



CHAPTER



## QUALITIES OF HISTORIC ARCHITECTURE

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**W**hile architectural styles contribute to the richness and understanding of historic places, stylistic features were often applied to basic building forms rather than being integral to their original design. These basic building forms — the side-gabled rowhouse or flat-roofed rowhouse, for examples — are the fundamental elements that give historic architecture and historic districts their character. Therefore, when proposed changes to existing buildings or proposed new buildings in a historic setting are evaluated, the qualities of the basic building forms and materials are more significant than the applied stylistic features.

To preserve the individual buildings, the architectural character of each structure must be identified and either maintained or restored. To preserve a historic district, the architectural character of each proposed new structure must be compatible with neighboring historic buildings. The architectural character of a building refers to the qualities of massing, scale, proportion, order, rhythm, and materials. This chapter defines these qualities.

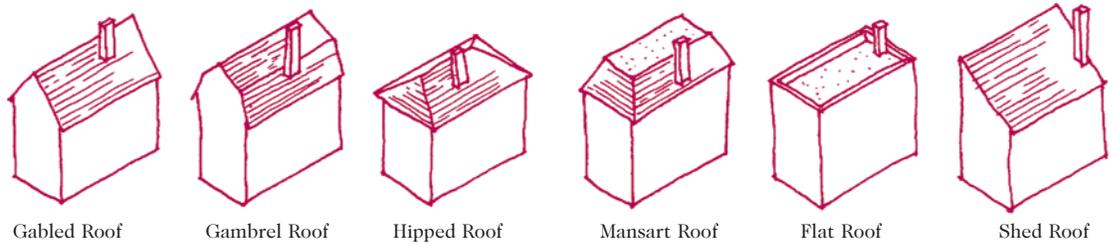
**A. MASSING**

Massing, also referred to as architectural form, is the overall volumetric shape of a building. The massing of a building may be described as large or small, simple or complex (Figure 23). It is defined by the exterior walls, roof shapes (Figure 24), and appendages such as porches, projecting bays, towers, and cupolas. In a historic district, massing is the single most important characteristic to consider in the evaluation of proposed additions and new construction. A large new building set in a context of uniform-size historic building blocks is visually disruptive because the continuity of the historical pattern is broken. Roof-form is important only where the roof is visible from the street. On Gay Street, for example, roofs are typical-

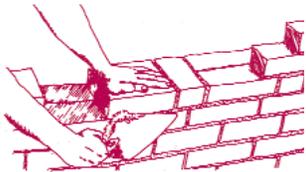
ly concealed by a front parapet wall and are not important, while on South Church Street, roof-forms are highly visible and contribute significantly to the shape of a building (Figure 23).

**B. SCALE**

Scale in architecture is a measure of the relative size of a building or building component in relation to a known unit of measure or customary size for such a component. A person evaluates how large a building or building component is in relation to the human body size and his or her memory of the expected size for such a component. For example, a sense of the size of a brick building can be established because of the size of a brick (Figure 25). Bricks typically can be



**Figure 24.** Building form refers to the overall volumetric shape of a building, including the form of the roof. On the typical, attached, three-story brick building in the Historic District, most roofs are either a shed form or a very shallow side gable form.



**Figure 25.** The common brick, the prevalent wall material in the Historic District, is scaled to the human hand.



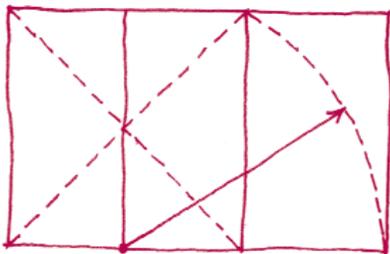
**Figure 23.** Architectural massing refers to the compilation of forms making up a structure. The complex massing of The Wentworth, located at 112 South Church Street, allows the institution to function behind two traditional row-house facades.

held in a person's hand and thus, when assembled, can be used to evaluate the overall height and width of a building. Doors and windows, like bricks, are scale-giving features. Doors are typically slightly higher than the height of a tall person, or roughly seven feet high. Double-hung sash windows in historic buildings are typically five or six feet tall, or just shorter than a tall person. If the size or shape of a familiar building component diverges from the expected, it may be said to be "out of scale."

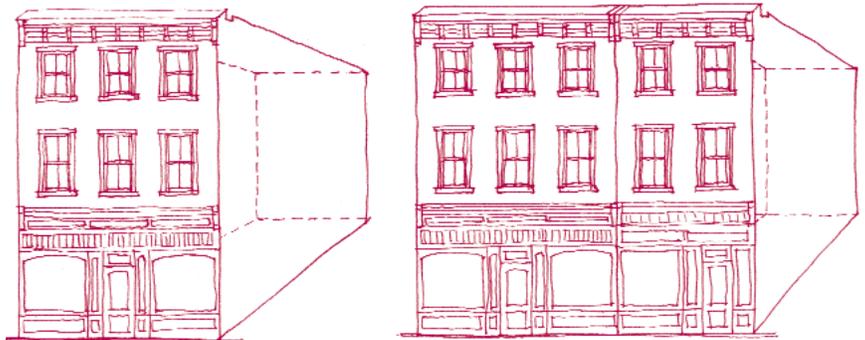
The principle of scale applies both to individual buildings and to streetscapes. In an urban setting, where each building forms a part of a larger streetscape, building scale is of paramount impor-

tance. In the West Chester Historic District, the typical "building block" that makes up street after street is a three-story high, three-bay wide brick box (Figure 26). Historic buildings may be larger or smaller than this unit, but this form predominates. In the hierarchy of social order in a community, prominent buildings such as courthouses, churches, and banks differentiate themselves by contrasting with the predominating building form.

The perceived scale of any proposed building or addition is a function of 1) the overall size of the proposed



**Figure 28.** *The Golden Section. The Golden Section, formed by arcing the diagonal of half a square, creates a ratio of about 5:8. This shape recurs in western art and architecture.*



**Figure 26.** *The typical "building block" of the West Chester streetscape is a three-story high, three-bay brick box. Larger buildings are made up of multiples of this unit.*



**Figure 27.** *High Street looking north from Market Street in 1842. The hierarchy of building significance is clear in this earliest depiction of a West Chester streetscape. Wood engraving in Sherman Day, *Historical Collections of the State of Pennsylvania*, 1843.*

new construction relative to existing building sizes, and 2) the visual relationship of building facade elements in the new construction relative to the visual relationship of building facade elements in existing buildings.

Outdoor spaces, formed by the buildings, fences, and vegetation that surround them, also have scale. The historic retail streetscape, with its uniform walls of building facades, awnings, street trees, brick sidewalks, lamp posts, and narrow street is of a human scale. The large parking lot, in contrast, lacks a human scale. When buildings are set back from the street, and are fronted with entrance drives and parking lots, they are scaled to the automobile, not the human.

The scale of buildings in a traditional town creates a clear hierarchy of building significance. In West Chester, the county seat of Chester County, the Courthouse should and does visually predominate. Next in terms of scale are the churches and bank buildings along High Street (Figure 27).

**C. PROPORTION**

Proportion in architecture is the relationship among

the dimensions of the various building elements and the individual features to each other. Architectural harmony is achieved in a building facade when facade elements are proportional to each other and to the overall facade:

*“The purpose of proportion is to establish harmony throughout the structure - a harmony which is made comprehensible either by the conspicuous use of one or more of the [classical] orders as dominant components or else simply by the use of dimensions involving the repetition of simple ratios.”* (John Summerson, *The Classical Language of Architecture*, Cambridge, MA: MIT Press, 1963, page 8.)

One of the oldest systems of proportion was the Golden Section, which was devised in ancient Greece (Figure 28). The Golden Section, which is a rectangle with a width to length ratio of about 5:8, is formed when the diagonal of a square is dropped as an arc. The resulting proportions are an ideal ratio in western art and architecture.

In architecture, the use of repeated proportions creates a harmony in a building facade (Figure 29). The overall shape of the facade is repeated in facade elements such as doors and windows.

**D. ORDER**

Order in architecture is the arrangement and relationships of parts of a building. A symmetrical building facade — one where a center door is flanked by an equal number of windows on each side of the door — is highly ordered. The east facade of the Courthouse is highly ordered - literally “of the orders”; that is, its

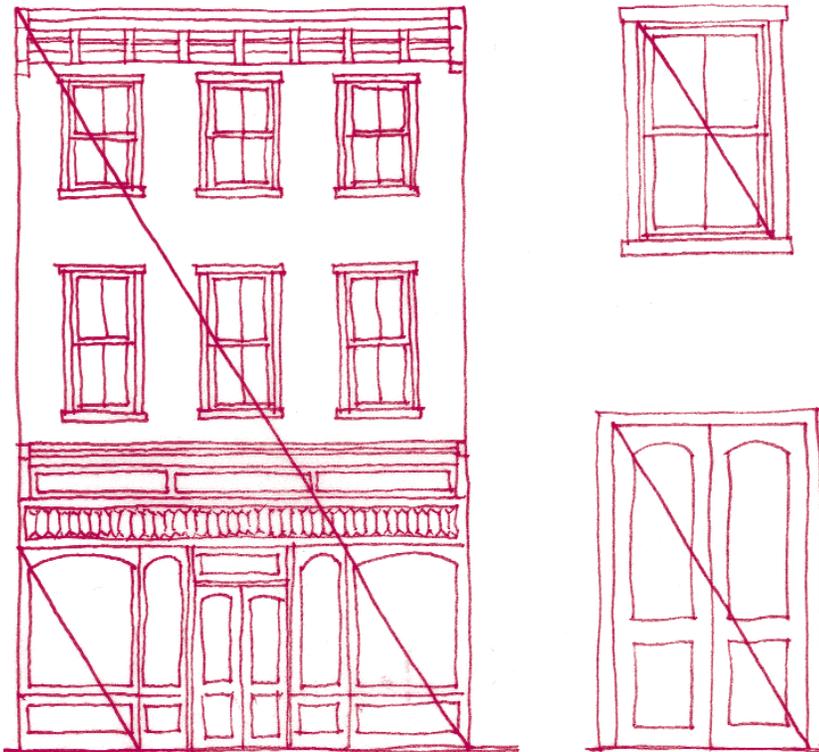


Figure 29. Analysis of a three-story facade showing the repeated proportions in facade elements, beginning with the overall facade and carried down to the proportions of individual glass panes.



Figure 31. The spacing of window and wall on a facade creates a rhythm that repeats itself from building to building. Buildings in a streetscape also create a rhythm.

order is derived from a strict application of the Corinthian Order taken from classical architecture. Windows that align vertically are ordered; their placement is based on a rational structural and visual order. An asymmetrical facade is less formal than a symmetrical facade, but may also be highly ordered. For example, the facade of a side-hall rowhouse has an arrangement of vertically aligning door and window openings that directly relate to the arrangement of hall and rooms inside (Figure 30).

### E. RHYTHM

Rhythm in architecture is the pattern and spacing of repeating elements such as windows, columns, arches, and other facade elements (Figure 31). Almost all buildings are made of elements that repeat themselves

— alternating vertical bands of brick wall and windows, alternating horizontal bands of brick wall and windows, for examples. The spacing of buildings in a historic streetscape creates a rhythm also.

### F. BUILDING MATERIALS

The historic buildings of the West Chester Historic District are constructed of traditional building materials — brick, occasionally stone, painted wood, and slate or metal roofing. The repeated use of these traditional materials along the streets of West Chester creates an architectural cohesiveness and harmony that gives the district much of its distinctive character.

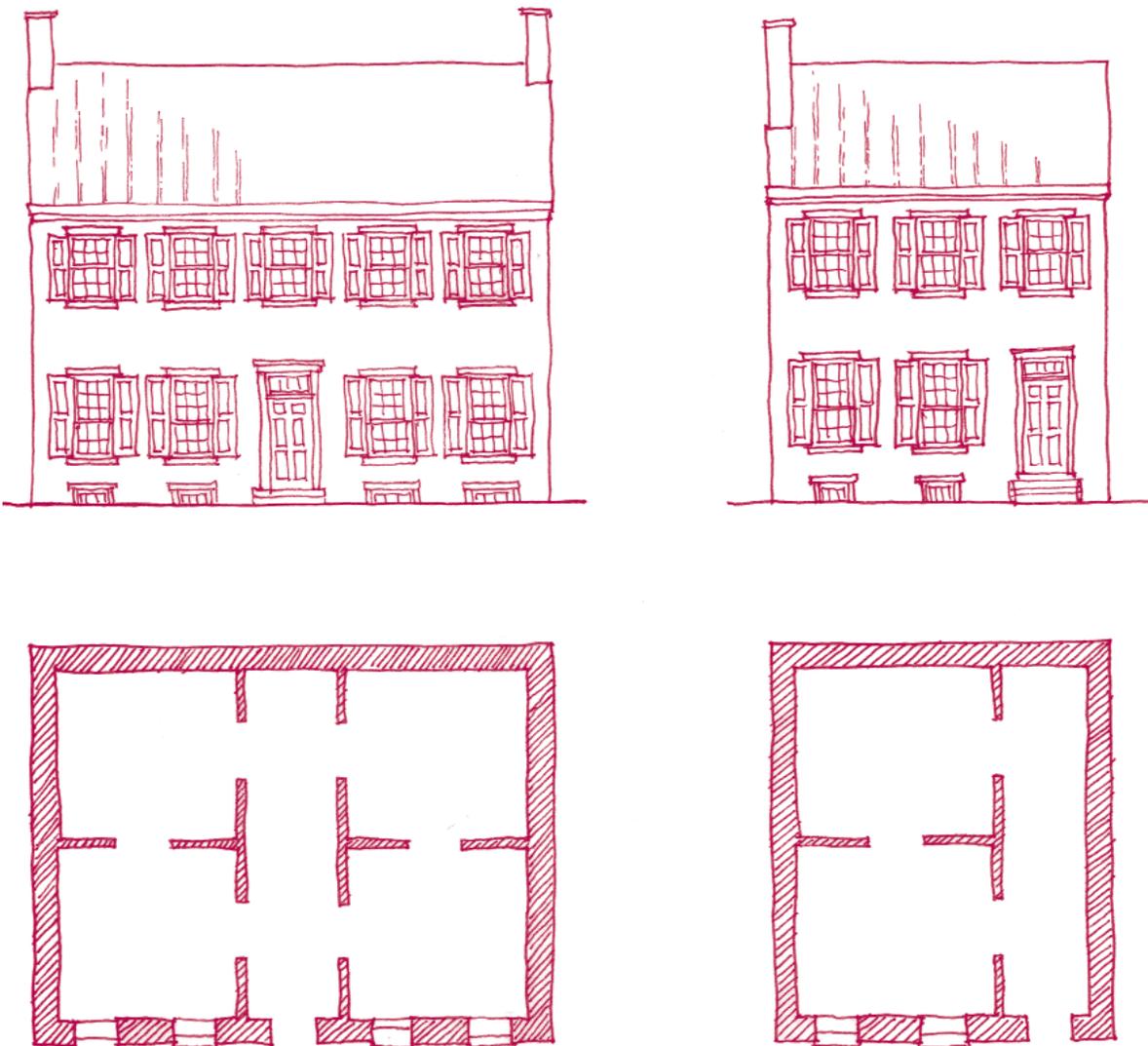


Figure 30. A highly ordered facade relates directly to the floor plan of the building.

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