Improving Downtown Appearance and Viability
by Randall Arendt
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Design Principles

The principles of design discussed here are far from new, and a debt to prior authors is fully acknowledged. Among those I have found most helpful are Raymond Unwin (Town Planning in Practice, 1908), Werner Hegemann (Civic Art, 1922), and Gorden Cullen (Townscape, 1961). The insights of more contemporary practitioners such as Doug Kelbaugh (Common Place, 1997), Peter Calthorpe and William Fulton (The Regional City, 2001), and Mark Hinshaw (True Urbanism, 2007), have also been instructive. Those insights have been helpful whether they are of the “New Urbanist” mode or other traditional design approaches less bound to geometric solutions, as they all share a desire to promote walkability, rich mixtures of uses, and strategically positioned public spaces.

It has been suggested that the numerous design principles described and illustrated in this article would lend themselves to the creation of a checklist which municipal staff and/or officials could use when performing an “audit” of their main streets and downtowns. Many of the ideas presented here could also be discussed when considering proposals for infill projects or building renovations, and they might, in addition, provide material for updated ordinances governing those kinds of development activities.

Open Space Amenities: Greens, Broadened Sidewalks, and Bikeways

There is no doubt that densely-developed downtowns benefit greatly from open space provision to offset all the hard edges of the built environment. This can take many different forms, shapes and sizes. According to research conducted at the University of Georgia (as previously reported in Rural by Design), this greenspace contributes socially and economically: downtowns with central greens experience higher pedestrian activity and increased retail sales compared with downtowns without these amenities. These greens are most commonly found in county seats with courthouse squares such as Covington GA, pictured here, relating to the third of the four graphic examples in Professor Kenyon’ s study.

When central greens do not yet exist, they can be created through enlightened redevelopment, such as by allowing two-story buildings to be replaced by three- or four story buildings, as happened in Winslow WA several decades ago, at the corner of the two busiest downtown streets: Madison Ave. and Winslow Way. Instead of locating the new, taller L-shaped building at the sidewalk edge (which would have been both logical and traditional), the architect flipped his design to place the building toward the far edges of the parcel, thereby creating an open space between the new building and the two streets, leaving enough room in back to access the upper-story condos from the rear (at grade, on this slightly sloping site). Like New England town greens, such spaces can be used informally by numerous groups: farmers’ markets, Boy Scout Christmas tree sales, garden club plant sales, library book sales, informal recreational activities, etc. These spaces, augmented by other parklands and greenways, vastly reduce the need for larger or wider house lots, a “sub-urban” practice which can be very effectively discouraged in serviced locations through the techniques of maximum lot sizes and minimum densities.
Multiple public spaces are the ideal goal to strive for. When Sasaki Associates designed the new Pine Hills community in Plymouth MA (illustrated in the birdseye sketch), it created a variety of such spaces, from formal squares to informal waterside parks, in both cases bordered by public streets providing visual as well as functional access. Such “single-loaded” streets are essential to making these spaces part of the public realm. Developers often strongly resist them on the basis of increased cost, a fallacious objection because the density “lost” on the open side of the street can easily be recouped in other parts of the neighborhood, such as by slightly trimming lot sizes (particularly widths), and/or by adding another story to the height of many buildings. (Incidentally, nearly two-thirds of the 3000-acre Pine Hills development is permanent open space – in addition to the golf courses -- making it a notable hybrid of conservation design and the New Urbanism. Another significant aspect of Pine Hills is that its enormous size enabled the Town of Plymouth to designate it as a “receiving area” for development rights shifted from other parts of the municipality slated for conservation, under its TDR ordinance. For this technique to work, however, the density achievable with the underlying zoning must not have already been maximized.)

Usable downtown open space can also take the form of broadened sidewalks designed for al fresco dining, preferably shaded by deciduous trees (Carmel, CA and Winter Garden, FL). Curbside plantings also create more enjoyable places in which to sit, with benches backing up to the landscaping, as people tend to feel more comfortable and less exposed when there is something substantial right behind them (Athens, GA and Qualicum Beach, BC). Pots of shrubs can also be moved into position to screen sidewalk dining areas from streets. Bikeways running down the middle of broad boulevard medians offer another way to increase mobility from neighborhoods to downtown districts (Winter Garden, FL). Please also note how the shade trees add another critical extra dimension in all these examples, providing further structure to the downtown streetscape.
“Build-to” Line: The overall appearance and ambiance of commercial districts is enhanced by maintaining a traditional building pattern throughout the downtown. Specifically, buildings in downtown settings should generally sit at the inside edge of very wide sidewalks, at least ten feet back from the curb, as shown in this contemporary infill example from Durango CO, and as echoed in the historic downtown of Rhinebeck NY. The “build-to” line is essentially a maximum setback, requiring developers to build right up to that line, usually along the sidewalk edge, perhaps eight to 12 feet back from the street curb. (Appropriate sidewalk widths will vary according to the context: small towns, large towns, small cities, large cities. The key issue is not the exact distance, but the relative, general consistency of (most) buildings along that “build-to” line.) The wider sidewalk illustrated here, from Baxter Village, Fort Mill SC, allows for more extensive plantings and al fresco dining, and should be also be used at least occasionally in every downtown, if possible. (Re-development offers opportunities to create them at least in new “alcoves”, as described below.) These photos also illustrate the principle of “complete streets”, meaning ones that function well not only for motor vehicles, but also for cyclists and pedestrians, and which offer opportunities for relaxing on park benches or at restaurant tables, under colorful umbrellas and lovely shade trees.
The 1920s downtown extension example in Falmouth MA, the prosaically-named “Queen’s Buyway” (pictured below), maintains a close traditional street edge characteristic of many downtowns and allows critical room for shade trees to be planted. This line of shops was built in the street-hugging fashion that characterizes the community’s historic center and shows that early 20th century roadside development, built at the dawn of the Motor Age, had not yet formed the bad habits of its mid-century successors. Sometimes deep suburban setbacks are inappropriately required by zoning ordinance provisions that have been borrowed from other jurisdictions -- without a great deal of understanding regarding the kinds of impacts such regulations will actually have on the visual fabric of the community.

**Alcoves:** In downtown settings, where it is usually important to maintain the traditional “street line” (locating buildings at or very close to the sidewalk edge), these two examples, one historic, the other contemporary, illustrate the exception that proves this particular rule. The occasional use of “alcoves” provides an opportunity to punctuate the streetscape with small courtyards, adding variety to the mix, and offering additional opportunities for shade trees, landscaping, and park benches. Seen here is an older example from Southern Pines NC and a newer one from Kent CT.
A variation on the alcove is the deliberate narrowing of the shopping street at intervals, creating an offset effect making the urban street visually more interesting. Parking along the narrow points would be either parallel or at the rear, allowing diagonal parking in the long, broader sections of the street, as shown here in Pinehurst NC. This point was illustrated in 1908 by Raymond Unwin in his classic text *Town Planning in Practice*, a volume that might well have been in the professional library of the architect who designed the Pinehurst block. (Unwin’s book has since been re-issued, and has informed a new generation of Northamerican town planners.)

**Mixed Uses and Minimum Height -- Housing and Offices above Retail:** In both town centers and commercial corridors, it serves several purposes to specify minimum building heights of 1.5 to two stories, preferably a bit higher when the historic structures in the area are somewhat taller. Not only does this improve the appearance of the new construction, it also enables developers to utilize an additional story or two, thereby taking advantage of the same roof and foundation, increasing the building’s efficiency, and creating opportunities for rental income. In Davidson NC, where the Town’s codes prohibit new single-story buildings in the commercial center, CVS created office space on its second floor. In this urban renewal project in Springvale, Maine’s village center, apartments occupy the second story, extending the vitality of the area beyond the close of business when people generally flee from areas occupied only by offices and businesses with limited opening hours.
As illustrated below in examples from Banff (Alberta) and Port Jefferson NY, residences can be situated over a variety of retail spaces, including groceries and chain drug stores (which often strongly resist upper floor uses above them, citing dubious “security concerns”, arguing that second-story tenants could potentially drill down through their floorboards to pilfer prescription medications – a remote threat easily countered by installing reinforced ceilings in their storerooms). Local officials must be prepared to rebut the most outlandish claims made by developers or firms that essentially want to evade code requirements regarding second story provision.

Sometimes residents themselves resist progressive “minimum height” regulations. As case in point is the splendid little mixed-use development built in 1955 in Washington Depot, CT, replacing old wood-framed buildings washed away in the great flood which swept through town earlier that year. Local opponents objecting to the larger new brick structure on the corner proposed by developer Adrian Van Sinderen mounted the plywood-covered rooftop during its final stages of construction and painted on it the words “Fort Van Sinderen, registering their displeasure in the way their community center was being “destroyed”.

Time has proven them to have been completely wrong, as the corner building with its gracious curving façade, and its contemporary neighbors, today form an extremely attractive anchor to the village center, framed by wisely-chosen shade trees. Current residents can be thankful that this handful of NIMBYs did not succeed in their misguided opposition to this very worthy project, which houses a much-loved book store, café, dry cleaner, gift shop, and an insurance and financial services office. Local officials need to take the long view, based on broad community considerations, and not abdicate their responsibility in response to pressures applied by the vocal few. Fortunately for Van Sinderen (and the community), zoning in 1955 did not prohibit such construction, or even provide the legal tools to oppose it (such as Conditional Use classification, a useful but often abused tool enabling objectors to press officials to take the short-term, narrow view).
The colorful line of new Victorian style buildings, developed in Pewaukee WI, has been a highly successful project, both levels essentially fully let since its opening in 2002, countering the conventional wisdom that upper floors are unrentable. Note the recessed central section of the second story in the Boise example, essentially an alcove above street level, creating an outdoor room or balcony-patio for residents to enjoy on sunny days.

This final example, the Hobble & Hayes block from Bainbridge Island, WA, with its two residential floors above ground-level retail and services, illustrates how contemporary buildings can honor historic architectural traditions. Note how the row of shade trees helps screen the parking area, adding essential structure to the streetscape, and visually extending the “build-to” line. (Readers can find further case examples of creative downtown infill and redevelopment in Rural by Design, q.v.).

**Screening Parking Lots from Adjacent Streets:** Locating parking within the front setback is another very common mistake. Curbside parking should be augmented by parking to the side or (preferably) rear, where it should be screened from adjoining side streets with a combination of fencing (or walls), softened with shrubs and trees, as shown in these examples from Middlebury VT and Camden ME. Shade trees, inter-planted with hedges between them, provide one of the best treatments, sometimes complemented with architectural features such as iron railings or wood fencing.
Inexpensive block walls, covered with a tinted cement coating, create an adobe-looking screen for this parking lot in Albuquerque. The more pronounced undulations of the brick wall in the second photo give it exceptional stability so that it is able to withstand horizontal forces, even though it is but a single brick wide (four inches). This example from Ashland VA, which also screens a parking lot from the street, is based on the original “crinkle-crankle” wall designed by Thomas Jefferson at the University of Virginia over two centuries ago. Happily, each curve of the wall provides an opportunity to improve the streetscape by planting trees, shrubs, and flowers.

Walls built of native stone are both permanent and relatively maintenance-free; they also harmonize with the area better than any other material, because they are of it, as shown in these examples from Connecticut (where an historic wall was retained by the developer) and Rhode Island (a new wall).

All of these approaches help to maintain the traditional “street-line”, screening the lower halves of vehicles, while allowing sight-lines into and out of parking lots for safety and security.
**Hardscaping the Outdoor Room: Curbless Streets for Pedestrians:** The spaces between buildings can be used to form “outdoor rooms”, and the most enjoyable downtowns are those where this principle has been understood and appreciated by city planners and urban designers. Travelers to Western Europe often return with glowing reports of how pleasant they found the experience of walking in and around towns and cities, despite the fact that those places are typically far denser and more crowded than the communities in which they live and work.

One of the very subtle design aspects of many European streetscapes is the way in which spaces are defined not only by vertical elements such as walls and curbs, but also by the texture and color of paving materials, and the use of moveable objects such as bollards and potted shrubs – which can be shifted around by municipal workers to redefine boundaries separating pedestrian and vehicular movements, without reliance on vertical curbing. The first two photos are from Breisach am Rhein, *where every building shown (except the distant church) was built or rebuilt after WWII.*

In other words, these skillful place-making efforts were undertaken at the same time that the clumsy hand of urban renewal and the cancerous spread of suburban sprawl were disfiguring American cities and countryside alike. The third photo (Equisheim, in Alsace) shows how moveable planters divide spaces between pedestrians and vehicles. Again there is no curbing in the fourth photo (Rheims), where the “street” is differentiated from the “sidewalk” solely by the use of contrasting paving materials, bollards, and shade trees providing welcome structure. In the fifth photo, from Praesto, Denmark, the concept of the curbless street defined with bollards and paving materials is complemented by the boldly patterned stonework, using contrasting cobblestone setts to demarcate the intersection of several streets.
Learning from Failed Pedestrianized Streets: The disappointing failure of the vast majority of pedestrianized main streets in this country has led many officials and planners to mistakenly conclude that such design changes simply will not work in our national car-culture. However, the conclusion that most Northamericans do not enjoy such experiences, and will therefore not patronize shops in such areas, is difficult to square with the amazing success of new malls designed with car-free shopping areas replicating the dimensional relationships of old-fashioned narrow streetscapes, such as the ones pictured here from Clinton CT (and its stepsister in Wrentham MA). With the traditional height of their (sadly) faux second stories, they re-create some of the essential feel and appearance of real downtowns. Or, more accurately perhaps, they create the kind of enclosure and spatial relationships that many people find very pleasing: not too wide and boring, without cohesion; but also not overly constricted and suffocating. Perhaps one of the principal reasons most main street pedestrian schemes have failed is that the urban planners who created them four decades ago simply did not have enough relevant experience travelling abroad to understand that physical dimensions really do matter, that height-to-width relationships are critically important to how people tend to react to the areas proposed for pedestrianization. The vacant streetscape pictured here, from Rockford IL, illustrates a demolished pedestrian scheme that did not succeed, possibly because it had been too ambitions: located on a wide main thoroughfare, extending for too many blocks.
In England and Western Europe, where shopping has absolutely flourished in many car-free streets, the critical difference might be that their old commercial streets tend to be far less wide than those in the United States. Such is the case in the “Shambles” district of York (whose name relates to an ancient term for butchers), pictured here. Interestingly, the idea of converting a regular street into a pedestrian precinct reportedly first occurred to planners in the East Anglian city of Norwich only after an accidental experience in which retail trade actually increased on London Street (which was fairly narrow and only several blocks long) during an 18-month period during which the street was closed to vehicular traffic due to major sewer and water line repairs. When planners observed that shoppers actually seemed to prefer this car-free environment, City officials decided to keep the street closed to vehicles (except for delivery vans in the early morning and evenings) as a further 12-month experiment – which succeeded so well that it spurred similar pedestrian precincts around the country and on the Continent. Not that this idea was entirely new, as a half-century earlier, in the 1920s, commercial speculators in the City of Granada built the even narrower shopping street shown here, designed in the traditional neo-Moorish mudéjar style. In fact, around the corner from London Street in Norwich, a similar development – a retail arcade with glass roof -- dates from about the same period.

Older towns in this country, such as St. Augustine FL, New Orleans, and Lewes DE (pictured here) contain narrow streets and lanes where similar retail vibrancy can be observed despite – or perhaps largely because of – their tightness and car-less character, without the bothersome noise and smelly exhaust fumes generated by hundreds of internal combustion engines. The lesson I draw from these observations is that streets – either existing or new – can be successfully designed as retail pedestrian precincts if they do not exceed more than several blocks in length and are fairly narrow, with buildings that are generally one to two times the height of the horizontal distance between opposing facades.
Pedestrian-Friendly Infill: A remarkable project in downtown South Hadley MA epitomizes how creative architecture can intersect with great site design to produce an outstanding infill in the center of a small town. Village Commons was a redevelopment project undertaken in 1986 to provide a vibrant mixture of uses on a city block where vacant lots and tired old buildings had predominated. Eleven buildings containing 100,000 sq. ft. of commercial floorspace and 19 dwellings, comprise the pedestrian village of two-, three-, and four-story structures. Each building offers a contemporary adaptation of one of the historic 19th-century styles found on the nearby Mt. Holyoke College campus, including Greek Revival, Carpenter Gothic, Stick, and Queen Anne, gracefully accommodating a variety of retail, service, professional, and entertainment uses, including a restaurant, a pub, and two 140-seat cinemas, keeping local dollars in town and attracting shoppers from nearby communities.

From a site planning perspective, this notable mixed-use development maintains the traditional “street-line” facing onto the Town Common, with 292 parking spaces located behind it. The humanly-scaled “outdoor rooms” and intriguing passageways winding between the buildings are perhaps Village Commons’ single most outstanding feature, and have much to do with its success, creating as they do a series of spaces which are both casual and inviting, a pleasure to stroll through or pause in to savor a cup of coffee and a pastry, read a newspaper, or enjoy a lunch.
Reducing Massing: In historic downtowns where the texture of the built environment is characterized by a variety of building heights and sizes, it can be challenging to accommodate uses requiring extensive ground floor areas, since large, new buildings can conflict with the scale of their older neighbors. The three adjoining white clapboard buildings pictured here, from Camden ME, are actually all a part of a single structure, artfully designed by architect Chris Glass to resemble three separate structures. This approach is also illustrated by medical offices on a side street just at the edge of downtown Missoula MT, where the size of the building was successfully disguised through the use of many gable-end projections facing the street. The shade trees planted in the “tree lawn” also help to subtly reduce the building’s massing.

Historic Building Rehabilitation

Inexpensive Fixes: Downtown settings offer special challenges and opportunities to maintain consistency with the historic building fabric. The simple, but transformative, improvements to this shoe repair shop from the Downtown Lowell MA Historic District, pictured below, were accomplished with several buckets of paint and a very modest sign budget.

Another example of a low-budget improvement involved enlarging shop windows to attain a taller, more traditional proportion. This second before-and-after comparison illustrates the remarkable difference achievable by increasing window height (or at least the appearance of greater window height). Because the owner had scant funds, and because the ceiling inside had been lowered decades before, I was able to achieve the effect of taller windows only by playing a visual trick: the upper “panes” are actually sheets of black plexiglas applied to the building exterior, and framed with window trim to resemble real windows. This succeeds because the glossy black surface of the plexiglas approximates the glint of real glass, which appears to be almost black when interiors are not brightly lit.
Using Historic Photos: When major renovations are planned, it is often very helpful to find historic photographs to use as reference points. The current appearance of the building in the example below, from Kennebunk ME, does not slavishly copy the historic facade which was referenced, but is nevertheless faithful to it in terms of window proportions and trim elements. Note the heightened front façade as well, inspired by the original. (One missing original detail is the pair of small windows at sidewalk level, admitting daylight – and coal deliveries – into the cellar.)

If operating on a more modest budget, it is sometimes very surprising how much can be accomplished through repainting to highlight historic architectural trim, as shown here, in this example from Dover NH. Windows that had been boarded up have been unboarded or replaced, and a tree has been planted in front.

Plywood Choices and Concrete Plinths: Two mistakes commonly made when rebuilding storefronts is the use of regular-grade exterior plywood instead of the only slightly more costly MDO board (for “medium density overlay”), and setting the wooden elements directly on the concrete sidewalk. The MDO board is covered with a tough, thick
layer of epoxy-saturated paper, which also makes it an excellent choice for outdoor signs. It lasts up to 25 years, compared with a typical five-year failure rate for the usual exterior plywood, whose surface readily weathers and cracks. Elevating the wooden elements by several inches above the sidewalk (in the historic manner) helps to protect them from wet rot, with poured concrete mini-curbs serving as the modern equivalent of traditional granite plinths.

Stall Risers: The technical term, used by historical architects, for the area between shop window sills and the pavement below is “stall riser” (a term with very old roots, referring to vendors stalls operating in traditional open air markets). Some 19th century shopfronts still contain original window openings in those areas, designed to admit daylight and ventilation to cellars. Occasionally these openings were not glazed but fitted with short hinged doors, as shown in the rare example from Wickford RI. When opened, coal chutes could be inserted to facilitate winter fuel deliveries. Depending on the degree of authenticity sought, these features can be glazed, framed with black plexiglas panels, or framed with MDO panels painted black.
**Shop Signs:** Progress in downtown districts typically occurs gradually, one shopfront at a time, one sign at a time, as pictured below. In Lowell MA, where I administered the Downtown Historic District in the early 1980s, I learned from a local signmaker that Coca-Cola and Pepsi would foot the entire cost of a new sign on any convenience store where their corporate logo covers at least 10% of the total sign area. Unaware of the 10% threshold, many shopkeepers (and local officials) have routinely allowed such logos to occupy 30 to 40% of the area of these free signs. When designing the sign for Merrimack Street Variety, I worked with the business owner, presenting him with a range of historically acceptable colors for the background (darker) and the lettering (lighter), and showed him dozens of historically-appropriate lettering styles. CVS gave me an almost entirely free hand, allowing me to select historic colors and fonts, and to bracket their three initials with the words “medicines” and “sundries”, old-fashioned but accurate.

**Transom Windows:** A common mistake is to cover the original transom windows which give historic storefronts their extra height and traditional scale. Even if the interior ceiling has been lowered (to reduce heating bills), a fine result can be achieved by painting the transom window glass black on the inside, to hide the hangers, etc. (This simple treatment blends in well with the appearance of the windows below, which often look very dark, as well.) When transoms are covered (as in the real estate office pictured here), an important building detail is lost, akin to shaving off a person’s eyebrows. It is, however, usually very possible to replace them, as the original wooden or steel I-beams are generally still in place, supporting the upper-story weight above the storefront (shown in the photo of restoration in progress, from Durango CO).
One of the more creative ways to cover transoms, where interior ceilings have already been lowered, is to replace the glass with dark six-inch square tiles, as was done on this shopfront in Brunswick ME.

Retaining Architectural Trim Features: Equally common is the unfortunate practice of stripping buildings of their distinctive trim features, such as the surrounds bordering windows and doors, wide corner boards, and cornice details such as brackets. If the building owner wants to install vinyl siding over the original clapboards (a questionable practice, at best), damage to the historic fabric can be minimized by employing the “cut-and-butt” method of installation, “butting” the strips of vinyl against the trim features, which are retained rather than covered or removed. When those features have been covered but not removed (typically from masonry buildings), stripping off the contemporary siding often reveals hidden architectural gems.
Public Art: Although nearly every community has opportunities to highlight their heritage through public art, thereby improving appearances and connecting past to present and future, few actually follow through and promote such distinctive place-making efforts. Funding, a frequent obstacle, can come from a variety of sources. For example, when new bridges are proposed, ideas can be formally suggested to the state DOT engineers by the local government. Thread City Crossing, better known as the Frog Bridge, which was opened in Willamantic Connecticut in 2000, commemorates not only the city’s industrial history but also recalls an incident in 1754 when townspeople, alarmed by loud screeching noises late one night, searched the vicinity with their firearms loaded. Daybreak brought a surprising discovery: many dozens of frogs had fought each other to the death for the privilege of occupying the few remaining water puddles in a drought-stricken lake. In Peace Dale, an unincorporated village in South Kingstown, Rhode Island, mosaic and sculptures grace the South County Bikepath, a combined effort of several town bodies, including the Peace Dale Arts Initiative and the Peace Dale Neighborhood Revitalization Committee. In Staunton, Virginia, local artist and metal fabricator Willie Ferguson created an 18-foot tall watering can in the 1990s, in addition to fashioning a large open book beside the public library, and an oversized plough in front of a local feed store.