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GLASSMAKERS IN THE FAMILY

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Glassmakers in my Family

Wood, Sand, and a Patron

I once met a rather dowdy woman sitting in a park. She looked homeless. She was feeding pigeons, whom she had named. I was shocked to discover she had once been a major movie star, one even known to me. Famous one day, an aged old woman feeding pigeons with names the next. From the heights of fame to the park bench. It made me sad.

When I think about glass, I get the same feeling. For thousands of years, glass was a magical product made by coveted masters. Admired by all, possessed by a few, glass was right up there with gold and diamonds. It made churches magical and dining tables dazzling. It allowed to people to see their own image. For a lucky few, it allowed one to see the outside world without going outside. It brought light into a house. Glass was special. Glass was expensive.

Today, glass is garbage. Literally garbage. We toss it in garbage cans by the ton every minute of every day. It is without value. It is like the forgotten starlet. It had its day and that day is past. This makes me sad.

Unlike most modern folk, I love glass. I have always loved glass. As a child living in Pittsburgh, I found a huge piece of slag glass and it mesmerized me. When I go to museums, I seek out the ancient glass exhibits and just stare at the Israelite glass, Roman glass, and German glass. I am filled with wonderment when I look at ancient glass. How did human beings take sand and turn it into such things of beauty so long ago? I maintain a 1200-piece collection of 150-year-old glassware that once adorned my grandmother's dining table.

Perhaps I feel this way because some of my ancestors were glassmakers for thousands of years. I'm not sure I believe in such things, but maybe I love glass because it's in my blood. I may have inherited my glass-love along with my Swiss-not-Swiss DNA. As some of my Swiss-not-Swiss ancestors were glassmakers.

And here are some crazy coincidences. The piece of slag glass I dug out of my garden in Pittsburgh was likely some factory debris from a factory one of my ancestors started. Coincidentally we lived near the site of a factory owned by one ancestor. The 150-yearold glass collection I maintain was in part inherited from my grandmother. I was told it was made by the first glass company to produce crystal in America. I inherited probably 100 pieces. I completed the set by collecting the additional 1100 pieces. This glass was made by some of my ancestors. My glass collection has a characteristic red glaze, a technology invented by another ancestor.

All of this to introduce the final topic in this work: Glassmakers. Surprisingly, my glassmaking ancestors and their history sheds light on my Swiss-not-Swiss Jewish origins. However unrelated the two may seem, they are very much related.

To begin with, when a modern person reads the term "glassmaker", it reads like no big deal. Glassmaker reads like weaver, blacksmith, tanner, barrel maker, or any other trade. This is wrong in many ways.

To appreciate how a glassmaker should not be confused with a weaver, first you must step back in time. You must imagine a world where each piece of glass was precious. You must move your mind to a time when glass had great value, and the people who knew how to make it, had greater value.

While most of my Swiss-not-Swiss ancestors were treated like vermin, the glassmakers were the one exception. They were welcomed visitors. They left Germany, Switzerland, and France, not to avoid persecution, but rather to pursue better opportunities. As you will see, for over 2000 years, that's what glassmakers did. They moved from place to place, always in search of a better opportunity.

For much of human history, people ate out of wooden bowls or ceramic pots. Wood and ceramic. Everyone's everyday was filled with a lot of brown, unless you were rich. If you were rich, you could buy glass. Glass was translucent, colored. It shimmered in the light, reflected the rainbow. It could be fashioned into beads, gem-like stones, wine glasses, beautifully colored windows. In an ugly brown world, glass was beautiful. Glass made things beautiful. Churches became awe-inspiring spaces with windows made of stained glass. Palaces were lit up with chandeliers that reflected light into every corner of a room. Glass windowpanes allowed people to see out and people to see in. From the earliest day, the rich loved glass.

To have glass, you had to have glassmakers. Glassmaking was an astonishing art. Glassmakers took sand, heated it to the point of melting, and shaped molten sand into glass. In and of itself, that is a remarkable feat. But, if you just melt sand, you get glass the color of the melted sand, brown or green. Glassmakers knew how to add various compounds to alter the molten sand and produce glass in every color under the sun. And perhaps most difficult, they knew how to add compounds to remove all color and produce glass that had no color. Making clear glass was an art within an art.

If you just consider window glass, you can see the important role glassmakers filled. Let's start with this: If you had no glass, you lived in the dark. On the other hand, one windowpane alone brought light into a home. You no longer lived in the dark for at least half the day. People liked windows. And rich people really loved windows.

How were windowpanes made? First, the glassmaker had to know how to make clear glass. They had to know what sand could be used to make the glass. They had to know what chemicals to throw into the molted glass, at the exact right temperature, at the exact right minute, to remove all color. Then, they had to know how to blow molten, clear glass bubbles eight feet in diameter. These large molten glass bubbles had to be laid flat, rolled, and cut into square pieces. A windowpane making team included someone who knew how to make clear glass, someone who knew how to blow it into a huge balloon, and someone that knew how to flatten it and cut it into little flat squares. Making one square of window glass was nothing short of a miracle. This was highly skilled work.

And here is the kicker. From the time glass-making technology came into existence, glassmakers never revealed the secrets of their trade to anyone. Never. They only married other glassmakers to ensure that the secret of their magic act did not leave the family. If you married outside the family, or worse, taught an outsider glassmaking, you faced banishment. For this reason, all glassmakers were from the same family. Astonishingly, glassmakers successfully kept their secrets a secret for thousands of years. This was smart because it made them a sought after and protected class. No glassmaker, no glass.

As I said previously, the fact that some of my Swiss-not-Swiss ancestors were glassmakers may explain why my family carries DNA haplogroups from the Middle East (Haplogroups J1, J2), North Africa (Haplogroup E), and the Caucasus (Haplogroup G). Glassmakers started out in Israel and Egypt (Haplogroups E, J1, J2), then migrated to Khazaria or the Caucasus (Haplogroup G), then onto Bohemia, Germany, Switzerland and Alsace-Lorraine.

Samuel Kurinsky, expert in the field of glassmaking, wrote extensively on glassmaking, from the earliest to the modern day. When Kurinsky tells the story of glassmakers, he tells the DNA story of my family. He describes the mysterious path my ancestors from Israel (Haplogroups E, J1, J2) to the Caucasus (Haplogroup G) to Germany and Switzerland and Alsace-Lorraine and finally to America.

Kurinsky was such a master of the topic, I cannot improve upon his comments on early glassmaking history, so I present them here in their entirety. His history explains, at least in part, how some of my Jewish ancestry entered my family tree. My family were glassakers in the region that surrounded Lorraine, France. Sometimes they lived on the German border, or the Swiss border, but always around Alsace-Lorraine.

Glassmaking always claimed a special status among the crafts, for it was an esoteric art, practiced only by the few families privy to its ancient secrets. The roots of the family trees of glassmakers extend back to Mesopotamia where the art was born.

The process of vitrification is unique among the arts in that it was invented only once in all of human history. The process wound its way into the world over the course of four thousand years in ever-widening spirals with the descendants of the people who inherited it from their Mesopotamian progenitors, and who had passed their knowledge on to succeeding generations. To trace the origin of glassmakers who were enticed into the forested fiefs of the Franks in the Lorraine, we must, therefore, begin by reverting back past Bohemia, the area from which it is agreed that they had come to the Lorraine. The trail leads back to Transylvania, then to Khazaria, beyond that to Persia, and still further back to Israel. The saga of that odyssey took place over several thousand long years.

The lineage of these artisans can be traced back to the eighth century B.C.E. The art of glassmaking had long disappeared from its birthplace, Mesopotamia, and was then being practiced solely among the tribes of Israel. The Assyrian warlord Tigleth-Pileser invaded Israel in 733-732 B.C.E., rounded up 13,150 Israelite artisans and their families, and resettled them in the Mesopotamian heartland. He immortalized his conquest by inscribing a full account of the event on a wall of his palace. The Bible confirms his account (2 Kings 15:29): "In the days of Pekah, king of Israel, came Tigleth-Pileser, king of Assyria, and took Ijon, and Abel beth-maacah, and Janoah, and Kedesh, and Hazor, and Gilead, and Galilee, all the land of the Naphtali, and carried them captive to Assyria".

Two years after Tigleth-Pileser's death, his successor, Shalmaneser (727-722 B.C.E.), and then his successor, Sargon II, launched the campaigns that extinguished the state of Israel. Sargon recorded that 27,290 Israelites were again transported to Assyria, and event likewise substantiated in the Bible.

The Israelites consisted of "outstanding craftsmen." Among the deportees were glassmakers who brought their art back to the ancient Land-of-the-Two-Rivers. Delighted with the acquisition of an exotic art, Sargon ordered a glass vessel to be made with his name boldly inscribed upon it. The alabastron of Sargon II was excavated at Nimrud and is now the proud possession of the British Museum. The vessel is unique. It is the earliest surviving vessel to have been carved and polished from a mold-produced form. It is decorated with an engraved symbolic royal lion together with the name of Sargon II, which blazes forth in cuneiform characters.

The saga of the glassmaker's journey through the Diaspora continues with the association of their progenitors in Persia with the Khazars. The introduction of their art into Russia and Silesia (Poland) took place as the Khazar kingdom expanded to the north and west.

The Khazar empire was destroyed by the Byzantines. Despite this traumatic event, remnants of the Khazar society still remained. The Spanish Ambassador to Otto the Great, a Jew named Ibrahim Ibn Jakub, reported as late as 973 that the Khazars were still flourishing. Nonetheless, after the conquest of the Khazars by the Byzantines, ravaged by the Rus tribes and suffering under Byzantine domination, an exodus of Jewish artisans was underway. Many moved northwestward into Silesia, where Jews from northern Europe were finding refuge among the Polish princes who extended extraordinary privileges as enticements for bringing their arts and industries into their realm. Others fled into Transylvania, within present-day Bulgaria, Hungary and Rumania. Many moved further west when Bohemian noblemen gave employment to the glassmakers among these refugees.

The Jews of Khazaria brought Mesopotamian styles and motifs into the Danube basin. They combined with and added spice to the designs of ware being produced in the region by Jews who had fled from Byzantia itself. One school of Hungarian archaeologists maintains that the tenth-century gold and silver-smiths working in Hungary were actually Khazars.

The fact is that glassmaking appeared within every culture independently of the stage of development of that culture's other arts, for it was always introduced by immigrants such as the Lorrainers. This historical anomaly endured through the ages because of the peculiar cultural attributes of the glassmakers.

1. Glassmaking devolved within a single or, at most, several related families.

The close and ancient familial relationships among the Lorrainers bear out this precept, The close and ancient familial relationships among the Lorrainers bear out this precept. "It seems," wrote Gabriel LaDaique, a prestigious French historian of the region, "that the glassmakers of the Vôge, in the charter, originated from Bohemia, and were all of one common stock (that is what the resemblance of the branches of the family to one another leads one to believe)." The ultimate provenance of such "common stock," would of necessity have been the Near East.

LaDaique goes on to explain that at the time the noble hierarchy of the Lorraine had close ties with the hierarchy of Bohemia, and were under little French influence. The Norman crusaders who had brought glassmakers back from Palestine, would under no circumstance share these artisans with their rivals. Bohemia, however, harbored glassmakers who had fled west into Transylvania when the Byzantines destroyed the Khazar empire. The strong family, commercial and political ties of the Ducal hierarchy of the Lorraine with that of Bohemia explains the arrival of glassmakers from Bohemia at the end of the 14th or beginning of the 15th century.

2. Glassmaker's Security Lay in Maintaining the Secrets of Their Discipline.

Glassware was always in high demand at the upper levels of society. For four thousand years glassmakers survived because only they were able to supply that demand..

Centuries earlier, St. Jerome complained that "Semitic artisans, mosaicists and sculptors are every-where." The saint cited glassmaking as one of the trades "by which the Semites captured the Roman world." The humiliating dependence of the Roman world on "Semitic" artisans impelled the church to launch a campaign to convert or displace the stiff-necked "Orientals."

Artisan's guilds were formed and put under the patronage of Christian saints. Conversion was required to join the guilds. Conversion was, however, unevenly enforced because no substitutes existed for certain skilled artisans. Outstanding among them were the glassmakers, for they were alone in the art. Jewish glassmakers were consequently given conspicuous exemption from conversion as a condition for continuing their art.

In Cologne... where the guilds succeeded in ultimately barring Jews from almost all of industrial occupations, they still allowed them to become glaziers, probably because no other qualified personnel was available.

3. Glassmakers Harbored Little Fealty to the Countries Within Which They Resided.

The art of glassmaking nonetheless declined to virtual extinction in central and western Europe during the Dark Ages after the exodus of the Jews. For many centuries the art of glassmaking was practiced sporadically on a primitive level until the Crusader Roger II invaded the rival Christian Byzantine empire and brought Jewish silkworkers and glassmakers back to his fief in southern Italy and Sicily. The Norman crusaders likewise brought glassmakers back from Palestine to France.

It is not surprising that inasmuch as glassmakers were never of indigenous origin, that the patriotism of glassmakers was typically confined to their art and to the community of glassmakers at large.

4. Glassmakers Kept Their Secrets from the Indigenous People Around Them

No matter where in the world glassmakers found themselves, sharing their art with or marrying an "outsider" was deemed treason to the trade and a betrayal of the glassmaking community. "Outsiders" were understood to include their indigenous neighbors. In contrast, all glassmakers freely shared their art and intermarried with their counterparts in and of alien lands, who were universally accepted as part of their own extended family.

This was true of the Lorrainers, The practice of intermarriage only between glassmaker's families was carried forward into England. The names became anglicized, but marriage practice continued along ancient lines to a late period. It mattered not a whit whether the families of the couple came from the same country. It sufficed that both parties were legitimately scions of glassmaking families.

An interesting case in point was the marriage of a Tittery with a Rogers. What more English-sounding names can be conjured up?

The name Tittery, however, is an anglicisation of "Thietry," the name under which the family had emigrated to England. According to LaDaique, there is solid evidence that "Thietry," one of the four families cited in the Glassmaker's Charter, originated from the Hebrew biblical name Mathias. In the Lorraine "there was, in fact a large [related] glassmaking family of that name [Mathias]."

The Tittery daughters intermarried with members of the Rogers family in the Stourbridge area. The Rogers were glassmakers descended from John Roja, obviously of Sephardic descent whose family name had become properly anglicized to "Rogers."

Such intermarriages between families whose only cultural tie was their trade, were considered not only acceptable but normal.

Jewish Glassmakers had to Contend with Constraints Peculiar to the Art

Glassmakers were entirely dependent on wood from forests on the estates of the church or of feudal lords. They were obliged to work and live in or near those forests. In addition, the main market for glassware was not among the Jews. The fate of glassmakers hinged on the good-will of the Christian hierarchy, ecclesiastic or secular. Their ability to operate generally depended on concealing their religion.

In Bohemia, the Lorrainer's antecedents passed as Catholic. Subsequently they assumed another pragmatic allegiance, for no sooner than it became feasible, they all professed themselves to be Huguenots, thus avoiding the strictures of the church. When persecuted as Huguenots, they took advantage of the invitation to bring their art England. They came at a time when the Jews were banned from England. Many immigrant glassmakers took advantage of the English desperate attempts to acquire their art. As was seen in the precedent Fact Paper 6-I, disdaining the cover of a Christian religion, these glassmakers registered as being "of no church!" Therein lies the finale of an extraordinary odyssey of glassmakers through the Diaspora, from Israel into Persia, from Persia into Khazaria (Russia), from Russia into Transylvania, from Transylvania into Bohemia, from Bohemia into France, and finally from France into England ... (Or in my case to America).

A Lost Heritage

It was inevitable that the Jewish identity of glassmaking families became lost during several millennia of separation from the larger community, a separation occasioned by the necessity of using a Christian cover to gain access to the usufructuary use of forest wood, to avoid guild restrictions to Jews, and to maintain access to the largely Christian market. Working under the strictures of a society that proscribed the practice of Judaism outside of the Ghetto, the ethnic memories of these families inexorably faded into the fabric of the Christian cover they had assumed.

The fact remains, as was pointed out at the outset of this paper, that the process of vitrification was invented only once, and that the process wound its way into the world from generation to generation, and from country to country from the time Israelite artisans were deported to Assyria.

The Judaic heritage has long disappeared from the memories of the descendants of the Gentilshommes Verriers and their glassmaking compatriots. Ironically, the reason for their later emigration from France "Was the fact that the Lorraine glassmaking families, en Masse, had adopted Calvinist Reform, and had thus become the object of religious persecution, disabilities, and discrimination.¹

Kurinsky gives a succinct history of Jewish glassmaking, from Israel all the way Lorraine. My family made glass in the region that included Lorraine, southern Germany, and western Switzerland. My ancestors' story departs from the Kurinsky narrative in only one way: Rather than immigrating to England, my branch of the glassmaking family, largely immigrated to America. Yes, some of my family members did immigrate to England, but most of them immigrated to America.

One of my key questions was, "Why do my 'Swiss' ancestors carry so much Jewish ancestry?" Kurinksy answers that question. Some of my ancestors were the Jewish

¹ Samuel Kurinsky, *Glassmaking: A Jewish Tradition, Part V: England Attains an Industry,* <u>https://hebrewhistory.info/factpapers/fp006-5_glass.htm#ch1</u>

glassmakers who made the trek from Israel to Khazaria to Bohemia to Germany and then Switzerland and Alsace-Lorraine.

A Hidden Family History

Until I began researching my family, I had no idea I descended from a family of glassmakers. While researching my family, I found the following quote in "*Biographical and Portrait Cyclopedia of Fayette Pennsylvania*", published in 1889. In the text one of my great-great-grandfathers appears, Adolph M. Eberhart. He is my father's mother's grandfather.

Adolph M. Eberhart was born August 19,1841 in Springhill township, Fayette County, Pa. He is a son of Adolph and Sarah (Beatty) Eberhart, both natives of Fayette County, Pa.

Adolph Eberhart, Sr., (subject's grandfather) came from Switzerland to Maryland ... when a young man **and learned the trade of glass cutting**. He was an employee at the first glass factory west of the Allegheny Mountains, located on Georges Creek, near New Geneva ...

Adolph Eberhart, Jr. (subject's father) was born June 8, 1816, and was raised on his father's farm. He was married in 1839, was a farmer, and, at his father's death, in 1863, inherited one-half of the homestead farm of the 480 acres (once "Phillips' Choice"). He erected a comfortable house on the land, and there he continued to farm till his death. From 1850 to 1852 **he was engaged in the manufacture of glass** at New Geneva, as a member of the firm A. and M. Eberhart & Co.

This was what I knew of glassmaking ancestors. It is not part of our family story. This little fact has been entirely forgotten. Loving glass as I do, I felt compelled to dig a little deeper. If I was going to have ancestors, the thought of having glassmaking ancestors really appealed to me.

So according to Fayette County historians, Adolph Eberhart, Sr. (b.1783-d.1863) learned glass cutting in America. And his two sons, Adolph Jr. (b.1816-d.1882) and Martin Eberhart (b.1812-d.1865), had a glass company for two years in New Geneva. I began investigating this lead and discovered this biography was correct on some points and incorrect on other points.

In the first instance, the first glassmaking Eberhart to immigrate to America was named George Martin Eberhart (b.1746-d.1792). His son was named Adolph Eberhart (b.1783-d.1863) and his grandson was named Adolph Eberhart (b.1816-d.1882). All three Eberhards worked as glassmakers. George Martin learned glassmaking in Europe and brought glassmaking to America. George Martin Eberhart taught his sons and his grandsons the art of glassmaking. He came from a long line of famous glassmakers who had been in glassmaking for at least 2,000 years. And exactly as Kurinsky describes, George Martin descended from a family of intermarried-glassmaking families.

George Martin Eberhard made the passage from Rotterdam, the Netherlands, on the ship Britannia and arrived in Philadelphia on September 18, 1773. The Britannia's manifest is quite astonishing. George Martin Eberhard made the passage with ten

glassmaking cousins. These 11 men were representatives of some of the biggest names in Northern European glassmaking. The cousins he travelled with included:

Johan George Gunckel Johann Balthasar Kramer Johann Georg Kramer Johan Georg Kramer Johan Martin Kramer Ludwig Kramer Martin Kramer Johan Carl Wentzel Conrad Voltz Wilhelm Voltz

Not only did these 11 men come from very famous European-glassmaking families, but they and their descendants would go on to dominate American glassmaking.

The Family Timeline

As ever, it's probably best to start in the beginning. Kurinsky laid out the basic migration route of glassmakers. They followed three paths:

- 1. They came to Europe with the Romans and migrated to the far reaches of the Roman empire.
- 2. They travelled from Israel to Khazaria to Bohemia to Germany to Switzerland and onto Alsace-Lorraine.
- 3. When the Crusaders returned to Europe: from Israel, they brought glassmakers with them. Glassmaking settlements were established in Italy, in Venice, and Altare. From there glassmakers migrated to France, Spain, Alsace-Lorraine, Switzerland, and Germany.

So, we know the glassmaker's path of migration was from Israel and into Europe. We know my family were glassmakers. Thus, my glassmaking family started out in Israel and ended up in Frederick, Maryland. Can we map out their migration between Israel and Frederick, Maryland?

Israel to Europe: 100 AD-1500 AD

Written records for specific glass making families during this period are a little sketchy. But there is a general history of the glassmaking families and glassmaking from the 1st to the 15th century which can give us some idea of the family's early migration pattern. As glassmakers were essentially one big family, my ancestors followed one of the known migration routes traversed by European glassmaking families.

The Roman Period

Various books on the history of glass speak to the first European glassmakers' origin (100 AD-300 AD) as being Semitic. One writer lets us know that once the glassmaking Israelites were brought to Rome, they spread throughout Europe. They used their secret glassmaking skill to support themselves and they moved north and west of Rome. They kept their trade a secret, passing it from father to son and from mother to daughter. They knew glass was their meal ticket and they used it. And they had a willingness to move to places of greater opportunity when the need arose. They were "vagrants".

The following quote comes from the famed glass historian W. A. Thorpe. Thorpe rather generally refers to these early glassmakers as Syrians which is close, but not quite, accurate. According to Kurinsky they were, in fact, Jews. They were from the Jewish part of the Syrian Coast (Palestine).

... Syrians never forgot the main chance (i.e. forgot their main opportunity). They were too clever to allow mere Romans to be enriched by Syrian skill. They had their 'quarters' in the great industrial cities. With the family tradition of their successors at l'Altare, Murano, and in Normandy, Lorraine, Poitou, they combined a willingness to migrate, a fervent sense of parenthood, a racial solidarity, a genius for selling, Semitic qualities which no other glassmakers have ever possessed.²

There is evidence Semitic glassmakers made their way to the area between Germany and Alsace-Lorraine in the second century. Northern Roman capitals attracted Semitic glassmakers and they stayed and set up glass houses.

The area of the Northern appropriation may be described as the Seine-Rhine glassfield. Within it the chief centres of production remained where they had been established in the second century: the Foret d'Argonne in Lorraine, the region of Treves, the Rhineland about Cologne and Mainz, Picardy near Amiens and Beauvais, and Belgian Gaul near Liege and Namur.³

Early Middle Ages: 476 AD-1000 AD

The same historian goes on to say that in seventh century, "Semites" continued to control the glass market. They had spread from Rome to various locations in northern Europe.

Merovingian Gaul (seventh century France) was full of Semitic tradesmen on the make. In most of the great cities, Arles, Nice, Marseille, Orleans, Bourges, Treves, and above all Paris, industrial capital was largely controlled by Semites. Their activities were not confined to the black-coat business of bankers, ship-owners, moneylenders, and wholesale produce merchants. They were leaders in the professions of law and medicine and in the arts of the jeweller, goldsmith, and silversmith. Glass was one of these preserves. When this fact is remembered it becomes tolerably certain that claw-breakers, cone-breakers, and other high-class vessels were the work of Syrian firms who lingered in the Seine-Rhine field as long as they could extract a living from the new aristocracy.⁴

As the dark ages rolled over much of Europe, people of arts, trades, and learning were chased out. This came to include glassmaking. Chasing out talented, educated people is never a good plan. It caused the dark ages in Europe. When Ferdinand and Isabella pulled the same stunt, expelling its Jewish population and all the Jewish tradesmen, it

² W. A. Thorpe, *English Glass. Second Edition* (Soho: Adam and Charles Black 1949), p.7

³ Thorpe, *English Glass*, p.12

⁴ Thorpe, *English Glass*, p.76

threw the Iberian Peninsula into a dark age that never ended. Note to self: do not make your country a place smart people flee.

The first was the growth of anti-Semitism in Merovingian Gaul during the late sixth and early seventh centuries. This movement has been made familiar in its religious aspect as a conflict of the Christian Church with the Jews, but the real issue was racial and commercial. The Germans who invaded Gaul discovered that the industrial capital of the country was largely in the hands of orientals, in some trades their superiors as craftsmen, and invariably their superiors as men of business. It did not much matter, from this point of view, whether a concern was specifically Jewish or generally Syrian. The glass industry suffered with the other rackets of the Semite. High-class models disappear when anti-Semitic propaganda was most intense, and we may regard Castle Eden and Taplow as among the last works of the Syrian gaffers before they were driven out of business.⁵

When Europe drifted into the dark ages, i.e. chased all the skilled Jews out, we lose track of the glassmakers of this region. Some no doubt stayed and survived as best they could. Perhaps they lived on the edge of forests and made some glass. Or they migrated to other parts of the world where they had better business opportunities. Either way, from the ninth century to the 14th century, glassmakers from this part of Europe disappear from the historical record.

High Middle Ages: 1000 AD-1250 AD

This would be the darkest of the dark ages for glassmaking in Europe. There seems to be very little activity to be reported. And certainly, very little for the region from whence my glassmakers came, southern Germany through Alsace to Switzerland.

Late Middle Ages: 1300 AD-1500 AD

Whether or not Semitic glassmakers survived the dark ages is up for debate. What is certain, when a demand for glass returned to northern Europe, glassmakers appeared. Glassmakers needed sand, wood, and a patron. This area was rich in wood and sand, and as soon as there was a patron, there were glassmakers.

Kurinsky says that German-speaking glassmaking families, such as mine, made their way to northern Europe via Israel, Khazaria, Bohemia, and onto Germany.

In theory, my glassmaking family, from this region, could have come from the first wave of "Semites" (100 AD-400 AD) i.e., Israel, Italy, Germany. Or the second wave (1300 AD-1500 AD) Israel-Khazaria-Bohemia-Germany. Or both. Either way, they appear north of the Alps making glass in the 15th century.

In 1500, the European glass world can be cut in two parts. Southern European glassmaking and northern European glassmaking. That term, NORTH OF THE ALPS is an important distinction. What made the glassmaking north of the Alps and south of the Alps different?

⁵ Thorpe, *English Glass*, p.77

Israelites made their glass using something called natron. Natron was a soda-rich mineral mined from Wadi el Natrum, or the Soda River, in Egypt.

When glassmaking began anew in Southern Europe, in Italy (Venice and Altare), in 1300, the glassmakers did not have access to natron. They had to improvise. They figured out or knew that soda-rich plants that grew along the seaside could be burned to produce a soda-rich ash. Glass made with the ashes of soda-rich plants became known as soda-lime glass.

The glassmakers north of the Alps did not have access to these soda containing plants. They too had to improvise. They learned that if you burnt certain wood and ferns, bracken fern specifically, you could make an ash that was similar to Natron. This fern ash could be used to make glass. Glass made with fern ash was initially green or brown. This is called potash-lime glass.

North of the alps, potash-lime glass was known as Waldglas or wood glass. It was called that because to make it, you had to be in or near a forest. You had to be in the wood and ferns. Glass huts, or glass factories were then located in the woods.

Lurking in this bit of European glass making history are two traits that will appear over and over again. When Natron from Egypt was no longer available because of the Muslim blockade, glass makers improvised. They burnt sea plants of bracken ferns to get the ash they needed to make glass. They also innovated. They were constantly innovating their glass making processes. This improvising and innovating spirit led to all kinds of new types of glass. Members of my glass making family invented crystal glass, milk glass, ruby red glass and porcelain. They exhibited a creative spirit.

Getting back to the north/south glass variants, it may seem like a subtle difference, glass made with beach plant ash (soda-lime) versus glass made with burnt up fern ash (potash-lime). However, it was not subtle. The result was two entirely different forms of glass. For a time, southern European glass and Northern European glass were fairly distinct because of the different base ingredient.

Emphasis on "for a time" because glassmakers were always on the move, always looking for a patron. And, in the 16th century, glassmakers from all over Europe were moving to the shifting financial realities of their time. With glassmakers moving from north to south and south to north, the distinctions between soda glass and potash glass became less distinct.

My German-speaking *waldglas*-making family were no doubt joined by successive waves of glassmakers from southern Europe. This is evidenced by the inclusion of southern European technologies and styles into the German-speaking glassmakers' repertoire. Three known groups of glassmakers made their way to northern Europe. This would include the Venetian, the Altari, Spanish glassmakers, and Huguenot glassmakers. It is clear somebody married an Italian when a German speaking glasshouse started making Italian style glass. There may be no record of the Italian woman or family in question. But, style inclusion tells the story. Factually speaking, at least 32 Huguenot glass making families were welcomed into the region occupied by my family, specifically Saarbrucken.

The 16th Century

This was a busy century.

Let's start with the Venetians. At the end of the crusader period, glassmakers from Israel and North Africa made their way to Venice. At first, they imported raw glass from Israel which they fashioned into all manner of objects. With time, they began making and fashioning some of the finest glass in the world. But these glassmakers really kept their secrets secret. Glassmakers who left Venice could have an assassination order put on their head. The Venetian authorities literally sent out hit men to take out any glassmaker on the move and likely to reveal the secret of Venetian glass making. Despite that deterrent, Venetian glassmakers did leave Venice and head west and north.

In the 11th and 12th centuries Venice had inherited glassmaking which had flourished from high antiquity in Syria and Egypt, and during the four centuries that followed she was so chary of her secrets and brought her skill to such a fine perfection that merchants and noblemen in every land sought to adorn their tables with her gracious and splendid vessels. But the tyranny that had guarded the art served also to drive it into exile, and glassmakers of a rebellious temper, following commercial opportunities or distinguished patronage, left Murano and coming to France and Spain, and Germany and the Low Countries, fell to making glass a la facon de Venise which preserved the technique and the convention but not the quality of those still working at Venice.⁶

Then there were the Altari. Altare was set up as a glassmaking commune at the same time as Venice, between the 13th and 14th century. The specifics are debated. But one theory is this: One of the crusader princes of Israel, Marquise de Montferrato, whose home was Altare, imported glassmakers to his domain. Once situated, the imported Jewish glassmakers made glass as fine as that found in Venice. Unlike the Venetians, the Altari did not forbid its community members from leaving, so they migrated north and west. They did not have to look over their shoulder for assassins when they made the move!

Lastly, when Ferdinand and Isabella issued the Edict of Expulsion, and Jews were forced to leave Spain, that included Spanish-Jewish glassmakers. Some left immediately after the Edict of Expulsion was enacted. Some stayed, converted to Catholicism, and then left. The converted Spanish Jews discovered conversion did not alleviate Spanish anti-Semitism. Post-expulsion Spain was very problematic for converted Jewish glassmakers. Spanish-Jewish and converted Spanish-Jewish glassmakers made their way to Turkey, Italy, and Holland. From all three spots, they made their way to the German-speaking glassmaking world. Many of the Huguenots that arrived in my families glass making region were really Spanish Jews travelling using "Huguenot" as their cover story.

Thus, by the 16th century, my *waldglas*-making family had no doubt absorbed glassmakers from these three glassmaking centers. Their increased level of skill and

⁶ W.A. Thorpe, *English and Irish Glass*, (London and Boston: The Medici Society, 1927) p.5

knowledge indicates they had married into some families that brought some pretty sophisticated glassmaking skills to the marriage. Wood glass was gone, and it was replaced with crystal, mirror, gemstone like glass.

Genealogical records tracking marriages between the northern European and southern European glassmaking families are hard to find, in part, because glassmakers changed their names. In Spain, the last name was Jacopa Bar Toledo, in Italy it became Jacobo Bartoletti, and in Germany it became Jakob Block. Some of the new names were versions of the old name, and sometimes they were just made up. In addition to taking a more local name, glassmakers used a lot of aliases and even different versions of the alias. A woman named Anna Maria Toledo-Olivera became Anna Margaretha Myer, or Anna Margaretha Ayer. Beyond constantly changing names, glassmakers were secretive and did not leave a lot of records when they did play name games.

Specific records are hard to find. However, glassmakers were from one big glassmaking family that behaved in a similar manner, no matter where they went. One odd feature of these secretive folk was this. Wherever a glassmaker landed, other glassmakers took them in.

Evidence of this can be found in the history of the glassmaking commune of Altare. Good records of this commune survive so we can see how glassmakers moved from community to community. When the Spanish-Jewish glassmakers, who may or may not have spoken Italian, made their way from Spain to Italy, they were welcomed with open arms by the Altari. They were called forestieri, or foreigners, and they had Spanish names. But they were made welcome.

An extraordinary number of forestieri appear in Altare in the seventeenth century with names which identify them as coming from Iberian Portugal or Spain. The fact these stranieri, or "outsiders" were straight away made welcome at the Universita (Glass making commune) takes on sharp significance in light of the otherwise inflexible application of injunctions against the acceptance of outsiders. The statutes of the community explicitly proscribe access to the furnace to anyone unrelated to the registered families.

The local paesani (people) could not be hired for anything other than the menial housecleaning jobs within the vetreria (glass house) when they were permitted to work there at all. The uncompromising restrictions were enforced by severe penalties for their transgression.

The Universita became more than a melting pot for certain foreigners; it became the hub of their dispersal into the diaspora. The secrets of glassmaking were then universally and strictly confined within the family circles of glassmakers. The economic interests of the glassmaking community would seem to be to prevent the industry spreading beyond its borders. Yet the Universita not only condoned but encouraged members to establish competitive enterprises abroad, and made the emigrants welcome upon their return. This apparently schizophrenic attitude can only be rationalized by the proposition that, indeed, these foreigners were considered family, and so considered because they were Jews.⁷

Again, all glassmaking families, no matter where they lived, shared some common code of behavior. If the Altare welcomed the Spanish-Jewish glassmakers, the Germanspeaking branch of the family behaved the same way. When the Venetian, Altari, and Spanish glassmakers hit Northern Europe, they were absorbed. They were welcomed and became part of the German-speaking glassmaking family.

The 17th Century: Vagrants

First and foremost, glassmakers at all times and in all places were vagrants. They moved when business dried up and sprang up in locations with business opportunities. They moved when they ran out of wood to fire the glass ovens, or sand to feed the ovens, or when a patron ran out of money.

Sometimes they moved because they had a better offer. The aristocrats and the Church leased land to the glassmakers. These leases had terms that included length of the lease, percentages of the profits, and liberties extended to the glass makers. If a glassmaking family were offered a more attractive deal, they took it.

One thing is clear: The aristocrats and the Church alike always needed money and were lazy. Glassmakers could take two worthless commodities, sand and wood, and turn them into an income stream. Aristocrats and the Church were always trying to lure glassmakers to come and make them some money.

What really makes glassmakers unique in European history is this. They were neither aristocrat nor peasant and they set the terms of where they went and what they did. They had to be respectful of their patron, but the patron always knew the glassmakers had other offers. The fear of losing their cash cows kept both the aristocrat and the Church in check.

Following the 30 Years' War, much of Alsace-Lorraine was depopulated. The Duke of Lorraine, being a forward-thinking person, opened his lands to people with skills, regardless of their nationality or religion. If you had skills, you were welcomed. Especially glassmaking skills. Some of my glassmaker ancestors followed up on that offer. Indeed, much of my glassmaking family migrated from Germany and Switzerland to Alsace-Lorraine in the 16th century. And life was good in Alsace-Lorraine for a time.

My glassmaking families' religious affiliations were rather elastic. One thing is for certain, they did not present themselves as Jews. They presented themselves as whatever pleased their patrons. When my ancestors went to Lorraine, they presented themselves as Protestant. At that time, it was easier to be a Protestant in a country controlled by the Roman Church. In a sense, being Protestant made them outside the law. Glass historians suggest they abandoned Catholicism to get out from underneath the thumb of the Roman Church.

⁷ Samuel Kurinsky, *The Glassmakers of Altare, Fact Paper 25*, (Hebrew History Foundation) <u>https://hebrewhistory.info/factpapers/fp025_altare.htm</u>

However, that plan backfired when Louis XIV expelled non-Catholic Christians from France (1685). As the saying goes, they backed the wrong horse. When life became complicated in France, they did what glassmakers always did. They changed it up. Some followed opportunities in America or England and some became Catholic and stayed in France.

Those that stayed in Lorraine as Catholics did not stay long. One hundred years later, when the French Revolution occurred (1792), my remaining family members had to make a move. Glassmakers depended on the patronage of the rich, and when commissions stopped coming in, they moved on. Their French patrons literally lost their heads, and headless people do not commission chandeliers. Thus, another wave of European glassmaking ancestors made the voyage to England or America.

Let's have a look at the European life of my glassmaking ancestors, one family at a time.

The Eberharts

The Eberhart family appear on the historical record in the tiny village of Grossbreitenbach, Thuringia, Germany in the 16th century. The name came be spelled Eberhart, Eberhard, Eberhardt, or Everhart. The Thuringian people were Slavs, specifically Sorbs, that were absorbed into the German states. The Eberhart family were unlikely of Slavic origins, but they may have migrated to Grossbreitenbach with the Slavs.

The Eberharts are an excellent example of a family from the greater glassmaking family. From the time they appear in the written record, they were glassmakers, from a village of glassmakers. Though the name Eberhart appeared in the 16th century, the family is married into glassmaking families known to have produced glass long before that date. George Martin Eberhart was a documented 13th generation glassmaker when he migrated to America. His family tree contains the top glassmaking families and top glassmakers in Northern Europe.

More is known about the families they married than the Eberharts themselves. As they just appear as glassmakers, in a glassmaking town, in the 16th century, it is quite likely they made up the name. The only way glassmakers could distinguish themselves was to make up a new name, which they quite often did. This may have been the case with the Eberharts. The name itself is found in the Dictionary of German Jewish Surnames as a Jewish name, a combination of Eber (boar) and Hard (hard).

They appear in Grossbreitenbach but after that they were on the move. This was not unusual for glassmaking families. They literally burned through wood and sand at a remarkable pace. The need for raw materials necessary to practice their art meant they were constantly in search of a place with a forest (wood) and a river (sand). The Eberharts moved from small towns on the edge of a great wood, with a river, quite often. However, they always found a wife from a glassmaking family, often from a different glassmaking town.

Niclaus Eberhart	b.1583, Grossbreitenbach, Thuringia (DEU) ⁸
Glassmaker	d.1623, Grossbreitenbach, Thuringia (DEU)
Martin Eberhart	b.1599, Grossbreitenbach, Thuringia (DEU)
Glassmaker	d.1667 Grossbreitenbach, Thuringia (DEU)
married	
Anna Kiesewetter	b.1603 Grossbreitenbach, Thuringia (DEU) d.1690 Grossbreitenbach, Thuringia (DEU)
Johan Martin Eberhart	b.1627 Grossbreitenbach, Thuringia (DEU)
Glassmaker	d.1714 Durstel, Neiderrhein, Alsace (FRA)
married	
Maria Catherine Gundelach	b.1669, Gelnhausen, Main-Kinzig-Kreis (DEU)
Glassmaking family	d.1699, Grundau, Hesse (DEU)

Ludwig Adolph Eberhart	b. 1690 Breitborn, Hesse (DEU)
Glassmaker	d.1770 Freiderichstahl, Sarbrucken, Saarland (DEU)
married	
Anna Wentzel	b.1692 Breitborn, Hesse (DEU)
Glassmaking family	d.1736 Freiderichstahl, Sarbrucken, Saarland (DEU)
Johann Frederick Adolph Eberhart	b.1718 Karlsbrun, Saarland (DEU, French frontier)
Glassmaker	d.1770 Frederick, Maryland (USA)
married	
Anna Elizabeth Reppert	b.1723 Nassau, Sarbrucken Saarland (DEU)
Glassmaking family	d.1784 Frederick, Maryland (USA)
George Martin Eberhart	b.1746 Karlsbrun, Saarland (DEU) (French frontier)
Glassmaking family	d.1792 Frederick, Maryland (USA)
married	
Maria Christina Volz	b.1762 Voelklingen, Saarbruecken, Saarland (DEU)
Glassmaking family	d.1806 New Geneva, Pennsylvania (USA)
Adolph Eberhart	b.1783 Frederick, Maryland (USA)
Glassmaker	d.1863 Pennsylvania (USA)
married	
Elizabeth Philips	b.1774 Pennsylvania (USA)
	d.1852 Pennsylvania (USA)
Adolph Eberhart	b.1816 Pennsylvania (USA)
Glassmaker	d.1882 Pennsylvania (USA)
married	
Sarah Beatty	b.1813
Irish Glassmaking Family	d.1887

⁸ DEU is the country code for Germany, used henceforth in this list.

The Gundelach Family

My glassmaking Gundelach family first appear in Grossalmerode, Germany in the 16th century. This is a tiny town with a big place in European history. To understand how significant this town was, and how influential the family that controlled it was, you really must put your mind back in time. None of the facts that follow have any relevance in the modern world but were hugely significant in prior times.

From the medieval age forward, Grossalmerode was famous for crucible manufacturing. Indeed, its crucibles were so good they were exported internationally. Examples have been found in Scandinavia, England, and Portugal. At first glance, the significance of good crucibles is not obvious. The residents of Grossalmerode made crucibles that could withstand high temperatures. These high-temperature crucibles were crucial for the manufacture of glass, gold and silver coins, the purification of gold and silver, and more. Working with glass, gold, and silver depended on crucibles that could handle high temperatures. If you wanted gold coins you needed high temperature crucibles. If you wanted glass, you needed high temperature crucibles. Wherever you were, all glassmaking and goldsmithing was 100% dependent on high heat-resistant crucibles. How heat resistant was the Grossalmerode crucible? Look that the melting temperatures of the substances melted in them.

1948°F/1064°C	Melting point of gold
900°F-3180°F/500°C-1650°C	Melting point of glass
1763°F/961°C	Melting point of silver

Grossalmerode crucibles could withstand temperatures of 2192°F/1200°C!

To put this in perspective, gold and silver coins were important. Gold crowns were important. Glass for churches and windows was important. But what was really, really important, was the one thing that made all of those things possible: High-heat crucibles.

Glassmakers, goldsmiths, and silversmiths all relied on high temperature-resistant crucibles. This made the village of Grossalmerode important. And it made the crucible makers in Grossalmerode important.

How the Grosselmerodians had the knowledge to make these crucibles was and remains a mystery. It was a "Semitic" technology that somehow made its way to a small town in Germany. What is not a secret is the fact that this family of villagers kept their recipe and their process a closely guarded secret. Today, we know they used Kaolinic clay, fired to 2012F/1100C for an extended period to produce their indestructible crucibles. From Scandinavia to Spain, goldsmiths, silversmiths, and glassmakers relied on Grossalmerode crucibles to make the nice things the rich adored.⁹

Contemporary research reveals that the secret to the Grossalmerode crucibles was a mix of clay, a firing technique, and the compound it produced. The Grosselmerode process produced Mullite or porcelainite. Mullite occurs naturally in volcanic rock and

⁹ Martinón-Torres, M., Rehren, T. & Freestone, I. *Mullite and the mystery of Hessian wares*. Nature 444, 437–438 (2006). <u>https://doi.org/10.1038/444437a</u>

naturally thermally heated rock. It's asbestos-like in that it does not burn. Perfect for a crucible that must be heated to very high temperatures. So, volcanoes made it, and somehow these villagers knew how to make it?

Did goldsmiths have power or did the people who made goldsmithing possible have power?

The Gundelach family were involved in crucible making. But they were also glass makers. Indeed, Grossalmerode incubated many Gundelachs that would go onto to making significant contributions to the glassmaking world. Like all glassmaking families, the Gundelachs married amongst themselves and named their children with the same four names. As a result, even the most informed glass historians cannot sort out the Gundelach family tree. It's more like a pile of crabgrass than a family tree.

What is known is this: The Gundelach family were glassmakers in Hesse, from the Middle Ages forward. The oldest record of them is for Contz Gundelach, who made glass on the edge of the Kaufunger Forest in 1505. By 1537, four members of the Gundelach family are mentioned in the list of glassmakers in Hesse. The family worked in glass as founders, owners, lessees, workers, and masters. As time progressed, the family had many branches. Each branch produced a specialized type of glass.

Crystal Engravers

Franz Gondelach was born to the glassmaker Franz Gundelach and Martha Becker in 1663. Due to the numerous members of the Gundelach family in the glass business, Franz Jr. changed the spelling of his name from Gundelach to Gondelach. He did not want his creations to be mistaken for those of the other Gundelachs. He was very popular with the aristocracy and carried titles: court glassmaker, court glass engraver, the prince's glass engraver, etc. He was famed for his glass engraving, although, he was also a fine glassmaker. Officially appointed court glassmaker on January 26, 1688, he would retain that position as long as his eyes held out. Literally he worked until he could not see to engrave glass. His engraving work is thought to be second to none.

Apparently, the family was very popular with the crown, because, when Franz's brother was born, Johann Heinrich (b.1673), Prince Johann Georg of Anhalt acted as the godfather at the baptism.

And here we have a great example of why these families and glass history is so hard to study. Franz Jr. named his son Johann Heinrich. Thus, he had a brother and a son with the same name. That would be two Johan Heinrich Gundelachs, about the same age working in glass at the same time. Johann Heinrich, the brother, married his relative, Anna Christina Gundelach. Anna Christina was the daughter of another famous glass maker, Engelhardt Gundelach. Franz Gondelach, his brother, and his son were famed glass engravers. Glass engravers relied on crystal makers to make beautiful crystal objects that needed engraving. The Franz Gondelach posse (Franz Jr, Johan Heinrich the brother, and Johan Heinrich the son) bought their raw crystal objects from Englehardt Gundelach.

Franz Gondelach was in some form of partnership with a relative, Christoph Eberhard. Apparently, they did not get along very well and when Franz died, Christoph Eberhard seized the factory and attempted to put Johann the brother and Johann the son, out of the glass engraving shop. Eberhard was, of course, also a relative of the father, the brother and the son. I can imagine what holiday parties were like that year.¹⁰

Johann Heinrich Gundelach, the son, (he reverted to the original spelling of the name), may have been put out of the family glassworks by his relative Christoph Eberhard, but he did not stop fighting to get the glass works back. Seven years after the death of his father, and after the death of Christoph Eberhard, he did gain control of his father's glassworks. That factory was closed when the timber supply dwindled. Like all glassmakers, Johann Heinrich, the son, just moved on when the supply of wood or sand ran out.

Johann Heinrich Gundelach, the son, then founded a new enterprise with his uncle's godfather, the prince's, permission. The new venture produced glasses that were sold in Cologne and Frankfurt.

After the landgrave closed the glasshouse at Obernzell in 1743 to conserve timber there, Johann Heinrich Gundelach applied again for the lease of the Altmunden factory, pointing out his far-reaching trade relations, the reputation of his products, and his particular knowledge and experience, "which I have acquired concerning the fabrication of white as well as colored glass by a practice of many years of traveling." He reminded Prince Willhelm, son of the late Landgrave Carl, and governor for his brother Frederick I of Sweden, that the prince had visited the factory at Obernzell and so was able to satisfy himself as to the quality of its glasses.¹¹

Johann Heinrich Gundelach, the son, continued glassmaking for the duration of his life, and passed on glassmaking to his sons.

Crystal Makers

There was a time when rock crystal was mined, cut, and carved into all manner of domestic objects. Fashioned rock crystal was both popular and insanely expensive.

Carved rock crystal required finding pieces of hyaline quartz big enough and clear enough to carve and then carving them into plates and glasses. The expense was such that it was only available to monarchs.

The demand for carved clear rocks inspired glassmakers to create "crystal" or a glass that mirrored the qualities of cut rock crystal minus the outrageous expense. The Gundelach family pioneered using lead to make crystal glass. If making clear glass was a skill, making really hard rock like clear glass was a superhuman skill. It will come as no big surprise that the families that figured out how to make crystal, kept that knowledge to themselves. One branch of the Gundelach family tree were crystal makers.

¹⁰ Franz Gondelach: His Life and his Career. Journal of Glass Studies, Vol 38, Franz Gondelach: Baroque Glass Engraving in Hesse (1996) p.21-23.

¹¹ Johann Heinrich Gundelach II, Journal of Glass Studies, Vol. 38, Franz Gondelach: Baroque Glass Engraving in Hesse (1996) Corning Glass Museum. pp.69-77

During the 17th century, there were considerable advances in glass making technology north of the Alps. This complicated process involved not just local glassmakers and itinerant craftsmen from Italy and elsewhere, but also various alchemists whose interest were gradually shifting to the practical application of chemistry. This resulted in the production of new types of glass ...

For some time, glassmakers had been looking for ways to produce a clear glass that would rival rock crystal in visual quality, using hot working methods as well as cutting and then engraving. The cut and engraved baluster goblets made of potash glass were produced about 1700 in various parts of western and central Europe appear to differ from all the transalpine and Italian glass objects made in the 16th and early 17th centuries.¹²

Englehardt Gundelach (b.1653) was famous for many things, not least of which was producing gemstone-quality colored glass and crystal glass. On the forefront of crystal production, it appears he was one of the innovators mentioned above. Crystal was a very specialized form of glass, and he was an expert in crystal glass technology. Englehardt worked in a variety of royal courts creating crystal for table use, chandeliers, mirrors, and decoration.

Englehardt Gundelach deserves our attention because he was one of four German glassmakers employed at the glass factory of the Bonnhomes in Liege in February 1664. Apparently, he was still abroad in 1680 when his sister Catharina Gundelach acted on his behalf at the Grossalmerode when he was nominated to the godfather of a son of his brother-in-law, Peter Eberhardt. The Parish register does not name his residence and so one cannot decide whether was still working in Liege at that time, or in France. From February 6, 1682, he appears in the parish register of Holsbausen-Wilhelmhausen as "the prince's crystal maker".

Let's have a "how inbred were these families" moment. Very. Johann Heinrich Gundelach, crystal carver, married his distant cousin, daughter of Englehardt Gundelach. Englehardt Gundelach's sister, Catharina, married relative Peter Eberhardt. Every person mentioned here descends from the marriage between a Gundelach and a Wentz several generations back.

Engelhardt's son Benedictus¹³ (b.1675) worked alongside his father producing high quality crystal, ice jugs, large medallions, and flasks and goblets destined to be engraved by the famed glass engraver Franz Gondelach. He was listed in the parish register as a crystal and glassmaker at the prince's crystal glass factory.

Benedictus's son, Johann Engelhardt Gundelach (b.1697) was a famed crystal maker who also supplied crystal to be engraved by Franz Gondelach. But he ventured into mirror making and chandelier making.

¹² Jerzy J. Kunicki-Goldfinger, Eiland: George Gundelach and the Glassworks on the De^{*}c^{*}ín Estate of Count Maximilian Thun-Hohenstein. (2006) Journal of Glass Studies, 48. pp.225-247

¹³ Latin for Baruch

He also delivered a large concave mirror to the court on January 6th and on March 25 he received 80 reichsthalers for it. His task at Eisfeld in Sachschen-Hildburghausen, where he worked for the following year, was to make a large chandelier, which required special knowledge and experience in the preparation and use of molds for casting and pressing.¹⁴

Milk Glass or White Glass

The origins of Georg Gundelach are a bit of a mystery. Not because the Gundelach family was a mystery, but rather because the family is so interconnected through marriage, and they used the same names, that it's hard to place him.

A Georg Gundelach (1) (d.1660) had two sons. Georg (2) and Franz. Georg (2), born in 1640, married Ursula Jungelig, daughter of glassmaker Gerwig Jungelin, in 1664. They had a son who they named Georg (3). Georg (3) will be the glassmaker discussed here.

In all probability, Georg Gundelach (3) was a close relation of Franz Gundelach, the famous engraver. Documents reveal Georg's (1) other son Franz Gundelach, married Martha Becker in 1660. This couple produced a son Franz (b.1663-d.1726) who would go onto become the court glass engraver at Hessen Kassel mentioned previously. This would make Georg Gundelach (3) (b.1664) and Franz (b.1663), the famous engraver, cousins.

Whatever his genealogy, Georg (3) was a crystal maker of well-known ability. However, he also figured out how to make milk glass or white glass. White glass was a high demand item because it could be decorated with glass enamel. Some of the prettiest objects of the day were decorated milk glass.

Officially, Georg (3) worked for the Elector of Brandenburg. His factory produced highquality milk glass, crystal and mirror glass. He hired the engraver Christopher Tille and painter Gottfried Ruel to decorate his luxury crystal and milk glass. The Elector of Brandenburg had first choice of purchasing Georg's (3) works, and what he did not want, was sold in the open market. Georg (3) was a famed Cristalglassmeister for the entirety of his career. At some point, Johann Kunkel became involved with Georg's (3) enterprise. Remember that name, it will appear again soon.

¹⁴ CRYSTAL AND COLORED GLASS: THEIR USE AT COURT. (1996). Journal of Glass Studies, 38, 63–68. <u>http://www.jstor.org/stable/24190128</u>

Peter Gundelach		o.1532 Grossalmerode, Hesse (DEU)
married		a. 1597 Glossalmelode, Hesse (DEO)
Ursula Wentzell		o 1536 Grossalmerode, Hesse (DEU)
		d.1630 Grossalmerode, Hesse (DEU)
Cyriax Franz Gundelach		p.1581 Grossalmerode, Hesse (DEU)
	(d.1624 Grossalmerode, Hesse (DEU)
married		
Magdalena Strecker		o.1585 Grossalmerode, Hesse (DEU)
Jeremias Gundelach		o.1603 Grossalmerode, Hesse (DEU)
	(d.1678 Grossalmerode, Hesse (DEU)
married		
arbara Gundelach b.1609 Grossalmerode, Hesse (DEU)		
(born Gundelach)	d.1676 Grossalmerode, Hesse (DEU)	
Johann Heinrich Gundelach	h b.1628 Grossalmerode, Hesse (DEU)	
	d.1701 Gelnhausen, Main-Krinzi-Kreis, Hesse	
we emile at	(DEU)
Mamed Succes Licemen		4627 Laubach Llassa (DELL)
Susan Lissman		D. 1637 Laubach, Hesse (DEU)
		1686 Breithorn, Hesse (DELI)
Anna Christina Gundolach	(Siblin	d.1686 Breitborn, Hesse (DEÚ)
Anna Christina Gundelach	Sibling	d.1686 Breitborn, Hesse (DEU) Maria Christina Gundelach b 1669 Gelphausen, Hesse (DEU)
Anna Christina Gundelach b.1664 Gelnhausen, Hesse (DEU) d.1739 Fishbach, Saarland (DEU)	Siblinę	 d.1686 Breitborn, Hesse (DEU) Maria Christina Gundelach b.1669 Gelnhausen, Hesse (DEU) d 1699 Grundau, Hesse (DEU)
Anna Christina Gundelach b.1664 Gelnhausen, Hesse (DEU) d.1739 Fishbach, Saarland (DEU)	Sibling	 d.1686 Breitborn, Hesse (DEÚ) Maria Christina Gundelach b.1669 Gelnhausen, Hesse (DEU) d.1699 Grundau, Hesse (DEU) married ▲
Anna Christina Gundelach b.1664 Gelnhausen, Hesse (DEU) d.1739 Fishbach, Saarland (DEU) married	Sibling	 d.1686 Breitborn, Hesse (DEU) Maria Christina Gundelach b.1669 Gelnhausen, Hesse (DEU) d.1699 Grundau, Hesse (DEU) married
Anna Christina Gundelach b.1664 Gelnhausen, Hesse (DEU) d.1739 Fishbach, Saarland (DEU) married	Sibling	 d.1686 Breitborn, Hesse (DEU) Maria Christina Gundelach b.1669 Gelnhausen, Hesse (DEU) d.1699 Grundau, Hesse (DEU) married Johann Martin Eberhart
Anna Christina Gundelach b.1664 Gelnhausen, Hesse (DEU) d.1739 Fishbach, Saarland (DEU) married Johann Ferdinand Heinrich Wentzel (Glassmaking family)	Sibling	 d.1686 Breitborn, Hesse (DEU) Maria Christina Gundelach b.1669 Gelnhausen, Hesse (DEU) d.1699 Grundau, Hesse (DEU) married Johann Martin Eberhart b.1627, Grosbreitanbach, Hesse (DEU)
Anna Christina Gundelach b.1664 Gelnhausen, Hesse (DEU) d.1739 Fishbach, Saarland (DEU) married Johann Ferdinand Heinrich Wentzel (Glassmaking family) b.1656 Fulda, Hesse (DEU)	Sibling	 d.1686 Breitborn, Hesse (DEU) Maria Christina Gundelach b.1669 Gelnhausen, Hesse (DEU) d.1699 Grundau, Hesse (DEU) married Johann Martin Eberhart b.1627, Grosbreitanbach, Hesse (DEU) d.1714 Durstal, Alsace, (FRA)
Anna Christina Gundelach b.1664 Gelnhausen, Hesse (DEU) d.1739 Fishbach, Saarland (DEU) married Johann Ferdinand Heinrich Wentzel (Glassmaking family) b.1656 Fulda, Hesse (DEU) d.1726 Breitborn, Hess (DEU)	Sibling	 d.1686 Breitborn, Hesse (DEU) Maria Christina Gundelach b.1669 Gelnhausen, Hesse (DEU) d.1699 Grundau, Hesse (DEU) married Johann Martin Eberhart b.1627, Grosbreitanbach, Hesse (DEU) d.1714 Durstal, Alsace, (FRA)
Anna Christina Gundelach b.1664 Gelnhausen, Hesse (DEU) d.1739 Fishbach, Saarland (DEU) married Johann Ferdinand Heinrich Wentzel (Glassmaking family) b.1656 Fulda, Hesse (DEU) d.1726 Breitborn, Hess (DEU)	Sibling	 d.1686 Breitborn, Hesse (DEU) Maria Christina Gundelach b.1669 Gelnhausen, Hesse (DEU) d.1699 Grundau, Hesse (DEU) married Johann Martin Eberhart b.1627, Grosbreitanbach, Hesse (DEU) d.1714 Durstal, Alsace, (FRA)
Anna Christina Gundelach b.1664 Gelnhausen, Hesse (DEU) d.1739 Fishbach, Saarland (DEU) married Johann Ferdinand Heinrich Wentzel (Glassmaking family) b.1656 Fulda, Hesse (DEU) d.1726 Breitborn, Hess (DEU)	First Sibling	 d.1686 Breitborn, Hesse (DEU) Maria Christina Gundelach b.1669 Gelnhausen, Hesse (DEU) d.1699 Grundau, Hesse (DEU) married Johann Martin Eberhart b.1627, Grosbreitanbach, Hesse (DEU) d.1714 Durstal, Alsace, (FRA)
Anna Christina Gundelach b.1664 Gelnhausen, Hesse (DEU) d.1739 Fishbach, Saarland (DEU) married Johann Ferdinand Heinrich Wentzel (Glassmaking family) b.1656 Fulda, Hesse (DEU) d.1726 Breitborn, Hesse (DEU) Anna Christine Wentzel b.1692 Breitborn, Hesse (DEU) d.1736 Friederickstabl, Saarbrucken	First	 d.1686 Breitborn, Hesse (DEU) Maria Christina Gundelach b.1669 Gelnhausen, Hesse (DEU) d.1699 Grundau, Hesse (DEU) married Johann Martin Eberhart b.1627, Grosbreitanbach, Hesse (DEU) d.1714 Durstal, Alsace, (FRA) Ludwig Adolph Eberhart b.1690 Breitborn Gelnhausen, Hesse (DEU) d.1770 Friederickstabl, Saarbrucken (DEU)
Anna Christina Gundelach b.1664 Gelnhausen, Hesse (DEU) d.1739 Fishbach, Saarland (DEU) married Johann Ferdinand Heinrich Wentzel (Glassmaking family) b.1656 Fulda, Hesse (DEU) d.1726 Breitborn, Hesse (DEU) d.1726 Breitborn, Hesse (DEU) b.1692 Breitborn, Hesse (DEU) d.1736 Friederickstahl, Saarbrucken (DEU)	First cousir	 d.1686 Breitborn, Hesse (DEU) Maria Christina Gundelach b.1669 Gelnhausen, Hesse (DEU) d.1699 Grundau, Hesse (DEU) married Johann Martin Eberhart b.1627, Grosbreitanbach, Hesse (DEU) d.1714 Durstal, Alsace, (FRA) Ludwig Adolph Eberhart b.1690 Breitborn Gelnhausen, Hesse (DEU) d.1770 Friederickstahl, Saarbrucken (DEU)
Anna Christina Gundelach b.1664 Gelnhausen, Hesse (DEU) d.1739 Fishbach, Saarland (DEU) married Johann Ferdinand Heinrich Wentzel (Glassmaking family) b.1656 Fulda, Hesse (DEU) d.1726 Breitborn, Hesse (DEU) d.1726 Breitborn, Hesse (DEU) d.1736 Friederickstahl, Saarbrucken (DEU)	First cousir	 d.1686 Breitborn, Hesse (DEU) Maria Christina Gundelach b.1669 Gelnhausen, Hesse (DEU) d.1699 Grundau, Hesse (DEU) married Johann Martin Eberhart b.1627, Grosbreitanbach, Hesse (DEU) d.1714 Durstal, Alsace, (FRA) Ludwig Adolph Eberhart b.1690 Breitborn Gelnhausen, Hesse (DEU) d.1770 Friederickstahl, Saarbrucken (DEU)
Anna Christina Gundelach b.1664 Gelnhausen, Hesse (DEU) d.1739 Fishbach, Saarland (DEU) married Johann Ferdinand Heinrich Wentzel (Glassmaking family) b.1656 Fulda, Hesse (DEU) d.1726 Breitborn, Hesse (DEU) d.1726 Breitborn, Hesse (DEU) d.1736 Friederickstahl, Saarbrucken (DEU) George Martin Eberhart	First cousir	 d.1686 Breitborn, Hesse (DEU) Maria Christina Gundelach b.1669 Gelnhausen, Hesse (DEU) d.1699 Grundau, Hesse (DEU) married Johann Martin Eberhart b.1627, Grosbreitanbach, Hesse (DEU) d.1714 Durstal, Alsace, (FRA) Ludwig Adolph Eberhart b.1690 Breitborn Gelnhausen, Hesse (DEU) d.1770 Friederickstahl, Saarbrucken (DEU)
Anna Christina Gundelach b.1664 Gelnhausen, Hesse (DEU) d.1739 Fishbach, Saarland (DEU) <i>married</i> Johann Ferdinand Heinrich Wentzel (<i>Glassmaking family</i>) b.1656 Fulda, Hesse (DEU) d.1726 Breitborn, Hesse (DEU) d.1726 Breitborn, Hesse (DEU) d.1736 Friederickstahl, Saarbrucken (DEU) George Martin Eberhart b.1718 Karlsbrun, Saarland (DEU)	First cousir	 d.1686 Breitborn, Hesse (DEU) Maria Christina Gundelach b.1669 Gelnhausen, Hesse (DEU) d.1699 Grundau, Hesse (DEU) married Johann Martin Eberhart b.1627, Grosbreitanbach, Hesse (DEU) d.1714 Durstal, Alsace, (FRA) Ludwig Adolph Eberhart b.1690 Breitborn Gelnhausen, Hesse (DEU) d.1770 Friederickstahl, Saarbrucken (DEU)

The Greiners

This is one remarkable glassmaking family. The Greiners had been documented glassmakers for nine generations before they married into the Eberhart family.

The first glassmaking Greiner appears in the Thuringian town of Lauscha, an area with a well-documented glass history. In 1597, Hans Greiner and Christopher Mueller petitioned the local duke to open a glasshouse. The glassmakers had identified Lauscha as having all the things necessary for glassmaking: Sand and unlimited wood. With these two essentials, the glassmakers were able to produce panes for stained glass windows, glass beads, apothecary bottles, and glass goblets.

The Greiner family is an old glassmaking family that, amongst other things, provided a lot of glassmaking daughters to marry into the other glass making families.

One very interesting branch of the family would be the Grosbreitenbach Greiners. The glassmakers Johann Gotthelf Greiner (b.1732-d.1797) and his cousin and brother-in-law Gottfried Greiner lived in Grosbreitenbach, Thuringia. However, it was not glassmaking that gives them a place in the history books. It's the fact they "invented" porcelain. Literally, the cousins are credited with making the first porcelain in Europe. These men and their descendants then opened porcelain workshops in Limbach (1751), Veilsdorf (1760), Wallendorf (1764) and Grossbreitenbach (1779).

The fact these Greiner cousins invented porcelain may have to do with who their mothers were. They both had mothers that came from the Gundelach family. Remember the crucible-making Gundelachs and their magic skill at making indestructible mullite crucibles?

Porcelain is made by preparing a specific mix of clays and heating it repeatedly to the right temperature, at which time the compound Mullite is formed. In this case, the Mullite becomes like glass needles within the clay which gives porcelain its translucent quality. The secret of Mullite production was known to the Gundelach family. The Greiner boys had Gundelach mothers. Their invention of porcelain may have been a combination of innovation and their mothers sharing Gundelach family secrets with them.

In 1847, another Hans Greiner branched out into decorative objects, glass fruits, nuts, and beads. In time the glasshouse began to specialize in blown Christmas tree ornaments. Hans' sons and grandsons continued making these ornaments, Ernst (b.1847), Otto (b.1877), Willi (b.1902), and Kurt (b.1932) included. They still do!

Ebernard Greiner	b.1263 Stuttgart, Baden-Württemberg (DEU) d 1325 Stuttgart, Baden-Württemberg (DEU)
Sharbard Grainar	h 1334 Poutlingen, Baden-Württemberg (DEU)
alassmaker	d.1391 Reutlingen, Baden-Württemberg (DEU)
married	
Judith Zahringen	b.1341 Neuffen, Baden-Württemberg (DEU)
Melchior Greiner	b.1350 Baireck, Baden-Württemberg (DEU)
glassmaker un huttenmeister	d.1410 Stengenbach, Wustenrot, Baden-Württemberg
(factory master)	
Eva Magarete Greiner	b.1390 Baireck, Baden-Wurttemberg (DEU)
(Dorn Greiner)	d. 1440 Stengenbach, Wusteniot, Daden-Wuttenberg
Peter Ulrich Greiner	b.1415 Goppingen, Baden-Württemberg (DEU)
· · ·	d. Goppingen, Baden-Wurttemberg (DEU)
married	
Anna Maria Schlaid	b.1419 Schwaben, Saxony (DEU)
	d.1444 Schwaben, Saxony (DEU)
Peter Ulrich is listed as being a glasbl	aserei (Finnish for glassblower) and Lasinpupuhalt
(Estonian for glassblower). It seems h	e may have worked in both Finland and Estonia
Peter Endres Greiner	b.1440. Nassach, Schwaban, (DEU)
glass master	d.1500 Baiereck, Baden-Württemberg (DEU)
married	
Eva Breidenbach	b.1438 Nassach, Schwaben (DEU)
Eva Breidenbach	b.1438 Nassach, Schwaben (DEU) d.1508 Nassach, Schwaben (DEU)
Eva Breidenbach Melchior Greiner	b.1438 Nassach, Schwaben (DEU) d.1508 Nassach, Schwaben (DEU) b.1460 Stengenbach, Wustenrot, Baden-Württemberg
Eva Breidenbach Melchior Greiner Maitre verrier et fondateur	b.1438 Nassach, Schwaben (DEU) d.1508 Nassach, Schwaben (DEU) b.1460 Stengenbach, Wustenrot, Baden-Württemberg (DEU) d 1520 Stengenbach, Wustenrot, Baden Württemberg
Eva Breidenbach Melchior Greiner Maitre verrier et fondateur Glassmaster and glass factory founder. Classmakor in a forset glasswork poor	b.1438 Nassach, Schwaben (DEU) d.1508 Nassach, Schwaben (DEU) b.1460 Stengenbach, Wustenrot, Baden-Württemberg (DEU) d.1529 Stengenbach, Wustenrot, Baden-Württemberg (DEU)
Eva Breidenbach Melchior Greiner Maitre verrier et fondateur Glassmaster and glass factory founder. Glassmaker in a forest glasswork near Schleasingen	b.1438 Nassach, Schwaben (DEU) d.1508 Nassach, Schwaben (DEU) b.1460 Stengenbach, Wustenrot, Baden-Württemberg (DEU) d.1529 Stengenbach, Wustenrot, Baden-Württemberg (DEU)
Eva Breidenbach Melchior Greiner Maitre verrier et fondateur Glassmaster and glass factory founder. Glassmaker in a forest glasswork near Schleasingen Ulrich Greiner	b.1438 Nassach, Schwaben (DEU) d.1508 Nassach, Schwaben (DEU) b.1460 Stengenbach, Wustenrot, Baden-Württemberg (DEU) d.1529 Stengenbach, Wustenrot, Baden-Württemberg (DEU) b.1492 Baden-Württemberg (DEU)
Eva Breidenbach Melchior Greiner Maitre verrier et fondateur Glassmaster and glass factory founder. Glassmaker in a forest glasswork near Schleasingen Ulrich Greiner Master glassmaker	b.1438 Nassach, Schwaben (DEU) d.1508 Nassach, Schwaben (DEU) b.1460 Stengenbach, Wustenrot, Baden-Württemberg (DEU) d.1529 Stengenbach, Wustenrot, Baden-Württemberg (DEU) b.1492 Baden-Württemberg (DEU) d.1565 Stengenbach, Wustenrot, Baden-Württemberg
Eva Breidenbach Melchior Greiner Maitre verrier et fondateur Glassmaster and glass factory founder. Glassmaker in a forest glasswork near Schleasingen Ulrich Greiner Master glassmaker	 b.1438 Nassach, Schwaben (DEU) d.1508 Nassach, Schwaben (DEU) b.1460 Stengenbach, Wustenrot, Baden-Württemberg (DEU) d.1529 Stengenbach, Wustenrot, Baden-Württemberg (DEU) b.1492 Baden-Württemberg (DEU) d.1565 Stengenbach, Wustenrot, Baden-Württemberg (DEU)
Eva Breidenbach Melchior Greiner Maitre verrier et fondateur Glassmaster and glass factory founder. Glassmaker in a forest glasswork near Schleasingen Ulrich Greiner Master glassmaker married	b.1438 Nassach, Schwaben (DEU) d.1508 Nassach, Schwaben (DEU) b.1460 Stengenbach, Wustenrot, Baden-Württemberg (DEU) d.1529 Stengenbach, Wustenrot, Baden-Württemberg (DEU) b.1492 Baden-Württemberg (DEU) d.1565 Stengenbach, Wustenrot, Baden-Württemberg (DEU)
Eva Breidenbach Melchior Greiner Maitre verrier et fondateur Glassmaster and glass factory founder. Glassmaker in a forest glasswork near Schleasingen Ulrich Greiner Master glassmaker married Anna Wellbronner	b.1438 Nassach, Schwaben (DEU) d.1508 Nassach, Schwaben (DEU) b.1460 Stengenbach, Wustenrot, Baden-Württemberg (DEU) d.1529 Stengenbach, Wustenrot, Baden-Württemberg (DEU) b.1492 Baden-Württemberg (DEU) d.1565 Stengenbach, Wustenrot, Baden-Württemberg (DEU) b.1492
Eva Breidenbach Melchior Greiner Maitre verrier et fondateur Glassmaster and glass factory founder. Glassmaker in a forest glasswork near Schleasingen Ulrich Greiner Master glassmaker married Anna Wellbronner Johan Ulrich Greiner	 b.1438 Nassach, Schwaben (DEU) d.1508 Nassach, Schwaben (DEU) b.1460 Stengenbach, Wustenrot, Baden-Württemberg (DEU) d.1529 Stengenbach, Wustenrot, Baden-Württemberg (DEU) b.1492 Baden-Württemberg (DEU) d.1565 Stengenbach, Wustenrot, Baden-Württemberg (DEU) b.1492 b.1492 b.1492 b.1492
Eva Breidenbach Melchior Greiner Maitre verrier et fondateur Glassmaster and glass factory founder. Glassmaker in a forest glasswork near Schleasingen Ulrich Greiner Master glassmaker married Anna Wellbronner Johan Ulrich Greiner von Finsternroth	b.1438 Nassach, Schwaben (DEU) d.1508 Nassach, Schwaben (DEU) b.1460 Stengenbach, Wustenrot, Baden-Württemberg (DEU) d.1529 Stengenbach, Wustenrot, Baden-Württemberg (DEU) b.1492 Baden-Württemberg (DEU) d.1565 Stengenbach, Wustenrot, Baden-Württemberg (DEU) b.1492 b.1524 Stengenbach, Baden- Württemberg (DEU) d.1587 Mattstall, Lorraine. (FRA)
Eva Breidenbach Melchior Greiner Maitre verrier et fondateur Glassmaster and glass factory founder. Glassmaker in a forest glasswork near Schleasingen Ulrich Greiner Master glassmaker married Anna Wellbronner Johan Ulrich Greiner von Finsternroth Master glassmaker married	b.1438 Nassach, Schwaben (DEU) d.1508 Nassach, Schwaben (DEU) b.1460 Stengenbach, Wustenrot, Baden-Württemberg (DEU) d.1529 Stengenbach, Wustenrot, Baden-Württemberg (DEU) b.1492 Baden-Württemberg (DEU) d.1565 Stengenbach, Wustenrot, Baden-Württemberg (DEU) b.1492 b.1524 Stengenbach, Baden- Württemberg (DEU) d.1587 Mattstall, Lorraine. (FRA)
Eva Breidenbach Melchior Greiner Maitre verrier et fondateur Glassmaster and glass factory founder. Glassmaker in a forest glasswork near Schleasingen Ulrich Greiner Master glassmaker married Anna Wellbronner Johan Ulrich Greiner von Finsternroth Master glassmaker married	 b.1438 Nassach, Schwaben (DEU) d.1508 Nassach, Schwaben (DEU) b.1460 Stengenbach, Wustenrot, Baden-Württemberg (DEU) d.1529 Stengenbach, Wustenrot, Baden-Württemberg (DEU) b.1492 Baden-Württemberg (DEU) d.1565 Stengenbach, Wustenrot, Baden-Württemberg (DEU) b.1492 b.1492 b.1492 b.1524 Stengenbach, Baden- Württemberg (DEU) d.1587 Mattstall, Lorraine. (FRA)
Eva Breidenbach Melchior Greiner Maitre verrier et fondateur Glassmaster and glass factory founder. Glassmaker in a forest glasswork near Schleasingen Ulrich Greiner Master glassmaker married Anna Wellbronner Johan Ulrich Greiner von Finsternroth Master glassmaker married Anna Wellbronner von Ott	 b.1438 Nassach, Schwaben (DEU) d.1508 Nassach, Schwaben (DEU) b.1460 Stengenbach, Wustenrot, Baden-Württemberg (DEU) d.1529 Stengenbach, Wustenrot, Baden-Württemberg (DEU) b.1492 Baden-Württemberg (DEU) d.1565 Stengenbach, Wustenrot, Baden-Württemberg (DEU) b.1492 b.1492 b.1524 Stengenbach, Baden- Württemberg (DEU) d.1587 Mattstall, Lorraine. (FRA)

Jean Ulrich Greiner	b 1544 (DELI)
Master dassmaker, Grunder der	d 1587 Lembach Lorraine (FRA)
Glasshutte (glass factory founder)	
married	
Anna Ott	b.1546
Heinrich Balthasar Greiner	b.1564 Baden-Württemberg (DEU)
Master glassmaker	d.1625 Mattstall, Alsace-Lorraine, (FRA)
married	
Elisabeth Stenger	b.1570 Wustenrot, Baden-Württemberg (DEU)
Famous glassmaking family	d.1620 Wustenrot, Baden-Württemberg (DEU)
Hans Cristophe Jean Greiner	b.1593 Mattstall, Alsace-Lorraine (FRA)
Maitre verrier a soucht et Mattstall	d.1658 Mattstall, Alsace-Lorraine (FRA)
Master glassmaker of Mattstall	
married	
Veronique Hugel	b.1607 Mattstall, Alsace-Lorraine (FRA)
	d.1658 Mattstall, Alsace-Lorraine (FRA)
Anna Marie Christine Greiner	b.1625 Mattstall, Alsace-Lorraine (FRA)
glassmaking family	d.1645 Mattstall, Alsace-Lorraine (FRA)
married	
Christian Grazel	b.1625 Mattstall, Alsace-Lorraine (FRA)
Master glassmaker	d.1659 Mattstall, Alsace-Lorraine (FRA)
Susan Grasel	b.1648 Mattstall, Alsace-Lorraine (FRA)
glassmaking family	d.1735 Mattstall, Alsace-Lorraine (FRA)
married	
Hans Adam Reppert	b.1643 Klarenthal, Saarbruecken, Saarland (DEU)
glassmaker, famous glassmaking family	d.1716 Karlsbrun, Saarbruecken, Saarland (DEU)
Johan George Reppert	1672 Klarenthal, Saarland, (DEU)
glassmaking family	1731 Klarenthal, Saarland, (DEU)
married	
Anna Elizabeth Kramer	1681 Volkingen, Rheinland Pfalz (DEU)
famous glassmaking family	1731 Klarenthal, Saarland, (DEU)
Anna Elisabeth Kramer	1723 Nassau, Saarbruecken, (DEU)
glassmaking family	1884 Frederick, Maryland (USA)
married	
Johan Frederich Adolph Eberhart	1718 Karlsbrun, Saarland, (DEU)
Master glassmaker, Karlsbrun glass	1770 Karlsbrun, Saarland, (DEU)
factory	
George Martin Eberhart	1746 Karlsbrunn, (DEU)
	1792 Frederick, Maryland (USA

The Kunkles

The Kunkles have been in the glass business for quite a long time. The name is spelled variously, Gunckle, Gunkle, Gunkel, Kunkle, Kunkel, and many others.

The Kunkles first appear in glassmaking history in the Spessart region that straddled Bavaria and Hesse. Heavily forested, it was primarily used as a royal hunting reserve. The existence of an early glass house in the Spessart area of Germany is known, as it is referenced in documents dating to August 22, 1349. The area, under the jurisdiction of the Archbishop of Mainz, indicates the early Gunkels' patron was the Church. The Union Letter (Bundersbrief) of 1537 lists two Kunkels, Geoge and Hentze, and a later revision, dated February 24, 1559, lists two Kunkels, George and Freiderick Kunkel. By the 15th century, four glass houses were in the Spessart forest, under the control of Mainz. They produced 230,000 pieces of blown glass and 3,000 pieces of flat glass per year. As always, when the wood reserves ran low, glassmakers started looking for other places to practice their art.

My branch of the Kunkle family moved to Traben-Trarback in 1620. This town is located on the Moselle River right on the border of Alsace-Lorraine, France. The family had access to wood and river sand. Later, they moved to Volkingen, on the river Saar, again on the border of Alsace-Lorraine. However, they maintained connections with the Kunkles in other parts of Germany, Switzerland, and Alsace-Lorraine. They also married within the Reppert, Gundelach, Eberhart, Stenger, and Wentz families.

Two Gunkel relatives appear in the historical record, both called Johannes, both born in the 1630s. The first ran quite an important glass house in Breitborn.

Hans was born in Neuhutten, Spessart, Germany in 1636 and known as a Catholic man. He married Margareth N and worked in a glass house. They moved to Breitenborn where upon the request of an invitation of Heinrich Gundelach, who was headmaster of the Breitenborn Works. He recruited glassmakers from all over the county in the 1670's and 1680s.

Hans Kunkel, apparently was a good glassblower, as most Kunkels were all over Europe by this time, and Gundlach tried to get the best ones to come to Breitenborn. It is amazing that he was still going strong in the 1680s. For example, he produced 42,300 drinking glasses of different types during the period from 04 January 1684 to 26 November 1685 at an age near 50 years. His earnings were 91 fl.16 alb. (the equivalent to dollars in those days.) Besides blowing glass, he was also occasionally attending the furnace which was an important task, to maintain the proper temperatures.

During the winter months, the furnaces stayed cold. The production period was 9 months per years, max. During the winter months, most of the works the people were also engaged in was cutting firewood (beech and oak) for the furnace which did eat up a lot during the production period So additionally they had another income. There were 20 men permanently assigned to the firewood cutting and handling, plus the seasonal ones. Hans Kunkel for example, made 83-1/2 Clafter

and earned 25 fl. Additionally in 1689. Despite all the hard work, Hans Kunkel lived to be nearly 100 years of age.¹⁵

The second Johann Kunkel of interest was a glassmaker and an alchemist also known as Johann Von Lowenstern-Kunckel (b.1630-d.1703). This Johann was born to an Alchemist and glassmaking father at the court of Holstein. He became the chemist and apothecary to the Dukes of Lauenberg then to the Elector of Saxony. He got into some unrecorded juicy trouble and was forced to resign those posts and leave the court. As punishment, he spent some years lecturing. Eventually the scandal blew over, whatever it was, and he landed a new position. He was invited to Berlin to become the director of the laboratory and glassworks in Brandenberg. He was really good, whatever his scandalous behaviors had been. So good that the King of Sweden invited him to come to Stockholm and make glass. The Swedish King offered him a title as an incentive to bring his art to Stockholm. Enter the Von Lowenstern part of his last name.

There is an important part of history in this piece. Johann Kunkel did something unspeakable, something bad enough to get him kicked out of court. And, despite this blemish, the King of Sweden had to create quite an attractive offer to come to Stockholm. Glassmakers, whatever they were, whoever they were, whatever they did, they had job offers. If you could make pretty glass that sold for lots of money, all could be forgiven. If you wanted them, you took them warts and all, you had to pay. And they went to the highest bidder.

Apart from landing a title, here comes Johann Kunkel's big contribution to glass history. While he was working to find the Philosopher's Stone (the material that would convert base metals into gold), he discovered a way to make blood-red glass. He was working with precipitates of gold and discovered the secret of making red glass and the red glass glaze. This secret would be kept in the family for quite a long time. But, if you see ruby-red glass, it exists because Johann Kunckel figured out a way to make it.

Here, we see another interesting feature of this glassmaking family and all the rest. They were innovators. The Greiners invented porcelain. One group of Gundelachs perfected crystal and milk glass production. Another Gundelach refined mirror making. A Kunkel invented red glaze for glass.

On one hand, they inherited glassmaking formulae and reproduced them with scientific accuracy, from generation to generation, with no deviations. Fathers taught sons and daughters the exacting art of glassmaking. On the other hand, quite a few glassmaking families had alchemists (chemists) in their ranks. This makes sense because making good glass does depend on a lot of chemistry. But these alchemists often contributed innovations that resulted in new things, crystal or porcelain or ruby-red glass glaze. These were thinking people.

¹⁵ Heindrich P. Gobel, German Researcher, 1994



Wifenschaft, Crfahrenheit u Verstand von allen Sachen, Wolten chefen, wehr ten Man nunnehr unvergleichtich machen. Und die Warheit, die das Ziel wornach seine augenfunckeln! Kröhnt mit hohen Adel, schondeg en Natmen John KUMKEIN Luc, a Liebenan Ven Vehred.





ohannes Kunckel, Ars Vitraria Experimentalis, 1679

The illustration by George Smith from his 1738 chapter "The art of blowing glass in miniature" (fig. 3) is not labeled alphabetically, but Johannes Kunckel's 1679 engraving (fig. 4) is:

Please note the Kunkle's family coat of arms. There are three stars of David in it.

Johann Heinrich Kunkel	b.1580 Saarland (DEU)
	d.1623 Saarland (DEU)
married	
Dorothea Kunkelin	b.1590 Warndt, Saarland (DEU)
	d.1623 Limburg, Netherlands
Gorg Kunkel	b.1620 Nasweiler, Saarland (DEU)
_	d.1712 Traben-Trarback, Saarland (DEU)
married	
Maria Elizabetha Schlosser	b.1623 Traben-Trarback, Saarland (DEU)
	d.1648 Traben-Trarback, Saarland (DEU)
Johann Valentin Kunkel	b.1646 Traben-Trarback, Saarland (DEU)
	d.1722 Volkingen, Saarland (DEU)
married	
Anna Catharina Huber	b.1649 Leiblich, Saarland (DEU)
	d.1718 Volkingen, Saarland (DEU)
Johann Valentin Kunkel	b.1696 Volkingen, Saarland (DEU)
	d.1767 Volkingen, Saarland (DEU)
married	
Maria Katharina Mueller	b.1698 Nassau, Saarland (DEU)
	d.1765 Volkingen, Saarland (DEU)
Maria Johannetta Kunkel	b.1720 Volkingen, Saarland (DEU)
	d.1784 Volkingen, Saarland (DEU)
married	
Johann Niklaus Volz	b.1714 Mainzweiler, Saarland (DEU)
	d.1769 Volkingen, Saarland (DEU)
Maria Johanetta Volz	b.1752
	d.1784
married	
George Martin Eberhart	b.1746
	d.1784

The Stengers

Like the Kunkels, Stengers were known to have been glass masters in Spessart, Germany (1406). Like the Kunkels, the Stengers left Germany looking for better sites to make glass. In 1525, these "Catholic" glassmakers moved to Alsace-Lorraine to make glass. They arrived on the lands of the Comte Le Petite Pierrez (Alsace), the Comte de Hanau-Lichentenbergz (Alsace) and the Pays de Bitche (Lorraine).

Once in Alsace-Lorraine, they worked on the margins of forests, and when the supply of wood or sand ran out, they moved to another location. They were itinerant glassmakers. They erected the necessary furnaces and basic housing and were able to move on with ease. With the advent of the 30 Years' War (1618-1648), the Stengers abandoned their Alsace-Lorraine forest glassworks and were scattered. They continued to make glass wherever they landed. If there was a forest and a river, they could make a living. The Stengers reverse-migrated during the 30 Years' War back to Germany. There was a Stenger glass producing presence in Erndtebruck, Wittgenstein, Westphalia in the 18th century.¹⁶

Some of the Erndtebruck Stengers brought their skills to America. Johann Adam Stenger and his sons Christian, Daniel, and Jacob. Jacob arrived on the Betsey from Rotterdam on October 16,1768. They began working at Wistar Glass Works that same year. Evidently six of Johan Adam Stenger's sons would end up working for Wistar. When the Wistar factory failed, the Stengers opened their own glass factory in Glassboro, New Jersey.¹⁷

The Stengers make an appearance in the Eberhart family tree at least twice:

¹⁶ Philippe Jehin, Verriers et forets sous L'Ancien Regime en Alsace

¹⁷ Arlene Palmer, *Glass Production in 18th Century America: The Wistarburgh Enterprise*, Winterthur Portfolio, 1976, Vol.11, p.78

Heinrich Balthasar Greiner	b.1564 Baden-Württemberg (DEU)
Master glassmaker	d.1625 Mattstall, Alsace-Lorraine, (FRA)
married	
Elisabeth Stenger	b.1570 Wustenrot, Baden-Württemberg (DEU)
Famous glassmaking family	d.1620 Wustenrot, Baden-Württemberg (DEU)
Hans Cristophe Jean Greiner	b.1593 Mattstall, Alsace-Lorraine (FRA)
Maitre verrier a soucht et Mattstall	d.1658 Mattstall, Alsace-Lorraine (FRA)
Master glassmaker of Mattstall	
married	
Veronique Hugel	b.1607 Mattstall, Alsace-Lorraine (FRA)
	d.1658 Mattstall, Alsace-Lorraine (FRA)
Anna Marie Christine Greiner	b.1625 Mattstall, Alsace-Lorraine (FRA)
glassmaking family	d.1645 Mattstall, Alsace-Lorraine (FRA)
married	
Christian Grazel	b.1625 Mattstall, Alsace-Lorraine (FRA)
Master glassmaker	d.1659 Mattstall, Alsace-Lorraine (FRA)
Susan Grasel	b.1648 Mattstall, Alsace-Lorraine (FRA)
glassmaking family	d.1735 Mattstall, Alsace-Lorraine (FRA)
married	
Hans Adam Reppert, glassmaker,	b.1643 Klarenthal, Saarbruecken, Saarland (DEU)
famous glassmaking family	d.1716 Karlsbrun, Saarbruecken, Saarland (DEU)
Johan George Reppert	1672 Klarenthal, Saarland, (DEU)
alassmaking family	1731 Klarenthal, Saarland, (DEU)
married	
Anna Elizabeth Kramer	1681 Volkingen, Rheinland Pfalz (DEU)
famous glassmaking family	1731 Klarenthal, Saarland, (DEU)
Anna Elisabeth Kramer	1723 Nassau, Saarbruecken, (DEU)
glassmaking family	1884 Frederick, Maryland (USA)
married	
Johan Frederich Adolph Eberhart	1718 Karlsbrun, Saarland, (DEU)
Master glassmaker,	1770 Karlsbrun, Saarland, (DEU)
Karlsbrun Glass Factory	
George Martin Eberhart	1746 Karlsbrunn, (DEU)
-	1792 Frederick, Maryland (USA

Johan Adam Kramer	b.1712 Wingen, Alsace d.1765 Karlsbrun, Saarbrucken, Saarland (DEU)
married	
Maria Kristina Stenger	b.1726 Rhineland-Palatinate d.1762 Karlsbrun, Saarbrucken, Saarland (DEU)

The Wendt/Wentzel Family

Like the Stengers and the Kunkles, the Wentzel family worked in Germany and migrated to Alsace-Lorraine (1525), and then back to Germany (1618-1648). Glassmakers bearing the name Wen, Wendte, Wentzel, Wentz are, in fact, the same family. The name Venn derives from land of the Venedi, a tribe in Transylvania, suggesting they spent some time in Transylvania. So, it is likely this family made their way from Transylvania to Germany and then onto Switzerland and Alsace-Lorraine.

Hiding in this family history, I discovered an interesting fact: Glassmakers' daughters were active in the glass business. This is wild for several reasons. Women as glassmakers and businesspeople are entirely left out of glassmaking history.

Let's start with 11 male glassmakers who came to America on the Britannia. The ship manifest only lists male passengers. Every one of those men came married to a glassmaker's daughter. Women counted so little to the outside world; they didn't even get listed on a ship manifest! Georg Martin Eberhart was married to Maria Christina Volz. Maria Christina, all the other glass making wives are not mentioned on the ship manifest, let alone in glass history.

But it turns out, glassmakers daughters were only left out of general history. In interfamily history, their role comes to the surface. The following quote comes from a great book, *Women and Business Since 1500; Invisible Presences in Europe and North America*, written by Beatrice Craig. It deals with the leases glass making families held. Remember, aristocrats owned the land. No matter who you were, you could only lease it. Even glassmakers. Part of a glassmakers wealth was the leases on the forested land they held.

Glass makers also enjoyed privileges denied ordinary people which made the preservation of the lease in the family particularly important and discouraged remarriage of widows outside the trade. In 1688 glass makers daughter Maria Walter inherited a glassworks from her husband in 1681. Maria was sole leaseholder of the Meysenthal glassworks (south of Saarbrucken, currently in France) until its closing in 1701; it was replaced by a manufactory run by her son. At least two of her daughters inherited a share as they were co-tenants in the 1760s and 1770s. The facilities were large, employing over 50 workers in 1771 and producing between 500,000 and 600,000 clock faces.

The Friederichthal glassworks (north of Saarbrucken) was started by Johann Gerhard and John Balthazar Wentzel in 1723. The men were both dead by 1763 and their widows held the lease. One remarried another glassmaker, whose

facilities she also took over when he died in 1787. The two women and a male partner, Gottfried Reppert, secured an 18-year lease for the work, but as Reppert died almost immediately, his widow, also a glassmakers daughter, inherited his share. Johan Balthazar's widow Anna Maria fought her son Ludwig-Adolph to keep her share. He wanted a share of his father's rights, but she refused and had hers confirmed by the authorities. As a rule, heirs who challenged widows succession rights rarely succeeded: lords respected seniority. In 1770, it was Ludwig Adolph's widow's turn to sue for a share, and Anna Maria sent a brief to the governing counsel to explain why this should not happen. When she finally relinquished her share due to old age, she passed it to her grandson, not her daughter-in-law.

Not all women who exploited mines, glass and iron works had inherited them, and even in that case, they were more than caretakers. Some systematically augmented their portfolio, like Catharina Loth and Catharina-Sophia Kramer.

This fascinating text was the first hint of something that makes sense. Glassmakers had value. Male or female, if you knew how to make glass, you had value. Just like King of Sweden overlooked Johannes Kunkel's crime (still a mystery) other aristocrats were willing to ignore a woman's gender. When I reviewed the history of the glass houses owned by my family, and those of related families, I saw something for the first time. One document might say the Saabrucken Glass House founded by Johan Eberhart and was open for 70 years. Another document indicates Johan Eberhart died 20 years into the life of the glass house. So who ran the glass house for fifty years after Johan Eberhart died? It was not run by a ghost. It was run by his widow. The woman never, ever get mentioned in glass history. The most you will get is so and so married the daughter of a glassmaker. The topic of women in glassmaking needs to further exploration.

But suffice it to say, in one of my glassmaking families, there is proof women were more than "daughters of a glassmaker".

Catherine de Wendte	b.1630 Mimmelage, Badenbergen, Saxony (DEU) d.1682 Mimmelage, Badenbergen, Saxony (DEU)
married	
Hinrich Hamcke	b.1635 Mimmelage, Badenbergen, Saxony (DEU) d.1705 Mimmelage, Badenbergen, Saxony (DEU)
Peter Gundelach glassmaking family	b.1532 Grosalmenrod, Hessen-Cassel (DEU) d.1597 Grosalmenrod, Hessen-Cassel (DEU)
married	
Ursula Wentzel glassmaking family	b.1536 Grosalmenrod, Hessen-Cassel (DEU) d.1620 Grosalmenrod, Hessen-Cassel (DEU)

This Wentz family appears in the Eberhart family three times:

Ludwig Adolph Eberhart	b.1690 Breitborn, Sachsen, Freidrichstahl, Saarland (DEU)
glassmaking family	d.1770 Breitborn, Sachsen, Freidrichstahl, Saarland (DEU)
married (first cousins) Anna Christina Wentzel glassmaking family	b.1692 Breitborn, Sachsen, Freidrichstahl, Saarland (DEU) d.1736 Breitborn, Sachsen, Freidrichstahl, Saarland (DEU)
Johann Frederick Adolph Eberhart	b.1718 Karlsbrun, Saarland (DEU, French frontier)
Glassmaker	d.1770 Frederick, Maryland (USA)
married	
Anna Elizabeth Reppert	b.1723 Nassau, Sarbrucken, Saarland (DEU)
glassmaking family	d.1784 Frederick, Maryland (USA)
George Martin Eberhart	b.1746 Karlsbrun, Saarland, (DEU) (French frontier)
glassmaking family	d.1792 Frederick, Maryland (USA)
married	
Maria Christina Volz	b.1762 Voelklingen, Saarbruecken, Saarland, (DEU)
glassmaking family	d.1806 New Geneva, Pennsylvania (USA)

The Reppert Family

The first recorded Reppert glassmaker lived in 15th-century Saxony. From that time forward, the Repperts were on the move. In the early 17th century, some of the Repperts migrated from Rosteig near Wingen near Obermedern to the county of Nassau-Saarbrucken as glassmakers. From there, some moved to Karlsbrun, which is just adjacent to the Alsace-Lorraine border. And from there some made their way to Karenthal. Surviving documents place them in Alsace-Lorraine in the later part of the 17th century. One of my direct ancestors, Johan Conrad Reppert (b.1614-d.1689) pops up in the historical record more than once.

Johan Conrad Reppert was born in Lengefeld in the Ore Mountains. He was the son of David Reipert and was the progenitor of one of the oldest and most important glassmaking families in 17th-century Saarbrücken. He worked in Karlsbrunn, Rosteig, Wingen and Creutzwald. Finally he was recruited to come and start a new glasshutte in a place that would come to be known as Klarenthal.

In 1662, Count Gustav Adolph von Nassau of Saarbrucken, opened a glassworks in Saarbrucken. The glasswork was named in honor of his fiancé, Eleonore Clara Hohenlohe. Hence the name of the glassworks-town; Klaranthal. It appears that Johann Conrad Reppert was one of the glassmakers recruited by the Count to open the glassworks. As was often the case, the Count owned a vast forest and glassmakers could turn those raw materials into an income for the Count.

When the Church or an aristocrat wanted to entice glassmakers, they had to offer them a deal. The best deal won. Johan Conrad Reppert negotiated quite a deal for himself and his kinship group to come set up the new glass town. The deal included the following: The men and their families were to be provided protection by the Count and Countess, guaranteed personal freedom, their marriageable children could leave the country without special permission, ransom, and/or a mandatory year of service, they were freed from forced labor, and they were each given pastureland in the Öder meadows of the Gersweiler and Ottenhausen districts. Klarental was to be under the direct control of the Count and would be managed by a mayor appointed by the Count.

It's difficult to appreciate all the liberties given in this incredible offer. The glassmakers were made freemen, their children were made free by having the freedom to travel abroad without posting a bond, and they were given land!

Johan Conrad came to Klarenthal with his son, Johan Georg, and several other kinsmen including Hans Huber, Eberhard Gromer (Gramer/Kramer), Hans Michel Gromer (Cramer/Kramer), Hans Georg Huber, Hans Georg Reppert, Adam Reppert and Johannes Gromer (Gramer/Kramer). Johan Conrad stayed in Klarenthal until shortly before his death when he returned to Rosteig.

Lurking in the story of the Reppert family, is the story of these families: Hans Conrad Reppert brought his relative Michel Kramer to Klarenthal. His son Hans Georg married Elizabeth Kramer, the daughter of Michel Kramer. These family groups tended to work together and marry their children off to the relatives with whom they worked, always marrying within the glassmaker clan, and never marrying outsiders.¹⁸

April 9, 1662: Johann Conrad Reppert was named in founder's document of the Klarenthal Glassworks of Count Gustav Adolph of Nassau-Saarbrucken to build glassworks in the Count's "Schissitter Forest near Caltenbronn" with George Muller, Eberhardt Kramer (Gramer), and Hans Huber.

August 12, 1688: Johann Conrad Reppert was working at Klarenthal Glass Works with Hans Huber, Eberhard Gromer (Gramer/Kramer), Hans Michel Gromer (Cramer/Kramer), Hans Georg Huber, Hans Georg Reppert, Adam Reppert and Johannes Gromer (Gramer/Kramer). Worked at Rosteig, Wingen, Kreutzwald and Klarenthal Glass Works, Hanshosenburger.¹⁹

In an earlier bit of history, it became clear that women had an active role in the glassmaking business. In the Reppert family history, we get more evidence of this. The story involves two brothers, Ludwig Caspar Reppert (b.1736-d.1793) and Johan George Reppert (b.1732-d.1791). They were great great-grandsons of Johan Conrad Reppert.

The family tree and possession of the glass works goes like this, from father to son, father to son.

¹⁸ Otto Treiner and Werner Weiter "Die Einwohner von Karlsbrunn von 1717-1900" [the inhabitants of Karlsbrunn...] On page 239, Fam. #475, Hans Conrad Reppert, "Huettenmeister an der Glashuetten in Rosteig, Wingen, Kreutzwald und Klarenthal, Gennannt in der Gruendungsurkunde vom 9.4.1662 und im Freiheitsbrief vom 12.8.1688

¹⁹ Koblenz State Archives, Dept. 22, #2690

Johan Conrad 1614-1698

Johan Adam 1643-1715

Johan George 1672-1731

Johan Adam 1706-1763

Ludwig Caspar (1736-1793) and Johan George (1732-1791)

Ludwig Caspar married Sophia Myers. They had four sons, George Louis (b.1777-d.1851), Louis Adolph (b.1775-d.1822), Jacob (b.1778-d.1837), and Martin (b.1780-d.1800).

Johan George (b.1732-d.1791) married Katharina Margaretha Volz (Daughter of Johan Nicholas Volz and Maria Johanetta Kunkel). They had six children including Catharina Margaretha (b.1769), Catharina Elizabeth (b.1770), Johan George (b.1772-d.1854), Johan Christian (b.1774-d.1851), Catharia Margaretha (b.1777-d.1837), and Sophia Margaret (b.1780).

The two brothers died, and their two widows decided to take their surviving nine children and immigrate to America. Apparently, the local authorities tried to detain the widows, but the widows prevailed. They managed to get out because their husbands' greatgreat-grandfather, Hans Conrad Reppert made a deal with the Count of Saarsbrucken that his children and their children would be free and able to travel without ransom.

The widows decided it was time for their glassmaking children to move onto a better opportunity and they made it happen. The widows and their children made their way to America, arriving in 1792. Their sons appear on the ship manifest, the widows do not. Their sons appear in the written records as early American glassmakers, but the widows and the sisters do not. Not much is known about Sophia Myers. But Katharina Margaretha Volz was descended from two of the most famous glassmaking families in Europe. There is no doubt she was active in glassmaking in America, but no records survive.

It is clear that these two glassmaking women decided to move the family business to America. They arranged the sale of their property, bought the tickets, and picked a destination. Due to the age of their sons, and their far greater knowledge of glassmaking, in all chances, they were in charge of setting up glassmaking operations in America. But glass history does not speak of this.

The first recorded glassmaking Reipart, Asmann (b.1482) appears to have a non-German first name. This may indicate he recently made his way to Germany. His origins are unknown, but considering Kurinsky's theory, he likely came from the east. It may be from the Ottoman Empire, Asman=Osman.

Asmann Reipart	b.1482 Lengefeld, Chemnitz, Saxony (DEU)
Valten Reipart	b.1520 Lengefeld, Chemnitz, Saxony (DEU) d.1562 Lengefeld, Chemnitz, Saxony (DEU)
Married	
Margaretha Morganstern	b.1525 Lengefeld, Chemnitz, Saxony (DEU) d.1579 Lengefeld, Chemnitz, Saxony (DEU)
Christoff Reppert	b.1561 Lengefeld, Chemnitz, Saxony (DEU) d.1619 Lengefeld, Chemnitz, Saxony (DEU)
married	
Margaretha Brinnel	b.1555 Lengefeld, Chemnitz, Saxony (DEU) d.1597 Lengefeld, Chemnitz, Saxony (DEU)
David Reppert Stadtglasser und Steinwort (Town glassmaker)	b.1581 Lengefeld, Chemnitz, Saxony (DEU) d.1646 Lengefeld, Chemnitz, Saxony (DEU)
married	
Margaretha Reichel	b.1590 Holzenheim, Chemnitz, Saxony (DEU) d.1623 Lengefeld, Chemnitz, Saxony (DEU)

Johan Conrad Reppert	b.1614 Volksburg, Alsace (FRA)	
Master glassmaker, glass works in Rosteig	d.1689 Rosteig bei Wingen sur Moder, Alsace (FRA)	
Wingen, Creutzwald, and Klarenthal		
married		
Katherina Schneider	b.1620 Rosteig bei Wingen sur Moder, Alsace (FRA)	
Father was Hans Conrad Schneider (b.1590-	d. 1646 Rostelg bei wingen sur Moder, Alsace (FRA)	
a. 1030), master glassmaker. He worked in Brebach, Germany and moved to Oblungen		
Alsace		
Hans Adam Reppert	b.1643 Rosteig bei Wingen sur Moder, Alsace (FRA)	
Glassmeister und factor auf der Klarenthaler	d.1716 Klarenthal, Saarland, (DEU)	
glasshutte		
Master glassmaker and owner of the		
Klarenthal Glass House		
married		
Susana Grasel	b.1648 Mattstall, Lorraine (FRA)	
From the Greiner and Grasel glassmaking	d. 1734 Klarenthal, Saahand, (DEU)	
lamiles		
Johann George Reppert	b.1672 Klarenthal, Saarland, (DEU)	
Master glassmaker	d. 1731 Kansbruhn, Saanand, (DEU)	
Married		
Anna Elizabeth Kramer	b.1681 Volklingen, Rheinland-Pfalz (DEU)	
Glassmaking family	d.1731 Karlsbrunn, Saarland (DEU)	
Anna Elisabeth Reppert	b.1723 Nassau, Saarbrucken (DEU)	
	d.1784 Frederick, Maryland (USA)	
married		
Johann Frederick Adolph Eberhart	b.1718 Karlsbrunn, Saarland (DEU)	
Glass master	d.1770 Karisbrunn, Saarland (DEU)	
George Martin Eberhart	b.1746 Karlsbrunn, Saarland (DEU)	
Master Glassmaker	d.1792 Frederick, Maryland (USA)	



Klarenthal Coat of Arms: The two flute like devices on the bottom are glass blowers' lutes.

The Volz Family

Martin Eberhart was married to Maria Christina Volz (b.1762-d.1806). She came to America with her brother Conrad Volz (b.1737-d.1784). Conrad and Maria Christina's sister, Margaretha Elisabeta Volz (b.1748-d.1820), married glassmaker Johann Balthasar Kramer (b.1749-d.1814). Just as in Europe, when the glassmakers came to America, they were only marrying into glassmaking families.

Maria Christina, Margaretha Elisabeta, and Conrad Volz were the children of Johann Volz (b.1714-d.1769) and Maria Johanetta Kunkel (b.1720-d.1784). Their father, Johann, was a master tailor. He was accepted as master tailor on June 21, 1766, recorded in the guild book of country tailors.²⁰ Though he was a tailor, his mother, Maria Becker (1630-1677) was from a famous glass making family.

This was a bit of an odd marriage. Their father was a tailor and their mother descended from a long line of glassmakers. As has been made plain, glassmakers only married amongst themselves. But, it seems having a mother from a glassmaking family was good enough. All the Volz children married into the glassmaking families. These three produced children that would dominate the American glassmaking world.

The Kramer Family

In the interconnected web of this glassmaking family, the Kramer family appears generation after generation. Martin Eberhart made the passage from Rotterdam with four of his cousins, the Kramer brothers Balthasar (b.1749-d.1814), George (b.1757), Adam (b.1755-d.1829), and Martin (b.1747). The earliest known Kramer, Johann Eberhart Kramer, has the middle name Eberhart. This suggests his mother may have been an Eberhart. So, the family connection to the Eberhart family goes back to the earliest known member of the Kramer family.

The Kramers descend from Alsace-Lorraine glassmakers who left Alsace-Lorraine due to Protestant expulsion. Prior to that, their origins are unknown.

²⁰ Schneidermeister: am 21.06.1766 als Meister angenommen, Zunftbuch der Landschneider

Johann Eberhart Kramer Master glassmaker	b.1613 Moselle, Lorraine, (FRA) d.1728 Klarenthal, Saarland, (DEU)	
married		
Susanne Wissenbach	b.1610 Siegen, Westfalen, (DEU) d.1728 Siegen, Westfalen, (DEU)	
Hans Michel Kramer, Glass master at Klarenthal Glass House	b.1633 Volklingen, (DEU) d.1718 Nassau, Saarland, (DEU)	
married		
Anny Sybilla Roether	b.1645 Klarenthal, Saarland, (DEU) d.1726 Klarenthal, Saarland, (DEU)	

Hans Martin Kramer b.1675 Karlsbrunn, Saarland, (DEU) d.1741 Karlsbrunn, Saarland (DEU)	Siblings	Anna Elizabeth Kramer b.1681 Volklingen, Rheinland, Pfalz d.1731 Karlsbrunn, Saarland, (DEU)		
<i>married</i> Sophia Katherine Reppert b.1689 Wingen, Alsace (FRA) d.1778 Karlsbrunn, Saarland (DEU)	Siblings	<i>married</i> Johann Martin Reppert b.1672 Klarenthal, Saarland (DEU) d.1731 Karlsbrunn, Saarland (DEU)		
Parents of		parents of		
Johan Adam Kramer b.1712 Wingen, Alsace (FRA) d.1765 Karlsbrunn, Saarland (DEU) who married Maria Kristina Stenger b.1725 Rhineland, Palatinate (DEU)	first cousins	Anna Elisabeth Reppert b.1723 Saarbrucken (DEU) d.1784 Frederick, Maryland (USA) who married Johann Frederick Eberhart b.1718 Karlsbrunn, Saarland (DEU)		
parents of the four boys	I	parents of		
Balthasar Kramer b.1746-d.1814 George Kramer b.1757 Adam Kramer b.1755-d.1829 Martin Kramer b.1747	Second Cousins	George Martin Eberhart b.1746-d.1814		
The Kramer brothers, Balthasar, George, Adam and Martin, and their cousin, George Martin Eberhart, arrived together in America on the Britannia, September 18, 1773				

Martin Eberhart, arrived together in America on the Britannia, September 18, 1773. They went on to open the first glass factory in Frederick, Maryland.



Glass Making Family Migration

This map shows the migration of my glassmaking family in the 16th and 17th century. They started in the north of Germany, near the Czech border, in Grossalmerode and Grosbreitenbach. As time passed, they migrated south through Germany (Traben-Tarbach, Gelnhausen, Wustenrot, Karlsbrunn, Klarenthal, Voelklingen, etc.), and ultimately to Switzerland and Alsace-Loraine (Lembach, Mattstall).

Throughout their time in Europe, glassmakers occupied an interesting role. Firstly, they were neither aristocrat nor peasant. Secondly, they had the ability to convert unproductive land into incomes for the aristocrat and the Church. Forested land offered the aristocrat and the Church the opportunity to hunt and little else. Glassmakers took wood, fern, and sand and through their secretive art, produced glass that could be sold for money. The Church and the aristocracy were good at spending money but depended on others to make the money for them to spend. Thus, glassmakers were always valued.

From the time glassmakers migrated from Israel to Europe, in the year 100 C.E., they were considered vagrants. They moved on a regular basis. The migration route mapped above can be seen in any glass making family over any period. The map might change, but the migration would not. This is just a snapshot of my ancestors' movement in later European history.

They moved for two reasons. The first was depletion of the forest. When the sand, fern, and wood ran out, they moved on. The second was a better offer or a preferable opportunity. Lots of aristocrats and bishops had land that did not generate income. Thus, luring glass makers to correct this situation was a game from 100 C.E. through the 18th century. Any glassmaker working in one district was at the same time fielding offers from aristocrats from a different district.

The following are the towns which my vagrant glassmaking family passed through.

Freiderichstahl



Freiderichstahl was formed in 1723 when Count Freiderich Ludwig Von-Nassau-Saarbrucken granted glassmaking rights to a group of glassmakers. The glassworks were originally fired with wood. When the first coal pit was sunk in 1857, the glassworks changed to using coal as their energy source. The glassworks operated until 1926. The coat of arms depicts two glass blower's pipes.



Grosbreitenbach



Grosbreitenbach is in Thuringia and is noted for its dense forest. It was home to real *waldglass*, or forest glass! The coat of arms shows a man of the forest, indicating the importance of the forest to the local economy. My family was using the dense woodland to produce glass in the early 16th century. An industry that still thrives in Grosbreitenbach today. It is situated very close to the Czech border. According to Kurinsky, glass makers following the Israel, Khazarian, Bohemia, Germany path were likely the first glassmakers in Grosbreitenbach.

Grossalmerode

The Grossalmerode coat of arms features three crucibles, the miraculously heat resistant devices that made glass making and goldsmithing possible. Hessen Crucibles have been found around Europe dating to the 14th century or earlier. The town has produced glass and remarkable clay products for 800 years. That would put the date when manufacturing began in the 11th century. This was a straight up Near Eastern technology. The technology of making such heat resistant crucibles, at such an early age, suggests, that either Semites that arrived with the Romans never left or a new group of Near Easterners arrived 800 years later. No way to know the answer to that one, but making such heat-resistant crucibles was an imported technology for sure. The



town boasts a clay pit that produced and produces a high-quality ceramic grade clay. It also has an incredible museum detailing its long history of very sophisticate glass and ceramic making. Glass played an important role in the town. Perhaps linked to the sophisticated ceramic technology, or just a side-by-side industry.

There are people I call "families of the forge". People who needed ovens often shared ovens, glass makers, ceramic makers, goldsmiths, and blacksmiths all needed a high heat forge. They often moved together. Grossalmerode produced many a famous glassmaking family, the Gundelachs being a prime example.

Karlsbrunn

Karlsbrunn's coat of arms tell you quite a lot about the town and the region. The Warndt forest in which Karlsbrunn is located, was the exclusive hunting ground of the nobility. Forest, ferns, sand, and an aristocratic class that needs money means glass makings will soon make their appearance. And they did. History reports that in addition to local glassmakers. In the 17th century, the region hosted Huguenot refugees with glassmaking skills. Glass makers always treated other glass makers as family and no doubt the waldglass makers welcomed their glassmaking brethren. The arrival of the Huguenots may have



marked the arrival of Sephardic Jewish DNA and Spanish Jewish glassmaking skills into my family.

Klarenthal

Klarenthal was established by Count Gustave Adolph von Nassau in 1662. He, like many aristocrats, saw the income potential from inviting glass makers to his forest reserve otherwise just used for hunting. It was named after his fiancé, Clara, hence the



original name was Clarathal. It became Klarenthal over time. Von Nassau-Saarbrucken recruited the Reppert family to come open the glass works. They stayed there until they immigrated to America. The glass works existed until 1723. The factory produced glass for Holland. As the glass house had business with Holland, contact with the Venetian and Spanish glassmaking living in Holland would have occurred. As glassmakers made deals with marriage, it is quite likely Venetian and Spanish glassmaking techniques and more foreign DNA entered the Klarenthal families.

Mattatall

The glass works in Mattatall was founded in 1556. Baron Von Fleckenstein leased his land to my ancestor Ulrich Greiner to start the glass works. I found the lease for this glass factory and its worth reading!

Act of April 23, 1556

Me, Ulrich Greiner from Finsternroth acknowledge and declare that our Henri of Fleckenstein to, baron of Dagstul, acknowledge and declare having allowed Ulrich Greiner from Finsternroth and his heirs to build a glassworks in my forest of beeches



and to run it as a whole in an orderly way for 20 years from this day. It will be possible to extend the period of the agreement.

They will be allowed to cut and burn for their own needs and their oven all the wood necessary except oak wood. No one will be allowed to cut except my heirs for their own use. For that Ulrich Greiner and his heirs will pay cash each as from Saint George's Day on 23 April 1557, 50 florins worth Strassbourg. Moreover, they will pay for each acre of meadow or field 3 kreutzers a measure of corn and the tithe. What's more, for each house built by the glassmakers or by his mate they will pay one shilling of Strassbourg each year as land tax. They will deliver a hen for carnival, another one at harvest time, and one for Saint Martin's Day as all inhabitants do. Moreover, for my house, they will deliver half price 200 wine glasses made in their glass factory as well as windowpanes my heirs or I will need for our buildings. It is also agreed that during the corn harvest time glassmakers will refrain from burning wood in the forest in order not to disturb the leading of pigs to acorn harvest by those to whom have this right will have been granted. Ulrich Greiner, his hairs, his servants, his valets, will have to be submissive, obedient, and respectful towards my heirs. If the lesser of his heirs had to stop glassmaking for lack of wood or beech or for another reason, they will continue paying for the land tithe of the 100 acres of land allotted and will deliver the hens as before.

To certify the fairness of this act, Baron Henri from Fleckingstein affixes his seal on St. George's Day in the year 1556. Ulrich Greiner swore to God to respect every article in the lease and affixes his seal too. So the Greiners were glassmakers that started out in Baden-Württemberg, moved to Wustenrot, and then cut a deal with a baron in Alsace-Lorraine.

Lembach, Alsace-Grossalmerode



Voelklingen is most famous for its iron works. But it was also home to glasshouses and glassmakers. My ancestors were glassmakers in Voelkingen in 1604 when Huguenot glassmakers arrived. When a "Huguenot" glass house was founded in 1616, Voelklingen was a center of trade from the Roman days forward and it was likely a site of glass works before the Huguenot venture.

Wingen-Sur-Moder

Wingen-sur-Moder was entirely depopulated by the 30 Years War and an outbreak of the Plaque. It was repopulated by Swiss immigrants in the 17th century. The Verrerie de Hochberg was opened in 1715 by relative Jean Adam Stenger. His glass house is now a historic site with workshops, to large residences, and a worker's house. The Teutch family took over the glass works in 1816 and ran it in to the end of the century. In 1922, Rene Lalique opened the Verrerie d'Alsace in Wingen-sur-Moder, which became the Cristallerie Lalique in 1962. The town coat of arms makes it very clear what made the town famous: glass.



Thus ends the tour of my glassmaking family's life in Europe. Reviewing the families in detail, makes several facts already identified by Kurinsky clear:

- 1. These inter-connected glassmaking families were really one extended family.
- 2. They were attached to no place and had no nationality. They belonged to the migrating nation of glassmakers. They lived in a place only so long as they had a patron, wood, and sand.
- 3. They kept the knowledge of their trade secret. Fathers taught sons and daughters the art. These sons and daughters married the sons and daughters of glassmaking families.
- 4. They adopted whatever religion made it easiest for them to make and sell their glass. If they needed to be Catholic, they were Catholic. If it was easier for them to be Protestant, they would be Protestant. Their religious affiliations were very elastic. If being one or the other stopped working, they immigrated to America.

The mid-century glass historians say that early European-Semitic glassmakers kept their craft a secret, married amongst themselves, and were excellent businesspeople. One way or the other, this is how they lived and moved throughout the centuries that they resided in Europe.

Indeed, looking at the glassmaking families history in Europe, it seems nothing much changed from the Semitic glassmaking days (100 AD-1200 AD) and the northern European glassmaking days (1200 AD-1700 AD).

When glassmakers started moving out of continental Europe, to England and to America, they were cautious. They had been moving from place to place, culture to culture for a long time, and knew how to operate in a new place. The saying, "When in Rome, do as the Romans do," really applies to the glassmaking families. And it was especially true when they started making moves over water. When they made this move, two curious habits can be seen:

Firstly, they used a lot of aliases. Some were predictable. Robles became Rogers and Gundelach became Gondelach. Sometimes it was random. Like Verzellini became Jacobs. They also had a habit of using the same name, repeatedly, generation after generation. Between these two factors, reliably tracking genealogy can be complicated. Though it requires sifting through naming complexities, if one looks for trends, the essence of the family history can be found.

Secondly, they were also very non-specific about their religious affiliations. A good example comes from England. When the first glasshouse opened in England, it was under the leadership of Mr. Jacob. His name was actually Giacomo Verzellini. Mr. Jacob needed glassmakers and he enticed them to come from the continent. When glassmakers came to England to work with him, the immigrant workers were obliged to fill out a sort of landing/immigration card. These registrations survive, and you can see the religious dodging done by the glassmakers on the move. Here are some entries for Mr. Jacobs glassmakers:

Domenico (Domingo) De Manalo. Registered "of no church" but in St. Olaves, Parish, June 24, 1581.

Marcus Guado and Marie, his wife, "of no church", servant of Jacob Vercelin.

Basically, the immigrant glassmakers had three choices: Protestant, Catholic, or "of no church". They often opted for "of no church". This makes sense for lots of reasons. Spanish-Jewish glassmakers converted to Roman Catholicism only to be persecuted for being bad Catholics. The German glassmakers became Protestant to survive the 30 Years' War, and then moved to Alsace-Lorraine, only to get caught up in the eviction of Protestants by Louis XIV! "Of no church" was a good choice. Later in northern European glass making history, having got caught out for having a religious affiliation, they became "of no church."

Apart from using a collection of names and being "of no church", what became of the 11 cousins after they got off the boat in Philadelphia? They introduced glassmaking to America!

The Wistar Glass Works

American glass history states that the first viable glassworks in America was founded by Caspar Wistar. Wistar was an immigrant from Germany who landed in Philadelphia and immediately found success in business. His first trade was buttons. He saw the demand for American-produced glass and set out to open a glassworks. Wistar knew nothing of glass, but he did see a market. Initially, he recruited four glassmakers from "Germany", Johann Wilhelm Wentzel, Caspar Halter, Johann Martin Halter, and Simeon Griesmayer. He formed individual companies with Johann Wilhelm Wentzel, Johann Martin Halter and Simeon Griesmayer. Thus, the three Wistar glasshouses were born, and they began producing glass in 1739.²¹

Johann Wilhelm Wentzel, Hans Martin Halter, and Simeon Greismayer (Greysmeyer) traveled from Rotterdam to Philadelphia on the ship *The Two Sisters*. They arrived on September 9, 1738. Wentzel is one of the glassmaking families found in my family tree. He was the first member of my greater glassmaking family to come to America and make glass.²²

Caspar ran a successful glasshouse. When he died in 1752, his son, Richard Wistar took over the glasshouse. Wistar and company initially produced a very poor green glass for windowpanes, and over time would expand to bottles and tableware. The 1767 Townshend Acts put tariffs on items imported from England: glass, paint, and lead included. In a way, this was a boon to colonial glassmakers. However, clear glass and clear glass products were still imported from England. The Wistar factories continued producing glass until the forests around the New Jersey factories were depleted. That, in combination with the death of Richard Wistar in 1781, and his son, John Wistar, taking over the management of the factories, spelled the end of Wistar Glass. This ending led to another beginning.

At this exact time, more talented glassmakers from the continent migrated to America. Martin Eberhardt and his ten cousins made their way to America and began making glass. The second factory ever constructed was built by three of them.

Among these were Martin Eberhardt, Conrad Foltz, Balthasar Kramer, and his brothers George, Martin, and Adam. They had all arrived from Rotterdam on the Britannia, September 18, 1773. By October 25, Balthasar and Martin Kramer, and Conrad Waltz (Volz) were on Steigel's payroll. Within a year, the Manheim factory closed and the three moved some forty miles south to Frederick County, Maryland. Together they built Maryland's first glassworks and commenced production before the end of the Revolutionary War. Proof of the existence of this factory occurs in the will of Conrad Foltz, written on July 20, 1784, and registered on October 26.

²¹ <u>http://historical-american-glass.com/wistarburgh-glass.html</u>

²² Israel Daniel Rupp, A Collection of Upwards of Thirty Thousand Names of German, Swiss, Dutch, French and other immigrants in Pennsylvania, 1727-1776: with a statement of the names of ships, whence they sailed, and the date of their arrival at Philadelphia : chronologically arranged, together with the necessary historical and other notes : also an appendix of lists of more than one thousand German and French names in New York prior to 1712 (Philadelphia: Leary, Stuart and Co, 1898)

"Whereas I am now carrying on a glass factory in the company of Balthasar Cramer, George Cramer, and Martin Everhart. It is my desire and I do order (that if in the case of executors hereinafter named can settle with my creditors and is agreeable to the parties concerned) that the works be carried on and continued in such a manner as they see fit. Otherwise, that my executors are hereby impowered and directed to sell the works together with the land and utensils thereunto belonging."

The executors did not sell the glassworks to Martin Eberhart and Balthasar Kramer. Instead they sold it to Johan Frederick Amelung. And this would mark the beginning of the next chapter in glassmaking for my ancestors.

When Wistar opened the first American glass factory, he saw the skilled immigrant labor, glassmakers, as technicians. Skilled immigrant labor was seen as a tool necessary to produce a commodity. The capitalists that backed factories saw them as tools. And that attitude may have been okay with the immigrant metalworkers and weavers. However, it did not work for immigrant glassmakers whose families had been independent business people for thousands of years.

Remember, glassmakers had been a coveted and protected class in Europe for 2,000 years. To be treated like a tool in someone else's production of glass was outside their experience. This is not how Europe's oldest glassmaking families saw themselves and or how they worked. The partnership of the moneyed financier and immigrant glassmaker was contentious on a good day. The backer and the glassmakers were at war with each other. But this pattern would be repeated, over and over again, throughout American glassmaking history.²³

The Stiegel Glass Works

Henry William Stiegel was born in Cologne, Germany in 1729 and immigrated to Philadelphia in 1750. He began working at an iron works in Lancaster, Pennsylvania. In time he married the daughter of the iron master, Elizabeth Huber. After growing the iron works Stiegel was such a success at iron making, he decided to branch out into glassmaking. He opened the American Flint Glass Manufactory, in Mannheim, Pennsylvania. The glass works operated between 1765 and 1775. Stiegel recruited German, Italian, and Czech glass makers to man his glass operation. Stiegel had his eye out for talented glass makers and he found them. Relatives Balthasar and Martin Kramer and Conrad Voltz got off the Britannia on September 18,1773 and were working at Stiegel's Manheim factor by October 25, 1773. Stiegel won big and lost big. By 1775, his iron and glass fortune were lost and he was penniless. The Kramer brothers and Conrad Volz just moved on to their next opportunity.

New Bremen Glass Manufactory /Amelung Glass Factory

As was mentioned, George Martin Eberhart, Conrad Volz, and Balthasar Kramer opened a glass works in Frederick, Maryland. George Martin Eberhart was married to

²³ Dwight Lanmon and Arlene Palmer, *The Background of Glassmaking in America*, (New York: Journal of Glass Studies, Vol.18, Special Bicentennial issue, 1796)

Conrad Volz's sister, Maria Christina Volz. Balthasar Kramer was his cousin. *"Little is known about the Foltz-Kramer-Eberhardt factory beyond the fact it existed. Presumably, it was neither large nor complex, even though the British Consul, in 1789, claimed it had been founded at a great expense."* Not long into its operation, Conrad Volz died. For some reason, he had the controlling interest in the glassworks over his relatives, Eberhart and Kramer. When Conrad died on November 30, 1784, his children sold the glassmaking structure to John Frederick Amelung, thereby cutting out Eberhart and Kramer. Considering Volz's heirs were very related to George Martin Eberhart and Balthasar Kramer, family get togethers no doubt became a bit tense.

Amelung would take the firm and turn it into a famous glass house. What was started by Eberhart, Volz, and Kramer would become known as the New Bremen Glass Manufactory or the Amelung Glass Factory. Amelung had the support of George Washington, Thomas Jefferson, and Benjamin Franklin. Glass pieces from this factory can be seen in the Metropolitan Museum of Art, the Corning Museum of Glass, and the Winterthur Museum. Any textbook on early American glass refers to the Amelung Glass Works. Sadly, the men who started it, Eberhard, Volz, and Kramer, are not mentioned.

Johann Frederick Amelung deserves a mention. Not much is known about his family life in lower Saxony. But at the exact time he was venturing to America to make glass, another branch of the Amelung family was setting up shop in Estonia and St. Petersburg, Russia. Carl Philipp Amelung (b.1769-d.1817) was born in Hohenbuchen, Saxony, Germany and moved to Estonia where he opened a mirror factory. His son, Carl Georg Amelung (b.1795-d.1851) was born in Estonia but opened a mirror factory in St. Petersburg, Russia. The St. Petersburg Amelungs married into the Eberhart family who had also made their way to Estonia and Russia. Julius Ludwig Amelung (b.1813d.1884) married Olga Marie Natalie Eberhard (b.1834-d.1862) in St. Petersburg. Some glassmaking Amelungs made their way to Philadelphia, and some made their way to St. Petersburg. Both got tied up with the Eberhards.

Curiously, the glassmaking Amelung family arrived in St. Petersburg from Estonia at the same time Gustav Faberge made his way from Estonia to Russia. Gustav Faberge is the father of the famous Carl Faberge. Glassmakers (the Amelungs) and goldsmiths (the Faberges) often travelled together, always in search of a better market for their services.²⁴

New Geneva Glass Works

When the Volz heirs sold the Volz-Kramer-Eberhart factory, George Martin Eberhart and Balthasar Kramer did what glassmakers do. They looked for another opportunity. This time they formed a partnership with a list of relatives which included the Gabler, Eberhart, Reppert, Reitz and Kramer families.

It was a joint venture between Albert Gallatin, financier, and several related glassmakers, John Gabler, George Martin Eberhart, George Reppert, Lewis Reitz,

²⁴ Dwight P. Lanmon and Arlene M. Palmer, *The New Bremen Glass Manufactory*, (Journal of Glass Studies, Vol.18, 1976) pp.25-38.

Balthasar Kramer, and Christian Kramer included. The story states that the partnership occurred through a chance encounter.

The meeting of Albert Gallatin and the German glass blowers was a chance encounter at a tavern where he persuaded the glass men to stay in New Geneva and forego going further west. Supposedly, Gallatin met the men at a Tomlinson's Tavern near Cumberland, Maryland, and convinced them to come to New Geneva.

Thus, the New Geneva Glass Works was born and opened in western Pennsylvania in 1797. The glass house was a success. The factory produced window glass, whisky bottles, bowls, and hollow ware. At one time, they were selling 4,000 boxes of window glass per year. History reveals that the company had production issues and Gallatin sold his shares to investors. How did this affect the Gabler, Eberhart, Reppert, Reitz, and Kramer families? Apparently, they were out or chose to leave. Again, they did what glassmakers did. They moved on and opened more glass houses. But the New Geneva Glass Works operated under some form of new management until 1847.

Lurking in the story of the New Geneva Glass Works is the story of multiple glassmaking families, both in Europe and America. They worked together, married amongst themselves, and were always ready to move on to a better opportunity. This excerpt comes from the application for Gabler-Reppert/Geneva Glass Works building to be on the Register of Historical Places.

In that year separate deeds were made out to the other six members. Reppert had purchased the glassworks tract from Joseph Dunn in 1806. According to the 1810 survey of lots at Glassworks, George Reppert owned the southernmost lot which contained 7 acres and 82 perches. It was bordered on the north by John Christian Gabler's lot of 3 acres and 105 perches ... One year after he bought the Reppert tract, in 1833, Thomas Gabler purchased 79 acres, adjoining this tract to the south, from Aaron Stone ... Thomas married Wilhelmina Kramer, the daughter of another glassmaking family. As mentioned in the Greensboro/New Geneva Multiple property submission, these families intermarried in order to retain glassmaking secrets within their small group. The Kramer, Reppert and Gabler families had numerous intermarriages down through years.

In 1837, the sons of Lewis Reitz and the Balthasar Kramer founded a second glassworks in New Geneva, producing the same products their fathers' factory produced. The new Kramer and Reitz Glassworks existed until 1857, with John Gabler and Charles Kramer running the factory.

W. A. Thorpe, glass historian writing in the early 20th century, said this of Semitic glassmakers; they had no national ties, they married amongst themselves to protect the secrets of their profession, they were ready and willing to move for a better opportunity, and they were good at selling their handiwork. This was true in the second century A. D., and it seems it was true in the 19th century.²⁵

²⁵ Jay W. Hawkins, *Glasshouses and Glass Manufacture of the Pittsburgh Region*, (New York: IUniverse, Inc.) p.387

It is impossible to leave the New Geneva Glass Works without mentioning Abraham Alphonse Albert Gallatin aka Albert Gallatin. Born in Geneva to a Huguenot family in 1761, he had quite an amazing life. His parents, wealthy Geneva merchants, died when Albert was young. He was sent to an elite academy to study, which he did, for a time. Then he and a friend, Henri Serre, decided to hop on a boat to America. Gallatin first worked in bartering in New England. He found the life in New England stifling, so he went west and ended up in Western Pennsylvania. He bought a large tract of land, named it New Geneva, and partnered with German glassmakers to open a glass house.

His story does not stop there. He came from a business family, and he set up several successful enterprises once in America. While doing that, he ran for Congress and won a seat. His understanding of business and finance resulted in Thomas Jefferson appointing him Secretary of the Treasury (1801-1814). He was appointed United States Minister to France (1816-1823) by President James Madison and James Monroe, and later, United States Minister to the United Kingdom (1826-1827) by President Quincy Adams. In 1828, he moved to New York and became President of the National Bank of New York. In 1831, he co-founded New York University, my alma mater, and in 1843 was elected President of the New York Historical Society. He was a deal maker through and through. One of his first American deals was with my glassmaking ancestors. It would be the first of many.



Belle Vernon Glass Works

William Eberhart (b.1800-d.1882), the first son of Adolph Eberhart (b.1783-d.1863), owned and operated the Belle Vernon Glass Works in Belle Vernon, Pennsylvania, from 1826 to 1853. Like his father and his brothers, he took skills he learned from his grandfather and used them to open a factory. The Belle Vernon factory had been partially constructed when William purchased it. He completed it and produced his first glass in 1836. The company grew to the point he opened his own coal mine to produce fuel for his furnaces. In 1850, his net worth was reported to be \$70,000. He was a successful glass manufacturer for much of his career. His main product was window glass. However, the story does not end well.

Eberhart lost several thousand boxes of glass in a warehouse fire in Cincinnati, Ohio in 1850. William Eberhart continued to operate the glassworks until he encountered financial difficulties in 1853 due to a general bad financial period occurring in the country at the time. He also had never fully recovered from the warehouse fire three years earlier. He closed the works in 1853. George A. Berry & Co. bought the works in 1853 shortly after Eberhart's failure.²⁶

Fortunes came and went, factories opened and closed, but three generations of Eberharts produced glass in America, as did their cousins who arrived on the Britannia so many years before.

The Baltimore Glass Works

The Eberhart and the Reppert family intermarried over many generations in Europe. Johan George Reppert (b.1772-d.1854) and his sons George and Louis were cousins to George Martin Eberhard and his sons Adolph Eberhart I and Adolph Eberhart II.

Johan George Reppert worked with John Frederick Amelung (b.1741-d.1798) at the New Bremen Glass Works. John Frederick's son, Frederick Magnus Amelung, opened the Baltimore Glass Works, also known as the Federal Hill Glass Works. Amelung, Jr. did so with the help of Johann Georg Reppert and his sons Louis and George.

The plant was initially operated by Frederick M. Amelung & Co. Located at the foot of Federal Hill the company was instigated on November 16, 1799, and production commenced on January 1, 1800.

Philip R. J. Friese gained control of the factory in 1802, although Lewis (Louis) Reppert (apparently the "& Co" of the Amelung firm) retained his interest. Philip's younger brother, John Frederick Friese, took over the actual operation of the plant, when Phillip retired ca. 1818. Upon the death of Lewis (Louis) Reppert, his sons, George and Jacob, became partners with John F. Friese.²⁷

²⁶ Hawkins, *Glasshouses and Glass Manufacture*, p.189

²⁷ Bill Lockhart, Beau Schriever, Bill Lindsey, and Carol Serr, *The Baker Brothers and the Baltimore Glass Works*, pp.9, 11

Frederick Magnus Amelung mismanaged the Baltimore Glass Works to such an extent that he had to sell his interest in the company to Phillip Freise three years after the opening of the glassworks. When Phillip Friese retired, his younger brother, John Friese, began managing the factory. The Baltimore Glass Works remained in operation and under the control of the Friese family until 1837 when William Baker took over the company. For the following 50 years the Baker family kept control of the company and it produced glass until 1904.



However, in the middle of the Baltimore Glass Works history, my glassmaking family makes another appearance. For reasons that are not entirely clear, between 1837 and 1859, the factory was run by Ludwig Reitz (b.1776-d.1824). Ludwig Reitz had been a partner in the New Geneva Glass Works previously. Lewis was married to Margaret Kramer (b.1775-d.1846). Margaret Kramer was the daughter of Balthasar Kramer (his business partner) and Margaretha Elizabeth Volz (sister of John Martin Eberhart's wife.)

Reitz's management eventually gave way, and the Baker family retook control of the factory until its closing in 1904.

The James O'Hara Glass Works

James O'Hara is considered one of America's pioneers in glassmaking. His factory was one of the most famous glasshouses in early American history. The story of the O'Hara Glass Works is a perfect prototype of all early American glass houses. As with all of them, my interrelated glassmaking ancestors have a prominent role.

As was often the case in American glass houses, the backer, O'Hara, did not know anything about glass. Rather he saw the opportunity glass production afforded in the fledgling nation. He saw potential in glassmaking. O'Hara acquired the capital to set up a glassworks and then relied upon immigrant glassmakers to make the glass. O'Hara's Pittsburgh glass factory first produced glass in 1795 and continued to do so until 1818.

O'Hara's business life was not good. The story of O'Hara's glassworks can be seen as a who's who in disgruntled European glassmaking families in America. The members of the old glassmaking families weave in and out of he O'Hara glasswork's story. My family of glassmakers all worked for him or with him in some capacity.

In Dorothy Daniel's, "The First Glasshouse West of the Alleghanies", the story of the O'Hara Glass Works is told. One can find members of my family, from the beginning to the end. O'Hara's right-hand man, Isaac Craig, kept an eye on the glassworks, and sent written reports to O'Hara, reports that survive until this day, offering a window into the hell that was O'Hara's life.

O'Hara had found and hired the glassmaker William Peter Eichbaum (b.1750-d.1827) to run his glass factory in Pittsburgh. Eichbaum was a refugee of sorts. A German native, he had been invited to France to produce glass for Louis XVI. The French Revolution made that employment brief and he immigrated to Philadelphia in 1793. Thus, he found himself working in Pittsburgh for O'Hara.

Eichbaum, who had been highly recommended as a glassmaker, was in reality a glass cutter by profession. Moreover, he was a Continental gentleman of great refinement who was used to the courts of kings and princes and he found adjustment to the frontier means and methods difficult.²⁸

In other words, Eichbaum was not happy. The transition from Versailles to a log cabin was a bit too much culture shock for this glassmaker. He is not a relative of mine, but he hired a relative, Frederick Wentz, to act as the superintendent of the factory. It seems Eichbaum's unhappiness with frontier living was made worse when Frederick Wentz came into his life.

An Isaac Craig sent the following note to O'Hara in 1799.

I have to observe that I am apprehensive of the Glass Manufactory will not go on well the ensuing year, under the direction of Eichbaum, or any of the people now engaged as his partners --- I find that an implacable enmity exists between Eichbaum and Wentz --- and that the latter has attached Phillis and Smith to him

²⁸ Dorothy Daniel, The First Glasshouse West of the Alleghenies, (<u>https://journals.psu.edu/wph/article/view/2345</u> The Historical Society) p.102

*in such a manner that the former is treated with very little respect --- they say that Eichbaum is not capable of superintending that business and they are not disposed to rent the works another year.*²⁹

In other words, O'Hara's business partners wanted out of the partnership. The Eichbaum-Wentz war did not appeal to them. O'Hara then had to make a deal with Eichbaum and Wentz, the two enemies would "rent" the business and would be entitled to a share of the profits that came from it. Being a "silent" partner is never a good idea and this would be a great example of that. Who makes enemies partners in a business?

Wentz was employed as a practical operating foreman and at length Eichbaum and Wentz leased the glasshouse from Craig and O'Hara to operate on a percentage basis with a minimum rent guarantee to the owners. There is no evidence that O'Hara or Craig "fell out" with Eichbaum, but Wentz they mistrusted from the first. He had been recommended to Eichbaum by Frederick Amelung who had brought Wentz to America as one of the first workmen for the New Bremen glassworks. Wentz, however, proved a source of worry and discontent from the first day of his employment. The leasing of the works to Eichbaum and Wentz in December, 1798, was undoubtedly an effort on the part of the owners either to satisfy Wentz or give Eichbaum a feeling of full authority.

Well, it did not work out. The relationship between Eichbaum and Wentz exploded in a dramatic manner. European glassmakers were free agents and had been free agents for 2,000 years. The early American glass houses were always an uncomfortable mix of backers and glassmakers. The backers did not respect the glassmakers and vice versa. "Too many chiefs, and not enough Indians" would be one way to describe the first glassworks in America. It was a culture clash and one that led to a series of implosions.

O'Hara had to look elsewhere to find a capable person to run his factory. And here come the next set of family members to enter the story, or almost enter the story.

October, 1799, in a letter to O'Hara, Isaac Craig writes he has found someone that can save the factory.

Phillis assures me that Lewis Repart who now has the direction of Johnston's Glassworks in Maryland would gladly accept an invitation to Pittsburg, he was here some time in the summer assisting Phillis and Wentz. I presume you will recollect seeing him, he has two Brothers also Glass blowers who are now at Albany, but who will come to Pittsburg if wanted, and Phillis assures me that Repart is so much esteemed by the Glass-Blowers generally he can bring with him any workmen he pleases.

George, Jacob, and Lewis Reppert were originally employed by John Frederick Amelung in Fredericktown, Maryland, where they knew Frederick Wentz. The Johnston works is located by Craig as "near Frederick-Town." The fortunes of the Pittsburg Glassworks might have taken a different turn had any of the Repperts located in Pittsburgh, for these men were all skilled, talented, and practical glassmen, but an opportunity presented itself in Maryland and they could not

²⁹ Daniel, *The First Glasshouse*, pp.102-103

afford to ignore. Frederick Amelung, son of John Frederick Amelung, Sr., built a glasshouse under the name of Frederick M. Amelung and Company in the year 1799. George and Jacob Reppert came back to Maryland from Albany, New York, and Lewis joined his brothers.³⁰

So the O'Hara Glass Works was not to be saved by the Reppert brothers. They had better opportunities and glassmakers always went to the highest bidder. The went to Baltimore to help Amelung Junior is his new venture. The O'Hara factory would languish while the owners looked for an able glassmaker who would take control of the factory. Enter a glassmaker from a famous Lorraine glassmaking family that may or may not be a relative, Edward Ensell.

When the Lorraine glassmakers came under fire for being Protestants, many of them moved to England, many of my ancestors included. However, the big four Lorraine glassmaking families are the Hennezel (Henzey, Ensell), Thisac (Tyzack), Thietry (Tittery, Tyttery), and Houx (Hoe). They had been given the right to produce glass in Lorraine by the King of France. When the war with the Huguenots began in France, they were less welcome. Many moved to England. Edward Ensell was from a family of a Lorraine glassmakers that moved to England. When opportunities opened up in America, at least one member of that family came to America.

Isaac Craig sent O'Hara the good news that he had found someone who could save the glass works. 1806.

Dear Sir:

Mr. John Wrenshall some time ago, shewed me a letter from a Mr. Edward Ensall [Ensell] then in New York and just arrived from England with his family. This man, Mr. Wrenshall says, he has long been acquainted with, and knows him to be a compleat glass manufacturer-and that he had been owner of a Glass House near Birmingham at which he had carried on the manufacture both in window and white glass — but that wishing to make a better establishment for his family he had disposed of his property in England with a view of entering into his former business in this country. Mr. Wrenshall also says that he may be depended on of good morals and would be an acquisition to our works. I told Mr. Wrenshall that unless this friend Ensall understood the German manner of making window glass, I was apprehensive he could not be useful, and order to obtain the necessary information I directed Mr. Wrenshall in his letter to Ensall to send several queries with respect to his knowledge in his profession to all of which he has returned satisfactory answer and in particular, that when a young man, he wrought at the only glassworks in England, that manufacture window glass in the German way viz—blowing cylinders and flatting.³¹

This is really interesting. Lorraine glassmakers, the Wentzs and the Hennezeys, leave Lorraine, go their separate ways, but then reconvene in Pittsburgh, Pennsylvania, several hundred years later! No doubt Edward Ensell and Frederick Wentz's ancestors

³⁰ Daniel, *The First Glasshouse*, p.104

³¹ Daniel, *The First Glasshouse*, p.104, 107

made glass together in Lorraine. As all of those families were intermarried, they were undoubtedly related. Memories were long.

Edward Ensell did come to Pittsburgh and did attempt to turn the Glass Works around. However, Ensell found it impossible to work with Wentz, which comes as no big surprise. Before long, Ensell went on his merry way. But not before informing Craig and O'Hara that Wentz was plotting to abandon the factory along with his many workers.

By this time, Frederick Mangun Amelung, or Amelung Junior, was bombing at making glass in Baltimore. O'Hara must have been desperate because he "seized" the opportunity to bring Amelung to Pittsburgh to take over the Glass House. Amelung Jr, with not much better to do, took O'Hara up on his offer, and moved to Pittsburgh. However, this was yet another unpleasant encounter for O'Hara.

So Amelung moved to Pittsburgh and became a leader in Pittsburgh society. He belonged to the musical clubs and entertained in a lavish hand at his lodgings, but he was a great disappointment to O'Hara, who discovered that the young man had all of his father's charm and none of the old gentlemen's ability as a glassmaker. Amelung stayed in Pittsburgh for several years, making extended trips back to Baltimore, during which times O'Hara would write to him in exasperation.³²

However, Amelung and O'Hara managed to keep the glass rolling out of the factory until 1812. At which point, the factory was falling behind and the competition, mostly the former employee Edward Ensell and his company, were biting at the heels of the O'Hara Glass Works. O'Hara then employed Charles Ihmsen to run the factory. Ihmsen did run the factory for the duration of its life, which expired in 1819. But, when Ihmsen took over management, he attempted to lure one of the original immigrant glassmakers back to work in the Pittsburgh factory. And this brings the story full circle.

In a letter dated July 31, 1812, Ihmsen wrote Adolph Eberhart and tried to entice him to come help run the glass factory.

You will receive the One fifth of every article you make, besides the Two hundred Dollars a year, a house furnished by you and fuel on your agreeing for One Year. The One fifth of what I make a month amounts to on an average to One hundred and forty Dollars, if the above terms will suit you, I shall be very happy to see you in this place, from my knowledge of Mr. O'Hara's disposition I am certain you will continue to agree a long time.³³

This Adolph Eberhart is my fourth great-grandfather. He passed on the opportunity and the O'Hara Glass works shut its doors.

³² Daniel, *The First Glasshouse*, p.110

³³ Daniel, The First Glasshouse, p.112

Conclusion

The Eberharts, and their relatives, the Repperts, Kramers, Volzes, Wentzes, and the Reitzes included, who arrived together on the Britannia in 1773, played a significant role in establishing the glass industry in America. Sometimes as workers, sometimes as factory founders and owners, these immigrant glassmakers introduced glass to America. They brought 2,000 years' worth of glassmaking knowledge and expertise and deposited it into American industry. From 1773 forward, every windowpane, bottle, or plate made in America was made as a result of their knowledge. They gifted America with the magic of turning sand into things of beauty and utility.

When one reads of the early glass industry in America, one will read of Wistar, Amelung, Gallatin, and O'Hara. This seems a bit off because at least three, Wistar, Gallatin and O'Hara, had no knowledge of glassmaking. The actual glassmakers have been lost to history. They are forgotten to such an extent, even the ancestors of the glassmaking families do not know they descend from America's first glassmakers. They are unaware of the enormous contribution their families made to American industry. I had no idea one of my great-great-grandfathers was responsible for introducing glassmaking to America. In a very real sense, every piece of glass I pick up at the grocery store is a result of his transmission of knowledge to American industry.

I dare say, most of the descendants of the early American glassmakers do not know they descend from glassmakers. As that is the case, they really do not know that their families migrated from Israel to the Caucasus and onto Europe before touching American soil, let alone that their ancestors spent 2,000 years making glass in Europe before they came to America.

Looking at the glassmakers in my family in detail explains part of my "Swiss" Jewish DNA. Some of my ancestors were "Semitic" glassmakers who moved through Europe in search of the magic combination of wood, sand, and a patron. And as Kurinsky states, after enough years of hiding behind the veil of Christianity, they lost connection with their Jewish past.

This lost history is being found, more and more, as people do ancestry DNA testing. Hidden Jewish ancestry is coming out of hiding. People from Northern Europe, who had no idea their families had been Jewish at one time, are finding out they in fact descend from Jewish families. The story of my Swiss-not-Swiss ancestors in general, and my glassmaking ancestors in particular, are examples of the how and why of hidden Jewish ancestry.

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