



New Exterior Additions to Historic Buildings Preservation Concerns

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A NOTE TO OUR USERS: The web versions of the **Preservation Briefs** differ somewhat from the printed versions. Many illustrations are new, captions are simplified, illustrations are typically in color rather than black and white, and some complex charts have been omitted.

Because a new exterior addition to a historic building can damage or destroy significant materials and can change the building's character, an addition should be considered only after it has been determined that the new use cannot be met by altering nonsignificant, or secondary, interior spaces. If the new use cannot be met in this way, then an attached addition may be an acceptable alternative if carefully planned. A new addition should be constructed in a manner that preserves significant materials and features and preserves the historic character. Finally, an addition should be differentiated from the historic building so that the new work is not confused with what is genuinely part of the past.

Change is as inevitable in buildings and neighborhoods as it is in individuals and families. Never static, buildings and neighborhoods grow, diminish, and continue to evolve as each era's technological advances bring conveniences such as heating, street paving, electricity, and air conditioning; as the effects of violent weather, uncontrolled fire, or slow unchecked deterioration destroy vulnerable material, as businesses expand, change hands, become obsolete, as building codes are established to enhance life safety and health; or as additional family living space is alternately needed and abandoned.

Preservationists generally agree that the history of a building, together with its site and setting, includes not only the period of original construction but frequently later alterations and additions. While each change to a building or neighborhood is undeniably part of its history--much like events in human life--not every change is equally important. For example, when a later, clearly nonsignificant addition is removed to reveal the original form, materials, and craftsmanship, there is little complaint about a loss to history.

When the subject of new exterior additions is introduced, however,

areas of agreement usually tend to diminish. This is understandable because the subject raises some serious questions. Can a historic building be enlarged for a new use without destroying what is historically significant? And just what is significant about each particular historic building that should be preserved? Finally, what new construction is appropriate to the old building?

The vast amount of literature on the subject of change to America's built environment reflects widespread interest as well as divergence of opinion. New additions have been discussed by historians within a social and political framework; by architectural historians in terms of construction technology and style; and by urban planners as successful or unsuccessful contextual design. Within the historic preservation programs of the National Park Service, however, the focus has been and will continue to be the protection of those resources identified as worthy of listing in the National Register of Historic Places.

National Register Listing-- Acknowledging Change While Protecting Historical Significance

Entire districts or neighborhoods may be listed in the National Register of Historic Places for their significance to a certain period of American history (e.g., activities in a commercial district between 1870 and 1910). This "framing" of historic districts has led to a concern that listing in the National Register may discourage any physical change beyond a certain historical period--particularly in the form of attached exterior additions. This is not the case. National Register listing does not mean that an entire building or district is frozen in time and that no change can be made without compromising the historical significance. It also does not mean that each portion of a historic building is equally significant and must be retained intact and without change. Admittedly, whether an attached new addition is small or large, there will always be some loss of material and some change in the form of the historic building. There will also generally be some change in the relationship between the buildings and its site, neighborhood or district. Some change is thus anticipated within each rehabilitation of a building for a contemporary use.

Scope of National Park Service Interest in New Exterior Additions

The National Park Service interest in new additions is simply this--a new addition to a historic building has the potential to damage and destroy significant historic material and features and to change its historic character. A new addition also has the potential to change how one perceives what is genuinely historic and thus to diminish those qualities that make the building eligible for listing in the National Register of Historic Places. Once these basic preservation issues have been addressed, all other aspects of designing and constructing a new addition to extend the useful life of the historic building rest with the creative skills of the architect.

The intent of this Brief, then, is to provide guidance to owners and developers planning additions to their historic buildings. A project involving a new addition to a historic building is considered acceptable within the framework of the National Park Service's standards if it:

- 1. Preserves significant historic materials and features; and**
- 2. Preserves the historic character; and**



The historic character of this commercial building has been radically changed by a replicative four-story addition. This approach does not meet the Standards for Rehabilitation. Photo: NPS files.

3. Protects the historical significance by making a visual distinction between old and new.

Paralleling these key points, the Brief is organized into three sections. Case study examples are provided to point out acceptable and unacceptable preservation approaches where new use requirements were met through construction of an exterior addition. These examples are included to suggest ways that change to historic buildings can be sensitively accomplished, not to provide in-depth project analyses, endorse or critique particular architectural design, or offer cost and construction data.

1. Preserving Significant Historic Materials and Features

Connecting a new exterior addition always involves some degree of material loss to an external wall of a historic building and, although this is to be expected, it can be minimized. On the other hand, damage or destruction of significant materials and craftsmanship such as pressed brick, decorative marble, cast stone, terra-cotta, or architectural metal should be avoided, when possible.

Generally speaking, preservation of historic buildings is enhanced by avoiding all but minor changes to primary or "public" elevations. Historically, features that distinguish one building or a row of buildings and can be seen from the streets or sidewalks are most likely to be the significant ones. This can include window patterns, window hoods, or shutters; porticoes, entrances, and doorways; roof shapes, cornices, and decorative moldings; or commercial storefronts with their special detailing, signs, and glazing. Beyond a single building, entire blocks of urban or residential structures are often closely related architecturally by their materials, detailing, form, and alignment. Because significant materials and features should be preserved, not damaged or hidden, the first place to consider constructing a new addition is where such material loss will be minimized. This will frequently be on a secondary side or rear elevation. For both economic and social reasons, secondary elevations were often constructed of "common" material and were less architecturally ornate or detailed.



Two historic commercial buildings were successfully joined as part of a larger rehabilitation project. The glass connector detail is shown below. Photo: Martha L. Werenfels, AIA.

In constructing the new addition, one way to minimize overall material loss is simply to reduce the size of the new addition in relationship to the historic building. If a new addition will abut the historic building along one elevation or wrap around a side and rear elevation, the integration of historic and new interiors may result in a high degree of loss-- exterior walls as well as significant interior spaces and features. Another way to minimize loss is to limit the size and number of openings between old and new.

A particularly successful method to reduce damage is to link the new addition to the historic block by means of a hyphen or connector. In this way, only the connecting passageway penetrates a historic side wall; the new addition can be visually and functionally related while historic materials remain essentially intact and historic exteriors remain uncovered.

Although a general recommendation is to construct a new addition on a secondary elevation, there are several

exceptions. First, there may simply be no secondary elevation--some important freestanding buildings have significant materials and features on all sides, making any above-ground addition too destructive to be considered. Second, a structure or group of structures together with their setting (for example, in a National Historic Park) may be of such significance in American history that any new addition would not only damage materials and alter the buildings' relationship to each other and the setting, but seriously diminish the public's ability to appreciate a historic event or place. Finally, there are other cases where an existing side or rear elevation was historically intended to be highly visible, is of special cultural importance to the neighborhood, or possesses associative historical value. Then, too, a secondary elevation should be treated as if it were a primary elevation and a new addition should be avoided.



This small glass connector between two historic buildings is appropriately set back. This approach meets the Standards for Rehabilitation. Photo: Martha L. Werenfels, AIA.

2. Preserving the Historic Character



This new stair tower addition on the rear elevation of a historic townhouse is compatible in size, scale, and materials. This approach meets the Standards for Rehabilitation. Photo: NPS files.

The second, equally important, consideration is whether or not the new addition will preserve the resource's historic character. The historic character of each building may differ, but a methodology of establishing it remains the same. Knowing the uses and functions a building has served over time will assist in making what is essentially a physical evaluation. But while written and pictorial documentation can provide a framework for establishing the building's history, the historic character, to a large extent, is embodied in the physical aspects of the historic building itself--its shape, its materials, its features, its craftsmanship, its window arrangements, its colors, its setting, and its interiors. It is only after the historic character has been correctly identified that reasonable decisions about the extent--or limitations--of change can be made.

To meet National Park Service preservation standards, a new addition must be "compatible with the size, scale, color, material, and character" of the building to which it is attached or its particular neighborhood or district. A new addition will always change the size or actual bulk of the historic building. But an addition that bears no relationship to the proportions and massing of the historic building--in other words, one that overpowers the historic form and changes the scale will usually compromise the historic character as well.

The appropriate size for a new addition varies from building to building; it could never be stated in a tidy square or cubic footage ratio, but the historic building's existing proportions, site, and setting can help set some general parameters for enlargement. To some extent, there is a predictable relationship between the size of the historic resource and the degree of change a new addition will impose.



This new stairtower addition on a historic university building has been constructed on a highly visible side elevation. Together with its contrasting color and size, it obscures the historic form and roofline. This approach does not meet the Standards for Rehabilitation. Photo: Martha L. Werenfels, AIA.

For example, in the case of relatively low buildings (small-scale residential or commercial structures) it is difficult, if not impossible, to minimize the impact of adding an entire new floor even if the new addition is set back from the plane of the facade. Alteration of the historic proportions and profile will likely change the building's character. On the other hand, a rooftop addition to an eight story building in a historic district of other tall buildings might not affect the historic character simply because the new work would not be visible from major streets. A number of methods have been used to help predict the effect of a proposed rooftop addition on the historic building and district, including pedestrian sight lines, three-dimensional schematics and computer-assisted design (CAD). Sometimes a rough full-size mock up of a section or bay of the proposed addition can be constructed using temporary material; the mockup can then be photographed and evaluated from critical vantage points.

In the case of freestanding residential structures, the preservation considerations are generally twofold. First, a large addition built out on a highly visible elevation can radically alter the historic form or obscure features such as a decorative cornice or window ornamentation. Second, an addition that fills in a planned void on a highly visible elevation (such as a "U" shaped plan or feature such as a porch) may also alter the historic form and, as a result, change the historic character.

Some historic structures such as government buildings, metropolitan museums, or libraries may be so massive in size that a large-scale addition may not compromise the historic character. Yet similar expansion of smaller buildings would be dramatically out of scale. In summary, where any new addition is proposed, correctly assessing the relationship between actual size and relative scale will be a key to preserving the character of the historic building.



A sizeable addition was placed on a non-significant rear elevation of a late-19th century Greek Revival house that was rehabilitated for use as a bank with a drive-up component. The old building and new addition were sensitively joined by a small connecting hyphen. This approach meets the Standards for Rehabilitation. Photo: NPS files.



A contemporary new addition (above left) was designed to fit into a nonsignificant U-shaped area on a rear elevation of a historic library building. Note the new addition is lower than the historic building and clearly differentiated in

Constructing the new addition on a secondary side or rear elevation--in addition to material preservation--will also address preservation of the historic character. Primarily, such placement will help to preserve the building's historic form and relationship to its site and setting. Historic landscape features, including distinctive grade variations, need to be respected; and any new landscape features such as plants and trees kept at a scale and density that would not interfere with appreciation of the historic resource itself.

In highly developed urban areas, locating a

appearance. This approach meets the Standards for Rehabilitation. Photo: NPS files.

new addition on a less visible side or rear elevation may be impossible simply because there is no available space. In this instance,

there may be alternative ways to help preserve the historic character. If a new addition is being connected to the adjacent historic building on a primary elevation, the addition may be set back from the front wall plane so the outer edges defining the historic form are still apparent. In still other cases, some variation in material, detailing, and color may provide the degree of differentiation necessary to avoid changing the essential proportions and character of the historic building.

3. Protecting the Historical Significance

Making a Visual Distinction Between Old and New

The following statement of approach could be applied equally to the preservation of districts, sites, buildings, structures, and objects of National Register significance: "A conservator works within a conservation ethic so that the integrity of the object as an historic entity is maintained. The concern is not just with the original state of the object, but the way in which it has been changed and used over the centuries. Where a new intervention must be made to save the object, either to stabilize it or to consolidate it, it is generally accepted that those interventions must be clear, obvious, and reversible. It is this same attitude to change that is relevant to conservation policies and attitudes to historic towns..." (1)



This highly visible new rooftop addition appears to be part of the historic building because of its replicative design and historicized detailing, such as the arched windows. This approach does not meet the Standards for Rehabilitation. Photo: NPS files.

Rather than establishing a clear and obvious difference between old and new, it might seem more in keeping with the historic character simply to repeat the historic form, material, features, and detailing in a new addition. But when the new work is indistinguishable from the old in appearance, then the "real" National Register property may no longer be perceived and appreciated by the public.

Thus, the third consideration in planning a new addition is to be sure that it will protect those visual qualities that made the building

eligible for listing in the National Register of Historic Places.

A question often asked is what if the historic character is not compromised by an addition that appears to have been built in the same period? A small porch or a wing that copied the historic materials and detailing placed on a rear elevation might not alter the public perception of the historic form and massing. Therefore, it is conceivable that a modest addition could be replicative without changing the resource's historic character; generally, however, this approach is not recommended because using the same wall plane, roof line, cornice height, materials, siding lap, and window type in an addition can easily make the new work appear to be part of the historic building. If this happens on a visible elevation, it becomes unclear as to which features are historic and which are new, thus confusing the authenticity of the historic resource itself.

The National Park Service policy on new additions, adopted in 1967, is an outgrowth and continuation of a general philosophical approach to change first expressed by John Ruskin in England in the 1850s, formalized by William Morris in the founding of the Society for the Protection of Ancient Buildings in 1877, expanded by the Society in 1924 and, finally, reiterated in the 1964 Venice Charter--a document that continues to be

followed by 64 national committees of the International Council on Monuments and Sites (ICOMOS). The 1967 Administrative Policies for Historical Areas of the National Park System thus states, "...a modern addition should be readily distinguishable from the older work; however, the new work should be harmonious with the old in scale, proportion, materials, and color. Such additions should be as inconspicuous as possible from the public view." Similarly, the Secretary of the Interior's 1977 "Standards for Rehabilitation" call for the new work to be "compatible with the size, scale, color, material, and character of the property, neighborhood, or environment."

Conclusion

A major goal of our technical assistance program is a heightened awareness of significant materials and the historic character prior to construction of a new exterior addition so that essential change may be effected within a responsible preservation context. In summary, then, these are the three important preservation questions to ask when planning a new exterior addition to a historic resource:

- 1. Does the proposed addition preserve significant historic materials and features?**
- 2. Does the proposed addition preserve the historic character?**
- 3. Does the proposed addition protect the historical significance by making a visual distinction between old and new?**

If the answer is **YES** to all three questions, then the new addition will protect significant historic materials and the historic character and, in doing so, will have satisfactorily addressed those concerns generally held to be fundamental to historic preservation.

New Exterior Additions to Historic Buildings

Preserve Significant Historic Materials and Features.

Avoid constructing an addition on a primary or other character-defining elevation to ensure preservation of significant materials and features.

Minimize loss of historic material comprising external walls and internal partitions and floor plans.

Preserve the Historic Character

Make the size, scale, massing, and proportions of the new addition compatible with the historic building to ensure that the historic form is not expanded or changed to an unacceptable degree.

Place the new addition on an inconspicuous side or rear elevation so that the new work does not result in a radical change to the form and character of the historic building.

Consider setting an infill addition or connector back from the historic buildings wall plane so that the form of the historic building--or buildings--can be distinguished from the new work.

Set an additional story well back from the roof edge to ensure that the historic building's proportions and profile are not radically changed.

Protect the Historical Significance--Make a Visual Distinction Between Old and New

Plan the new addition in a manner that provides some differentiation in material, color, and detailing so that the new work does not appear to be part of the historic building. The character of the historic resource should be identifiable after the addition is constructed.

Additional Reading

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(1) **Note:** Roy Worskett, RIBA, MRTIP, "Improvement of Urban Design in Europe and the United States: New Buildings in Old Settings." Background Report (prepared July, 1984) for Seminar at Strasbourg, France, October, 1984.

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Home page logo: Appropriate new stair tower addition. Photo: NPS files.

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