BAS 255 Slag Brick Walls Welcome to Butte, America’s Story. I’m your host, Dick Gibson.

“Something there is that doesn’t love a wall.” If Robert Frost had written that line in Butte, he would have known that the main enemies of outside retaining walls here are the cycles of freezing and thawing, and the long slow pull of gravity. Nonetheless, the walls that help hold up homes and yards on our steep hillsides are part of our unique historic landscape.

Concrete, brick, granite boulders, rough manganese-laden rocks, and cut granite blocks all form walls throughout Butte. But a few surviving slag brick walls speak loudly to our mining heritage.

Slag bricks were first used in England in the 1860s to build road beds, breakwaters, and retaining walls. It was natural that such abundant, strong, and cheap material—the waste from smelters—would find use in Butte.

The process of hot casting of slag bricks was invented right here in Butte, by J.E. Gaylord at the Parrott Smelter before 1887. Smelter textbooks of the day described his simple method of pouring hot, molten slag directly into cast-iron or sand-clay molds. The technique was considered an innovation over traditional shaping of partly cooled slag, a more labor-intensive approach.

Standard slag bricks from the Parrott Smelter were 12 x 6 x 6 inches and weighed 55 pounds. One man could produce about 350 a day, and they were sold at 85¢ to $1.00 per hundred—less than a penny apiece, but that was enough to pay the slag worker’s wage of about $2.50 per day and still turn a profit. At least one short segment of wall using long bricks like those from the Parrott survives off the sidewalk near a home on Broadway street.

Over time slag bricks evolved to a smaller, more cubical geometry, weighing 10 or 15 pounds each, which made them easier to handle. Initial uses included linings for kilns and retorts and for road beds in mine yards, but the bricks were also sold to make retaining walls like the one in the 300 block of West Copper Street, probably the last surviving residential example in Butte.

Slag brick walls could be dry laid with little or no mortar because the bricks were heavy and had sharp, smooth surfaces. They also had excellent crushing strength and were hardly affected by the weather. Their brittleness was probably their main drawback, but once in a stable position they could—and did—last for decades.

Although the longevity of slag bricks from the Parrott Smelter can be seen as a valuable thing, the longevity of tailings from the same smelter is an environmental nightmare. The removal of the Parrott tailings from part of the Silver Bow Creek corridor along and beneath Butte’s civic center has long been a bone of contention in Superfund discussions, but their removal finally began in 2018.

As writer Edwin Dobb has said, "Like Concord, Gettysburg, and Wounded Knee, Butte is one of the places America came from." Join us next time for more of Butte, America’s Story.