A GERMAN BREWER IN MID-CENTURY AMERICA

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Introduction

The proliferation of breweries in the Upper Midwest of the United States in the 19th century was an outgrowth of German migration to the region. The history of brewing in Oshkosh, Wisconsin encapsulates that development. Brewing in Oshkosh began in 1849 with the launch of the city's first breweries amidst an influx of German immigrants to the area. By 1878 Oshkosh, with a population of approximately 15,000, had already been home to eleven breweries. All of them were initiated by brewers born in Germany.¹

In the final decade of the 19th century, brewing in Oshkosh mirrored the general pattern of consolidation within the industry. By the time Prohibition arrived in 1920, just three breweries remained in the city. Pale, adjunct lagers had become ascendant and the trend towards ever lighter beer accelerated in the post-Prohibition period. By the 1950s, Oshkosh's breweries had largely shed the German influence that had informed their earlier years.²

Wilhelm Ernst Kohlhoff

It was into this setting that the last of the German-born and trained brewers to make beer in Oshkosh arrived. Wilhelm Ernst Kohlhoff was born in 1927 in the village of Schlawin, Pommern in what was then northern Germany. In January 1945, the 17-year-old Kohlhoff was conscripted into the German Army, serving for four months. He was taken first to Vienna and then to western Czechoslovakia where he remained until May 1945 when Nazi Germany's military surrendered, effectively ending World War II in Europe.³

At this point and with few resources, Kohlhoff traveled west, mostly on foot, in an attempt to return to Germany. 'The war ended and everybody went their own way,' Kohlhoff said. 'I didn't know anybody. I had no home, I had no parents, I had no relatives. I was lost. I kept on walking. I was 18 years old. I had to learn fast.' He eventually made his way to Bavaria. In July 1945, Kohlhoff arrived in Stettfeld, a municipality 18 kilometers northwest of Bamberg. There he met Georg Zehendner who operated a small brewery.

'There was a brewery in a little tavern,' Kohlhoff said. 'Every town had their brewery. I went in to get something to eat. It was hard to get food at that time in 1945. I went in and there was a boss there, the owner. He said, 'Where you going?' I told him I didn't know. I told him I was looking for a job. I needed to get at least room and board so I could sleep and eat. He said, 'I got a brewery in the back. I need a helper.' So, I stayed with him and learned how to brew beer.'

Thus began his career in brewing. But Kohlhoff's circumstance in Stettfeld was not a comfortable one. Although he married and started a family while living there, Kohlhoff said he was viewed as an outsider. 'We were the only Protestants in the whole town,' he said. 'I got along and got a job and everything, but I was different. When I opened my mouth they knew where I had come from.'

In 1952, the Kohlhoffs left Stettfeld and emigrated from Germany. With the help of the Wisconsin Commission for the Resettlement of Displaced Persons, they were paired with a sponsor family, the Ziemers, living near New London; a rural community in northeast Wisconsin approximately 190 kilometers north of Milwaukee. The



Figure 1. Wilhelm Ernst Kohlhoff before his move to the United States of America.

Kohlhoffs resided on the Ziemer farm for the next year while they become acclimated to life in America and learned to speak English.

In September 1953, Kohlhoff traveled to Oshkosh, 90 kilometers north of Milwaukee, to look for brewery work. In Oshkosh, he met with Dale Schoenrock, brewmaster for Peoples Brewing Company. 'I told him I come from Germany and worked in a brewery there,' Kohlhoff said. 'He gave me a job right away. And so I worked in the brewhouse and started brewing beer.'

The Peoples Brewing Company of Oshkosh

Peoples Brewing opened in 1913 as a counteraction taken by saloon keepers unhappy with the domineering tactics employed by the Oshkosh Brewing Company, the largest of the city's breweries. Peoples was formed as a cooperative brewery with stock held by a broad cross-section of Oshkosh residents. The first president

of the brewery was Joseph J. Nigl, a German immigrant who operated a popular saloon and grocery store in the city.⁴

Peoples was an early success and managed to outlast the Prohibition period by manufacturing and selling alcohol-free malt beverages, sodas, and fruit juices. With the end of Prohibition in 1933, it returned to beer production. Over the next two decades, the brewery's output came to be dominated by its flagship brand, Peoples Beer, which comprised most of the brewery's output.⁵

In the decade following the end of World War II, Peoples undertook a modernization program that touched upon every part of the brewery. During this time, the brewery replaced its wooden, open fermenters with enclosed, horizontal, glass-lined steel fermenters and replaced its wooden, pitch-lined cooperage with steel kegs. The modernization program also included a new bottling line and the addition of a canning line. Kohlhoff was on hand at the brewery when most of these changes were made. 'That whole plant was modernized in my time,' he said. 'We threw all those wooden tanks out'.6

Production rose in tandem with these changes; annual output averaged over 30,000 barrels through the latter half of the 1950s. Kohlhoff was one of 40-45 full-time employees at the brewery. Known as the First Kettleman his responsibilities were primarily centered around the brewhouse. His job was to see Peoples Beer through the first phase of production culminating in the delivery of wort to the beer cellars for fermentation. Kohlhoff worked alternating shifts helping to produce two or three batches of beer a day, four days a week. Fridays were reserved for general clean-up and preparation for the week to come. 'It was always the same, summer or winter,' Kohlhoff said. 'The brewmaster we had, Schoenrock, he never wanted anything changed.'

My first meeting with Kohlhoff was in September 2018. He was 91 years old and had not set foot in a brewhouse in over 50 years. I anticipated that his memories of the brewing process at Peoples would be vague. He soon surprised me, though, with his ability to recount details concerning beer production at Peoples. When I asked if he recalled the recipe for



Figure 2. The Peoples Brewing Company, Oshkosh, in the 1950s.



Figure 3. The Peoples Brewing Company, Oshkosh, in the 1960s.



Figure 4. The Peoples Brewing Company, Oshkosh, in 1973.

Peoples Beer, he immediately recited each ingredient and the approximate proportions used.

Kohlhoff mentioned that he still had notes he had made when he first went to work at Peoples. He said he would try to locate them and when we met again, in November 2018, Kohlhoff had his notes with him. They form a step-by-step, almost minute-by-minute outline of his typical brew day. The notes were written in a mixture of German and English, mirroring Kohlhoff's pattern of speech. They show temperatures in degrees Réaumur. The following overview of beer production at Peoples is derived from Kohlhoff's notes and his memories of working in the brewery.

Brewing Peoples Beer, 1953-1966

The brewing process at Peoples was defined by the brewery itself. Built in 1913, it was a prototypical, fourstory, lager brewery with a detached bottling house. Gravity was a prime mover of solids and liquids through the system. Kohlhoff said he worked his way, from top to bottom, thousands of times. 'Yeah, I know the whole

building through and through,' he said looking at a picture of the brewery.

Most of the raw materials used in the production of Peoples Beer were stored at or near the top of the brewery. They flowed down through the brewhouse being transformed into wort along the way. The substrate was water that came from a 530-foot artesian well drilled at the brewery in 1949.7 'Before that, they had a well that was 300-feet deep and that was not perfect or not soft enough,' Kohlhoff says. 'Then they drilled another 200-feet deeper and then that water was perfect.' The water was pumped from the well up into a massive holding tank housed in a cupola above the brewhouse. From there, it was drained as needed into the hot-liquor tank on the fourth floor. There it would be heated prior to the start of brewing.

The recipe for a 100-barrel batch of Peoples Beer was classically simple:

3,200 pounds malted barley (73% of Grist)
1,200 pounds corn grits (27% of Grist)
50-65 pounds of American and German hops (0.5 to
0.625 pounds of hops per barrel)



Figure 5. Peoples Beer tray.

Malted, six-row barley came from the Fleischmann Malting plant in Red Wing, Minnesota and was sent to Oshkosh by train. A rail spur ran between the brewhouse and bottling house. The malt was unloaded from the rail cars into an elevator which carried it to the malt hopper on the fourth floor of the brewery.

Most post-Prohibition American beers were made from a grist that included some form of either corn or rice.⁸ At Peoples, they used corn grits and the American double-mash method, mashing the grits with 300 pounds of malt in 15 barrels of water. The malt was necessary to provide enzymes needed to convert the corn's starches into fermentable sugars. This cereal mash was performed in a steam-heated cooker fitted with rakes that stirred the grist together as it slowly came to a boil. With that process set in motion, Kohlhoff would head downstairs to the second floor where the primary mash tun resided.

The main mash began with an infusion of 2,900 pounds of malt in 30 barrels of hot water. The mash would settle in at 40°C (104°F) and rest at that temperature for 15

minutes. The mash tun was also fitted with a steam jacket and stirring rakes. At the end of the first rest, Kohlhoff would start the rakes and gradually raise the temperature to 60°C (140°F) for a second rest of 20-25 minutes. During the second rest, he would recirculate the wort through the mash to help draw out fermentable sugars and create a more uniform environment within the porridge-like mass of water and malt.

At the end of the second rest, Kohlhoff would drop the now boiling contents of the cereal cooker into the main mash bringing its temperature up to 68°C (154°F). He would then allow the mash to rest for approximately 20 minutes before adding additional hot water and starting the lautering process. This separated the wort from the spent grain and grits, which would later be taken by farmers in the area for use as livestock feed. The wort was run off through a grant, a smaller vessel used to buffer the flow of wort out of the mash tun and into the boil kettle.

The copper boil kettle was perched between the first and second floors of the brewhouse. It was steam-heated and

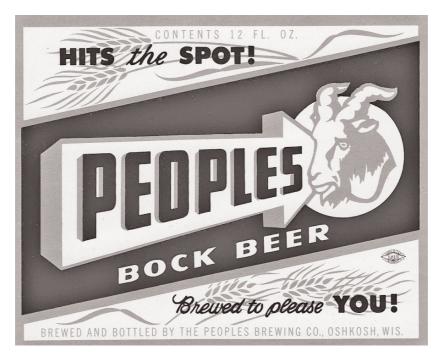


Figure 6. Bock Beer lable.

had a 130-barrel capacity. Kohlhoff would add hops to the kettle as the wort was flowing into it and coming to boil. This technique, known as first-wort hopping, was a fairly common practice in American breweries before Prohibition, but much less utilized in the 1950s. Some brewers believed it helped to create a more complex hop-flavor and a less biting bitterness.

A small dose of salt (NaCl) was added to the kettle along with the first addition of hops. The salt addition was believed to help blunt bitterness while enhancing mouthfeel and the sensation of sweetness in the finished beer. This type of salt addition was also used at the nearby Rahr Brewing Company. Both breweries were known for producing malt-forward beers. Despite the malt-driven flavor profile, Kohlhoff said that hops were a major consideration at Peoples.

When Kohlhoff spoke of hops he did so in terms of place of origin instead of breed. 'We used German hops and American hops,' Kohlhoff said. 'Seventy percent of it was German.' That probably means Peoples was brewed with German Hallertau and American Cluster hops. In the 1950s, these were the most commonly

derived hops from their respective countries. They were whole-flower hops stored in bales in a second-floor cold room directly behind the brewhouse.

Kohlhoff said that American hops were used for the first-wort addition. He could not remember the exact amount used. He estimated that it would have been approximately 15-20 pounds. After the wort had been boiling for an hour, a similar-sized load of German hops was added. That was followed by two, smaller additions of German hops. Kohlhoff's thumbnail sketch of the hop schedule for the 105-minute boil comes out like so:

American Hops (~15 pounds) - First-Wort Addition. German Hops (~15 pounds) - Boiled for 45 minutes. German Hops (~10 pounds) - Boiled for 30 minutes. German Hops (~10 pounds) - Boiled for 15 minutes.

At the end of the boil, the wort was drained from the kettle and passed through a hop jack to remove the spent hops. From the hop jack, the wort was pumped to a collection tank on the fourth floor. From there it drained to the heat exchanger for cooling. Kohlhoff's description

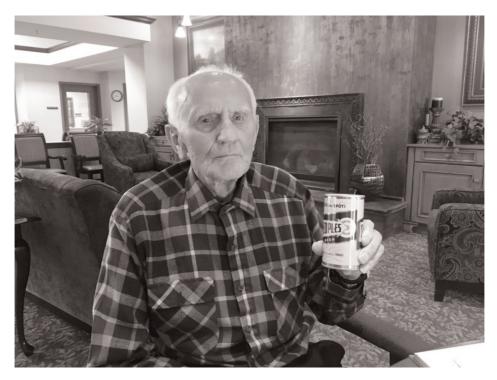


Figure 7. Wilhelm Ernst Kohlhoff in 2018.

of the cooling process suggests Peoples used a Baudelot-type chiller with the hot wort cascading over a rack of refrigerated pipes. He said this would reduce the wort temperature to below 50°F.

Aside from cleanup, Kohlhoff's job was mostly done. He wasn't, however, shielded from the remainder of the process. Though wort production was his primary concern, he sometimes worked in other areas of the brewery. 'Certain things you had to know, and not just be a brewer,' he said.

The wort Kohlhoff had made was bound for the cellars for fermentation and conditioning. The 'cellars' were in the north half of the brewery on the second and third floors. Peoples Beer underwent a cold, primary fermentation lasting eight to ten days at 8°C (47°F). When Kohlhoff began working at Peoples the brewery was still in the process of replacing its original wooden fermentation tubs with glass-lined, steel tanks. I asked if that change impacted the flavor of the beer. Kohlhoff said, 'No, I wouldn't say the flavor, it was a little more clean and a little bit different, yeah.'

Kohlhoff would take his first sample of the beer near the end of the primary fermentation. 'We'd go in the cellar at six days or seven days,' he said. 'There was a little valve on the tank where you'd take some off and see how clear it is and how it all tastes.' Kohlhoff said everyone at the brewery regularly sampled the product they were making. 'We always had a barrel of beer that was right there. All the guys working in the brewery were drinking that free beer.'

From the fermenters, the beer was pumped into aging tanks in the 'Ruh' cellar for several weeks of cold conditioning. Here the beer would continue to clear as the flavor developed and refined. Kohlhoff could not remember the specific duration of this maturation period but said that in summer the demand would sometimes have the brewery turning out beer more rapidly than usual. Most lager breweries of this period aged their beer anywhere from three weeks to two months before packaging it.

After lagering, the beer was filtered and carbonated. At Peoples, they used a gas collection system to capture

CO2 produced during fermentation for carbonation. The CO2 was forced back into the finished beer at 2.87-2.89 volumes.⁹ The final product was pale and medium-bodied, with a mildly sweet malt flavor.¹⁰

An analysis of the beer performed by the J.E. Siebel Company in April 1971 sheds more light on its properties. Though the report comes five years after Kohlhoff left Peoples, he maintains that the beer changed little if any during the intervening years. After leaving the brewery, Kohlhoff remained in Oshkosh and continued drinking Peoples Beer. He also remained in contact with his former co-workers at the brewery. He believes they would have mentioned changes made to the recipe or brewing process. With that in mind, here is a portion of the 1971 analysis:

Clarity: Brilliant Color: 3.4 SRM ABV: 4.62% IBUs: 18

Apparent Degree of Attenuation: 76.6 % Real Degree of Attenuation: 62% Original Extract: 11.34 (1.046) Specific Gravity: 1.01035

A note attached to the report remarks, 'The sample makes an exceedingly good impression in almost every respect'. 11

Peoples Beer was packaged in kegs, bottles, and cans. The kegged beer was unpasteurized. The kegs were filled in a racking room built specifically to suit that purpose in 1948. A portion of the racking and keg-washing rooms remains near the corner of East 15th and South Main streets in Oshkosh. Kegs going into trucks for distribution to taverns were loaded off here. Peoples had a fleet of eight trucks delivering beer within a 60-mile radius of Oshkosh. 12

Beer for bottling and canning was delivered through a pipe running from the racking room to the bottling house. The detached bottling house was a hangover from the years before Prohibition when it was mandated by law that bottling and brewing facilities had to be distinct and separate. ¹³ The bottling house is the only part of the original 1913 brewery construction that remains intact. By the mid-1950s, the bottling plant had the capacity to fill 50,000 bottles a day. ¹⁴ All of the bottled and canned beer passed through a pasteurizer

before being packed in cases. Oshkosh customers often purchased beer by the case off the back dock behind the bottle house.

Seasonal Beers

When Kohlhoff was hired at Peoples, the brewery produced just two beers: the year-round Peoples Beer, and a winter-seasonal named Holiday Beer that was released just before Thanksgiving each year.

Kohlhoff said the recipe for Holiday Beer was similar to Peoples Beer with a couple of additions making the difference. Holiday Beer was brewed to be darker and stronger, with an ABV approaching six percent. About the recipe Kohlhoff said, 'That was the same beer, but like I said we added all the special malt; it was darker, it was a brown color malt, and then what you used was brown sugar, 600 pounds of sugar in the kettle and that makes the beer a different color, too.'

The addition of brown sugar in a lager beer made during this period is unusual. When I questioned him further, Kohlhoff said there was nothing special about the sugar itself, that it was an ordinary brown sugar. The 'special malt' was a dark Munich malt. The brewery's advertising for Holiday Beer often made mention of its use of Munich malt. 15

Both before and after Prohibition, Peoples had produced a bock beer for release in either late-February or early-March. Peoples Bock was discontinued after the 1940 release and then reintroduced in February 1959. It appears the reintroduction had more to do with branding than anything else. Kohlhoff said that the recipes for Peoples Bock and Peoples Holiday Beer were identical.

Kohlhoff said that of the three he favored Peoples Beer, the beer he made day in, day out for 13 years. 'That was quite a job,' he said. 'That brewery was in number one shape. We had everything right on the clock. Everything. Peoples, that was a good beer.'

Conclusion

Kohlhoff left Peoples Brewing in 1966 to take a job as a woodworker at a mill a few blocks away from the brewery. He said the change was made out of necessity. 'They paid me a quarter an hour more and they gave me 48 hours a week with time and a half,' he said. 'I was married with four kids and so that helped.'

It was a fortuitous move. In 1970, Peoples Brewing was sold to a group of Milwaukee entrepreneurs seeking to establish Peoples Beer as a nationally distributed brand directed towards urban markets. The endeavour was an almost immediate failure and led to the closing of Peoples Brewing in 1972. The main portion of the brewery was demolished two years later.

Wilhelm Kohlhoff passed away in Oshkosh on 10 May 2019 at the age of 92. A month prior to his death, he had visited Fox River Brewing; a typical American craft brewery in Oshkosh that produces approximately 1,000 barrels of beer annually. As we stood in the brewery's adjoining taproom talking with a brewer who worked there, I asked Wilhelm what he thought of it. 'It's like a little German brewery, so small,' he said smiling. 'But it's all different now, all different.'

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