

Architectural Elements

One Brick at a Time

by ZoAnn Campana

In this installment of Elements, we are discussing the humble but mighty brick. The use of brick as a functional and decorative building material is pervasive throughout Reno's historic neighborhoods, and its popularity reached a fever pitch from the 1920s into the 1940s. Brick buildings are a definitive feature of our urban landscape, from commercial blocks and warehouses to Craftsman bungalows and Period Revival cottages.

In essence, bricks are molded clay building units. In order to harden the clay into a suitable construction material, bricks are either dried in the sun or baked in a kiln. Baked, or burned, bricks have been used as a building material for more than 9,000 years in various parts of the world, eventually arriving in America by way of English and Dutch colonists.

Today, standardized bricks are typically sourced from big box building suppliers; as a result, we tend to think of the brick as a consistent and uniform building unit. Historically speaking, however, there is no such thing as a standard size or shape brick. Since at least the Middle Ages, bricks have been small enough

for a single workman to handle with ease. Plus, larger clay bricks are more likely to warp during the firing process, which limits accuracy and uniformity in laying the bricks. Even though bricks tend to vary in dimension, there is an ideal ratio for bricks, which is best suited to bonding patterns. This "model" brick's length is equal to twice its width plus one mortar joint width.

Traditionally-manufactured bricks vary in hardness and color. The composition of clay deposits differs from place to place, which can affect the properties of the finished brick. Additionally, to keep production costs down, clay from a deposit is used in its natural form; it is not refined to eliminate the presence of other substances, or



569 W. Taylor: This is an example of a Craftsman bungalow with decorative brick elements. Note the red brick walls, which contrast with the light brick rowlock lintels, rowlock sills, and basket weave water table course.

impurities, that—in combination with the firing temperature and atmosphere— influence the color and compressive strength of the finished brick. Depending on where and how they are made, bricks may be soft or hard, and they may be tinted red, orange, pink, buff, yellow, brown, black, gray, green, or even purple.

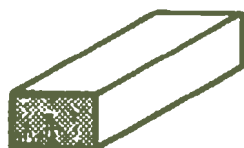
Traditional brickmaking has always been an acutely local activity. Before brick-making became a large-scale industry, bricks had always been made locally, and for two reasons: firstly, because of their weight and size; and secondly, because the raw material used to make bricks, namely clay and sand, is nearly ubiquitous throughout the world. It is relatively easy to manufacture bricks in makeshift, temporary facilities, and in past eras, it was not uncommon for bricks to be produced at the building site. Once established as permanent settlements, the majority of towns and cities had at least one local brick plant to support building efforts, and Reno was no exception.

After a spate of fires swept through Reno, in particular the devastating 1879 inferno that destroyed ten city blocks, local demand increased for

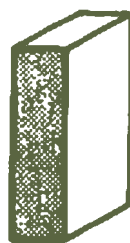
Diagram 1: Brick Orientations



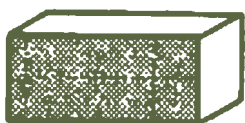
Stretcher



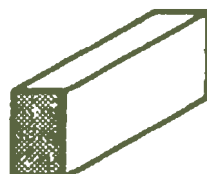
Header



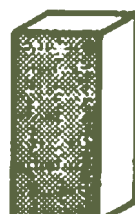
Soldier



Shiner



Rowlock



Sailor

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brick homes and businesses. Until this time, the majority of the town had been constructed of wood. This was common during an era defined by the rise and sudden collapse of boomtowns throughout the Far West. It was preferable to wait and see whether a settlement would survive before expending the cost and effort in making buildings that would last. Nevertheless, there were a handful of brick buildings in town prior to the conflagration, including the still extant Masonic Lodge No. 13/Reno Mercantile (1872) and Nevada State Journal building (1876).

Brickyards emerged in Reno as early as 1871 and included those operated by Cummings & Company, S.F. Hoole, and the Burke Brothers. In 1900, C.E. Clough and A.E. Cheney established the Reno Pressed Brick Company, later known as Reno Press Brick, which manufactured a good chunk of the local common brick supply until the plant closed in 1963. Reno Press Brick sourced its clay from a deposit near the Truckee River, and the finished red bricks built such landmarks as the Mapes, El Cortez, 20th Century Club, Riverside Hotel, and Reno High School. (Editor's note: for more information on the Reno Press Brick Company,

see "A Brick-Built Town is a Prosperous-Looking Town" by Debbie Hinman in the Fall 2006 issue of *FootPrints*).

Because the clay deposits around Reno produced only red brick, the Reno Press Brick Company acted as an agent for



620 St. Lawrence: This Tudor Revival cottage has contrasting brick trim around the doorways, windows, and chimney cap; a diamond-pattern inlay in the chimney; and a herringbone pattern in the end gable.

non-local brick manufacturers. One such producer was Cannon & Company of Sacramento, who manufactured "fancy face brick" in five colors: buff, yellow, orange, red, and spotted gray.

In order to appreciate the artistry of brickwork, one must learn the language of the industry. All masonry units,

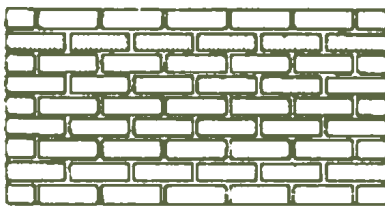
from stone ashlar to concrete blocks to bricks, are laid in courses. In his *β*, Cyril Harris defines a course as "a layer of masonry units running horizontally in a wall." In other words, a brick course is the technical term for a row of bricks.

There are six orientations, or positions, in which a brick may be laid in a course: header, stretcher, shiner, rowlock, soldier, and sailor (Diagram 1).

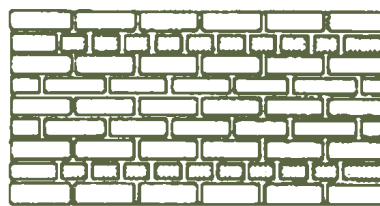
The structural integrity of brickwork originally depended on the rectangular shape and interlocking bond of the bricks, with mortar playing a secondary role by smoothing out irregularities in the bricks and offering some adhesion. Bonding systems were invented to ensure a strong wall, which concurrently developed into an exterior decorative element.

There are six bonding systems typically utilized in the United States. Common Bond (also known as American or Colonial Bond) consists of four to six stretcher courses interrupted by a header row at the fifth, sixth, or seventh course. English Bond features alternating header and stretcher courses, and the stretchers are laid so that the end joints line up vertically. In Flemish Bond, all of the courses are identical, each one consisting of alternating

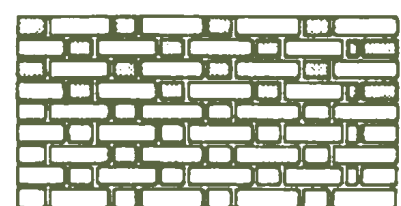
Diagram 2: Bonds



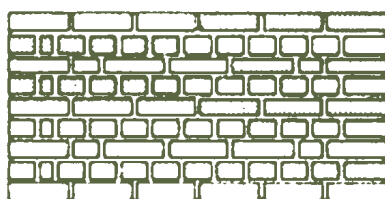
Running



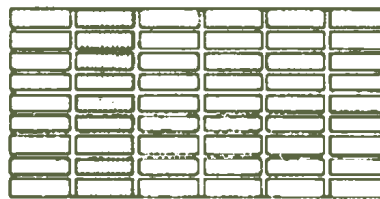
Common or American



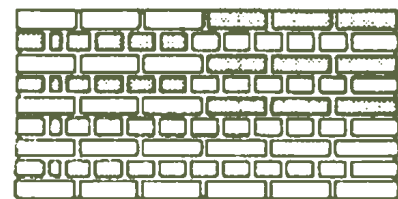
Flemish



English



Stack



English Cross or Dutch

headers and stretchers. A Running Bond is comprised of all stretcher courses. A Stacked Bond also consists of stretcher courses; however, the bricks in each course are stacked directly atop one another. The English Cross Bond (Dutch Bond) is a variation on English Bond, where the stretchers are placed so that the end joints form a stepped diagonal line (Diagram 2).

Brickwork can be highly decorative. Also known as pattern work, bricks may be arranged into a number of decorative configurations, including basketweave, herringbone, and diamond patterns. This is characteristic of both residential and commercial brick buildings in Reno, which often feature contrasting brick details such as coursing, panels, insets, and gable vents.

Decorative brickwork is especially prevalent in Reno's historic neighborhoods and business districts, particularly those developed between 1905 and 1945. Notable commercial examples include the Crider Building (1936) on First Street and the Reno Hudson-Essex dealership (1927) on West Street. The Crider Building, which now houses Our Bar, features multihued brick walls with contrasting dark red brick details, including lintels laid in a soldier course, projecting sills laid in a rowlock course, a door surround of stretcher and rowlock bricks, and a string course between the second floor and roof parapet that consists of a

soldier course set between two rowlock courses. Hudson-Essex, now part of the West Street Market, is constructed of red brick with a buff brick parapet. The face of the parapet features a number of decorative brickwork, including contrasting



640 Nixon: This charming brick cottage, with its light-colored brick walls, round-arched openings, and square tower, is an interpretation of the Spanish Colonial Revival style.

inset diamonds and projecting brick corbels. Commercial buildings with decorative brick ornamentation are not limited to downtown Reno; similar buildings are located along the city's historic business corridors, including Wells Avenue, East Fourth Street, Second Street, and Virginia Street.

Decorative brickwork is found in residential neighborhoods of a similar vintage, including the Wells Avenue Conservation District, the Evans Addition, the

University Terrace Addition, the Plumas neighborhood, and the Newlands Historic District. This type of ornament is associated with the Craftsman style and Period Revival, especially Tudor Revival and Spanish Colonial Revival, styles. Typical contrasting brick details include lintels, sills, courses, and chimney and gable vent inlays. "Water table" courses, which separate the foun-

dation from the wall above, are common in these neighborhoods, often exhibiting a basketweave pattern. Diamond and herringbone insets are characteristic decorations in end gables and chimneys, and chimney caps may be trimmed with soldier and header courses.

The Spanish Colonial Revival style is a prominent subset of the Period Revival in the Newlands Historic District. Although the style is usually clad with stucco, there are a few interesting examples that feature pale brick walls. The light-colored brick is meant to convey the impression of stucco, and is typically accented with dark brick door and window trim.

Some decorative brickwork makes use of "clinker bricks," which are bricks that otherwise may be considered defective. Clinker bricks are especially common to Tudor Revival style residences in Reno.

These units are defined by their peculiar imperfections: they may be twisted, have rough protrusions, or otherwise have been warped during their time in the kiln. Often they are laid in uneven courses to convey a quaintly rustic appearance. Tudor Revival style residences also display the courses, insets, and contrasting window and door trim common to the decorative brick tradition.

There is much more that could be said for the humble and ancient brick, one of Reno's signature building materials. There's the decline in the brick's popularity, at least partially due to the rise of concrete masonry units. There's the recent fervor to seismically retrofit unreinforced brick buildings, such as Lincoln Hall on the UNR campus. But for now, take a drive and admire the richness of our brick-built landscape.

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Brick colors offered by Sacramento brick manufacturer Cannon & Company