Images of New England: Documenting the Built Environment

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Abstract: The 1980s find the New England states in a period of economic expansion and development that has an impact upon its landscape and built environment. Older structures are being renovated or destroyed, while extensive new building is simultaneously under way. Documenting these changes involves identifying and preserving the records of buildings that are disappearing as well as those of new construction.

The author reviews briefly the history of architecture in New England, focusing on its relationship to the evolution of types of documentation in the nineteenth and twentieth centuries: original design records, publications and stock plans, and visual records of completed buildings and their changes over time. The differing approaches of the six states to preserving these records are profiled, and their efforts linked with the growth of an active historic preservation movement. Aspects of the built environment remain less well documented: current development, commercial architecture, landscape design, builders' records, and owner-initiated projects. The author concludes by proposing regional efforts to deal with these issues, capitalizing upon the expertise and experience of the curators, archivists, and conservators of New England's architectural collections.

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NEW ENGLAND INSPIRES IMAGES of colonial farmhouses, town greens, ivy-covered colleges, rugged coasts, and mountains. Its sense of regional identity is linked to the land and its history, personified by its buildings. The red brick townhouses of Beacon Hill, cottages of Nantucket, and mansions of Newport are among the many attractions that draw tourists to the area and make it a desirable place to live. An active historic preservation movement has developed since the 1970s to ensure that this early fabric is saved.

But New England has another image in the 1980s: a region in the midst of an economic boom. The prosperity of high tech industries has brought the lowest unemployment rate in the nation and a dramatic increase in new construction, not only of commercial buildings but also housing and vacation homes. These developments are altering New England's urban centers, suburbs, and even some rural areas, and they threaten the environment and sense of past that others are seeking to preserve.

The architectural archives of New England should reflect the dual patterns of preservation and growth. On the one hand, there is a great demand for earlier records that document the appearance of older buildings. These are used by architects, designers, homeowners, planners, and preservationists as a basis for restoration and town planning; by art historians as works of art; and by researchers as an essential part of the historical documentation of a city or region. On the other hand, the current growth in new construction is creating a need for new types of documentation. The following essay will explore both aspects:

Old and new Boston: Church Court Condominiums by Graham Gund Architects, 1983. This development incorporates the remains of the 1891 Mt. Vernon Church, destroyed by fire in 1978. Copyright © Steve Rosenthal, courtesy of Graham Gund Architects.

the problems of identifying and preserving older building records that are now in demand, and the challenge of documenting the current dramatic changes to the environment. It will examine the building process as it relates to record types, discuss kinds of records that have been ignored, and assess efforts to develop architectural archives in the region.

When examining the architectural past, it is useful to distinguish three parallel sources of building design and modification: the formally trained design professional, usually an architect; the builder-craftsman; and the building owner. Large-scale projects and public buildings have demanded the skills of architects, while single-family housing has generally been the domain of builders and developers. Owners and residents have modified their properties through additions, renovations, and neglect. In some cases, owners bypass both architects and builders to construct their own homes or purchase prefabricated units. In this essay, the term *built environment* encompasses the wide range of structures erected by New Englanders to alter their environment. Landscape design and engineering projects are also part of this process and will be discussed briefly.

The best sources for information about the built environment are the buildings or landscapes themselves. These, however, have often been so altered that it is no longer possible to judge their original appearance or trace their histories. Sometimes the buildings have been destroyed and the landscapes obliterated. Written and visual documentation become essential and can take several forms: published design sources such as pattern books, stock plans, and periodicals; original records generated by the process of designing and constructing a specific project; and records that document the finished project, its use, and its appearance over the years.

The record types have changed over the centuries as the process of building has evolved from a craft based on apprenticeship to a business enterprise generating complex records.[1] The history of New England's architecture has been described and analyzed.[2] A documentation strategy requires an understanding of the relationship between this history and its records. In many ways, the documentation patterns of the late twentieth century reflect the trends of previous centuries, especially the nineteenth.

Historical Background

The earliest European settlers in New England were rural people who brought medieval building traditions that shaped their buildings and towns. Housewrights and carpenters constructed "saltbox" houses around the town green and its meeting house, which served as the center for religious and political life. Simple buildings, adapted to the harsh New England climate, remained the prevalent style in rural areas throughout the seventeenth and eighteenth centuries. The builders worked from a craft tradition, needed no drawings, and produced few records. Our knowledge of early buildings is therefore based on surviving examples, such as the Parson Capen House in Topsfield and the Fairbanks House in Dedham, Massachusetts, on references in contemporary documents, or on archaeological excavation as at Plimoth Plantation.

During the eighteenth century, classical styles were transmitted to the colonies via publications. Gentleman architects such as Peter Harrison in Rhode Island imported large folios of Palladian designs. Less ex-

[1]David Gebhard, "Drawings and Intent in American Architecture," in David Gebhard and Deborah Nevens, *200 Years of American Architectural Drawing* (New York: Whitney Library of Design, 1977), 22–71.

[2]For a list of books on New England architecture, see the bibliography in Jane Holtz Kay, *Preserving New England* (New York: Pantheon Books, 1986), 202–05.

pensive builder's handbooks were also acquired from England; these provided the details that provincial craftsmen needed to construct buildings in the new style. Drawings during this period were simple, consisting of floor plans and front elevations. Few were made and fewer survive. Amateur architects relied upon capable masons and carpenters to translate their ideas into actual buildings. Today historians study the architectural books available during the colonial period to trace designs and reconstruct plans, especially for public buildings and residences built in urban centers.[3] It is usually impossible to find contemporary documentation for the houses constructed in rural areas by builders who incorporated the new styles into their craft traditions.

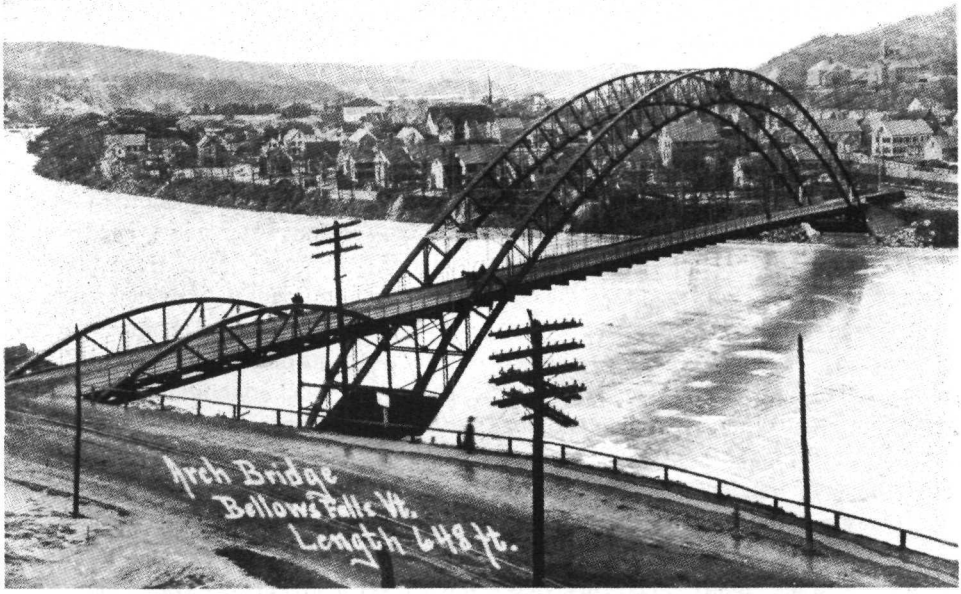
The career of Charles Bulfinch marked a change from the eighteenth century view of architects as artists and educated amateurs. In 1787 Bulfinch returned from England and began his career as the first American-born professional architect, designing buildings for Boston in the more refined Adamesque style. His Massachusetts State House, his elegant houses on Beacon Hill, and his vision of city planning, as in the now destroyed Tontine Crescent, helped transform Boston from a medieval town into a cosmopolitan city. His new Federal style had an effect far beyond Boston. Architect and carver Samuel McIntire adapted Federal designs for the finely crafted mansions of Salem, Massachusetts. Asher Benjamin, author of the first architectural book published in America, translated the style into a domestic scale in his 1806 pattern book. Like the English craftsman's handbooks, Benjamin's modest octavo volumes could be readily purchased and understood by architects and carpenters practicing outside urban centers. Benjamin's *Practical House Carpenter* remained in print from 1830 until 1854. Houses and churches resembling his plates can be found throughout New England.

The nineteenth century was a period of rapid development, providing work for architects, engineers, and builders in all the New England states. Shipping and fishing brought prosperity to expanding ports. Inland, abundant water power provided the energy for mills and industrialization; after the 1840s, railroads were available to transport goods nationwide. Engineering projects for dams and canals harnessed rivers and streams; factory buildings and housing were built for increasing numbers of workers. Manchester, New Hampshire, and Lowell and Holyoke, Massachusetts, expanded into major industrial communities, but mills were built on a smaller scale wherever a stream was available.

During the 1820s, to the 1840s, the distinction between engineer and architect was not clearly drawn. Loammi Baldwin, the "father of civil engineering in America" and engineer of the Middlesex Canal, designed Holworthy Hall for Harvard University in 1811. Architect Alexander Parris served as chief engineer of the Charlestown Naval Yard, Boston, and ended his career as chief engineer of Portsmouth Naval Shipyard in New Hampshire. Training was acquired on the job as an assistant for an established architect or engineer. Firms were small.

After the Civil War architectural practice evolved from a trade to a profession, with formal educational requirements based on academic study similar to programs at the Ecole des Beaux Arts in Paris. Bostonian Richard Morris Hunt was the first American trained at the Ecole. Returning to New York in 1858, he trained others, including William Robert Ware, who in 1868 set up the Architecture Department for the Mas-

[3]Helen Park, *A List of Architectural Books Available in America before the Revolution* (Los Angeles: Hennessey & Ingalls, 1973).



Postcard of Arch Bridge, Bellows Falls, Vermont, ca. 1912-13. Courtesy of the Society for the Preservation of New England Antiquities.

sachusetts Institute of Technology, the first such program in the United States. The curriculum was based on the French model, with studies of historic precedents, extensive drawing, and scientific instruction in construction and materials.[4]

MIT's programs in engineering also provided more comprehensive training than the old apprenticeship system. More technical knowledge was necessary to handle the new construction materials of iron, steel, and concrete. These materials and such innovations as elevators and steam-driven machinery made possible larger buildings, which required increased numbers of more complicated drawings. A large architectural firm often included an engineer on its staff or called in engineers as consultants.

Architects increasingly identified themselves as a profession. The Boston Society of Architects was formed in 1867, providing an opportunity for architects to meet and sponsor activities. The first major architectural journal, *American Architect and Building News,* was issued in Boston in 1876. The Boston Architectural Club, established in 1889, increased educational opportunities for aspiring architects. Harvard University granted its first B.S. in architecture in 1895; Yale University established its Department of Architecture the same year.

Architectural records became more extensive as firms expanded into large businesses and designed more complex projects.[5] Staff members specialized in specific as-

[4]Caroline Shillaber, *Massachusetts Institute of Technology School of Architecture and Planning 1861–1961: A Hundred Year Chronicle* (Cambridge: MIT, 1963).

[5]Alan K. Lathrop, "The Provenance and Preservation of Architectural Records," *American Archivist* 43 (1980): 325–38; Pauline Saliga, "The Types and Styles of Architectural Drawings," in *Chicago Architects Design* (New York: Rizzoli, 1984), 20–30; Jane E. Sugarman, "Observations on the Materials and Techniques Used in 19th Century American Architectural Presentation Drawings," *A.I.C. Book and Paper Group Annual* 5 (1986): 39–60.

pects of the design process, such as specification writing or presentation rendering. Records took the forms that are still used today:

Administrative office files, including accounting, personnel, etc.
Project files:

- Correspondence and contracts
- Specifications (the written requirements for materials, equipment, construction systems, and workmanship)
- Drawings:
  - —Preliminary sketches
  - —Design development, including initial presentation drawings for the client
  - —Working drawings, used by contractors and builders to construct a building (including plans, sections, elevations, details)
  - —Record drawings or *as builts*, which document the building as finally constructed

While the preliminary sketches and presentation drawings may appear more interesting to the general public because they resemble works of art, the working drawings are the crucial documents because they transmit the technical information needed to erect a building. They consist of both original drawings and copies produced by a range of reproductive processes. The originals usually remain with the architects, while copies are submitted to clients, builders, contractors, and government agencies as needed.

Architectural firms focused their attention on the large commissions that most required their skills and repaid their time with the greatest profits: public and commercial buildings, and houses for the wealthy in the cities, fashionable resorts, and suburbs. Their stylistic innovations were transmitted to the general public through the architectural pattern books that proliferated during the nineteenth century.[6] In this way, the colonial revival houses designed by Peabody and Stearns, for instance, were adapted for the middle class market. Women's magazines such as *Godey's Lady's Book* also offered house plans. After 1875 firms such as Palliser, Palliser & Company and Robert W. Shoppell transformed their pattern books into sales catalogs. For a fee, owners and builders could purchase complete sets of working drawings and specifications.[7] Many were sold to meet the need for moderately priced housing in the suburbs that were expanding along new trolley and train routes.

Property records in county registries of deeds were among the earliest government records with building information. In the nineteenth century the types and quantity of government records related to architecture and the built environment increased to include those of agencies commissioning projects, and those of agencies overseeing compliance with state or local regulations. As towns grew and offered more services, municipal departments oversaw the construction of roads, sewage systems, and gas and electrical lines; they commissioned new city halls, schools, parks, and playgrounds for expanding populations. At the same time, city and state agencies took on a regulatory role that generated documentation. For example, after the 1872 fire, Boston required and maintained building permits for all new construction; the Building Department also maintained inspector's reports from 1879 to 1903. Both sets of records include drawings: permit drawings showing the intended plans, and the inspection drawings showing what was actually constructed.

[6]Henry Russell Hitchcock, *American Architectural Books: A List of Books, Portfolios, and Pamphlets on Architecture and Related Subjects Published in America before 1895*, revd. ed. (New York: DaCapo Press, 1976).

[7]James L. Garvin, "Mail-Order House Plans and American Victorian Architecture," *Winterthur Portfolio* 16 (1981): 309–34.

After 1889, the Massachusetts Department of Public Safety required submission of a complete set of as-built working drawings for all public buildings (constructions other than single-family dwellings). Such government records provide substantial documentation of engineering and construction projects.

These trends have continued in the twentieth century: increased specialization among larger and larger firms, government sponsorship and regulation of building projects, single-family housing based on stock plans, and individual initiatives by owner/occupants. Is it possible to find documentation for these developments?

Early Attempts at Records Preservation

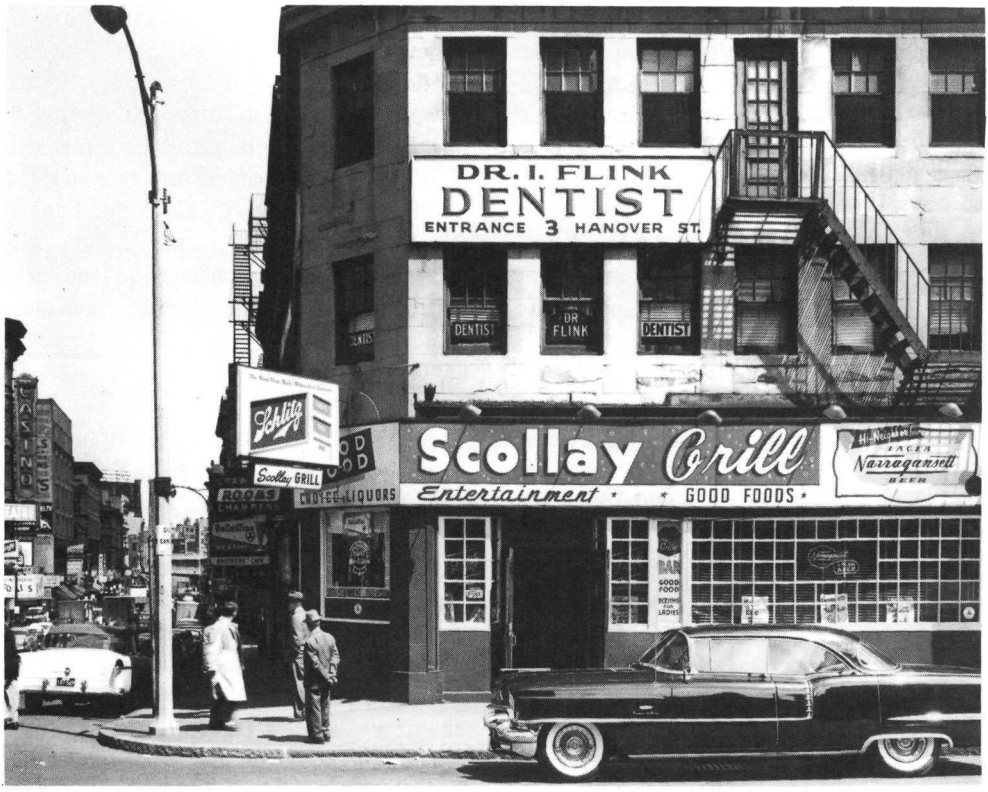
Initial efforts to preserve architectural records paralleled efforts to preserve buildings. Just as nineteenth century New Englanders rallied to save such historic buildings as Old South Church in Boston and the Wadsworth-Longfellow House in Portland, Maine, so too did concerned collectors and librarians save the drawings of well-known early architects. Thus the drawings of Thomas Jefferson were treasured by the Massachusetts Historical Society, and the drawings of Charles Bulfinch were kept in the American Antiquarian Society, the Boston Public Library, and Rotch Library at MIT. The Boston Athenaeum acquired the drawings of Alexander Parris, while the Society for the Preservation of New England Antiquities collected drawings by Asher Benjamin and his contemporaries. Eighteenth and early nineteenth century records typically consisted of small numbers of individual drawings and plans scattered among various institutions, where they were housed in print collections and treated as works of art. Written specifications were rarely saved.

The work of mid to late nineteenth century architects was not appreciated until the 1970s. Unlike the few drawings of their predecessors, archives of these nineteenth century individuals and firms were voluminous, resembling business files rather than fine prints. Older records were more likely to survive after the death of a principal if the firm continued through merger with another firm or acquisition by the remaining partners. For example, the drawings of Henry Hobson Richardson were treasured by Shepley, Rutan & Coolidge and were eventually donated to the Houghton Library at Harvard University. Hoyle, Doran & Berry gave selected projects of Ralph Adams Cram, their founder, to the Boston Public Library. When there were no successors, records were often destroyed. Particularly tragic was the loss of the drawings of Clarence Blackall, who designed much of Boston's theater district.

Early twentieth century architects also fared poorly, especially those whose firms closed during the 1950s–1960s, the height of urban renewal, Modernism, and public disregard for old buildings. In Boston, for example, the records of Allen & Collens (1903–1933), nationally known designers of churches in the gothic style, were lost when their successor firm, Collens, Willis & Beckonert, closed in 1962. The records of Peabody and Stearns (1870–1917), one of Boston's most accomplished and prolific firms, were thought lost until a fire in a loft in the business district resulted in their discovery in 1968 and subsequent salvation by the Boston Public Library.

In today's milieu of Post Modern architecture and newly constructed "Victorian" restaurants, it is perhaps difficult to appreciate how pervasive the disregard for earlier architecture once was, even within architecture schools. In 1934, MIT's Dean Emerson arranged to have the School of Architecture's original Bulfinch drawings donated elsewhere because they "were of little interest to the modern student."[8] The

[8]Correspondence in the files of Rotch Library, MIT. The drawings were refused by the Boston Athenaeum



Scollay Square, Boston, 1952, now destroyed. Lynch-Kepes Collection, Rotch Library, Massachusetts Institute of Technology.

architecture schools at Yale, Harvard, and MIT rejected historicism and eclecticism in favor of the International Style and Modernism. The study of drawing for the preparation of elaborate renderings was no longer required. This rejection of the past extended to its records. Thesis drawings from MIT's beginnings to the 1920s were rolled up and stored in an attic where, covered with dust, they were forgotten until the early 1970s. The prize-winning drawings of the Rotch Traveling Scholarship, a prestigious award given annually to an outstanding young architect by the Boston Society of Architects, were saved haphazardly, depending upon the efforts of members of the awards committee. For architects of the mid twentieth century, new materials, techniques, and aesthetics seemed to make earlier buildings obsolete and records of them irrelevant.

Government records relating to buildings continued to accumulate, and where there was ample storage space, they survived—through benign neglect rather than conscientious care. Problems arose, however, when a new city hall was built or the town clerk ran out of space in the vault: for example, Brookline, Massachusetts, threw out its building department records when its new city hall was completed. Boston Building Department records were slated for destruction when they were rescued by the staff of the Boston Public Library; once again, the move to a new city hall prompted drastic weeding.

and eventually accepted by the Library of Congress in 1935. Rotch Library Visual Collections has photographs of the drawings in the original collection.

The built environment fared no better. During the mid twentieth century, urban renewal razed entire sections of old downtowns. With the support of federal funds, the historic buildings on Chapel Street in New Haven were replaced by a mall and parking lot. In Boston, Scollay Square and the West End disappeared, replaced by a vast brick plaza and City Hall, other government buildings, expensive apartments, and some empty lots that remain vacant after twenty years. Manchester, New Hampshire, lost the Amoskeag Mills, and Portland, Maine, the Union Railroad Station. The destruction reached small towns and the countryside when the Federal Highway Construction Act of 1956 authorized building the interstate system. Highways cut through some towns and isolated others. They provided access to wilderness areas, spawning commercial strips and resorts. With so little regard for so much of the environment and buildings, is there any reason to think that the archival records would be treated better?

Fortunately, large sections of old New England remained intact through the 1950s and 1960s, less from a love of old buildings and the environment than from economic necessity. As Jane Holtz Kay explained in *Preserving New England,* "Long before the 'preservation movement' took hold, poverty helped preserve New England. The businessman in his 'dated' warehouse, the rural family in an 'obsolete' Victorian farmhouse could not afford the shiny market or the sprawling ranch house of the latest American dream."[9] The first half of the twentieth century had brought a decline in fortune to New England long before the Depression. Mills were deserted as textile and manufacturing industries moved south and west where labor was cheaper. New building slowed. The Custom House Tower, built in 1913–1915, remained Boston's tallest building until the John Hancock Building was completed in 1947; nearly twenty years elapsed before the next tower, the Prudential Building, was completed in 1965. The prosperity of the twenties that produced so many Art Deco buildings in New York City, Los Angeles, and the Midwest largely bypassed New England. Factories stood vacant; the population remained stable.

The end of World War II brought demands for new housing and accelerated migration to the suburbs. Developments of ranch houses and "Cape Cods" were built on farm lands in the towns surrounding New England's urban centers; within twenty years, 200,000 new homes had been built in eastern Massachusetts. Shopper's World, one of the first shopping malls, was constructed in Framingham in 1951.

Prosperity returned to New England in the 1960s and 1970s, fueled by the electronics and high tech industries based along Route 128. By then, demolition in the name of urban renewal was being replaced by an appreciation of the historic fabric of both cities and towns. In the early 1960s, Strawbery Banke in Portsmouth, New Hampshire, became the first urban redevelopment project to employ restoration rather than demolition to save a blighted waterfront area. The Historic Preservation Act of 1966 established the National Register of Historic Places and funded state historic preservation commissions to protect historic properties. The Economic Recovery Act of 1981 gave owners a 25 percent investment tax credit for certified rehabilitation of buildings approved by the commissions. Saving older buildings—and even entire neighborhoods—became a priority.

By 1982, $52 billion or 32 percent of all construction dollars nationwide were spent

[9]Kay, *Preserving New England*, 33.

on rehabilitation rather than new construction.[10] The Digital Equipment Corporation was one of the first companies in New England to locate its offices in a renovated mill (in Maynard, Massachusetts). Other companies followed suit in Lowell and Lawrence, and the mill towns of southern New Hampshire. The financial success of Faneuil Hall Marketplace and Boston's waterfront revitalization spawned similar efforts in restored areas of Newburyport and Salem, Massachusetts; Portland, Maine; and Providence, Rhode Island. Successful urban renovations have made city life more attractive to young professionals. Within the last fifteen years, Boston's South End has been transformed from an area of deteriorated roominghouses to a highly desirable neighborhood of condominiums in elegant Victorian rowhouses, although the process of gentrification displaced many of the less affluent residents. Suburbs and small towns now have their Victorian societies dedicated to preserving older buildings, and new houses are being built in styles reminiscent of earlier centuries.

Preservation Begins in Earnest

Not surprisingly, the movement to preserve architectural records began in the 1970s when the historic preservation movement created a demand for early records and an awareness of their aesthetic and documentary value. Original drawings and specifications could save an architect hours of work and produce a more authentic restoration. Owners were eager to research the history of their own houses. Librarians, archivists, and historians responded with projects to locate, identify, and preserve the needed records.

Initial efforts began in New York City with support from the Architectural League of New York and subsequent funding from the National Endowment for the Humanities (NEH). The Committee for the Preservation of Architectural Records (COPAR) developed a central data file identifying and indexing architectural collections; it also served as a clearinghouse for information about architectural records. In 1981, COPAR files were transferred to the Architecture, Design and Engineering Collections of the Prints and Photographs Division, Library of Congress. Now known as Cooperative Preservation of Architectural Records, COPAR continues to collect and share information. In 1982, COPAR began automation of the National Union Index to Architectural Records.

Several states produced guides to the architectural resources in their regions, many with NEH support. With New York COPAR's guide as a model, similar publications have been produced for records in Boston, Philadelphia, Chicago, San Francisco, and the District of Columbia. Procedures and programs for architectural records, a previously neglected area of preservation, became an NEH priority during the early 1980s. The Endowment helped sponsor the first national symposium on issues in architectural archives, organized by the American Institute of Architects Foundation, "Toward Standards in Architectural Archives."[11] NEH funded work in Massachusetts, Pennsylvania, and Connecticut. It is currently supporting a conservation survey/needs assessment of the Peabody and Stearns Architectural Collection in the Boston Public Library.

Mass COPAR, based in Boston and Cambridge, played an active role in the early stages of the movement and continues to sponsor innovative projects. It received grants from the National Historical Publi-

[10]Norman Williams, Jr., et al., eds., *Readings in Historic Preservation* (Piscataway, N.J.: Center for Urban Policy Research, Rutgers University, 1983), 234–35.

[11]*Proceedings of Toward Standards for Architectural Archives* (Washington, D.C.: American Institute of Architects Foundation, 1983).

cations and Records Commission (NHPRC) to conduct the first survey of records in architectural firms and publish a report on office archives with recommendations for organization and preservation.[12] With NEH support, Mass COPAR prepared a guide to architectural records in Greater Boston and a directory of Boston architects.[13] In 1985 the group sponsored the first Symposium on the Appraisal of Architectural Records; the printed proceedings are now available.[14] In May 1987 Mass COPAR presented a workshop on the organization and preservation of architectural records in conjunction with the New England Museums Association. Mass COPAR accomplishes its work as a nonprofit board composed of volunteers from organizations, institutions, and firms concerned with the preservation of architectural records. The state lacks a central architectural archives so preservation efforts must be coordinated among various institutions according to collecting priorities.

Massachusetts has also begun to cope with its public records. The state archives has accessioned the records of the Department of Public Safety, comprising over 80,000 sets of as-built working drawings of public buildings erected throughout the commonwealth, excluding Boston, from 1889 until 1981.[15] Originally collected to prove compliance with safety codes, these provide extensive documentation for all buildings except single family residences. The Boston Public Library continues to house the city's Building Department records, 1879–1971; during a 1984–1987 NHPRC grant, the newly appointed city archivist conducted a planning study for a Boston city archives, leading to the establishment of a division of archives and records management.

Other New England states have taken different approaches to raise public awareness of the importance of saving architectural records. Brown University, the Rhode Island Historical Society, and the Rhode Island School of Design collaborated on a major exhibition in 1982 of their state's architectural drawings.[16] The theme of the exhibit and its substantial catalog was art historical, focusing on original drawings of elevations and sections rather than working drawings and specifications. It drew together previously unpublished material and raised awareness of the significance of the documentary evidence of the building process as well as the beauty of Rhode Island's buildings. The exhibition was also shown in New York City and Washington, D.C.

Early efforts often depended upon the initiative of individuals. Attempts to establish a Connecticut COPAR in the late 1970s failed when the founder moved out of state. The Yale University Archives was more successful and received an NEH grant to consolidate its drawings of Yale buildings, indexed by an aperture card retrieval system. The Art and Design Library at the University of Connecticut is currently renewing efforts to initiate a state COPAR. Meanwhile, the Connecticut Historical Commission has surveyed state-owned buildings, uncovering many original drawings. Staffing and storage limitations, however, prevent the state archives from

[12]Nancy Carlson Schrock, *Records in Architectural Offices: Suggestions for the Proper Organization, Storage, and Conservation of Architectural Office Archives*, 2d ed. (Cambridge: Mass COPAR, 1981).

[13]Mass COPAR, *Architectural Records in Boston* (New York: Garland Publishing, 1983); *Directory of Boston Architects, 1846–1970* (Cambridge: Mass COPAR, 1984).

[14]*Proceedings of the Symposium on the Appraisal of Architectural Records* (Cambridge: Mass COPAR, 1987).

[15]Stanley Moss, "Survey of Department of Public Safety Building Plans" (Paper prepared for the Archives Program, Department of History, University of Massachusetts, 1986).

[16]William H. Jordy and Christopher P. Monkhouse, *Buildings on Paper: Rhode Island Architectural Drawings, 1825–1945* (Providence: Brown University, 1982).

accessioning these collections, and they remain with the generating agencies, often in poor condition.

New Hampshire has followed a similar approach to government records. In 1984, the New Hampshire Historical Society supervised an intern's survey of architectural records in the society's collections and in state agencies, focusing on the extensive records of the Department of Public Works. These records remain with the agencies and have not been consolidated nor systematically cataloged. A few selected records have been acquired by private institutions such as the New Hampshire Historical Society and the Dartmouth College Special Collections. Major building projects in the nineteenth and early twentieth centuries often relied upon Massachusetts firms, so many records of New Hampshire buildings remain out of state.

Vermont's architectural records have fared better. Although its state records remain with the generating agencies in varying conditions, the Special Collections Department of the University of Vermont has succeeded in saving some private records. For example, its holdings include the Architectural Plans Collection of about eighty projects (1896–1977), project records of architect Lewis S. Newton (1923–1953), papers of three prominent surveyors, and the office files of major mining and manufacturing firms. The department's photograph collection of 200,000 images includes many Vermont buildings and views. The curator has advised a private architect on the organization and preservation of his personal/office archives, which will ultimately be given to the university.

Leadership in Maine has come from the state's Historic Preservation Commission and the Maine Historical Society. The commission publishes quarterly entries in *A Biographical Dictionary of Architects in Maine,*[17] which provides historical background and increases public awareness. The commission also has substantial collections of photographs, stereopticon views, and postcards. Unlike its counterparts in other New England states, the Maine Historical Society has accepted substantial collections of late nineteenth and twentieth century architectural firms, including the files of John Calvin Stevens (1884–1940), Coombs, Gibbs & Pulsifer (1877–1908), and Miller & Mayo (1900–1944). Records of businesses such as the Maine and New Hampshire Granite Company also provide documentation of building processes.

Although the six New England states have taken different approaches with varying degrees of success, patterns do emerge in their efforts to document the built environment. The first stage includes surveying collections and identifying materials in the field; the second, general consciousness-raising among the archival and architectural communities and the general public through exhibitions and publications. The third stage, actually collecting and preserving records, depends upon the initiative of individual persons and institutions. Not all states have had the resources to progress from assessing problems to implementing solutions. Networks among concerned people have been informal and usually statewide rather than regional.

Architects Become Involved

The architectural profession was initially slow to deal with issues of inactive records and archives. The *AIA Handbook* of the American Institute of Architects provided

[17] *A Biographical Dictionary of Architects in Maine*, vol. 1- (1984–). Published quarterly by the Maine Historic Preservation Commission and distributed with the *Newsletter* of Maine Citizens for Historic Preservation, 50 Danforth Street, Portland, ME 04101.

extensive information about office management and standardized project documentation, but no details about creating an office archive or developing a records management program.[18] When Mass COPAR surveyed Boston firms in 1980, four had office librarians, only two of whom were responsible for project archives. Some progress has been made since then. By 1986 the number had risen to fourteen, enough to form Boston Design Librarians, an informal group that meets regularly to discuss records management and other issues.

Architects have become more aware of the need for records management.[19] The AIA Foundation brochure entitled *Architectural Records Management* (1985) alerted architects to the importance of organizing and preserving their records.[20] It suggests record types that should be saved and materials that can safely be weeded, and lists archival and preservation organizations that should be contacted before discarding records. Its guidelines might be useful for archivists appraising architectural records, and it is a convenient guide for architects seeking assistance with their records.

Also in 1985, the Association for Records Managers and Administrators (ARMA) created an Industry Action Committee (IAC) for Design/Engineering/Construction. During 1987 Boston ARMA members attended local programs developed by the IAC national chairperson, who is Records Manager at the Massachusetts Water Resources Authority. This committee may provide a mechanism for developing records management programs for architects. It also links architects with the construction industry and engineering, where practices such as microfilming are better developed. The Association of Architectural Administrators is also working on records management procedures. Rapidly escalating costs of liability insurance and increased threats of litigation are prompting the construction industry and architects to create records programs that emphasize legal protection rather than archival preservation. The results may not ensure the preservation of documents with historical significance.

A large percentage of architectural drawings are routinely microfilmed by the Dodge/SCAN service of McGraw-Hill Information Systems, which distributes copies of documents to subcontractors and suppliers so that they can bid on a job. Some architects mistakenly believe that these records are part of a national archive, but they are routinely discarded after two years. Although past efforts to collect them had failed, in 1985 architect Robert Neiley arranged informally to have the Dodge/SCAN films of New England projects deposited in his Boston firm until a suitable repository could be found. These are, however, films of initial sets of working drawings submitted prior to construction, which are not necessarily accurate representations of the final structure.

Some architectural drawings are being saved to display as decorative objects. In these instances, efforts to raise the public's awareness of the value of architectural records have, in a sense, been all too successful. Facade Gallery, The Artis Group, and the Max Protetch Gallery in New York City have been leaders in showing architectural drawings for sale. Not only are eighteenth and nineteenth century masters displayed, but contemporary leaders such as Robert A. M. Stern and Michael Graves

[18]*The AIA Handbook*, 11th ed. (Washington, D.C.: American Institute of Architects, 1987, with updates).

[19]David Ballast, *Records and Information Management for the Design Professional* (Newton, Mass.: PSMJ, 1987); Catherine R. Burke, "Records Management in an Architectural Firm: Skidmore, Owings & Merrill," *Science & Technology Libraries* 6 (1987): 69–82; Dennis O. Hamilton, "Records Management: Shop Drawings," *AAL Newsletter* (Association of Architectural Librarians) 6 (Oct. 1987): 4–5.

[20]Nancy Carlson Schrock, *Architectural Records Management* (Washington, D.C.: American Institute of Architects Foundation, 1985).

increasingly exhibit current work. These exhibitions have focused public attention on architectural drawings as works of art, decorative objects, and financial investments. Prices have escalated as a result.

Christie's held the first American auction specializing in architectural drawings on 19 October 1983.[21] Along with English and French academic work from the nineteenth century, the auction featured the work of Massachusetts architects. Nine sets of drawings of buildings in western Massachusetts were consigned for bid by the family of Holyoke architect George P. B. Alderman (1862–1942); these were sold for $220–462 per lot, well beyond the budgets of the local historical societies that might have received these drawings as donations prior to the recent price escalation.

This market for architectural drawings creates potentially serious problems for researchers as collections are split and dispersed. Particularly problematic is the practice of selling drawings from the same building project as separate works of art: in the 1983 Christie's auction, for instance, each rendering of the Detroit Capitol Theater's interior decoration by Wm. Baumgarten and Co. was offered as a separate lot. A further danger is that the exhibitable renderings or presentation drawings will be skimmed off while the more technical working drawings—elevations, plans, details—are discarded, especially those that are worn or blueprint copies. The Society of Architectural Historians has issued a "Statement on the Dispersal of Architectural Drawings"[22] that addresses these issues, opposes dispersals, and proposes guidelines for records decisions. Archivists should publicly endorse the statement, follow its precepts, and urge architects to maintain their archives intact. When dispersal cannot be averted, architects should photograph the drawings and keep a record of all disposition decisions.

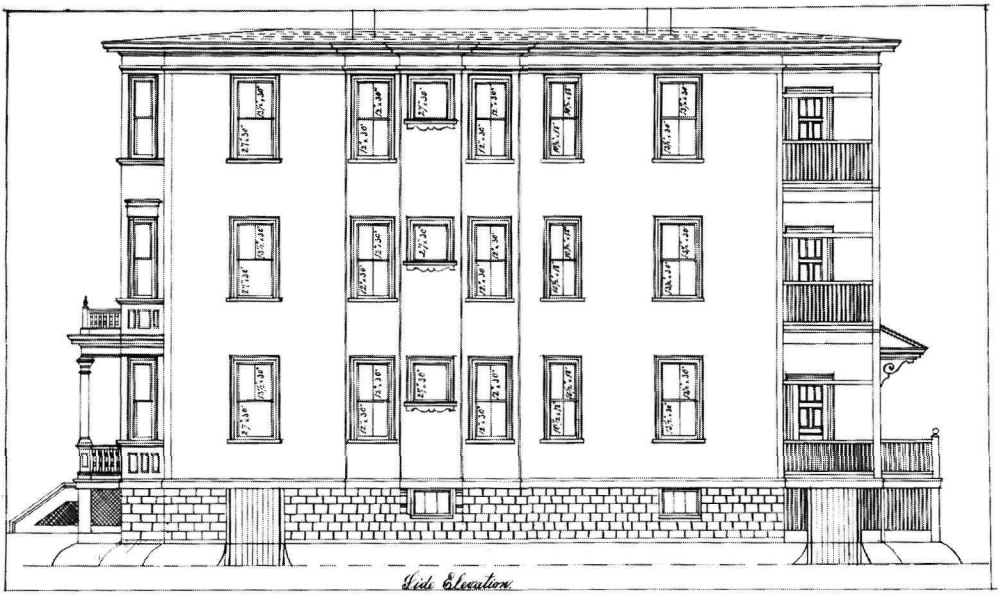
The initial impetus to locate and preserve architectural records in New England has come from architects, librarians, preservationists, architectural historians, and collectors—the people who needed the records and understood their content but lacked archival expertise to organize collections. Archivists, especially those in institutions or agencies generating architectural records, have supported efforts such as COPAR and have included architecture in their archival planning, but they have not reached out beyond their own institutions. There has been no meeting of representatives from the various states to discuss a regional approach to documentation or even to assess what needs to be collected. Since the caretakers of architectural collections include museum curators, librarians, architects, and archivists, no single professional group—Society of American Archivists, Art Libraries Society, Society of Architectural Historians, American Institute of Architects—gathers together all those concerned.

Admittedly, the large format and conservation problems of the drawings combined with the technical complexity of the design/construction process have posed problems for archivists and curators. Until recently, there have been few guidelines for architectural records other than Ralph Ehrenberg's SAA manual and the proceedings of the Standards Conference sponsored by the AIA Foundation.[23] The Avery Architecture Library at Columbia University, however, is developing cataloging guidelines based upon the MARC format

[21]Christie's East (New York), *Architectural, Decorative and Topographical Drawings and Watercolors, Wednesday, October 19, 1983.*

[22]Society of Architectural Historians, "Statement on the Dispersal of Architectural Drawings" (Philadelphia, 1985). Also published as an appendix to Mass COPAR's *Proceedings of the Symposium on the Appraisal of Architectural Records.*

[23]Ralph Ehrenberg, *Archives & Manuscripts: Maps and Architectural Drawings* (Chicago: Society of American Archivists, 1982).



Drawing of the side elevation of a triple decker, Jamaica Plain, Boston, by Jacob Luippold, ca. 1893-1912. Courtesy of the Society for the Preservation of New England Antiquities.

and subject headings from the Art and Architecture Thesaurus as part of its NEH project to preserve, catalog, and index its drawings archive on videodisc. The conservation problems are indeed enormous, but preliminary information about treatment procedures and reformatting options for research materials are appearing in the literature.[24] The 1987 SAA annual meeting included sessions on both landscape records and architectural records; participants suggested annual meetings combining both groups.

Documentation Needed

While focusing on the records of architects and designers, many librarians, archivists, and COPAR itself have overlooked records that document crucial areas of the built environment. They have perhaps been overly influenced by persons interested in the original appearance of buildings that seemed worth restoring and preserving because they were aesthetically attractive, historically significant, or represented sound financial investments. Historians of architecture and decorative arts have been accused of elitism for studying high style and the finest works of a period, usually produced for the wealthy and educated few in urban centers.[25] People inevitably view their immediate past through blinders: Victorians hid their colonial furniture, their successors painted their houses and interiors white, Modernists rejected all historical styles, and many New Englanders assume that removing all traces of the 1950s and the poverty of the 1940s improves their environment. The *Old House Journal* now gives advice on restoring 1920s bunga-

[24]For a bibliography of articles on the conservation of architectural records, see the appendix of Mass COPAR's *Proceedings of the Symposium on the Appraisal of Architectural Records*. The Architectural Archives of the University of Nevada has developed a basic processing manual.

[25]Scott Swank's introduction to *Perspectives on Folk Art* (Winterthur: Winterthur Museum, 1980), summarizes the conflict between the elitism of fine arts aesthetic and anthropological interpretations of crafts traditions. For an example of the recurring debate about what buildings should be preserved from the twentieth century, see Elise Vider, "Who Says It's Not a Landmark," *Historic Preservation* 39 (November/December 1987): 53–59.

lows, but people continue to modify post-World War II tract housing, tear down 1950s neon signs, and erect pseudo-Victorian lighting in their town centers. Do prevailing views of good taste preclude noting regional trends in vinyl siding, mobile trailer parks, or fast-food chains?

Several aspects of the built environment tend to be overlooked: non-architect designed buildings, primarily single-family housing; industrial development and engineering structures; commercial buildings including "strips"; and changes in the landscape, especially in rural areas. Most difficult of all to document are the changes that occur over time in response to prevailing tastes, economic conditions, and availability of new products or technology.

Single-family housing for middle and lower income persons typically has relied upon standard plans, modest interpretations of architect-designed estates that could be adapted by carpenters or builders to individual sites in towns and suburbs. Nearly one-half of all pre-1900 houses were built by owners, the remainder by "spec" builders. Documenting standard plans means identifying the printed sources available during a given period. Ironically, this is easiest for the nineteenth century because pre-1895 patterns books included in Henry Russell Hitchcock's comprehensive bibliography are commercially available on microfilm.[26] Design sources became more varied in the early twentieth century. Stock plans were available at lumber yards and building supply stores, through newspaper columns run by the Architects' Small Home Service Bureau, through catalogs, and in *Small Home*, a plan magazine. Mail order firms such as Sears, Montgomery Ward, and the Aladdin Company provided plans along with all the precut materials needed to erect them. Most of these sources disappeared during the Depression and were ignored until recently, when historians began to reassess post-Victorian vernacular architecture.[27]

The patterns of residential building changed substantially after World War II.[28] To meet the demand for moderately priced housing during the years of postwar prosperity, developer-builders transformed large tracts of farm land into developments of single-family houses. Since 1964 nearly 80 percent of all housing nationally has been produced by developers rather than owners. Stock plan services, established in the 1950s, provide the designs. These services are run by or advertised in "shelter magazines": *Professional Builder* and *Housing* for builders and *Home, House and Garden, Better Homes and Gardens*, and others for the general public. Bookstores and newsstands also market compilations of plans from these journals. Some architects run plan shops, where builders can purchase sets of plans adapted to local codes.

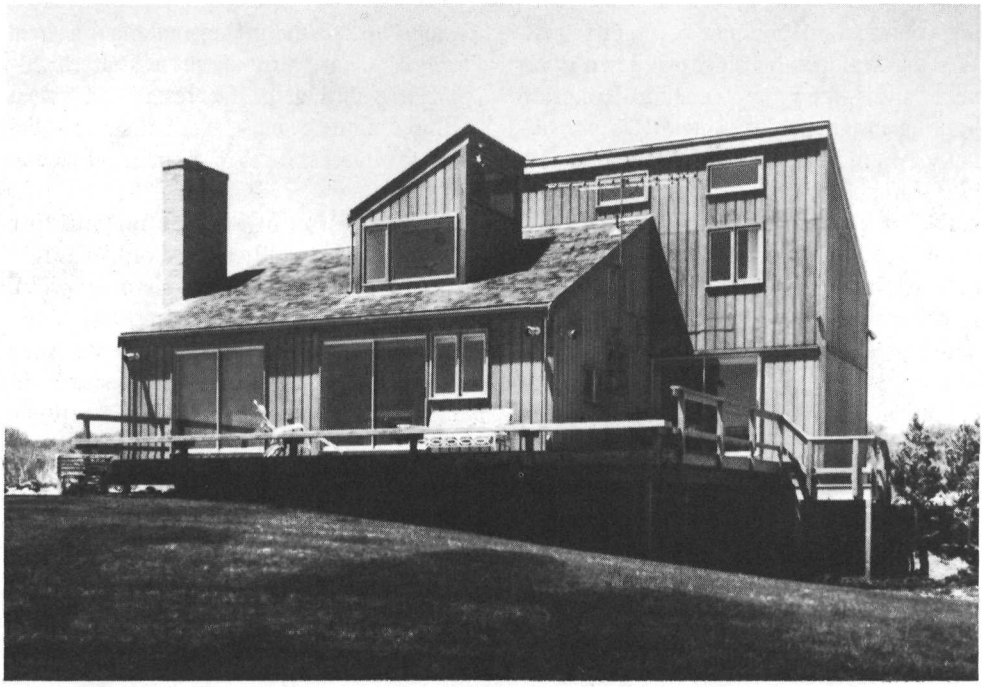
In addition to stock plans, developers increasingly utilize prefabricated modules, which are preassembled as wall panels or modular sections, or precut and assembled on site. Today manufacturers account for 20–25 percent of total construction. Having expanded from mobile home production, they now produce factory-made units that can be shipped to any site.

How can these aspects of the environment be documented? Architectural firm records remain significant because nearly 45 percent of housing construction or remodelling currently involves architects in some way, as staff, consultants, or designers. Especially important are records of the

[26]*American Architectural Books: A Collection on Microfilm* (New Haven: Research Publications, 1973).

[27]Alan Gowans, *The Comfortable House: North American Suburban Architecture, 1870–1930* (Cambridge: MIT Press, 1986); Katherine Cole and H. Ward Jandl, *Houses by Mail: A Guide to Houses by Sears, Roebuck and Company* (Washington, D.C.: Preservation Press, 1986).

[28]Background information and statistics for this section are taken from Robert Gutman, *The Design of American Housing: A Reappraisal of the Architect's Role* (New York: Publishing Center for Cultural Resources, 1985).



"Crow's Nest," Little Compton, Rhode Island, ca. 1969. Example of a house designed and manufactured by Acorn Structures of Acton, Massachusetts. Photograph by Samuel Robbins; published courtesy of Acorn Structures.

small, one- or two-person firm that typically concentrates on housing. Town building departments record local developments. Stock plan services and building manufacturers, however, have not been included in previous surveys of architectural records.

The Blue Book of Major Home Builders for 1986 listed seventy-seven builders in the New England states, but none was among the nation's twenty largest firms, and only two were in the top one hundred.[29] New England firms typically are moderately sized and produce both single-family detached houses and multi-family housing, an increasing percentage of the total market (nearly one-half of total housing units in the Northeast). The extent of the records of such firms is not known. Similarly, archivists know little about the records of housing manufacturers, who produced 44,000 units in New England in 1984.[30] As with home builders, the New England manufacturers are small or moderately sized companies. Many specialize in log homes, an outgrowth of the lumber industry in the northern states; others, such as Acorn and Deck in Massachusetts, offer wood components for more expensive homes. New England's special contributions to mass-produced housing have not been documented.

Other aspects of housing are more difficult to record, especially for rural areas where codes are less stringent. "Handyman" design has continued the eighteenth century tradition of the carpenter/builder who

[29]*The Blue Book of Major Home Builders*, 21st ed. (Crofton, Md.: L.S.I. Systems, 1986).

[30]*The Red Book of Housing Manufacturers*, 9th ed. (Crofton, Md.: C.M.R. Associates, 1985). For background information, see Arthur Bernhardt, *Building Tomorrow: The Mobile/Manufactured Housing Industry* (Cambridge: MIT Press, 1980).

relied on know-how rather than plans. Additions to and modifications of existing buildings are done without stock plans. During the counterculture period of the late sixties and early seventies, people retreated to the woods of northern New England for a simpler, agrarian life. Earth structures and geodesic domes were built as alternatives to traditional forms. Solar technology received extensive federal funding during the oil embargo, but the Northeast Solar Energy Center closed in 1983; its records were weeded stringently, and portions were given to the Boston Architectural Center Library. Alternative building technologies, both the traditional handcrafts and applications of experimental systems, are often neglected.

Common commercial structures—gas stations, restaurants, motels, diners, automobile showrooms, shopping malls, and main streets—are omnipresent yet often undocumented. The buildings themselves have been championed by the Society for Commercial Archaeology, which actively promotes an appreciation for New England landmarks such as Boston's neon Citgo sign in Kenmore Square, the Hood milk bottle on Museum Wharf, and diners on Route 1. Such structures are increasingly the subject of serious study, most recently by University of Vermont Professor Chester Liebs. He notes that records of roadside buildings are sparse in the archives of their corporate sponsors and also lacking in photographic archives; the latter tend to focus on historic buildings and traditional main street views, avoiding the more disreputable strips on the outskirts of towns.[31]

Similar problems of documentation exist for large scale commercial development in parts of the region economically dependent upon tourism. Once accessible by train to the few during the nineteenth century, Cape Cod, Newport, the White Mountains, and the Maine coast are now accessible by interstate highway to anyone with a car. The popularity of skiing, water sports, sightseeing, hiking, and fall foliage has spawned its own architectural forms, from quaintly restored inns and souvenir "shoppes" to its newest creations: time-sharing condominiums, water slides, and discount outlets. Postcards provide visual documentation for the early and mid twentieth century; collections exist in historical societies and the archives of the Society for the Preservation of New England Antiquities. The Boston Public Library has an extensive collection, including original glassplate negatives from a local firm. A national archive of one million postcard images, 1889–1975, is maintained in Illinois,[32] but pictures of more recent developments are not readily available.

Industrial structures and engineering projects have fared somewhat better than roadside attractions, and the patterns of documentation resemble those of architecture. Sites include mills, factories, bridges, waterworks, generating plants, quarries, and mines. Vermont's wooden covered bridges, New England's textile mills, canals, coastal wharfs, and shipbuilding yards are a vital part of the region's past. Some Greater Boston engineering firms such as Ernest Branch (1840–), Stone & Webster (1889–), and C. T. Main (1893–), maintain records of nearly one hundred years of practice. Nineteenth century business records have been collected by institutional archives such as the Harvard Business School's Manuscripts Division, the Museum of American Textile History, and Special Collections at the University of

[31]Chester Liebs, *Main Street to Miracle Mile: American Roadside Architecture* (Boston: New York Graphic Society, 1985).

[32]The Curt Teich Postcard Collection, Lake County Museum, Lakewood Forest Preserve, Wauconda, IL 60084.

Lowell. Many engineering structures—bridges, roads, lighthouses—were constructed under government auspices, and their records remain with the commissioning agencies.

The federal government has also sponsored Historic American Engineering Records (HAER) since 1960. Modeled after the Historic American Building Survey (HABS) begun during the Depression, HAER conducts surveys of engineering sites, explaining industrial processes as well as the structures. Measured drawings, data sheets, and photographs are deposited in the Architecture, Design and Engineering Collection, Prints and Photographs Division of the Library of Congress, home of COPAR files and HABS records. By 1985, 110 New England sites, 10 percent of the total surveyed, had been documented.[33] Although mill buildings and factories are being saved and adapted for new uses, they are usually gutted to make way for high tech companies and fern-filled restaurants. The machinery and patterns of earlier industrial work disappear, making HAER photographs and drawings essential. Engineering structures have other advocates in the Society for Industrial Archaeology, with chapters in both northern and southern New England.

Landscape Design

Documentation for landscape design is less clearly defined than for architecture or engineering, reflecting the newness of the field itself. Like architecture before Bulfinch, landscape design was a gentleman's profession throughout the nineteenth century. In 1899, only eleven landscape architects were practicing in the United States, most working on municipal parks. There was no formal training until Harvard University began its landscape program in 1901. Until the 1960s, landscape designers remained more involved in creating new plans than in studying old ones.

Historical studies of the American landscape have lagged far behind architectural history and historic preservation. There are fewer opportunities for graduate study, a less developed methodology, and fewer research tools. For example, landscapes have been eligible for the National Register under the Historic Preservation Act of 1966, but comprehensive guidelines for eligibility are not available as they are for buildings. Efforts to lay the foundations for the study of the historic landscape have increased, however. The National Association for Olmsted Parks, a volunteer group dedicated to preserving Olmsted parks and their records, focused national attention on landscape records by lobbying successfully on behalf of the Frederick Law Olmsted site. During 1979 to 1981 the National Park Service purchased the grounds, buildings, and archives of Olmsted, the country's first landscape architect. Based in Brookline, Massachusetts, Olmsted designed the Boston park system as well as numerous other projects in New England and across the country.

In 1986 representatives from major institutions and professional organizations devoted to botanical, horticultural, and landscape studies formed a national counterpart to COPAR for landscape design. Based at the American Garden and Landscape History Program, Wave Hill, in the Bronx (New York), project staff collect information about the location and content of records that document American landscape and compile the *Catalog of Landscape Records in the United States*, a data base using the MARC AMC format. A network of volunteers will survey the field, focusing first on designed and managed landscapes,

[33]John R. Bowie, "Documentation of America's Industrial Heritage: The Historic American Engineering Records," *APT Bulletin* 17 (1985): 55. See also the *HAER Checklist, 1969–1985* (Washington, D.C.: National Park Service, 1985). Lists of holdings and essays on both HAER and HABS appear in *Historic America: Buildings, Structures and Sites* (Washington, D.C.: Library of Congress, 1983).

but ultimately including rural and vernacular landscapes as well.[34] Initial funding comes in part from the National Endowment for the Arts and the New York State Council on the Arts. The American Society of Landscape Architects assists through its regional chapters.

Within New England, plans for federal, state, and municipal projects may be found among the records of government agencies concerned with land and water management, such as the Metropolitan District Commission in Massachusetts and local park departments. Plans by firms, especially for private clients, are more difficult to locate. Records by the largest, most prominent, and long-lived, such as Olmsted and his successor firms (1858–1980), are the most likely to survive. The University of Lowell has a portion of the papers of Warren H. Manning, a founder of the American Society of Landscape Architects; and the Frances Loeb Library at Harvard holds the collections of landscape architects Charles Eliot, John C. Olmsted, and Arthur Shurcliff. Two major firms in Greater Boston, Sasaki Associates (Watertown) and Carol R. Johnson and Associates (Cambridge), have librarians to manage their archives. Again, most difficult to find are the records of small firms and single practitioners, or of nurseries and arborists, whose design work, like that of builders and contractors, is not being documented. While much of the work itself may be repetitive and derivative, samples of typical residential design would be valuable.

The landscape itself changes continually with or without the intervention of designers, planners, and managers. Farms are left fallow, forests reclaim fields, hurricanes and floods change coastlines, and forest fires destroy vegetation. The construction of bridges and roads disrupts open land and creates new patterns of use. Wilderness areas are transformed by trails for hikers, cross country skiers, and snowmobilers. In 1840 three-quarters of New England's acreage had been cleared for farming; today two-thirds is covered with woods.

The Changing View

Buildings, like landscapes, are not static. Office records, stock plans, and building department files document the original appearances of buildings, but none of these can explain what happens after construction. Quincy Market in Boston has been restored to its original design, but in the process Victorian gables, twentieth century alterations, and shop signs were destroyed. Boutiques and specialty shops fill the waterfronts of Salem and Newburyport, where greengrocers and fishmongers once sold their wares. Portland has resisted condominiums along its waterfront, but antique shops and restaurants now line the streets several blocks inland. Sometimes change is sudden and catastrophic, as when fire destroyed downtown Boston in 1872 and Portland in 1866; more often it is a gradual, evolutionary process.

Visual documentation is essential to trace the patterns of change over time, to place individual buildings within the context of their surroundings, to show interiors and how structures were used. Postcards, advertising art, and photographs in particular provide this type of documentation and are often collected by historical societies, which, however, tend to favor the "historical" and monumental. MIT professors Kevin Lynch and Gyorgy Kepes developed an appropriate methodology when they systematically recorded streetscapes in downtown Boston in 1951–1953.[35] The Rotch Library Visual Collections at MIT contains these photographs of Washington Street, Back Bay,

[34]For more information about the *Catalog of Landscape Records in the United States*, contact Wave Hill, 675 West 252 Street, Bronx, NY 10471.

[35]Kevin Lynch, *What Time Is This Place?* (Cambridge: MIT Press, 1972).

Scene in Manomet, Massachusetts, on Cape Cod, 1987. Photograph by Robert Bayard Severy; courtesy of the Society for the Preservation of New England Antiquities.

and Scollay Square, as well as slides of Boston neighborhoods, which have been placed on videodisc and indexed by computer. The Boston Athenaeum recently acquired the photographs of George Cushing, who documented the demolition of Boston buildings from 1940 to 1980 for his architect-clients. These all enrich architectural documentation.

The archives of the Society for the Preservation of New England Antiquities (SPNEA) has taken a special interest in preserving a record of New England's landscape and vernacular architecture, both interiors and exteriors. Its extensive holdings of visual material include photographs by amateur and professional photographers, postcards, snapshots, albums, prints, advertising matter, and illustrated trade catalogs; these span the period from 1850 until the 1930s.[36] Coverage includes all of New England, from its rural towns to its major cities, from intimate domestic settings to public buildings. It has been difficult, however, to acquire more recent photographs. Under present tax laws, photographers cannot claim a sufficient deduction for self-created works to make a charitable donation of materials worthwhile; at the same time, few acquisitions budgets are generous enough to reimburse photographers adequately. Fortunately some private individuals have made significant contributions without recompense. SPNEA, the Bostonian Society, and the Boston Public Library have benefited from the dedication

[36]Ellie Reichlin, *An Annotated Checklist of the Special Collections in the Library of the Society for the Preservation of New England Antiquities* (Boston: SPNEA, 1982).

and generosity of Robert Severy, who donates his photographs of streetscapes and buildings. He has created collections of photographs of Boston neighborhoods, the Harbor Islands, barns, garages, and most recently "Mom and Pop" stores.

Meeting the Needs

Much more needs to be done to record New England's built environment. Archivists need a documentation strategy that takes into consideration the records of architects and engineers, the less formal design sources for residences, and extensive visual documentation. Many of the early efforts in the field emphasized records in firms, institutions, and government agencies. These are indeed vital sources for the restoration of significant public buildings. They do not, however, provide a complete picture of the built environment. To collect the necessary photographs and plans, archivists will need to define and initiate appropriate documentary projects. Suitable topics could be disappearing farm land and coast, the rapid development of resort areas, the gentrification of blue collar neighborhoods, or the explosion of skyscrapers downtown.

Not all records warrant preservation, nor do all buildings need to be documented. If the anticipated use of the design records is later restoration and renovation, government files of as-built drawings and specifications such as those in the Massachusetts Department of Public Safety will suffice. When government records are secure, it is no longer necessary to preserve the records of all firms. Attention can focus on the records of architects who are leaders in innovative design and building technology. In these cases, the full range of project documentation would be desirable, including presentation drawings, sketches, design development, and correspondence. The records of the schools at MIT, Harvard, Yale, and the Boston Architectural Center should be preserved because their approaches have influenced generations of designers. Similarly, the records of professional organizations such as the Boston Society of Architects are historically significant. In contrast, plans for single-family residences are repetitive. Here it would be preferable to preserve the archives of manufacturers of prefabricated systems such as Acorn and Deck, suppliers of stock plans, and the shelter magazines rather than collect plans for every New England subdivision. Likewise, company archives of franchises should be encouraged to save their design records so that it is not necessary to document every local fast-food restaurant.

Visual documentation requires more innovative approaches because the records must be created as well as preserved. Local historical societies can be encouraged to document the contemporary scene as well as the past—for instance, by photographing areas and buildings that are being razed for development. Typical streetscapes are as important as "house portraits." Grant funds may be available for such projects. MIT and Rotch Library have received a grant from the National Endowment for the Arts to create a videodisc of images of the Boston suburbs. Some areas in a period of rapid growth, such as North Conway at the entrance to the White Mountains or Cape Cod, warrant similar studies.

In the 1980s, the extensive development of large cities, small towns, and rural areas continues unabated. The growth and prosperity of high tech industries continue to spawn office complexes in Connecticut, along Routes 128 and 495 in Massachusetts, in southern New Hampshire, and around Burlington, Vermont. Stamford and Danbury, Connecticut, for example, are no longer mere bedroom communities for New York City commuters but also business centers in their own right. Suburban traffic is a growing problem, as is the shortage of affordable housing in both cities and suburbs. Escalating real estate prices in Boston, doubling between 1982 and 1986, have

Boylston Street, Boston, 1987. An example of "facadism," which preserves only the shell. Photograph by Nancy Carlson Schrock.

caused developers to turn to Providence and southern New Hampshire. Business development creates pressure for housing, restaurants, and retail outlets in outlying open land. Older downtown areas remain vulnerable as out-of-state developers seek to replace earlier, smaller commercial buildings with large towers. Preservationists attempt to stop thoughtless expansion, but it is impossible to save all older buildings in the face of demands for profits and economic growth, especially when federal cutbacks restrict the activities of state historic preservation offices. Compromise can result in *facadism*, where the outer shell of an older building is saved as the front dressing of a multistory complex. The records of ensuing court cases and of organizations such as the Boston Preservation Alliance become part of the documentation of the battle to change the built environment. Drawings and photographs become the sole remains of some buildings and landscapes.

Changes are occurring within the architectural and engineering professions with the advent of computer-aided design (CAD) systems. Design decisions are made online rather than in sketchbooks, and their evolution becomes difficult or impossible to trace. Out-of-state firms are building some of the larger New England projects. I. M. Pei, for example, has been responsible for some of the major buildings in Boston and Cambridge, but his records remain in New York City.

New England has no regional archive to collect significant records of the built environment, provide information, coordinate acquisitions, encourage photographic documentary projects, and develop cooperative efforts. Yet it does have leaders in the field of architectural archives. In conservation, the Northeast Document Conservation Center (NEDCC) has developed techniques for treating large format drawings; the conservator at the Olmsted Site is researching treatment methods for blueprints, tracing paper, and other difficult media. SPNEA continues to add selected architectural holdings such as the photographic records of the Boston Transit Commission and the Boston Elevated Railway, and plans for suburban triple deckers. The guidance of a state body such as the Maine Historic Preservation Commission and the leadership of private institutions such as the University of Vermont Special Collections or the Maine Historical Society offer alternative approaches.

These approaches have been applied successfully to nineteenth and early twentieth century materials. The rate of change and the complexity and extent of development in the late twentieth century require a coordinated regional approach, encompassing a wider range of formats, a broader scope, and more aggressive collecting to document the continuing transformation of New England's built environment. But developing a regional program poses major challenges. A few regional organizations already exist; they could contribute expertise relevant to architectural archives from their specialized points of view. For example, the Society of Architectural Historians (SAH)/New England regularly includes talks about architectural records projects in its programs; it also raised funds to begin work on the Peabody and Stearns preservation project prior to receipt of the NEH grant. AIA chapters should be asked to contribute to archival projects, especially since architects benefit from archives as a source for older drawings needed during rehab work and as a source for advice for handling their own firms' archives. For example, the Boston Society of Architects, an AIA chapter, contributes $500 annually to Mass COPAR. NEDCC might sponsor workshops specifically targeted at the conservation of architectural drawings, expanding upon the introductory workshops of Mass COPAR. New England Archivists could include topics on architectural records more frequently at its semiannual conferences, while the Art

Libraries Society (ARLIS)/New England might present more programs on architectural topics for visual collections librarians. Since SPNEA is the major institution collecting architectural and visual materials for all six states, it might be the appropriate convenor of a discussion of regional collections policy.

Coordinating acquisitions policy is one of the most crucial issues given the size and quantity of architectural records. If the University of Vermont Special Collections has an extensive photographic collection of roadside architecture, is it necessary to build comprehensive collections in other states? If one institution collects material on post-World War II industrialized housing, this may be sufficient for New England. Similarly, resources in one state can provide crucial documentation for its neighbor. For example, the Peabody and Stearns Collection in Boston has extensive sets of drawings for Newport mansions. In some instances, the solution is sharing material through microfilm or videodisc rather than duplicating holdings. Appraisal decisions for one state should not be made in a vacuum.

The problem is not finding the expertise to tackle problems of architectural documentation but rather developing a mechanism for defining documentation needs, sharing information, and coordinating acquisitions in the absence of a single regional repository. Mass COPAR may provide the most effective model for a cooperative approach because its members span a range of disciplines, linking the creators of architectural records with the collectors, managers, and the users of those records. Its volunteer network, though informal, has developed programs to meet the demands of members for specialized information, modestly funded by sales of its offset publications, and also serves as a resource to the public and institutions needing advice. A New England COPAR could link Mass COPAR with its counterparts in the other five states and western Massachusetts. Initial grant funds might be necessary to underwrite travel expenses for the first meetings to assure full participation. As with previous efforts in the field, its success would depend upon the initiative and persistence of individuals committed to the ideal of preserving architectural records and interested in tangible benefits from coordinated efforts. Just as building developments multiply and ignore state boundaries, so too must architectural documentation adopt a more aggressive and regional approach if a record of the New England environment during the twentieth century is to exist for the future.