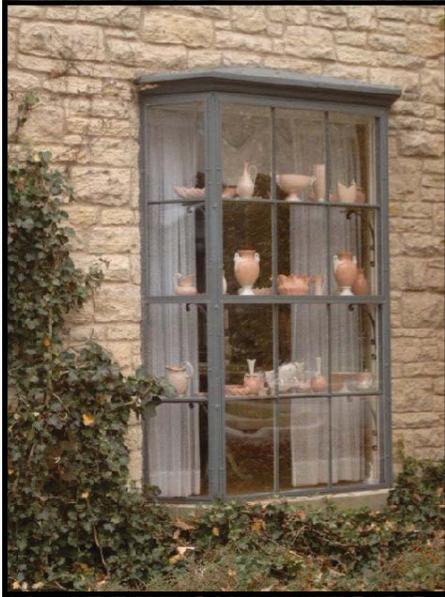


2.6 Architectural Metals:

Cast Iron, Pressed Tin, Copper, Aluminum, and Zinc



Architectural metal features often highly decorated and may be important in defining the overall historic character of the building. These features include cast-iron facades, porches, and steps; sheet metal cornices, roofs, roof cresting and storefronts; and cast or rolled metal doors, window sash, entablatures, and hardware. Retention, protection, and repair of architectural metals should be a prime consideration in construction projects.

Architectural Metals on Building Exteriors

Recommended

- ✓ Identifying, retaining, and preserving architectural metal features such as columns, capitals, window hoods, or stairways that are important in defining the overall historic character of the building, and preserving their finishes and colors.
- ✓ Identify, evaluate, and treat the causes of corrosion, such as moisture from leaking roofs or gutters.

Not Recommended

- ❑ Removing or radically changing architectural metal features which are important in defining the overall historic character of the building so that, as a result, the overall character is diminished.
- ❑ Placing incompatible metals together without providing a reliable separation material. Such incompatibility can result in galvanic corrosion of the less noble metal, e.g., copper will corrode cast iron, steel, tin, and aluminum.

Cleaning Architectural Metals

Recommended

- ✓ Cleaning architectural metals, when necessary, to remove corrosion prior to repainting or applying other appropriate protective coating.
- ✓ Identifying the particular type of metal prior to any cleaning procedure and then testing to assure that the gentlest cleaning method possible is selected or determining that the cleaning is inappropriate for the particular metal.
- ✓ Cleaning soft metals such as lead, tin, copper, terneplate, and zinc with appropriate chemical methods, because their finishes can be easily abraded by blasting methods.
- ✓ Using the gentlest cleaning method for hard metals (cast iron, wrought iron, and steel) in order to remove paint buildup and corrosion. If hand scraping and wire brushing have proven ineffective, low pressure dry grit blasting may be used as long as it does not abrade or damage the surface.

Not Recommended

- ❑ Using cleaning methods which alter or damage the historic color, texture, and finish of the metal; or cleaning when it is inappropriate for the metal.
- ❑ Removing the patina of historic metal. The patina may be a protective coating on some metals, such as bronze or copper, as well as a significant historic finish.
- ❑ Cleaning soft metals with grit blasting which will abrade the surface of the metal.

Painting and Sealing Architectural Metals

Recommended

- ✓ Applying appropriate paint or other coating systems after cleaning in order to decrease the corrosion rate of metals or alloys.
- ✓ Applying an appropriate protective coating such as lacquer to an architectural metal feature such as a bronze door which is subject to heavy pedestrian use.

Not Recommended

- ❑ Applying paint or other coatings to metal such as copper, bronze, or stainless steel that were meant to be exposed.

Repair and Maintenance of Architectural Metals

Recommended

- ✓ Protecting and maintaining architectural metals from corrosion by providing proper drainage so that water does not stand on flat, horizontal surfaces or accumulate in curved, decorative features.
- ✓ Repair architectural metal with in-kind material or with a compatible substitute. Maintain contours and detail used in surviving prototype for guidance.
- ✓ Repairing architectural metal features by patching, splicing, or otherwise reinforcing the metal following recognized preservation methods. Repairs may also include the limited replacement in kind -or with a compatible substitute material- of those extensively deteriorated or missing parts of features when there are surviving prototypes such as porch balusters, column capitals or bases; or porch cresting.
- ✓ If a feature is too deteriorated to repair then replace with an in kind material using the overall form and detailing that is existing to guide work.
- ✓ Designing and installing a new architectural metal feature when the historic feature is completely missing. It may be an accurate restoration using historical, pictorial, and physical documentation or be a new design that is compatible with the historical building.

Not Recommended

- ❑ Replacing an entire metal feature such as a column or a balustrade when repair of the metal and limited replacement of deteriorated or missing parts are appropriate.
- ❑ Using a substitute material for the replacement part that does not convey the visual appearance of the surviving parts of the architectural metal feature or that is physically or chemically incompatible.
- ❑ Removing an architectural metal feature that is not repairable and not replacing it; or replacing it with a new architectural metal feature that does not convey the same visual appearance.
- ❑ Creating a false historic appearance because the replaced architectural metal feature is based on insufficient historical, pictorial, and physical documentation.
- ❑ Introducing a new architectural metal feature that is incompatible in size, scale, material, and color.