

# The Care of Architectural Collections

## A Research Project at the Smithsonian

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The National Museum of American History has one of the largest and most diverse collections of architectural elements in the United States. The architectural collection includes entire buildings, partial structures, rooms, and elements. Most, if not all, have been collected for their historical or technological importance, rather than architectural significance. The majority of these objects were acquired between 1965 and 1980 when the museum, then called the National Museum of History and Technology, was undergoing tremendous growth. These objects and elements were collected by 13 different curatorial divisions for exhibition and research. Some of these objects were acquired to be preserved as a historical record, while others were altered for exhibition purposes.

The architectural collection occupies over 12,000 square feet and is stored in three separate locations. One storage warehouse is close to ideal; the space is clean, well maintained, monitored, and organized, and the objects are easily accessible. However, other storage warehouses date from World War II and are deteriorating. At the same site, asbestos-contaminated architectural collections (mostly

During 1990 and 1991, through a post-graduate fellowship sponsored by the Smithsonian Institution's Conservation Analytical Laboratory, conservation research was carried out to determine appropriate storage and exhibition methods for the National Museum of American History's (NMAH) collection of architectural elements. The fellowship involved examining methods used by NMAH for documentation and labeling, care and handling, and storage. It also involved visiting other architectural collections to document current state-of-the-art practices. Mr. Martin Burke, then Deputy Head of Conservation at NMAH, supervised the project; it was through him that Ms. Emogene Bevitt at the National Park Service came to be involved with the project. Ms. Bevitt was an invaluable resource to the project; she had long been interested in this topic and had compiled an extensive listing of architectural collections throughout the United States.

wood) have been isolated for safety reasons but have received less routine care and have deteriorated accordingly from insect and mold damage. Documentation relating to the contaminated material varies; for example, many objects have lost their tags that identify the related structure or location within the structure. These factors make the removal of these collections from isolation to proper storage within one of the warehouses prohibitive. To face some of these problems, NMAH started in 1983 to renovate its storage warehouses to create more suitable storage environments for museum objects and to eliminate asbestos contamination either through enclosure or removal.

The extremes in storage and documentation at NMAH were not unusual. Often quality of storage is relative to the quality of documentation and the rationale for acquisition.

Undocumented material usually receives less attention, as do objects acquired as exhibition props. It is understandable that architectural objects are often less likely to receive attention and proper care; they are generally large, heavy, and composed of multiple parts and multiple materials. For most architectural collections, the key difficulty lies in developing effective storage techniques.

As part of the research project, I visited a large number of architectural collections in the Northeast and Midwest in order to document state-of-the-art practices. Each collection visited was unique, and offered insights into proper storage and documentation for architectural collections.

The types of institutions or organizations that I visited with architectural collections included historic villages, *in situ* or assembled, such as Deerfield, Sturbridge,



Here, in one NMAH warehouse, objects are well organized and stored—boards from each building or structure are grouped together in padded bundles, easily accessible with a fork lift, and clearly marked with identification numbers. Photo by the author.

Shelburne, and Greenfield; historic house museums, which often amass site-related elements; rooms and structures found in numerous art and history museums; decorative architectural elements, also found in art exhibits and art museums; and study collections, which are elements grouped together by type, and may range from mantels to mortar samples, usually found in historical societies and regional centers.

The rationale for initiating these collections also varies. Historic villages and house museums often collected objects as replacement parts for the building(s) on site. Art museums frequently collected historic rooms and structures as backdrops for displaying decorative art objects and furniture. Study collections are generally used for educational and research purposes, while decorative fragments are used primarily for exhibition purposes.

As one might expect, storage for such a variety of collections and institutions ranged from poor to very good. Storage areas for architectural collections often occupy attics, basements, or out buildings. Although these are not ideal storage locations, they often happen to be the only space available and large enough for storage. Occasionally separate buildings are designated for storing architectural collections, but this is rare.

Adequate storage of architectural collections is often difficult to organize effectively because of the variety of physical sizes and materials involved. One approach would be to divide the collections into three groups: "units"—such as rooms or structures that need assembly for exhibition; larg-

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er objects such as doors, mantels, windows, which are generally stored whole and need no assembly for exhibition; and smaller objects which include decorative fragments, hardware and so forth. While some objects may overlap or fall between groups, this type of clustering seems to be the most logical and practical way to separate architectural collections into more manageable groups.

By grouping material, artifacts can be stored by type and/or size. For instance, doors and mantels can be stored together in padded vertical racks; hardware can be compartmentalized in acid-free boxes. Rooms, facades, or whole buildings should be stored together as a group in padded bundles on shelves, pallets and vertical racks—a practical way of keeping related elements both large and small together.<sup>1</sup>

Ideally, objects should be stored away from air vents, radiators, windows, exposed water pipes, and exterior walls. The goal here is to avoid extreme fluctuation in light, temperature and humidity levels. Temperature and humidity levels in storage areas should be recorded at all times with a recording hygrothermograph. Storage areas should be kept as clean as possible. Objects should be raised off of the floor by at least several inches on padded pallets and

shelves; large and/or heavy objects should be stored on lower shelves for easier access and safer handling. In addition, shelves may be protected with transparent polyethylene, which is loosely draped over objects or tacked around shelves; this allows for better visibility of objects for monitoring purposes, as well as acting as a dust and a moisture barrier. The objects themselves should never be wrapped in polyethylene as they need to be stored in a manner which allows free air circulation.

Labeling artifacts is an additional challenge. Architectural collections are often poorly labeled, making identification of related elements very difficult. How and where to label architectural material may often be related to the type of architectural collection.

All architectural objects should be marked with an applied accession/identification number over an isolation layer. Larger objects that are difficult to move and padded bundles of related material should also be tagged. The shelves storing the objects should be labeled as well, with size of the accession numbers large enough to be easy to read from 4 or 5 feet away. This additional labeling is useful for several reasons: it reduces the handling of objects; makes it easier to find or to reshelve them.

Finally, documentation is a very important part of architectural collections. For architectural elements both large and small, working within an established framework such as a **checklist** saves time and effort. The checklist would outline the existing written and visual documentation, and physical information available for each object. It also provides an organized system that can be easily expanded upon as more information becomes available.

For documenting whole or partial structures in a collection, the most useful system can be found in the guidelines used by the National Park Service. The Historic American Buildings Survey (HABS) and the Historic American Engineering Record (HAER) have consistent standards concerning the documentation of historic structures with measured drawings, photographs, and written reports. To date, these guidelines are the most efficient and expedient method available to systematically document historic structures.

At the end of my fellowship at NMAH, I wrote a report with suggested guidelines for the proper care, handling, and storage of architectural collections along with recommended documentation methods. Overall, the fellowship was a wonderful opportunity to see many diverse architectural collections as well as the extraordinary challenges involved in their care and preservation.

Architectural collections have often received less attention than most historical, technological, or art collections; these are just a few methods which could upgrade their long-term storage and documentation.

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<sup>1</sup> While this article offers some easy to understand observations regarding the storage, labeling, etc. of architectural objects, the misapplication or use of non-approved conservation materials can hasten the deterioration of a collection, thus it is essential to contact a trained conservator before proceeding.

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