Cement City
Part three

The expense of Crucible Steel’s “Toyland,” 16 concrete worker houses built overlooking the factory (discussed in Summer 2009’s “Architecture Around Us”), did not go unheeded by other local steel manufacturers, nor did the problems of dampness in earlier concrete houses. Engineers constantly fiddled with innovative molds and the designs of the reinforcing rods, ways of pouring, etc. New pouring forms had inner and outer chambers separated by an air pocket to keep dampness from the interior.

The next known concrete housing plan in our region was in Donora, Pennsylvania, established in 1901 as the home of the American Steel and Wire Company, a subsidiary of the United States Steel Company. The Wire and Steel plant expanded in 1916 due to World War I, and U. S. Steel added a zinc factory to use in galvanizing steel. Men slept in the same bed in shifts to remain near the factory. The local hotels and boarding houses could not accommodate the need, especially for permanent family housing.

The company commissioned 80 buildings of poured-in-place concrete to house middle management workers on a terraced 8.8-acre site overlooking the town of Donora. The goal was to provide affordable, fireproof, sanitary housing with plumbing, electricity, and central heat. To avoid monotony, a range of house types were made available from single family dwellings to duplexes having from four to six rooms. They were finished with stucco in a choice of muted beige and grey. All of the original residences remain, albeit altered and in a variety of colors.

These houses were constructed using reusable steel frames made by U. S. Steel consisting of nine-inch channels set up vertically and connected together with clips and wedges. It took eight weeks to pour the first 12 houses and then the team finished another 12 houses every three weeks until 100 houses were complete by the end of 1917. The company allowed them to be rented or purchased, and they supplied a maintenance crew and maintained a flower garden and tennis courts for the residents. After 1945, the owners had the option of buying them for $2,250 to $4,150.

Cement City and the third concrete housing group in our region have a common denominator, Louis (often spelled Lewis) Brandt, who supervised work on both developments. Brandt was born in Altoona, Blair County in 1871, the son of a lumberman. In 1896, he began working for a building company in Altoona. In 1900, he moved to Pittsburgh as manager and then in 1903 as the treasurer of the Nicola Building Company with offices in the Farmers Bank building downtown and a residence in Oakmont. The firm built Forbes Field in 1909, completing the reinforced concrete stands in 88 days.

By 1910, Brandt was president of his own company called “Modern House Manufacturing Company” as well as the Nicola Building Company. A 1916 ad for the Nicola Building Company states: “Building Contractors: Concrete Factories (sic) and Warehouses: Mine Buildings” with offices in the East End. During World War I, Brandt acted as a consultant for the War Department for the planning and construction of the Nitro housing development in West Virginia—a boomtown of over 1,700 prefabricated frame houses for workers surrounding a newly constructed DuPont chemical plant. Brandt brought out several patents improving the design of concrete houses, especially those claiming to defeat dampness and chill. After the West Virginia job he immediately moved on to Cement City and then in the early 1920s out to Johnstown where, in collaboration with one of the Clepper brothers as architect, he designed 89 houses for the Cambria Iron and Steel Company.
Northwest side of Ida Avenue, Cement City, Donora, Washington County. All photos La Donnelly.
Southmont

Ranged along two hilly streets in Southmont borough adjacent to Johnstown, this group of concrete houses uses a basic foursquare plan with a variety of dormers and rooflines. They were built using the Van Guilder double wall system with a 4-inch air space between the outer and inner walls. Angle irons supported the second story. The Van Guilder machines were marketed out of Rochester, New York, but in Johnstown were used by the Klingensmith Construction Company, which was Van Guilder’s exclusive agent. Concrete houses using the Van Guilder system were marketed as cheaper than wood, more energy efficient, and longer lasting. The problem was often keeping them within the projected budgetary amounts. In the case of the Southmont houses, most remain but there are certainly not 89 houses along Harding and Still Alley.

The surprise for this columnist wasn’t finding three groups of concrete housing in Western Pennsylvania, but finding all three fully occupied and highly functioning well after the factories they were meant to serve had closed.

Lu Donnelly is one of the authors of Buildings of Pennsylvania: Pittsburgh and Western Pennsylvania, a book in the 60-volume series on American architecture sponsored by the Society of Architectural Historians titled Buildings of the United States to be published in the Fall of 2009. She has authored several books and National Register nominations on Allegheny County topics and organized an exhibition on the barns of western Pennsylvania for the Heinz Architectural Center at Carnegie Museum of Art.
1 William Henry Donner and Andrew Mellon founded the American Steel and Wire Company; the town’s name is a contraction of the names “Donner” and Mellon’s then-wife’s first name Nora.
2 The first office was in the German National Bank Building. Oliver Nicola was president of the firm; his brother Franklin Felix Nicola developed Schenley Farms in Oakland.
3 In 1917, the home address is listed as Washington Avenue. In one of the Polk Directories Mrs. Lewis Brandt is listed as the Corresponding Secretary of The Women’s Club of Oakmont, probably 1917. By 1918 they had moved to Walnut Street. And ultimately to 6644 Dalzell Place in Point Breeze.
4 I assume it was Harry C. Clepper, whose office was in Pittsburgh; his brother E. E. lived in Sharon, Pa.

Two views of Southmont, a suburb of Johnstown, Pa. At top is #9-19 Harding Street. Above is #10 Harding Street.