obviously have been dealing with the same glassmakers family Eder appearing in my article. However, that family had usually been looked at with regard to their local relevance only, without the awareness of their importance to other European regions. About their background it was only known that they had originally come from Germany.

The exchange with those researchers brought forward that, after their emigration, Johann Eder and his family had not only been active on the Iberian Peninsula but also in Scandinavia. The insights obtained from the research in Sweden, Norway, Spain and Portugal, as well as newly revealed sources could now be deepened and brought into a context. This has led to the awareness that the glassmaker Johann Eder had lived a remarkable career of European dimension. The description of that career is the intention of this paper.

In my above mentioned publication of 2010 I have reported in detail on the origin of Johann Eder and some stages of his career until his emigration to Portugal, where he appeared in 1740. Ten years later he was found in Spain, where he played a significant role in the extension and upgrading of the royal glassworks at La Granja de San Ildefonso, north of Madrid. At that time, nothing was known about his path of life between his departure from Portugal and his arrival in Spain, i.e. the period from 1740 to 1750. That gap can now be filled and thus a further chapter of the vita of a talented glassmaker can be written, and Eder's role in the development of glass industries in European foreign countries is gaining new importance.

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<sup>1</sup> Translation of an article published in: Blätter des Bayerischen Landesvereins für Familienkunde, BBLF 74, Munich 2011, p. 33-50; original German title: „Johann Eder (1694-1753). Die europäische Karriere eines bayerischen Glasmachers und seiner Familie“. Translation by Georg PAULUS, revised by Dr. Miriam J. BALDWIN.

<sup>2</sup> Georg PAULUS, Bayerische Glasmacher auf der Iberischen Halbinsel. Die um 1740 ausgewanderten Familien Eder und Hahn, in: Blätter des Bayerischen Landesvereins für Familienkunde, BBLF 73, Munich 2010, p. 5-39 [With details on the individual members of the Eder family].

My special thanks are owed to the genealogists and glass researchers, without whose personal support and valuable hints this paper could not have been accomplished. Those are in Portugal Mr. Victor Manuel de Noronha Gallo, Lisbon, and Mr. Herlander Miguel Francisco, Maceira, in Sweden Mr. Kent Williamsson, Stockholm, in Norway Mrs. Anne Minken, Oslo, and Mr. Karl-Heinz Cegla, Levanger, in Spain Dr. Paloma Pastor Rey de Viñas, as well as the German researchers Mrs. Doris Sattler, Undorf, and Mr. Andreas Kozlik, Backnang.

### **Eder in Portugal**

Johann Eder had grown up in the glassworks village of Rothenbügl near Painten, west of Ratisbon (Regensburg), where his father – of the same name – worked as a glassmaker. He had been baptised on 24th May 1694 at Lam in the Bavarian Forest.<sup>3</sup> At that time his father was tenant of a glassworks near Eisenstein, before he returned to Rothenbügl, with his family. When Johann Eder (son) went to Portugal, in 1739/40, together with his wife, children and nephews, to work there on the only glass producing site, the royal glass factory of Coina, he was 45 years of age and had already worked at several glassworks in various territories of the Holy Roman Empire of the German Nation, such as the Palatinate-Neuburg, the Prince-Bishopric of Würzburg, the Duchy of Saxony-Hildburghausen and Bohemia (here as tenant).<sup>4</sup>

Johann Eder's activity as *mestre do vidro* (glass master) in Portugal was only of short duration. We do not know the date of his arrival nor of his departure. According to his own statement, he spent altogether seven months in Portugal. We also learn that he had come there together with 32 Germans to work in the royal glass factory.<sup>5</sup> The exact reasons for him to leave the country already in 1740 are unknown. The circumstances found there must not have fulfilled his expectations. Many of the glassmakers who had come with him stayed in the country. Their descendants worked in the manufacture of glass for a long time. With the Hahn family, nowadays bearing the lusitanised name Gallo, this is the case even until our days.<sup>6</sup>

Eder, however, left Portugal to go – as recent findings have revealed – to the other end of Europe, namely to Sweden. In Coina he left behind his nephews Adam and Balthasar Eder, who became progenitors of the Portuguese glassmakers families Hedre/Hedra, whose descendants are still to be found in the region of the glass industry site of Marinha Grande. The one of Johann Eder's nephews, Balthasar, was already married, when he arrived in Por-

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<sup>3</sup> Bischöfliches Zentralarchiv, Regensburg , Pfarrmatrikeln Lam, Vol. 1, p. 391.

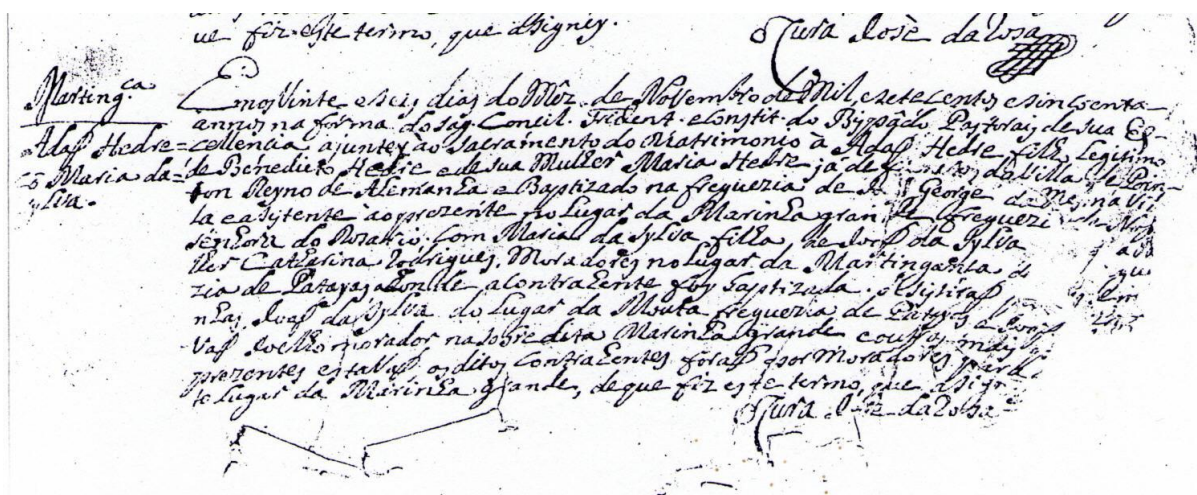
<sup>4</sup> Cf. PAULUS, Bayerische Glasmacher, as above note 2.

<sup>5</sup> Archivo General de Palacio, Madrid (henceforth: A.G.P.), San Ildefonso, caja 13.584.

<sup>6</sup> Cf. PAULUS, Bayerische Glasmacher, as above note 2.

tugal. His wife Margarethe, née Horn, gave birth to a daughter in Coina, on 31<sup>st</sup> March 1740, baptised Margarida. In her baptism record, Balthasar Eder (transcribed as „Hedra“) is identified as son of Benedikt Eder. The parents and grandparents of the child are described as of German nationality and subjects of the Prince-Bishopric of Würzburg („*naturais Wercebult nação Alemanha*“),<sup>7</sup> due to their provenance from the glassworks of Schleichach in the Steigerwald area, where Johann Eder's brother Benedikt had worked until his death in March 1739.

Further archival evidence of the origin of the Eders is to be found in a wedding record of 26<sup>th</sup> November 1750. It concerns the marriage of Adam Eder, the other nephew, with the Portuguese bride Maria da Silva. The groom is described as follows: „*Adam Hedre filho legitimo de Benedicto Hedre e de sua mulher Maria Hedre já defuntos da Villa de Pointon Reyno de Alemanha e Baptizado na freguezia de S. George de mesma Villa...*“<sup>8</sup> („Adam Hedre, legitimate son of Benedicto Hedre and his wife Maria, both already deceased, from the town of Pointon in the Kingdom of Germany, baptised at St. George's parish in the same town...“). Painten with its glassworks of Rothenbügl, established in 1665, where the Eders had worked, was often spelt „Pointen“ in Bavarian documents, until the 19<sup>th</sup> century.



Wedding record of Adam Eder („Hedre“) and Maria da Silva, Pataias, Portugal,

26<sup>th</sup> November 1750<sup>9</sup>

Many of the glassmakers who had come from Bavaria to Portugal together with Johann Eder stayed, such as Jakob Fuchs and the brothers Ulrich and Johann Georg Hahn, the latter becoming the forefather of the present glass industrialist family Gallo.<sup>10</sup>

<sup>7</sup> Arquivo Distrital de Setubal, Portugal, Baptism Records Coina.

<sup>8</sup> Arquivo Distrital de Leiria, Portugal, Livro de baptismos da freguesia de Pataias (1746–1811), 2 separate sheets; (Friendly advice by Mr. Herlander Miguel FRANCISCO, Maceira, Portugal).

<sup>9</sup> Ibid.

## Sweden

We do not know why Johann Eder left Portugal after such a short time, nor what made him go to Sweden. Anyhow, in 1741, we find him and his sons Joseph, Johannes and Lorenz at Kosta, in southern Sweden, where a crystal glass factory was being established and became operational in 1742.<sup>11</sup>

Glass had been manufactured in Sweden since the 16<sup>th</sup> century. However, production had broken down during the Great Northern War (1700–1721). It took until 1735 before a new glassworks was again privileged in Sweden. From that year on until 1796, 16 glassworks were established in Sweden itself – not counting Finland. Only two had survived from former times.<sup>12</sup> Also in Finland, which was part of the Swedish kingdom, the first new glassworks was founded in 1748, after a preceding one having been closed down in 1685.<sup>13</sup> The development of the glass industry, forced by the state, brought mainly German glassmakers into the country. Already the oldest Swedish glassworks had depended predominantly on German specialists.<sup>14</sup>

The efforts of the Swedish government to intensify the national glass production may soon have got around among the trade. Eder may have learned that professionals were sought for Sweden through his contacts with his former places of employment Schleichach and Rothenbügl. In this context the brothers Johann und Christian Filion who had come to Sweden from Schleichach in 1737 may have played a role. They travelled to Frankfurt, from where they returned to Sweden in the spring of 1739.<sup>15</sup> Most probably, the purpose of their trip had been the recruitment of German glassmakers.

A further possible connection of Eder to Sweden could have consisted in Wilhelm Greiner. The latter had been working as a smelter on the Swedish glassworks of Björknäs, prior to 1739, and later on at Perstorp, from 1742 to 1748.<sup>16</sup> This Wilhelm Greiner is possibly identical to the smelter of the same name found at the glassworks of Irlbrunn until 1734. He might have been one of five glassmakers who had come to Björknäs in Sweden from Ratisbon in December 1736.<sup>17</sup> The glassworks of Irlbrunn was only half an hour's walk from Rothenbügl,

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<sup>10</sup> Cf. PAULUS, Bayerische Glasmacher, as above note 2.

<sup>11</sup> Torbjörn FOGELBERG – Friedrich HOLL, Wanderungen deutscher Glashüttenleute und Schwedens Glasindustrie in den letzten fünf Jahrhunderten, Växjö 1988, p. 71, as well as: Jan Erik ANDERBJÖRK, Kosta Glasbruk 1742–1942, Stockholm 1942, p. 18, 143 and 222.

<sup>12</sup> Ibid., p. 10.

<sup>13</sup> Aimo LÖFBERG, Suomen lasinpuhaltajat 1748–1860; Riihimäki 1981, p. 85.

<sup>14</sup> FOGELBERG – HOLL, Wanderungen, as above note 11, p. 9.

<sup>15</sup> Ibid., p. 17.

<sup>16</sup> Ibid., p. 77.

<sup>17</sup> Ibid., p. 15.

home of the Eders, and Wilhelm Greiner had been a predecessor of Johann Georg Hahn (see above) as a smelter.<sup>18</sup> Those are only examples demonstrating which connections may have persuaded Johann Eder to go to Sweden.

The fact that he and his sons were present at Kosta as early as in 1741, the year before the startup of the crystal glass production, makes us assume that they were already involved in its implementation. The Swedish glass researcher Torbjörn Fogelberg writes about the early times of Kosta: *„The factory at Kosta, the oldest crystal glassworks of Sweden, started in summer 1742 with skilled German glassworkers. Already at the end of the year 1741, the masters Johan Eder, Johan From, Christopher Schytz and Anewald Waltzer, as well as the potash maker Johan Banholtz were present on the site. In the following years, 20 more German glassmakers and engravers are to be found at Kosta. Unfortunately, there is no information on their origins contained in the account books, which, by the way, are the only ones preserved from the 18<sup>th</sup> century. Only a brief note is found that for the recruitment of the two Germans named Berger and Hince 274 Daler were spent.“*<sup>19</sup>

The glassmaker Berger mentioned by Fogelberg is probably Andres Berger, documented at Kosta from 1748 to 1750.<sup>20</sup> He could be identical to Andreas Berger, born at Schleichach in 1709.<sup>21</sup> This would correspond to the described relations to that glassworks in the Prince-Bishopric of Würzburg.

Johann Eder and his sons are documented at Kosta from 1741 until 1744.<sup>22</sup> The eldest of them, Joseph, worked there as a glass artisan. The two younger brothers, Johann and Lorenz, were still recorded as assistant boys („*avdragsgosse*“).<sup>23</sup> For 1742, it is reported that Johann Eder (father) was offered an ox, worth 18 thalers, as a reward for his particular merits in the establishment of the glassworks.<sup>24</sup>

In April, the Eder family left Kosta for an unknown destination.<sup>25</sup> Possibly, they moved to Limmared (approx. 170 km northwest of Kosta), where, in 1740, a glass factory had been

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<sup>18</sup> Cf. Georg PAULUS, Die Geschichte der Glashütte Irlbrunn. Schriftenreihe der Weltenburger Akademie 2.30, Abensberg 2011.

<sup>19</sup> FOGELBERG – HOLL, Wanderungen, as above note 11, p. 15.

<sup>20</sup> Ibid., p. 67.

<sup>21</sup> Werner LOIBL, (Fabrik-)Schleichach. Die Geschichte der Glashütte im Steigerwald (1706–1869), Rauhenebrach 2006, p. 511.

<sup>22</sup> FOGELBERG – HOLL, Wanderungen, as above note 11, p. 71, as well as: ANDERBJÖRK, as above note 11, p. 18, 143 and 222.

<sup>23</sup> Friendly advice by Mr. Kent WILLIAMSSON, Stockholm, Sweden.

<sup>24</sup> Ibid.

<sup>25</sup> Ibid.

established which was in competition against Kosta.<sup>26</sup> From a correspondence of 1748 between the tenants of the glassworks of Kosta and Limmared we learn that a glassmaker named Eder, who had worked at Kosta before, had been hired out at Limmared. The tenant Stael von Holstein writes about his former glassmaker Eder that that „rogue“ pretended to be going blind, but that he had come to know that Eder was, later on, employed at Limmared.<sup>27</sup> Unfortunately the correspondence does not tell when that happened.

Via Limmared, or a further interstation, Johann Eder, his wife and the two sons Joseph and Lorenz ended up in Norway. The third son, Johann, obviously stayed in Sweden. This reminds us of Eder's period in Portugal, where he left his nephews who continued to work in the manufacture of glass, there. The son Johann can be found as a (Catholic) smelter, in 1755, at the glassworks of Sandö, existing since 1750.<sup>28</sup> There, he married the Swede Karin Eriksdotter in 1757, and had two children, Margaretha and Johann Lorenz. At the baptism of the latter, the German glass master Heinrich Balthasar Greiner and his wife Susanna Catharina, née Eder, were godparents.<sup>29</sup> Unfortunately, nothing is known about their kinship with the father of the child. The godfather could be identical to Heinrich Balthasar Greiner, who worked as a glass artisan in the Swabian-Franconian Forest in 1734.<sup>30</sup> There, too, an Eder daughter had married a Johann Peter Greiner, in 1754.<sup>31</sup> Johann Eder (son) died at Sandö on 19<sup>th</sup> October 1761.<sup>32</sup>

### Norway

There is only very little information on Johann Eder's stay in Norway. Thus, we do not know, when he and his family arrived there. Anyhow, this must have been somewhere between 1744 and 1749. King Christian VI of Denmark and Norway had built a first crystal glassworks with the help of glass specialists from England, Bohemia and Germany. That factory was located at Nøstetangen, in the Norwegian Hokksund, about 60 km west of Oslo (At that time called Christiania).

<sup>26</sup> Cf. Karin ÖSTLUND, Limmared 1740–1940, Ulricehamn 1940.

<sup>27</sup> <http://www.limmaredsglasmuseum.se/historia/rivalitet-mellan-bruken.html> (download: 7<sup>th</sup> Nov. 2010).

<sup>28</sup> Cf. Torbjörn FOGELBERG, Sandö Glasbruk 1750–1928. Ett bidrag till Ådalens industriella historia, Malmö 1968.

<sup>29</sup> Friendly advice by Mr. Kent WILLIAMSSON, Stockholm, Sweden.

<sup>30</sup> Ibid.

<sup>31</sup> Friendly advice by Mr. Andreas KOZLIK, Backnang.

<sup>32</sup> FOGELBERG – HOLL, Wanderungen, as above note 11, p. 71, as well as FOGELBERG, Sandö, as above note 28, p. 56, 68, 69.

The Eders worked there under the bailiff Peter Holm.<sup>33</sup> One of the few and at the same time the oldest proof of their presence in the Hokksund is a baptism record of the parish of Eiker, in charge of Nøstetangen: On 10<sup>th</sup> August 1749 a Lorenz Eder, most probably Johann's son, appears as a godfather, together with other glassworks people.<sup>34</sup>

Here, I would like to point out the particular situation in which the Eder family lived, as Catholics in a strictly Lutheran environment, as it had already been the case in Sweden, and now again in Norway. To describe those circumstances we can draw upon the research of the Norwegian historian Anne Minken who has investigated the living conditions of the immigrants at Norwegian and Swedish glassworks.<sup>35</sup>

In the 18<sup>th</sup> century, the Norwegian society was strictly conditioned Lutheran. A decree of 1613 even prohibited the presence of Catholics in the country.<sup>36</sup> Only in 1748, that regulation was eased by an order allowing Catholics to stay in Norway. However, they were still forbidden to practise their religion.<sup>37</sup> The impression cannot be dismissed that that concession was granted in the face of the necessity to recruit foreign Catholic glassmakers for the establishment of a national crystal glass production. For glassblowers, to be German or of German descent was considered as a kind of guarantee of quality in Norway.<sup>38</sup> This looks like an example for one of those cases, where a legal custom which has crept in, is sanctioned after the fact, as Anne Minken has found examples of marriages between Catholics and Lutherans in the church books of Eiker, prior to 1748: In 1742, the Catholic daughter of a German glassmaker married a Protestant. In 1746, the Catholic glassmaker Bahnholz married a Swedish woman of Lutheran confession.<sup>39</sup> The above mentioned godparenthood of the Catholic Lorenz Eder at a Lutheran baptism is a further indication of that oecumenical practise at Nøstetangen.

The members of the Eder family – and probably other glassmakers as well – were devotional Catholics and very keen to worship and to fulfil their religious duties. That is witnessed finally by their religious activities shown later on in Spain, where they surpassed by far their acquaintal.<sup>40</sup> Like their fellow believers, they must have felt discriminated and constricted in the stringent Protestant environment surrounding them in Sweden and Norway. The other employees

<sup>33</sup> Gunnar E. CHRISTIANSEN, *De gamle privilegerte Norske glassverker og Christiania glasmagasin*, Oslo 1939, p. 456.

<sup>34</sup> Church book Eiker (1724–1753), fol. 149v, Nr. 101 (available on-line).

<sup>35</sup> Anne MINKEN, *Innvandrere ved norske glassverk og etterkommerne deres (1741–1865). En undersøkelse av etnisk identitet*. Bergen, 2002.

<sup>36</sup> *Ibid.*, p. 123.

<sup>37</sup> *Ibid.*, p. 127.

<sup>38</sup> *Ibid.*, p. 159.

<sup>39</sup> Friendly advice by Mrs. Anne MINKEN.

<sup>40</sup> Cf. PAULUS, *Bayerische Glasmacher*, as above note 2.

from Bavaria, Bohemia and France at the early Norwegian glassworks must have fared in a similar way.<sup>41</sup> According to Anne Minken the Catholic glassmakers in Sweden and Norway attached great importance to fulfilling a minimum of their religious duties, in spite of the prohibition of Catholic worship. They insisted in the privilege to be allowed to go to Stockholm or Copenhagen, respectively, at least once a year, to go to confession and to worship.<sup>42</sup> In the said capitals, Catholic envoys of foreign states had been allowed churches and priests permitting them to practise their religion. Minken reports that the situation was a little bit easier for Catholic glassmakers in Sweden than in Norway. Some Swedish employment contracts contain stipulations ensuring them the privilege to travel to Stockholm to worship, at full reimbursement of costs. In Norwegian contracts no such concessions were to be found.<sup>43</sup>

It was only in 1761, when Catholic priests were permitted to stay in Norway, at all.<sup>44</sup> And even this was due to the pressure of Catholic glassmakers who had threatened to travel to Copenhagen, if they were not allowed to receive a Catholic clergyman. The journey from the Norwegian factories to Copenhagen was long, and the bailiffs at the glassworks did not want to accept such a long absence of their workers. So, they filed a corresponding petition in 1761, which was immediately accepted by King Frederick V, one of the major shareholders in the glassworks. Thereupon, a Catholic priest visited Christiania in September 1761<sup>45</sup>, where at least ten glassmakers gathered for Communion. Also at later visits of Catholic priests, they only went as far as Christiania. The glassmakers had to pay for their own travelling costs as well as for those of the priests.<sup>46</sup>

For weddings and baptisms, the Catholics could make use of the services of the Lutheran church. At weddings between Catholics and Lutherans, the couple had to vow to bring up their offspring in the Lutheran belief. In cases of death, Minken found examples where Catholics were buried without ceremony and spiritual succour. Some deaths of Catholics were recorded in the Lutheran church book without any comment.<sup>47</sup>

While several conversions were found in Sweden, the Catholic glassmakers who had come to Norway seem to have stayed with their belief, despite the implicated constraints. Following

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<sup>41</sup> MINKEN, *Innvandrere*, as above note 35, p. 124.

<sup>42</sup> *Ibid.*, p. 167.

<sup>43</sup> Friendly advice by Mrs. Anne MINKEN.

<sup>44</sup> MINKEN, *Innvandrere*, as above note 35, p. 126.

<sup>45</sup> Nowadays: Oslo.

<sup>46</sup> Friendly advice by Mrs. Anne MINKEN.

<sup>47</sup> *Ibid.*



generations, however, were registered as Lutherans.<sup>48</sup> Religious liberty for Catholics was granted in Norway in 1843, only.<sup>49</sup>

Besides the particular religious circumstances, Minken has investigated many other aspects of the living conditions of the immigrant glassmakers, such as the linguistic environment and its interactions. For example, she reports that the contracts with glassmakers were generally drafted in their native language – German or English, respectively – if they did not speak the Danish official language.<sup>50</sup> Correspondingly, the factory rules of Nøstetangen were bilingual – Danish and German.<sup>51</sup> Minken also explains that numerous German technical terms of the glass trade have found their way into the Norwegian language.<sup>52</sup>

### **The Recruitment for Spain**

According to the available facts, Johann Eder must have left Norway after August 1749, or in early summer of 1750, at the latest. From there, the family went – possibly via Germany – to Spain.<sup>53</sup> Certainly, the religious restraints, described above, were one of the reasons for the devout Catholic Johann Eder and his family not wanting to stay in Norway forever and to look for new challenges in a Catholic environment.

Unexpectedly, after the publishing of my article „Bayerische Glasmacher auf der Iberischen Halbinsel“ („Bavarian Glassmakers on the Iberin Peninsula“) a source has been discovered giving information where and how Johann Eder was recruited for Spain. Until then, Spanish glass researchers had assumed that he had been recruited in Paris, together with French glassmakers arriving at the same time. That assumption has now turned out to be wrong. The Spanish painter Antonio Ponz (1725–1792) had travelled Spain in 1771. In 1781 he published a book on this journey, entitled „Viage de España“.<sup>54</sup> Therein, he also describes the glass factory of La Granja de San Ildefonso which he had visited, and he reports on the recruitment of the glass master Johann Eder. We may assume that this report is based on an interview with the head of the factory, Johann Eder’s eldest son Joseph. The latter was 27 years old, when his family came to Spain, and he had accompanied his father on his journeys as an adolescent and later on as an adult.

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<sup>48</sup> Ibid.

<sup>49</sup> MINKEN, Innvandrere, as above note 35, p. 124.

<sup>50</sup> Ibid., p. 174.

<sup>51</sup> Ibid., p. 175.

<sup>52</sup> Ibid., p. 189-191.

<sup>53</sup> Cf. PAULUS, Bayerische Glasmacher, as above note 2.

<sup>54</sup> Antonio PONZ, Viage de España: en que se da noticia de las cosas mas apreciables, y dignas de saberse, que hay en ella; Madrid 1781.

According to Ponz, Johann Eder was recruited in Copenhagen by the envoy of the Spanish King.<sup>55</sup> Most probably, this took place at the occasion of one of those journeys which had led the family to Copenhagen to attend church. Here is the translation of Ponz's report: *"The fame of that establishment [San Ildefonso] had spread beyond Spain, and a Master named Eder, who held a factory of his own in Norway,<sup>56</sup> came to Copenhagen to meet the Spanish envoy, and proposed that he would like to come to San Ildefonso to establish a new factory, if the King agreed with the conditions he would propose. He offered to blow large glass that would serve for doors, windows, cabinets, canvas, etc. without the necessity of operations like grinding and polishing. The King accepted him to come with those persons whom he would consider helpful; after having proceeded so, Eder established the factory named today "Primera de entrefinas", because the glass made there is of such quality that also an assortment of crystal vases, flasks and bottles and many other things are being made, there. The King assigned a salary to Master Eder and to his two sons Joseph and Lorenzo, the former of them being, nowadays, the Master of this operation and, as well as of that of "Planos finos" [= fine plate glass]."*<sup>57</sup>

This important contemporary source confirms Eder's previous stay in Norway. Other later records also mention Eder's Norwegian provenance. In Francisco Reuleaux's encyclopedic work "Los grandes inventos. Fabricación y elaboración del vidrio" of 1889, the glass master of San Ildefonso, Johann Eder, is referred to as „*El maestro Eder de Noruega*“ („Master Eder from Norway“).<sup>58</sup> Other Spanish sources call Eder a Swede.<sup>59</sup> It is doubtful whether we may conclude from this, that Johann Eder had become a Swedish subject during his years at Kosta and Limmared. Anyhow, it is obvious that Eder's original provenance from Germany, or even Bavaria, had widely fallen into oblivion.

Besides the prospect of a life in a Catholic country, the concessions offered and the commitments of the Spanish court to the conditions tabled by the obviously self-confident glass-maker may have been decisive for Eder's departure for Spain. Compared to the living conditions in the forbidding woodlands of Sweden and Norway, where the family had spent almost a complete decade, the prospect of living in the Spanish San Ildefonso with all its comfort of an urban environment, unreserved possibility to worship, at sighting distance from the summer residence of the Spanish King, must have appeared to them like paradise.

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<sup>55</sup> Ibid., p. 128-129.

<sup>56</sup> The statement that Eder owned a glass factory in Norway is not correct. The glassworks of Nøstetangen was a royal enterprise. At the utmost, Eder was a foreman, there.

<sup>57</sup> Cf. PONZ, Viage, as above note 54, p.128-129.

<sup>58</sup> FRANCISCO REULEAUX, Los grandes inventos. Fabricación y elaboración del vidrio, Madrid 1889, p. 608.

<sup>59</sup> Cf. Juan F. RIAÑO, The Industrial Arts in Spain, London 1879, p. 244.

### The Arrival in Spain

As we have seen in Ponz's report on Eder's recruitment in Copenhagen, he was asked to come to Spain "with those persons whom he would consider helpful". This did not only enable him to bring along his wife Ursula, his grown-up sons Joseph and Lorenz, with whom he had already worked in Sweden and Norway (His third son, Johann, had stayed in Sweden.). It also allowed him, at his discretion, to recruit other glassmakers, whom he found qualified and with whom he got along well with. Thus, the German glass engravers family Gubbe<sup>60</sup> came with him from Norway to Spain.<sup>61</sup> Johann Wentzel Gubbe had initially worked in Sweden, from 1735, onwards, at Kungsholm<sup>62</sup> and finally, 1744, at the glassworks of Limmared.<sup>63</sup> After that, he had gone to Norway like Eder, before accompanying him to Spain. The brothers Heinrich, Daniel, Johann and Siegismund Brun<sup>64</sup> followed and arrived at San Ildefonso a few months later, in January 1751.<sup>65</sup> Eder had also worked with these Germans, already in Norway.<sup>66</sup> Moreover, there are indications suggesting a kinship between the Eder and the Brun families. The Brun brothers had brought along their mother, while their father continued to work in Norway.<sup>67</sup> The four brothers were immediately assigned to Johann Eder's factory. The Brun family also settled down in Spain, and their descendants continued to work at San Ildefonso. Siegismund, who later on called himself Simon Brun, in 1770 became director of the newly established forth section at San Ildefonso, the „Fábrica Segunda de Entrefinos“.<sup>68</sup>

Another document brought forward, recently, gives insight into Eder's first days at San Ildefonso: The Royal Archives of the Palace in Madrid keep a revealing report, written down on 5<sup>th</sup> October 1750, a fortnight after Eder's arrival.<sup>69</sup> Its author is Marqués de Galiano intendant of the Royal Site of San Ildefonso. Its addressee was José de Carvajal y Láncaster (1698–1754), royal counsellor and president of the Council of Commerce and Mint („Junta de Comercio y Moneda“). Therein, de Galiano refers to a meeting with Johann Eder. Besides details on Eder's glass recipes he describes the German glassmaker as a man of few words but good character („*hombre de pocas palabras, y bueno!*“), whose determined approach

<sup>60</sup> Other spellings: Guba, Goba.

<sup>61</sup> Paloma PASTOR REY DE VIÑAS, Historia de la Real Fábrica de Crystales de San Ildefonso durante la Epoca de la Ilustración (1727–1810), San Ildefonso 1994, p. 149, as well as Eliseo DE PABLOS Y VIEJO, La Real Fábrica de Crystales de la Granja. Su significación histórica y la fabricación de vidrios planos de grandes dimensiones, p. 87-97 (p. 89), in: José Manuel IGLESIAS GIL, Cursos sobre el patrimonio histórico 3. Actas de los IX cursos monográficos sobre el patrimonio histórico, Reinososa 1998.

<sup>62</sup> Heribert SEITZ, Äldre svenska glas med graverad dekor, Stockholm 1936, p. 203.

<sup>63</sup> ÖSTLUND, Limmared, as above note 26, p. 27.

<sup>64</sup> Other spellings: Brum, Braun.

<sup>65</sup> PASTOR REY DE VIÑAS, Historia, as above note 61, p. 150.

<sup>66</sup> Friendly advice by Mrs. Anne MINKEN.

<sup>67</sup> Friendly advices by Mrs. Anne MINKEN, as well as by DR. PASTOR PALOMA REY DE VIÑAS.

<sup>68</sup> PASTOR REY DE VIÑAS, Historia, as above note 61, p. 154-155.

<sup>69</sup> A.G.P., San Ildefonso. Caja, 13.584; My special thanks to Mr. Herlander Miguel FRANCISCO, Maceira, Portugal, for the copy of that document..

obviously impressed him. That document, based on a conversation with Johann Eder, shall be given as a translation: *„Yesterday evening, I called for Juan Eder, the German master, and his companions to come to my house. He had already been to Portugal to establish the production of crystal, together with 32 Germans. After seven months, he returned to his country, as things did not go well in Portugal. I asked him various questions to learn something about his way of operation and his recipes, assisted by a poor and worthless interpreter, found on the spot. My questions were answered adequately and I became assured that you will be satisfied with his work. He appeared to me as a man of few words but good! Traits which can be seen from his face.*

*He asked me for four hundred bushels of ashes of oak-wood, sufficient for six months. I have given order to Sr. Domingo Sani, that all ashes from the hearths, as they burn day and night, particularly in winter, shall be collected and delivered to the servants, to be stored. And, though he reassured me that ashes of any kind of wood would be good, he explained that yonder was the best. Of the stone [limestone?] suitable for his composition, he would store sufficient quantity, as he made me understand. The deeper the stone was found, the whiter it is, and consequently the whiter becomes the crystal. Thus, his composition would consist of ashes, stone, arsenic and salpetre.*

*He told me that he did not want Frenchmen to work with him but only Spaniards, whom he would teach in everything that he knew. He suggested choosing willing and striving men, so that they took advantage of their time to the profit of the King. They gave me a wooden model after which their iron blowpipes should be made. Today, they have begun to trace the furnace and to level the spot where it shall be built, and the Germans are already preparing the pité.*

*You can be assured that it will not take long until everything is prepared and that they will not fall short of anything. You are requested to arrange that they will not lack salpetre nor other materials which they may ask M. Berger for.”*

De Galiano's impression proved to be correct: The expectations of the Spanish Court on Johann Eder and his collaborators were more than fulfilled. The „Fábrica de Entrefinos“ at San Ildefonso, established and managed by him, became an enterprise which was both technologically and economically successful. After Johann Eder's death in 1753 it was carried on by his son Joseph. It flourished and gained international recognition<sup>70</sup>

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<sup>70</sup> Cf. PAULUS, Bayerische Glasmacher, as above note 2.

### Johann Eder's Brothers at Glassworks in the Duchy of Württemberg

As we have seen above, there were relationships between the Swedish glassworks of Sandö and glassworks in the Duchy of Württemberg through the Eder and Greiner families who were manifold related by marriage. The glassmaker Heinrich Balthasar Greiner, working at Sandö and supposed to have worked at Neulautern glassworks, before, was married to a Susanna Catharina Eder (see above).

At the glassworks in the Swabian-Franconian Forest in Württemberg two elder brothers of Johann Eder are to be found. The biographies of the Eder brothers are examples of the well-known fact that sons of glassmakers usually took up the profession of their fathers. The brothers Johann (\*1673) und Lorenz Eder (\*1686)<sup>71</sup>, both born at Rothenbügl worked at the glassworks of Jux, Spiegelberg and Joachimstal in the Swabian-Franconian Forest. In 1701, the eldest brother is already documented at Jux as „*Hannß Eder, gebürtig von Bainten bey Kehlheim, 26 Jahr alt, hat Weib ohne Kind, Cathol[ischer] Religion, will sich hier bürgerlich einlaßen und bawen.*“<sup>72</sup> The other brother, Lorenz Eder, is found at the neighbouring Joachimstal, in 1721, where he is mentioned as „*Glaser von Bainten, kurpfälzische Glashütte*“.<sup>73</sup> A further source of 1746 from Joachimstal mentions his widow and his three daughters: „*Lorenz Eders Wittib, 3 Kinder, die Mutter und 2 Töchter katholisch, die 3. evangelisch. Bewerb: Betteln. Ort vorigen Aufenthalts: aus dem Jux*“.<sup>74</sup> This Lorenz is almost certainly Johann Eder's brother, born at Rothenbügl in 1686, who worked at Jux prior to 1721. In 1754, his daughter Katharina Margaretha married the glassmaker Johann Peter Greiner, probably a relative of Heinrich Balthasar Greiner, found in Sweden (see above).<sup>75</sup> Thus, the families Eder and Greiner were the tie between glassworks sites in the Duchy of Württemberg, in Sweden and in the forests north of the Bavarian town of Kelheim (Rothenbügl and Irlbrunn).

<sup>71</sup> In Bavaria, it was not unusual that children of the same parents were given the same first names, even if the elder child of the same name was still alive (Cf: Georg PAULUS, „3 Söhnlein namens Johannes“. Zum Phänomen der Namensgleichheit von Geschwistern, in: Blätter des Bayerischen Landesvereins für Familienkunde, BBLF 68, Munich 2005, p.1-10).

<sup>72</sup> Translation: „*Hans (= Johann) Eder, born at Painten near Kelheim, 26 years old, has wife and child, Cathol[ic] religion...*“; Specification deren bereits bey der Glaß-Hütten im Jux befindlichen Laboranten und Holtzhewer. Actum auf der Glaßhütten im Jux d. 16. Juny 1701 (Friendly advice by Mr. Andreas KOZLIK, Backnang).

<sup>73</sup> Translation: „*Glassmaker from Painten, glassworks of the Electoral Palatinate*“; Marianne HASENMAYER, Eine Glashütte im Klosterwald, in: Ulrike MARSKI, Das Forsthaus Joachimstal. Ordnung und Freiheit, Natur und Ökonomie. Schwäbisch Hall 2006, p. 22; (Friendly advice by Mr. Andreas KOZLIK, Backnang).

<sup>74</sup> Translation: „*Lorenz Eder's widow, 3 children, the mother and 2 daughters Catholic, the 3rd Protestant...*“; Ibid., p. 34.

<sup>75</sup> Friendly advice by Mr. Andreas KOZLIK, Backnang.

### Economic and Cultural-Historical Background

The career of the Bavarian glassmaker Johann Eder, which took him to Portugal, Sweden, Norway and finally to Spain, in the period between 1739 and 1750, inevitably raises the question why, particularly in that period, production of glass was promoted apparently in the most different regions of Europe. If we take a closer look into the historical circumstances, several factors can be detected, the interaction of which resulted in an intensification of glass production. The causes are mainly of economic-political and cultural-historical nature.

### Cultural Changes

One of the reasons is to be found in cultural changes taking place, at that time, in Europe. One of them is an increasing demand for consumer goods. Glass was no longer considered a luxury good, only available to a small upper class. Since the late 17<sup>th</sup> century, even in modest households cutlery, glasses, bowls and cups were to be found. The economic historian Paolo Malanima writes: „The growing use of those things is a slow process, varying from region to region, related to new habits and table manners. Cutlery, bowls and glasses increased in numbers, because they were used personally and no longer collectively, as before.“<sup>76</sup> Also, window glass became more and more common. This improvement of living conditions accelerated during the 18th century in the course of a “consumer revolution” as it is called by some historians.<sup>77</sup>

### Economic-Political Causes

The intensification of glass production in many parts of Europe and the foundation of royal or royally privileged glassworks in the first half of the 18<sup>th</sup> century happen against the background of an economic policy dominated by mercantilism. One of its goals was to encourage industrial development by direct governmental intervention. In the 18<sup>th</sup> century, most European states went forward with a long mercantilist tradition of governmental support and promotion of certain manufacturing sectors. Their example was France, where, since the late 17<sup>th</sup> century, *manufactures royales* and *manufactures privilégiées* of the metallurgical industry and industries producing arms or luxury goods were privileged with monopolies, tax advantages, subventions and similar benefits.<sup>78</sup> One of those establishments was *la manufacture royale des glaces*, founded by Louis XIV, where the mirrors for the castle of Versailles had been produced.

<sup>76</sup> Cf. Paolo MALANIMA, *Europäische Wirtschaftsgeschichte. 10.–19. Jahrhundert*, Vienna 2010, p. 364-365.

<sup>77</sup> *Ibid.*, p. 366.

<sup>78</sup> Cf. Barry SUPPLE, *Der Staat und die industrielle Revolution 1700–1914*, in: Carlo Maria CIPOLLA –, Kurt BORCHARDT, (Ed.), *Europäische Wirtschaftsgeschichte*, Vol. 3, Stuttgart 1985, p. 201-202.

The predominant economic goal of that policy was to become independent of imports – in our case of glass products – and to improve the financial situation of the respective ruler, by the revenues from the royal manufactories.

In Spain and Portugal, moreover, the supply of the overseas colonies, particularly in Southern and Central America, played a role. By intensifying glass production in the respective mother country, the provision of the colonial territories could be improved. Import bans or customs duties on glass goods, as they are documented for Portugal,<sup>79</sup> protected the local production from competition – particularly from southern Germany and Bohemia.<sup>80</sup> This supported their own factories and improved the trade balance.

Also in Sweden, the achievement of a positive trade balance had been a declared goal of the economic policy, since the reign of Queen Christina (1632–1654).<sup>81</sup> Also Norway was determined to better use „the riches of mountains, woodlands and the sea“, since the 18<sup>th</sup> century. For that purpose, in 1739, the royally privileged “Black Company” was established under the direction of the German J. F. von Beust. It comprised the implementation of a national glass industry. Thus, the glass factories of Nøstetangen, Sandsvær, Hurdal and Hadeland were established between 1742 and 1756. They were supported by orders for the Court and high import duties on foreign glass goods.<sup>82</sup> Under King Frederick V (1746–1766) mercantilism reached its height in the Danish-Norwegian federation.<sup>83</sup> In 1760, imports of glass were banned totally. Hence, the Norwegian glassworks disposed of the monopoly in the two Kingdoms.<sup>84</sup>

The described economic activities which had brought about the establishment of numerous glass factories on the Iberian Peninsula and in Scandinavia, in the 18<sup>th</sup> century, corresponded to the absolutist regime. However, the proclaimed intention of autocratic royalty and its central bureaucracy to promote the economic potential of the country was only superficial. The main purpose was to strengthen the influence and power of the state.<sup>85</sup> Another aspect not to be neglected is the increase of the prestige for the respective Court, which went along with the establishment of its own crystal factories and the luxury goods produced there.

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<sup>79</sup> James Cavanah MURPHY, *Travels in Portugal*, London 1795, p. 83; Quoted after Alice WILSON FROTHINGHAM, *Hispanic Glass with Examples in the Collection of The Hispanic Society of America*, New York 1941.

<sup>80</sup> Cf. Alice WILSON FROTHINGHAM, *Hispanic Glass*, as above note 79.

<sup>81</sup> Fritz BLAICH, *Die Epoche des Merkantilismus*, Wiesbaden 1973, p. 184-185.

<sup>82</sup> Oscar Albert JOHNSON, *Norwegische Wirtschaftsgeschichte*, Jena 1939, p. 366.

<sup>83</sup> *Ibid.*, p. 373.

<sup>84</sup> *Ibid.*, p. 366.

<sup>85</sup> Cf. SUPPLE, Barry: *Der Staat*, as above note 78, p. 201-202.

### Transfer of Technology

In the early 18th century, the production of baroque style glass with engraved motifs spread in Bohemia and Germany. Its technical base was the so called crystal or chalk glass (“Kristallglas” or “Kreideglas”), which had been developed in Bohemia, towards the end of the 17<sup>th</sup> century.<sup>86</sup> This was the decisive technological step forward, which finally made the glass from Venice, until then considered as unequalled, lose its importance, and the baroque style “Kristallglas” from the Bohemian and German glassworks to dominate the market. The founders and tenants of the crystal glassworks in other European countries, who wanted to make use of that new technology, relied on the knowledge and skills of Bohemian and German glass-makers. Johann Eder and his sons mastered the new technique of making crystal glass. Eder’s career is also an example how individual specialists participated in the transfer of technology and how it was brought forward by the communication networks of artisans and by their mobility.

As we have learned from the description of Antonio Ponz<sup>87</sup> and the comprehensive publication of Paloma Pastor on the history of the glass factory of San Ildefonso<sup>88</sup>, the Eders were hollow glass makers. Even the flat glass which they made was produced by blowing. For that purpose they blew hollow cylinders, which were then cut open and processed to glass plates. The production of flat glass by casting was practised by the Eders, at a later stage, in Spain, where Joseph Eder (1723–1782) ran the factory for flat glass (Fábrica de planos) of San Ildefonso.

Johann Eder’s other son, Lorenz, who had – like Joseph – accompanied his father on his journeys through Europe, had specialised in the engraving of glass and reached high skills in it. Glass objects accredited to him, can still be found in renowned museums, e.g. the National Archaeological Museum (Museo Arqueológico Nacional) in Madrid, and in Glasgow.<sup>89</sup>

### Conclusion

Some chapters of the life of Johann Eder (1694–1753) still remain unknown (see Chronological Table). For instance, we do not know when and where he got married, nor where he lived during the period between 1723 until his escape from Bergreichenstein, in 1738,<sup>90</sup> nor

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<sup>86</sup> Cf. Ernst HIRSCH, Die Erfindung des böhmischen Kristallglases. Ein Beitrag zur Geschichte der Glasindustrie auf der Buquoy’schen Herrschaft Gratzten in Südböhmen, in: Mitteilungen des Vereins für Geschichte der Deutschen in Böhmen, 1936.

<sup>87</sup> Cf. PONZ, Viage, as above note 54, p.128-129.

<sup>88</sup> Cf. PASTOR REY DE VIÑAS, Historia, as above note 61.

<sup>89</sup> Cf. <http://collections.glasgowmuseums.com/starobject.html?oid=81993> (download: 23<sup>rd</sup> Jan 2011).

<sup>90</sup> Cf. PAULUS, Bayerische Glasmacher, as above note 2.



where his sons Lorenz and Johann were born. Anyway, the last 16 years of his life, certainly the most important chapter, could now be described. When Johann Eder left Germany at the age of 45 to go to Portugal, he already disposed of a wide experience as a glassmaker and tenant of a glassworks. After that, he spent ten years in Sweden and Norway, where he took part in the establishment of the crystal glassworks at Kosta und Nøstetangen, the first ones of their kind in the said two countries. The height of his career was certainly when he managed to be employed by the King of Spain and was put in charge of the construction and direction of the „Fábrica de Entrefinos“ at San Ildefonso, in 1750. This way, he had also provided for the future of his sons Joseph und Lorenz, who achieved fame and glory within the glassmakers' guild of Spain. Before that, he had managed to place his nephews Adam and Balthasar with the glass factory in the Portuguese Coima. His son Johann worked as a smelter at Sandö in Sweden.

Johann Eder's skills and those of his sons are witnessed by the reports on the history of the glass factory of San Ildefonso, as well as by numerous of their works which have been preserved: for example the mirrors from Joseph Eder's factory, to be seen in the Royal Palace of Madrid, or the engraved glass objects accredited to Lorenz Eder and kept in various European museums.

By their journeys, leading them across Europe, in the course of some ten years, and their international activity, Johann Eder, his sons and nephews, contributed to a transfer of technology by which the highly developed art of making glass spread from Bavaria and Bohemia throughout Europe.

### **Addendum (October 2017)**

When the original German version of this present article was published, in 2011, there were still doubts about the provenance of Johann Eder the Elder (†1723). Meanwhile, that question could be resolved: When Johann Eder married Barbara Degenmayer, on 20<sup>th</sup> November 1672, at Painten St. George's church, the parish register referred to him as "*Honestus Juvenis Joannes Ederer Vitriplator Natus Haylingbrunnensis, Laurentii p[iæ] m[emor]iæ Ederers et Magdalenæ Ux[or] legitimus filius*" [*"honorable bachelor Johann Ederer, glassblower born at 'Haylingbrunn', the late Lorenz Ederer's and his wife's Magdalena legitimate son"*]<sup>91</sup> The place given as *Haylingbrunn* could be identified as Heilbrunn<sup>92</sup> in the then county Gratzen<sup>93</sup> in southern Bohemia, where the counts de Buquoy ran the illustrious glassworks "Neuhütten"

<sup>91</sup> Bischöfliches Zentralarchiv Regensburg, Pfarrmatrikeln Painten 1, fiche no. 13.

<sup>92</sup> Today: Hojna Voda.

<sup>93</sup> Today: Nové Hradky, Czech Republic.

(located on Wilhelmsberg near Heilbrunn), since 1623.<sup>94</sup> Though Johann Eder's baptism record could not be found in the church books of the competent parish of Strobnitz<sup>95</sup>, it was my Portuguese fellow researcher Herlander Francisco who discovered Johann Eder's parents, Lorenz and Magdalena, in the Strobnitz records, as well as the baptism entry of his brother Georg of 30<sup>th</sup> March 1645.<sup>96</sup> The place of birth is given as "von der Neuenhütten", the glassworks of Count de Buquoy near Heilbrunn. Thus, the evidence of Johann Eder's provenance as from Heilbrunn/Hojna Voda, mentioned in his wedding record of 1672, is most probable, despite of no corresponding baptism record having been found, so far.<sup>97</sup> Skills acquired at the advanced glassworks of Count de Buquoy might have been Johann Eder's befitting dowry for the wedding with Barbara, daughter of the Rothenbügl glassworks owner Michael Degenmayer.

### Chronological Table

#### Johann Eder I (Father, †1723)

Approx. 1640	Birth of Johann Eder, Heilbrunn, southern Bohemia
20-11-1672	Marriage of Johann Eder with Barbara Degenmayer, Painten
28-01-1690	Death of Barbara Degenmayer, Rothenbügl
25-06-1691	2 <sup>nd</sup> marriage of Johann Eder with Margarethe Ittel, Painten
1673–1692	Johann Eder as a glassmaker at Rothenbügl
1694–1697	Johann Eder as glassworks tenant at Eisenstein
1699–1723	Johann Eder evident at Rothenbügl
14-06-1723	Death of Johann Eder the Elder at Rothenbügl

#### Johann Eder II (Son, 1694–1753)

24-05-1694	Baptism of Johann Eder at Lam, Bavarian Forest
1718–1724	Johann Eder evident at Rothenbügl
04-03-1723	Baptism of the son Joseph Eder at Painten

<sup>94</sup> Vgl. Margarete GRÄFIN VON BUQUOY, *Die Glaserzeugung auf der gräflich Buquoyschen Herrschaft Grätzen in Südböhmen*, München 1980.

<sup>95</sup> Today: Horní Stropnice.

<sup>96</sup> Státní oblastní archiv v Třeboni, Czech Republic, church records Horní Stropnice, vol. 2, fol. 9v: *Pfingstag den 30. Martii [1645] von der Neuenhütten dem Lorentz Öeder und seinem Weib Magdalena ein Kind taufft worden namens Georgius dessen Gefatter der ehrsame Jacob Rübner Glasmaister aldort u. sein Weib Maria*“.

<sup>97</sup> Hans-Joachim Häupler had erroneously associated „Hayligenbrunn“ with Heiligenbrunn near Hohenthann, Lower Bavaria, neglecting the fact that that village was founded as a place of pilgrimage in 1662, only, and that there is no evidence of a glassworks in that area (cf. Hans-Joachim HÄUPLER, *Die Geschichte der ältesten Glashütten in Eisenstein*, 1992, p. 204).

1738	Johann Eder as glassworks tenant at Bergreichenstein, Bohemia
Oct. 1738	Johann Eder evident at Schleichach
1739	Application of Johann Eder at Einfeld, Saxony-Hildburghausen
30-03-1739	Death of the brother Benedikt Eder at Schleichach
1739–1740	Johann Eder at Coina, Portugal (Documented: March 1740)
1741–1744	Johann Eder at Kosta, Sweden (Documented from 1741 onwards)
< 1748	Johann Eder at Limmared, Sweden
10-08-1749	Lorenz Eder (son) as godfather at Nøstetangen, Norway
22-09-1750	Arrival of the Eder family at La Granja de San Ildefonso, Spain
06-07-1753	Death of Johann Eder at San Ildefonso
1755	Johann Eder III, smelter, arrives to Sandö, Sweden.
1764	Joseph Eder gets in charge of the factory for flat glass at San Ildefonso
21-03-1782	Death of the son Joseph Eder at San Ildefonso, Spain

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