

What do Wheaties and French Tartines Have in Common?

That's a tough one. So different. Wheaties are austere, healthy, and plain.



Their slogan, “breakfast of champions,” is associated with sports, making them big hits on American kitchen tables. French tartines are *au contraire*: rich, not healthy, and anything but plain. A crusty *baguette* is sliced lengthwise, toasted on top, slathered with butter and jam.



Decadently delicious. No advertising needed. Dunked into an oversized cup of café au lait, they provide a nation's morning sustenance. The commonality? Both are products of “Hungarian high milling.”

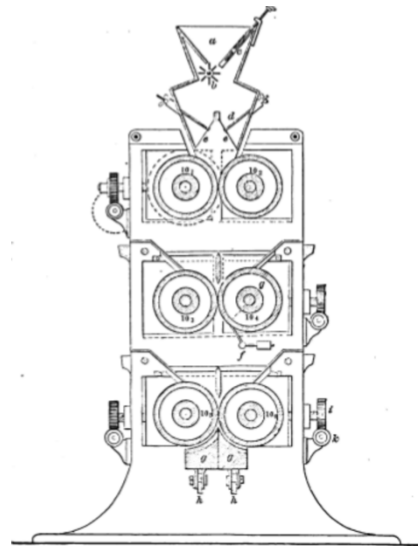
Obviously, this is going to require some explaining.

At Colvin Run we interpret the mill as it operated in the early 1800's with its massive grindstones. However, in the 1890's Colvin Run, like so many other mills, particularly large ones, used steel rollers to produce a finer flour. Where did that idea come from?

Hard Wheat, Steel Rollers, Hungarian Flour Mills

Up to the mid-nineteenth century most breads were made from soft wheat. Its lower gluten content, flour's main protein, yielded remarkable cookies and cakes but unremarkably spongy bread. The higher protein properties of hard wheats offered the prospect of bread with a crusty exterior and soft, chewy interior. Think Wonder Bread vs *baguettes*, that crusty, baton-shaped loaf gracing nearly every household in France every day (*baguette* means “baton” in French as in “the French traffic cop waved his *baguette*”). The problem was that grindstones tended to shatter the bran of hard wheat because the kernel was - well - hard. Being unable to sift out pulverized bran shortened the shelf life (moisture retention), appearance (brownish), and taste (nutty) of the final product.

In the 1830s Jacob Sulzberger, a Swiss, experimented with chilled iron rollers that would twist rather than pulverize grain and could be adjusted for more precise spacing and pressure. He used widely separated grindstones to “break” hard wheat berries, to separate the endosperm, the floury part, from the bran, the outer covering, and the germ, the oily part. The resultant semolina would be sifted to remove the bran and germ, and “broken” again, if necessary. The “clean” or “pure” semolina would be processed at a slower speed with stacked vertical steel rollers operating a different speeds to produce “middlings,” and processed again to produce finer “dunst,” and yet again to render flour. Sulzberger's method was adopted in 1839 by a large commercial operation, the Pester Walz-Mühle in Budapest, Hungary.



The Hungarian flour milling industry further developed the use of steel, then porcelain, rollers. Their process became known as “Hungarian high milling,” meaning the grain makes several passes through the rollers for breaking and flouring. “Low milling” practiced at Colvin Run, means the grain passes through the grindstone once and done.

A Baguette is Born

The precise date when the first crusty *baguette* was baked can't be precisely pinned down, but a confluence of events points to the mid-nineteenth century. The shape might have been introduced before 1839 when Austrian August Zang opened his Boulangerie Viennoise in Paris featuring a steam oven to produce a crustier crust. His buttery pastries called “*kipferls*” (horns) were described by the French with the more mellifluous word *croissants* (crescents).



Kaisersemmel or Imperial roll

The Vienna Bakery entered a Kaiser Semmel (Imperial Roll) in the 1868 Paris International Exposition made from compressed cereal yeast rather than beer yeast and Hungarian high milled flour. The result was a bread that displayed “purity, whiteness, yield and keeping qualities, not equaled by that of any other country.” Steam baking dough made from hard wheat flour gave rise to the delicious, irresistible chewy *baguette* that we know today. More than one freshly baked baguette arrives home from the boulangerie with the pointy end chewed off.

Spread of Steel Roller Mills



Modern roller mills were developed by Hungarian engineer Andras Mechwart in 1874 and quickly spread across Europe and America. Hard red spring and winter wheats were introduced to the US, spurring higher demand for roller mills. When connected with a steam engine and driven by belts, these mills were quieter, more efficient, and more reliable than water powered mills and produced higher quality flour. In the 1860's a mill produced around 500 barrels of flour a day; by 1890 most mills produced 3,000 barrels a day. Colvin Run Mill installed a steel roller mill driven by a steam engine and kept one grindstone to “break” the grain as well as to grind “health (whole wheat) flour” demanded by locals.

Health Cereals and the Accident that became Wheaties

In 1880 the Washburn Crosby Company (to become General Mills) opened the first industrial sized flour mill in Minneapolis featuring rollers and the Hungarian high milling technique. The firm's flour won so many gold medals it appropriated the name: “Gold Medal” flour. Removing the bran and germ, however, renders the flour devoid of live sustaining nutrients. Not even insects that burrowed into flour barrels could survive!

John and William Kellogg, who ran the Battle Creek Health Sanitarium in Battle Creek, Michigan, created a healthy, meatless meals as part of patients' regimes, including easily

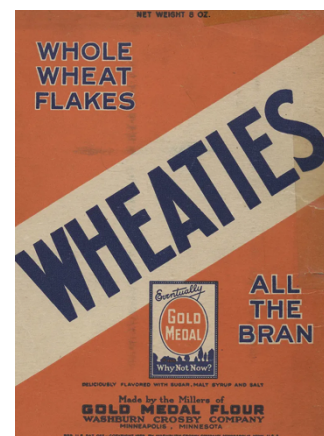
digestible grain products. Their first offering was a rock-hard mixture of wheat, oats, and corn they called Granola.

John's wife, Ella, liked to experiment in the kitchen. In 1894 she rolled out dough composed of wheat and bran, but mistakenly left it out overnight. The slab dried out. Undeterred either Will or Ella (each sought recognition), rolled it out. The stuff was flakey. Hmm. Let's add a bit of milk. Wow. Delicious. Let's call it Granose! Hmm. Maybe just "bran flakes," sold under the brand name Sanitas (for sanitorium). Will, with a keen eye for business, wanted to add sugar to their next invention, corn flakes. Health-conscious John refused. They split and created rival companies. Will kept the sugar and the name Kellogg's; John stuck with sugar-less Sanitas. The rest is history.

Charles Wilson Post, a patient cured by the Kellogg's regime (and father of our local Marjorie Merriweather), established a competing sanitorium and health food company. His first product was Postum, an instant beverage composed of roasted bran, wheat, and molasses without the enervating caffeine. In 1897 he baked a flattened sheet of a barley and wheat mixture and ground it a coffee grinder to produce what he called Grape Nuts (the shape of the cereal is like grape seeds but with a nutty taste): "food for brain and nerve centers."

Meanwhile, back in Minneapolis at the Washburn Crosby mill, in 1921 a lab technician fiddling around with healthy flour combinations, accidentally spilled a mixture of whole wheat and bran on a hot stove. Oops! It crackled and sizzled into a crisp flake. Hmm. Just add milk! Delicious. Its name, "Gold Medal Wheat Flakes," naturally didn't catch on. In an employee contest to select a better name, "Wheaties" thankfully beat out the alternative "Nutties."

Still, caseloads of the breakfast cereal were not flying out the door. Management was about to pull the plug and stick to its main trade of milling flour. But a clever jingle, the first of its kind, sung on the radio on Christmas Eve of 1926, and sponsorship of the local minor league baseball team, the Minneapolis Millers, sparked local sales that eventually lead to a national campaign linked to sports figures. The cereal's high iron content – 70 percent of daily requirement – made it a plausibly healthy breakfast. Lou Gehrig was the first on the label. Wheaties was advertised on the first televised baseball game in 1939 with legendary Red Barber digging into his "Breakfast of Champions" (with bananas).



In 1937 a little-known radio sports broadcaster at station WHO in Des Moines, Iowa was deemed the most popular Wheaties sports announcer. He won a trip to the Chicago Cubs training camp in California where he took a screen test at Warner Bros. Ronald Reagan never looked back.

Wheaties and tartine. So different, yet products of the same milling process. Who is to say that one is better than the other? My dad, a college football player and an above average golfer, was a long-time Wheaties fan. During a visit to Paris, he savored a tartine with a café au lait for his *petit déjeuner* at an outdoor café. A smile on his face as he watched the passersby and mused: "These folks know how to live."

