

# NATIONAL ENDOWMENT FOR THE HUMANITIES



## SAMPLE APPLICATION NARRATIVE

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### Stabilizing Humanities Collections Institution: The Strong Museum

#### Project Summary

Strong Museum is constructing a new environmentally controlled 37,000 square-foot collections care unit as part of a \$26 million expansion project. The addition will include a 24,145 square foot storage area that will house the majority of the collections, and additional space (12,855 square feet) will incorporate facilities for artifact conservation, study, processing, and management. Strong Museum respectfully requests a Preservation and Access Grant from the National Endowment for the Humanities in the amount of \$850,000 to be matched in excess of 1:1 by the museum in order to: 1) purchase and install appropriate storage equipment in the new collections storage area; 2) support activities to move, reorganize and rehouse artifacts that will be moved to the new collections storage area from four separate locations; and 3) uncrowd, reorganize and rehouse with inert materials artifacts that will remain in existing environmentally controlled collections storage space. These activities will take place over the 3-year period 2002-2005.

Strong Museum's collections number approximately 500,000 items and reflect everyday American life (especially family life) and national consumer culture in the 19th and 20th centuries. These collections are widely recognized as nationally significant because they are both comprehensive and "usual." They include: 1) the world's largest and most historically important collections of *dolls* and *toys*; 2) the nation's largest collections of *home crafts* such as samplers, quilts, and button art, and *souvenirs*; and 3) collections of *miniatures*, *home furnishings*, and *advertising images* that rank among the nation's most comprehensive and nationally significant. The collections also include clothing, personal accessories, furnishing textiles, prints, paintings, sculptures, photographs, postcards, greeting cards, menus, sheet music, games, and sporting equipment. A 60,000-volume research library supports the collections. Of the 500,000 artifacts in the collection, approximately 20,000 are on view in public areas of the museum, and approximately 480,000 objects are in "closed" storage.

Strong Museum currently utilizes three secure, on-site areas for storage of the majority of the 480,000 artifacts not on public view. Only one of these storage areas – Room 340, also the largest on-site space (approximately 13,000 sq.ft.), is humidity controlled. In addition, the museum annually leases space in an off-site warehouse for storage of approximately 400 oversized, less vulnerable artifacts, although the museum has not been satisfied with the environmental conditions in this space. Within the current storage configuration, Strong Museum faces the following challenges: overcrowded storage spaces; inadequate and, in some cases, inappropriate storage equipment; the need to rationalize and reorganize collections; and poor environmental conditions, especially at the warehouse.

Given our pending expansion, Strong Museum now has a unique opportunity to address these ongoing challenges. Upon completion of the expansion, the museum will have an additional 20,500 sq. ft. of storage space that will include 24,145 sq. ft. in the new collections care unit and 13,000 sq. ft. in existing Room 340. More importantly, with compact storage equipment in these spaces, we will improve the storage conditions for all of the collections. The collections will be reorganized and become less crowded, and they will be more accessible for research, study, and preservation.

The museum's experienced and knowledgeable conservation, curatorial, and registrarial staff will be responsible for inventorying, moving, and reorganizing the collections into their new storage spaces. We will also hire a move assistant, dedicated to this project, in order to complete the work within the prescribed timeframe. Strong Museum's chief of conservation will serve as the project's move coordinator.

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**PH-20987, Strong Museum**

**4. PROJECT NARRATIVE**

**A. SIGNIFICANCE**

**The Request**

As part of a \$26 million museum expansion project slated for completion in 2005, Strong Museum is constructing a new 37,000 square-foot collections care unit, which will include 24,145 square feet for artifact storage. The remaining space in the unit (12,855 square feet) will incorporate spaces for artifact conservation, processing, and management (See Appendix A, Collections Care Unit Floor Plan). Strong Museum respectfully requests a Preservation and Access Grant from the National Endowment for the Humanities in the amount of \$850,000 to be matched in excess of 1:1 by the museum in order to: 1) purchase and install appropriate storage equipment in the new collections storage area to ensure the long-term preservation of the artifacts; 2) support activities to move, reorganize, and rehouse artifacts to the new collections storage area from four separate locations; and 3) uncrowd, reorganize, and rehouse with inert materials artifacts that will remain in an existing environmentally controlled collections storage space. These activities will take place over the 3-year period 2002-2005.

**Mission**

Strong Museum is a museum of American cultural history, an educational institution that explores and interprets everyday life in America after 1820 in order to help people in and beyond Greater Rochester better understand themselves and each other, individually and collectively. The museum accomplishes this through exhibitions, programs, publications, and other activities that engage, enlighten, and entertain the people of its diverse community, particularly families and children. To support these activities, the museum collects, preserves, and researches historic artifacts, manuscripts, and other materials that reflect and document the consequences of progress, the effects of the rise of the middle class, and expressions of identity in the northeast and Great Lakes regions.

Strong Museum is unparalleled in the United States. By successfully blending the best features of traditional collections-based history museums with the best features of children's museums, Strong has created a new kind of community-based, family-focused learning place. While there are other museums in the Rochester area, in the region, and across the country, none of them is offering the collections-based, history-oriented experience for families and children that Strong Museum provides.

Strong Museum has become widely known for: world-renowned collections; dynamic, interactive, hands-on learning environments; outstanding school curriculum based on New York State Learning Standards and the Theory of Multiple Intelligences, which recognizes the many ways students learn; interpretive programs that bring families and children together around topics of historic significance and contemporary relevance; unique outreach programs that provide museum access to families in need of financial assistance; and guest-friendly amenities including a distinctive frontline corps of Disney-trained guest relations hosts.

**Institutional History**

Strong Museum is the legacy of Margaret Woodbury Strong, a prolific collector of everyday objects. When she died in 1969, she left her collections and most of her assets for a museum. In 1972, her executors formed a Board of Trustees and hired a director. Because most of the collections were consumer goods manufactured between 1820 and World War II, the museum decided initially to focus on everyday life and ordinary people prior to 1940.

The museum began on the Strong estate. Robert Chenhall and other museum staff originated *Nomenclature for Museum Cataloging*, now a nationally recognized and used classification system for human-made artifacts. Curators cataloged, culled, and added collections, and pioneered the concept of open storage as “study collections.” Educators commenced planning public programs. Because the Strong mansion and grounds could not meet zoning regulations and professional standards for a museum, the board selected a downtown site for a new building. The museum opened to the public in October 1982.

In 1987 the museum hired its current president and CEO, G. Rollie Adams, Ph.D. Since then, the museum has refined and enlarged the collections, revised *Nomenclature*, restructured financial management, engaged in ongoing systematic strategic planning, refined internal policies and procedures, implemented quality management techniques, adopted a team-based “boundaryless” organizational structure, broadened marketing and development efforts, evolved interpretive programs, created a model guest services program, conducted its first capital campaign and expanded the facility (1997), repositioned itself in the community, and experienced significant, ongoing growth in admissions, memberships, school enrollment, and outreach activities.

Notably, as a consequence of our first strategic plan, in 1989, the museum eliminated the end date set earlier for its collections and began judiciously acquiring post-1940 artifacts. In the late 1980s our curators, historians, and educators defined and ascribed importance to specific humanities themes such as rites of passage, communication, entertainment, religion, immigration, abolition, and reform, among numerous others, and assessed the strengths, weaknesses, and overall significance of the collections with respect to each. This analysis resulted in: 1) formal, written collecting goals, which we now review and update regularly, and 2) a formal *Framework for Interpretation* (1992). This document explicates the museum’s three main research and interpretive interests – the consequences of progress, the effects of the rise of the middle class, and expressions of identity – and defines topics useful for explaining material culture, developing exhibits, devising educational programs, and identifying future collecting goals. Further, in 1998, as a consequence of continued evaluation and planning, the museum reaffirmed this thrust and refined the institutional mission to focus on helping “people understand themselves and each other, individually and collectively.”

### **Strong Museum’s Collections**

Strong Museum’s collections number approximately 500,000 items and reflect everyday American life (especially family life) and national consumer culture in the 19th and 20th centuries. These collections are widely recognized as nationally significant because they are both comprehensive and “usual.” They include 1) the world’s largest and most historically important collections of dolls and toys; 2) the nation’s largest collections of home crafts such as samplers, quilts, and button art, and souvenirs; and 3) collections of miniatures, home furnishings, and advertising images that rank among the nation’s most comprehensive and nationally significant. The collections also include clothing, personal accessories, furnishing textiles, prints, paintings, sculptures, photographs, postcards, greeting cards, menus, sheet music, games, and sporting equipment. A 60,000-volume research library supports the collections. The artifacts in the collections embody, illustrate, illuminate, preserve, and enable understanding of the attitudes, beliefs, values, customs, tastes, and traditions that Americans have held individually and collectively over the last two centuries and have passed, or are in the process of passing, to subsequent generations through various means. In short, these very personal, everyday artifacts of the past – once common and now rare because of their ephemeral physical nature – help Americans to understand who they are and who they believe they are and why.

These materials range from 1820 to the present. The greatest concentration is 1870 to 1940, but due to our recent emphasis on American popular culture and contemporary social issues, our collection of post-1940 artifacts is growing significantly, under carefully developed guidelines. We collect and document typical,

popular, and representative items and their derivative “lineages” across time. Today about 30% of the collection consists of materials acquired after the founder’s death in 1969.

The collections allow us to explore a broad range of topics including literacy, numeracy, diversity, families, gender bias, prejudice, health, environmental history, self-expression, creativity and imagination, and change over time, among many others. Due to the sheer volume, the greatest concentration of the collection is inaccessible to the public and is housed in closed storage – in three locations on site and one location off site. Approximately 15,000 of the museum’s approximately 500,000 objects are on view in “study collections” on the museum’s second floor (20,000 sq. ft. of display space), and about 5,000 more are on view in highly interactive interpretive exhibitions located on the museum’s first floor (33,000 sq. ft. of gallery space).

## The Scope and Significance of the Collections

### Recreational Artifacts

Strong Museum’s recreational artifacts collection of approximately **67,000 artifacts** includes dolls, dollhouses, miniatures, toys, games, and sporting equipment. A much-heralded resource for scholars and collectors, the recreational artifacts collection attracts researchers such as Gary Cross, author of *Kid Stuff: Toys and the Changing World of American Childhood* and Miriam Formanck Brunell, author of *Made to Play House: Dolls and the Commercialization of American Girlhood*. Because dolls, toys, and sporting equipment strike a familiar note with museum guests, these collections serve as a particularly engaging and entertaining conduit for historical interpretation.

### Dolls

The museum’s collection of approximately **15,500 dolls** constitutes **the largest, most comprehensive doll collection in the United States**. (Strong Museum Survey 1998). The doll collection is significant for its extraordinary range of different types of dolls, and for its depth or variation within each type. For example, the doll collection contains more than 150 different examples of dolls made by French doll maker Jumeau and Co.; most museums consider themselves fortunate to acquire one such doll. The collection includes dolls that have not typically survived such as 17<sup>th</sup>- and 18<sup>th</sup>-century play dolls and crèche figures. Among the treasures in the collection are a Rouchard doll, patented in 1867 and 1868 featuring “stanhopes” or tiny glass lenses that encase miniature photographs embedded in the doll’s shoulder plate, and a rare A. Marque character doll, France ca. 1917.

In addition to exquisite examples by Europe’s premier doll manufacturers, the collection includes simple handcrafted dolls, created by anonymous seamstresses and woodcarvers; mass-produced American dolls spanning the entire 20<sup>th</sup> century; and a comprehensive assemblage of paper dolls, both made at home by children and adults, and mass produced by printers. The collection also includes fashion dolls – figures dressed to convey adult clothing styles. Fashion dolls retaining their original costumes are especially important because the dolls document the dissemination of foreign fashions and their adaptation in the United States, the use of clothing as personal expressions of identity and class, while offering insight into the dressmaking and millinery trades.

The dolls speak directly to American family and domestic life of the last three hundred years. They reveal how Americans’ attitudes toward children changed over time and suggest how children learned cultural values, social behaviors, and gender roles. The doll collection traces patterns in mass consumption and trends in popular culture. The collection also documents technological innovation and the introduction of new materials in doll production.

Academicians acknowledge Strong Museum's doll collection as *the premier collection* of material culture relating to childhood that must be examined in any scholarly work on this subject. Doll experts such as Dr. Susan Robinson, acting director of the Bethnal Green Museum, a division of the Victoria and Albert Museum in London (and the United Kingdom's premier museum of childhood); Barbara Spadaccini-Day from the Musée des Arts Décoratifs, Musée de Louvre, Paris; and other experts and collectors make Rochester, New York, and Strong Museum their destination because of this collection. Even the Smithsonian Institution's National Museum of American History regularly refers its doll inquiries to Strong Museum.

### **Dollhouses and Their Furnishings**

The museum's collection of more than **250 dollhouses** range from the finest works wrought by European and American cabinetmakers to mass-produced pieces made from shipping crates and distributed to working-class Americans as premiums. Examples include urban, rural, suburban, and commercial structures, modeled after existing buildings. Other artifacts represent architectural styles once commonly seen in the United States. The "Mystery" dollhouses, so named because their origin is unknown, are the most renowned dollhouses in the collection. Sold by F.A.O. Schwartz in the 1870s, this monumental dollhouse is recognizable by its unique architectural features and the extraordinary detail in construction and décor. Few examples survive today. Strong Museum has three "Mystery" dollhouses on view for our guests.

The collection of approximately **20,000 miniatures**, comprised primarily of **dollhouse furnishings**, duplicates the architectural, technological, and stylistic developments of the adult world. The miniature collection offers insight into different concepts of play and documents the socialization of both American children and adults.

### **Toys and Games**

Strong Museum is home to the **largest, most comprehensive toy collection in the United States**. This collection of playthings, excluding dolls, consists of approximately **30,000 toys** and spans the history of toy manufacturing from the earliest handcrafted wooden figures of the 18<sup>th</sup> century to today's mass-produced, mass-consumed playthings. The collection is extraordinary for the numerous types of toys including transportation toys, Noah's Arks, fire wagons and other fire-fighting toys, toy soldiers, marbles and carpet bowls, marionettes and puppets, toy theaters, play sets, optical toys, housekeeping toys, educational toys, miniature tea sets, dishes, stuffed animals, mechanical toys, banks, and card and board games for adults and children.

The toy collection documents the work of leading craftsmen, such as William S. Tower, one of the first American toy makers; Charles Crandall, who specialized in educational toys during the 1870s; and Louis Marx, the first American to mass produce inexpensive toys for average families. Contemporary toys represent today's major makers, such as Hasbro and Mattel.

### **Sporting Equipment**

Strong Museum is developing the recreational artifact collection to incorporate **sporting and exercise equipment**, which now numbers approximately **400 artifacts** including roller, ice, and in-line skates; bicycles; skis; sleds and toboggans; exercise bikes; rowing machines; and work-out tapes. This collection speaks to America's obsession with sports and physical culture from the 19<sup>th</sup> century through the present day. Recent acquisitions include well-provenanced soapbox derby cars, free weights, a Thighmaster, and a baseball bat, purchased initially around 1877 for a young boy, who as an adult used his childhood toy to teach his young daughters the national pastime.

## Documentary and Advertising Artifacts

Approximately **126,000 documentary and advertising artifacts** illustrate and inform humanities-related themes such as ethnicity, family life, rites of passage, diversity, tourism, humor, gender roles, racism, popular entertainment, education, religion, urbanization, sports, science, and futurism. The earliest known manuscript of the American classic “A Visit from St. Nicholas,” penned and signed by Clement C. Moore in 1822, is one of the most significant artifacts in this collection. Only three other and later manuscripts are extant.

The collection contains approximately **18,500 advertising artifacts** (banners, trade cards, posters, and display pieces) and a subcollection of 300 promotional posters for theater and vaudeville productions including those for vaudeville performer Joseph Hallworth (known professionally as Prince Kami). In counterpoint to 19<sup>th</sup>-century advertisements for morphine, opium, cocaine, patent medicines, and miracle cures, the collection includes 52 artifacts documenting illicit 20<sup>th</sup>-century drug use that were acquired for *Altered States: Alcohol and Other Drugs in America*, an original Strong Museum exhibition tracing the history of substance use in the United States. These artifacts represent a subject not generally collected by museums.

Approximately **11,000 photographic artifacts** (photographic prints, stereoviews, and glass plate negatives) represent commonly used forms such as daguerreotypes, tintypes, ambrotypes, cartes-de-visites, and today's digital images. These include images created by amateur photographers enjoying a leisure-time pursuit and by professional photographers operating in studios. Family portraits, interior and exterior domestic views, occupational portraits, and holiday and vacation scenes emphasize the everyday life of average Americans.

More than **100 glass plate negatives** produced by Rochestarian Grace Sneek, an amateur photographer of considerable expertise, document the daily activities of her only child between 1904-1910 along with accepted childcare practices and holiday celebrations.

The Walter Johnson collection of postmortem photography consists of more than **1,000 images documenting American mourning customs** from the 1840s to the 1970s. The Johnson collection is one of the nation's best resources for this topic. Dr. Grant Romer, director of museum practices and conservation at the International Museum of Photography and Film at George Eastman House in Rochester, stated in his 1985 assessment of the Johnson collection, “There is no collection in an institutional setting which can compare with the collection that Mr. Johnson created.” Scholars and grief counselors across the United States, Canada and, most recently, France, have used this collection for research and exhibitions.

The documentary artifact collection encompasses approximately **35,000 additional ephemeral objects**. These artifacts include a variety of personal artifacts that capture the details of everyday life, including announcements, bumper stickers, calling cards, diplomas, emigration papers, greeting cards, handbills, invitations, journals, letters, menus, postcards, quarantine signs, rewards of merit, sheet music, tickets, union cards, valentines, working papers, and yearbooks. A rich source of information and graphics, these artifacts support virtually every exhibition mounted by the museum.

## Art

Strong Museum collects works of art that document everyday life in the United States or that document historical trends or themes. The art collection contains approximately **3,000 paintings, assemblages, and sculptures**, and approximately **13,000 prints**. This collection strikes a balance between the extraordinary, such as paintings by Winslow Homer, and the ordinary, such as paintings by amateur artists who engaged in painting as a leisure-time pursuit and as an expression of identity. Of special interest are four paintings by Homer including “The Last of the Harvest,” large-scale etchings such as “Eight Bells,” and more than 352

other prints. The museum's Homer collection presents a complete picture of the popular images seen, recognized, and appreciated by the American populace, both in the 19<sup>th</sup> and 20<sup>th</sup> centuries. Of national and international import is a volume of Michel Eugene Chevreul's *Law of Contrast on Color* (1859) into which Homer penciled his own theories and observations on color and painting. These volumes, along with selected pieces of the museum's collection of Homer's artwork, have appeared in major exhibitions throughout the country including the National Gallery of Art in Washington, D.C. Art historian and Homer scholar David Tatum stated, "The museum's holding of 352 of the wood engravings makes it one of the most comprehensive in the United States. Along with the museum's near-complete collection of Homer's etching (impressions that the artist himself owned), its paintings by Homer and the collection of books once owned by Homer (by far the largest surviving part of his library) make Strong Museum a major center for the study of the artist."

Another outstanding painting in the museum's art collection is Thomas Nast's masterpiece, "A Jolly Good Fellow." Painted in 1874, this large, full-figure portrait of St. Nicholas helped formulate America's imagery of Santa Claus. This painting, along with about 170 Nast cartoons, offers a unique view of popular culture and its classic images, such as Uncle Sam, the Republican elephant, and the Statue of Liberty.

Strong Museum owns the largest known collection of the works by Harvey Ellis, influential architect and leading proponent of the Arts and Crafts movement. These include 41 paintings, 85 drawings, and a number of prints and works in mixed media. Hailed as a genius by contemporaries, Ellis was, according to architect F.W. Fitzpatrick, "the cleverest designer of his day." His work on skyscrapers and Romanesque design influenced countless architects and extended his impact on architecture from Upstate New York throughout the Midwest. He was also a painter and founded the Arts and Crafts Society of Rochester, the second earliest organization of its kind in the country. Ellis taught at Rochester's Mechanics Institute, now Rochester Institute of Technology, and articulated his theories in articles published in 1902. Later, he designed furniture and decorations for Arts and Crafts furniture maker, Gustav Stickley and edited Stickley's *I The Craftsman* magazine. The museum's collection of Ellis's artwork ranges from early pencil sketches from his West Point school days to watercolors of Rochester around 1900, architectural renderings, and designs for murals and interior decoration.

Strong Museum owns the only known collection of artwork by Arts and Crafts artist M. Louise Stowell. This collection includes 55 paintings, 18 drawings, 3 sketchbooks, and 31 teaching scrapbooks. Stowell studied under Arthur Wesley Dow and was the first woman to teach art and sculpture at the Rochester Athenaeum and Mechanic's Institute in the 1890s. Stowell is significant both as an Arts and Crafts artist and as a woman recognized by the art world for her artistic talent and contributions during the late 19<sup>th</sup> century. As a teacher, Stowell influenced many important artists in the early 20<sup>th</sup> century, including Ada Howe Kent, Charles Livingston Bull, and Claude Bragdon. American and Canadian scholars have visited Strong Museum for the sole purpose of working with the Stowell and Ellis collections. Art museums frequently request loans of Ellis and Stowell artwork.

## Home Furnishings

### **Furniture**

Strong Museum "owns one of the largest and most diverse collections of 19<sup>th</sup>- and early 20<sup>th</sup>-century furniture in the nation." (Author and furniture historian William Ketchum, *The Collections of the Margaret Woodbury Strong Museum*, 1982). The furniture collection consists of approximately **11,000 pieces of furniture, timepieces, and other artifacts relating to home life** dating between 1820 and the present. In forming and augmenting this collection, we emphasize documented and provenanced objects.

The articles of furniture and timepieces in this collection document the work of more than 357 cabinetmakers, clock makers, and furniture manufacturers operating in major regional centers such as New York, Philadelphia, Boston, and Baltimore. Among the rare artifacts in the collection is a Porter contract clock, one of the first timepieces made by Eli Terry, ca. 1807, using powered machine tools. Only a handful of these clocks, which heralded America's industrial revolution, are known to exist. Other furniture and clock makers represented in the collection include legendary urban craftsmen such as George Henkle, Alexander Roux, Charles Boudoine, Leon Marcotte, Edward Hennesey, Ernest Hagan, Daniel Papst, John Henry Belter, Joseph Meeks, Potier and Stymus, Chauncy Jerome, and Bishop and Bradley. These and other craftsmen set the styles followed by firms that mass produced furniture for Americans of average means. That "middling" level of furniture forms the bulk of the collection made by firms such as Heywood Brothers and Company, Gardner Chair Company, E. W. Vaill, Charles Robinson, Paine Furniture Company, Boston Furniture Company, White River Chair Company, and Buffalo Furniture Company. Midwestern furniture manufacturers that mass produced furniture in large powered factories for middle class consumers are also represented in the collections including Cincinnati's Mitchell and Rammelsburg; Chicago's Shop of the Crofter, Storkline, and Karpen Company; and Grand Rapid's Berkey and Gay, Nelson, Matter and Company.

In contrast, the collection contains many objects made by traditional craftsmen working in small shops such as Thomas Robertson of Philadelphia; Amariah Prouty of Glens Falls, New York; and Frederick Starr of Rochester. The collection also includes objects made by amateur craftsmen who supplemented their households with their own handicrafts. These and other collections trace the patterns of American home life and illustrate numerous themes related to design, social life, technology, economics, and emigration.

Providing a sharp contrast to the mass-produced object is a ca. 1865 parlor cabinet by the French émigré craftsman and entrepreneur, Alexander Roux. Described by furniture historian Oscar Fitzgerald in *Three Centuries of American Furniture* as "the grandest of the three known cabinets of this type made by the New York cabinetmaker," this cabinet, along with other examples of "high style" furnishings, allows the museum to explore the impact of immigration, trade, and foreign design and its interpretation upon American consumer culture.

The museum is expanding its collections of post-1940 furniture that reflects modern design, use of non-traditional materials, and changes in American lifestyles. Recent additions include a 1970s dining room suite modeled after a Joe Colombo design, a cardboard chair for college students, fiberglass and plywood chairs designed by Charles Eames and manufactured by Herman Miller, and 1960s TV trays.

Special subcollections of furniture include **81 pieces of patented furniture**, attesting to the ingenuity and inventive spirit behind American furniture production, particularly after 1860. The Hunzinger collection consists of 19 pieces of furniture by George Hunzinger and Son, a major supplier of mass-produced furniture after 1867. The Hunzinger family papers reside in the museum's library, along with the business records of Boston's Davenport Furniture Company, one of the largest and most distinguished furniture firms of the late 19<sup>th</sup> and early 20<sup>th</sup> century. The museum also holds the business records of the Aeolian Piano Corporation, the largest piano maker in the world by 1932. Steinway, Chickering, and Mason and Hamlin were grouped under the Aeolian aegis. The records date from the 1840s, and include ledgers, shipping documents, piano patents, trade catalogs, and photographs.

The furniture collection is especially known for the **91 examples of Arts and Crafts furniture** made for middle-class homeowners by manufacturers such as Gustav Stickley, Roycroft Shops, L. and J.G. Stickley, Charles Stickley, Toby Furniture Company, Shop of the Crofters, Quaint Furniture Company, Household Art Company, Charles Rohlf, Limbert Arts and Crafts Furniture Co., and their anonymous imitators. Together with objects from the art, housewares, and household accessories collections, these artifacts present a comprehensive view of this important movement for social reform.

In addition to furniture and timekeeping pieces, the furniture collection also encompasses **other artifacts related to home life**. These include musical instruments, tools for home maintenance such as washing machines and paintbrushes, plumbing equipment such as bathtubs, and textile-working tools such as sewing machines. In addition, the museum owns a comprehensive collection of cast-iron garden furniture and ornaments, architectural elements, and selected examples of transportation vehicles. These artifacts, together with the collections of furnishing textiles, housewares, art, and recreational artifacts, present an encyclopedic resource for the study of 19<sup>th</sup>- and 20<sup>th</sup>-century American life.

### **Furnishing Textiles**

The furnishing textiles collection consists of approximately **3,000 artifacts** including: bedding (quilts, coverlets, sheets), floor coverings (rugs, carpets), window and door coverings (curtains, shades, portieres), toilet articles (towels), food tools and equipment (tablecloths, napkins), transportation accessories (lap robes, hides), household accessories (runners, table covers, pillow covers, valances, lambrequins), and artifact remnants (cloth, fringe).

This collection exemplifies the changes that occurred within the American home during the 19<sup>th</sup> and 20<sup>th</sup> centuries, particularly resulting from the Industrial Revolution, growth of leisure time, the rise of the middle class, and the employment of women outside the home. The museum owns provenanced, hand-spun and woven linens and coverlets made between 1800 and 1860, representing traditional weaving patterns, forms, and techniques. The museum also acquired early examples of provenanced sheets and pillowcases made from machine-processed, -spun, and -woven cotton. The Sharp-Blackburn collection, a subcollection of textiles used by three generations of a Philadelphia family from 1800 to 1880, shows this transition from homespun to factory-made, along with subsequent changes in housewifery practices, necessitated as factory-produced cottons replaced linen fabrics.

The furnishing textiles collection is remarkable for its diversity of forms that illustrate technological innovation and changing patterns of consumption and aesthetics. It includes jacquard coverlets commonly made throughout the Northeast and Midwest. It also includes a great assortment of jacquard table covers, sofa throws, portieres, tablecloths, napkins, and other items, demonstrative of how textiles, once the most precious of furnishings, became affordable and available for average Americans. This is particularly evident in the collection of **200 ingrain carpet sections, the largest collection of its type**. Ingrains are inexpensive carpeting mass-produced for middle and working class Americans, commonly used between 1840 and 1910. Because ingrains were not durable and not considered "special," there are virtually no other collections of this type and extent.

### **Home Crafts**

Strong Museum owns **the nation's largest collection of home crafts, approximately 35,000 artifacts** that illustrate how Americans spent their leisure time. Ironically, technological innovation lowered the costs of textiles and provided middle-class consumers with more leisure time to hand craft useful and ornamental objects. Home crafts and hand crafts are copiously represented by this collection, which includes intricate quilts, hooked rugs, hand painted and embroidered valances, lambrequins, tea cozies, wall pockets, cushions, pillow covers, table mats, antimacassars, doilies, runners, and scores of other types of artifacts. In fact, these hand-made objects, dating from the 1820s to the present, when combined with the museum's other collections, constitute perhaps one of the most significant collections of home crafts in America. These objects offer insight into customs now obsolete, cultural awareness of new ideas, changing values, and other humanities-based concepts.

## **Housewares**

Housewares is a user-friendly term Strong Museum employs to describe typical household furnishings. This collection includes **23,000 representative examples of objects commonly found in the American home** from 1820 to the present, for utilitarian and ornamental purposes, including glassware, ceramics, and metalwork for dining and implements of all description for cooking, storing, preserving, and presenting food. Lighting devices trace the evolution from lard lamp to lava lamp, while household accessories such as ashtrays, vases, and fairings (inexpensive ceramic figures given away as premiums), illustrate the fads and fashions that captured America's interest. This collection also houses artifacts related to communication, from traditional written tools, such as pens and typewriters, to today's computers and word processing software. Music boxes, phonographs, record players, and tape decks represent different technologies for sound communication. Radios, telephones, and televisions demonstrate how telecommunication transformed American homes. **Holiday-related materials** are growing significantly and enable the museum to thoroughly explore popular culture surrounding Christmas, Hanukkah, Kwanzaa, The Feast of the Three Kings, Valentine, St. Patrick's Day, Easter, Fourth of July, Halloween, Thanksgiving, and other celebrations.

The housewares collection includes an outstanding assortment of transfer-printed ceramic tablewares. A manufacturing process developed in 1756 made decorated tablewares affordable to almost every American. These ceramics include what many collectors and scholars call Staffordshire and Flow Blue china. The museum's subcollection of Flow Blue china grew as a result of donations made by expert and author Petra Williams, who published numerous books that document every known pattern. This **2,800-item collection of almost 1,200 transfer-printed patterns** illustrates the range and scope of production of these tablewares while offering insights into designs that found favor with the American populace. Made mostly in England, these dishes were so commonplace in the United States that archeologists use the shards to benchmark and date archeological sites. Even with new styles and technologies in ceramics, transfer-printed patterns like "Blue Willow" remain staples in today's tablewares market.

Housewares also encompass approximately **20,000 souvenirs**, including the largest collection of sailors' valentines in a public museum. Contrary to its name, the sailors' valentine was not crafted by seamen on ocean voyages, but by islanders in the West Indies between 1830 and 1900 who sold the intricate, framed shell pictures to sailors and tourists alike. The **55 sailors' valentines** include examples with photographs of their purchasers. In addition, the museum owns more than **500 other examples of shell work** produced as souvenirs. These include picture frames, trinket boxes, "whimsies" (assemblages under glass domes), and a unique and intricate shell-sorting box for collectors. Housewares contains many other artifacts created and sold as souvenirs such as mirrors, matchesafes, ashtrays, tooth pick holders, salt and pepper shakers, mugs, trinket boxes, glasses, plates, vases, paperweights, inkwells, pens, and penwipers. These artifacts help the museum explore themes of leisure, nostalgia, memory, travel, as well as documenting popular destinations and pastimes.

## **Clothing and Accessories**

The **clothing collection** represents major stylistic trends influencing middle-class dress from the 1820s to the present and includes approximately **11,000 artifacts**. Clothing is a particularly potent medium for non-verbal communication and studying social history, and one that strikes a particularly responsive note with museum guests. Because of the intensely personal nature of these artifacts, guests often connect to clothing in ways they cannot connect to other artifacts. The museum is developing this collection to reflect everyday dress, with emphasis on identity, ethnicity, work, leisure and recreational activities, and mass consumer culture. We are also expanding our collection of roughly **1,000 pieces of children's clothing** and to establish the definitive collection of children's wear, from birth to adolescence. Together with the other collections (dolls, toys, child-care objects, table wares, high chairs, cradles, standing stools, baby carriages),

this collection will constitute the finest, most comprehensive body of material culture for study of child-rearing practices, family life, and the rites of passage associated with childhood and adolescence.

### **Buttons**

Strong Museum has the largest, most diverse button collection held by an American museum. (Strong Museum survey, October 1999). **Numbering more than 150,000**, the objects in this collection date between 1780 and 1970 and consist of individual buttons, trade cards, trade catalogs, and assemblages of buttons, such as button strings, banners, cards, and pictures created by 20<sup>th</sup>-century collectors and hobbyists. This collection represents all types, styles, materials, and manufacturing techniques for this medium, from those buttons made by hand in preindustrial days to mass-produced examples, like "calicos," which imitated more costly hand-painted china buttons. Though ubiquitous today, buttons were once clear indicators of gender, class, identity, occupation, and trading practices. Buttons also illustrate many of the subjects coursing through the popular culture of the 19<sup>th</sup> and mid-20<sup>th</sup> centuries, bearing images of American heroes and heroines, favorite actors and actresses, scenes from fairy tales, operas, popular books and plays. Buttons record new inventions such as the automobile and the telephone, and stylistic trends of the day. During the 19<sup>th</sup> century, as manufacturers sought to produce large quantities of buttons for a burgeoning population, buttons became the subject of numerous patents and innovative manufacturing techniques. Because Rochester was one of the nation's four button manufacturing centers, this collection has regional and national significance. This area of material culture has not received the scholarly research it requires and few museums collect in this area. The breadth and depth of Strong's button collection make it a particularly valuable resource for study of clothing, technology, trade, and popular culture.

### **Relationship of Strong Museum Collections to Other Museum Collections**

Strong Museum is one of only three American museums that offer a comprehensive view of American middle-class family life. The other two institutions are The Henry Ford Museum in Dearborn, Michigan, and the Smithsonian Institution's National Museum of American History (NMAH) in Washington, D.C. What distinguishes Strong Museum from the others, aside from its exceptional collections of dolls, toys, and home furnishings, is its interpretive mission. Whereas The Henry Ford Museum and NMAH collect artifacts from the 17<sup>th</sup> century to the present and discuss an equally broad range of themes and subjects including agricultural, industrial, and technological history, Strong Museum focuses on social history. Strong Museum is better equipped than any other museum to study and interpret the history of the average person, issues of identity, and the evolving middle class.

### **Collections Loans**

Strong Museum's collections support a broad range of humanities-related projects across the United States. The museum regularly loans artifacts to major museums throughout the United States, Canada, and recently Europe. During the last ten years, the museum has loaned 755 artifacts to institutions including Brooklyn Museum of Art, Canadian Center for Architecture, Cleveland Museum of Art, National Museum of American Art, Winterthur Museum, and Musée d'Orsay, Paris (See Appendix B, Strong Museum Loans).

### **Publications and Resources for Research and Education**

Strong Museum's collections serve as a remarkable resource for humanities-related studies, originating at Strong Museum and by outside researchers. In the last 20 years, staff members have written 67 books and articles on the collections and their broader relationship to 19<sup>th</sup>- and 20<sup>th</sup>-century culture and historical issues. Book, magazine, and newspaper publishers have used collections to illustrate a wide range of publications, ranging from scholarly works appearing in periodicals, such as *The Journal of American History* to popular magazines, such as *Reader's Digest*, *Newsweek*, and *Colonial Homes*. Subjects vary from articles on specific

objects and their historical import, to broader historical issues, such as African-American history, mourning traditions, drug abuse in America, home life during World War II, life during the Cold War, health and fitness in America, patriotism, environmentalism, childcare, youth culture, and American middle-class life (See Appendix C, Publications).

Strong Museum's collections team (curators, librarians, registrars, and conservators) has worked with individuals from 74 other museums conducting research on diverse aspects of 19<sup>th</sup>- and 20<sup>th</sup>-century culture. These include the Bethnal Green Museum, London; Le Musée des Arts Decoratifs, Paris; Musée de la Civilisation, Quebec; The Metropolitan Museum of Art, New York; the Smithsonian Institution's National Museum of American History, Washington, D.C.; The Henry Ford Museum and Greenfield Village, Dearborn, Michigan; and the National Gallery of Art, Washington, D.C.

The collections team receives and answers approximately 4,000 collections-related inquiries each year. In the last ten years, collections team members have responded to nearly 40,000 inquiries from people throughout the United States and from Canada, England, Scotland, France, The Netherlands, Belgium, Finland, Sweden, Germany, Switzerland, Spain, Italy, Kuwait, Israel, Cuba, Dominican Republic, and Japan. Some inquiries are from university professors preparing lectures and college courses, such as Professor Li Shidong from Wuhan University, People's Republic of China, and Professor Pietro Corsi, representing the University of Cassino, Italy and the Fondation de France, Paris. Both professors used collections-related information and artifact images for lectures on drug use. Dr. Morton Wagonfeld, Professor of Sociology and Community Health, Western Michigan University, is presently using collections relating to licit and illicit drug use to create a course on the history of drug use that will be available through the university's website. Dr. Marcus Wood, University of Sussex, London, used museum collections to study visual images of slavery in 19<sup>th</sup>-century America. Dr. Mary Apikos of New York's Parsons School of Design visited Strong Museum recently to study the collections for a grant-funded course she is preparing on the social construction of childhood through design.

Strong Museum's records (i.e. request for access, library registration forms, photo requests, trend data) indicate that 37 universities have utilized Strong Museum collections. These include Boston University, Brigham Young University, Johns Hopkins University, and the Universities of Delaware, Maine, Massachusetts, Redlands, Rochester, Utah, and Wisconsin. The museum's collections also support projects undertaken by local high schools, middle and elementary schools, community groups, civic organizations, and individuals pursuing personal research projects (See Appendix D, Museums and Universities Using Strong Museum Collections).

Researchers and producers of documentaries have turned to Strong Museum while conducting research for programming such as "Altered States," produced by WXXI, Rochester's Public Broadcasting System (PBS) affiliate and aired nationally; and "Hooked: Illegal Drugs in America," a documentary produced and aired by The History Channel in the United States, Canada, and the United Kingdom. The U.S. Office of Technology Assessment utilized the museum's collections relating to Strong Museum's *Altered States: Alcohol and Other Drugs in America* to produce "Technologies for Understanding and Preventing Substance Abuse and Addiction," a report to the 103<sup>rd</sup> Congress of the United States. The Discovery Channel's *Home Matters* has showcased the museum's collections relating to holidays, dining, and 19<sup>th</sup>-century culture. National Public Radio and PBS often call upon Strong Museum curators to discuss collections and exhibits on radio and television programs aired nationally and locally. And videographers and publishers have used the collections to produce documentaries and books on the doll and toy collections (See Appendix F, Strong Museum in the Media).

### **Intellectual Access to and Use of the Collections**

The humanities are integral to all that we do and all whom we serve at Strong Museum. Because our collections are primarily mass-manufactured consumer goods representing everyday life and the lives of ordinary people, they give rise to and enable our mission to help people better understand themselves and each other, individually and collectively. The collections provide the foundation for all our interpretive exhibitions, school programs, and public programs, all of which reflect three streams of interpretation – the consequences of progress, the effects of the rise of the middle class, and expressions of identity.

Within that context exhibitions and programs focus on social issues and on American popular culture for a broad and diverse audience, but especially for families and children. Therefore, our exhibitions are highly interactive and our public and school programs are highly participatory. All follow a formal *Framework for Education* based on current learning theory as it relates to museums, and especially to advances in cognitive and developmental psychology. And all are interpretive and reflect the latest scholarship and professional standards, as well as multiple learning styles.

### **Interpretive Exhibitions**

As noted above, the museum's interpretive exhibitions and programs flow from topics suggested and supported by the collections (See Appendix F, Strong Museum Original Exhibitions). Over the years, a number of our exhibitions have received NEH funding. Among those, *UnEARTHing the Secret Life of Stuff: Americans and the Environment* (NEH planning and implementation grants in 1994 and 1996) remains on view and features a multitude of consumer goods to illustrate Americans' complex and changing attitudes toward the natural world in a consumer-driven society. Previously, *Selling the Goods: Origins of American Advertising, 1840-1940* (NEH planning and implementation grants in 1988 and 1990) drew from the museum's extensive advertising collections and explored consumerism, lifestyles, and stereotypes. *Culture and Comfort: People, Parlors and Upholstery, 1850-1930* (NEH planning and implementation grants in 1986 and 1987) featured objects from the home furnishings collection and examined what the items with which we surround ourselves say about us. *Fit for America* (NEH planning and implementation grants in 1983 and 1985) showcased recreational artifacts and explored America's ongoing obsession with health and fitness.

Inspired by a miniatures cataloging project funded by NEH, *Small Wonders: A Fantastic Voyage into the Miniature World*, explored scale, scope, perspective, power, and control. Our homeopathic, home remedy, and related materials formed the basis for "Say Ahh!" *Examining America's Health*, which explored Americans' attitudes and behaviors regarding risk, prevention, and cure. *When Barbie Dated GI Joe: Tying with the Cold War* (currently on view) draws from both the recreational and advertising collections and examines gender and cultural bias. *Kid to Kid* (currently on view) utilizes a wide range of communication artifacts to explore childhood development and parenting issues. Housewares, advertising, and packaging artifacts inform food and nutritional themes in *Super Kids Market* (currently on view). *One History Place* (currently on view) features the housewares and packaging collections as well as replicas of furniture, communication artifacts, toys and games to create hands-on opportunities for children to experience life around 1900. Toys, games, books, music, and advertising materials support *Can You Tell Me How to Get to Sesame Street?* (currently on view), which illuminates issues of literacy, numeracy, and diversity. Two of the aforementioned interpretive exhibitions – "Say Ahh!" (health care) and *UnEARTHing the Secret Life of Stuff* (environmental history) – were part of an original series that explored contemporary social issues and contributed significantly to the museum's growing reputation for community service. Others have included *Altered States: Alcohol and Other Drugs in America* (drug and alcohol use, on view 1992-1994); *Family Album* (the changing nature of American families, on view 1994-1995); *Memory and Mourning: American Expressions of Grief* (bereavement, on view 1993-1995); and *Between 2 Worlds: African-American Identity and American Culture* (racism, on view 1994-2000).

A number of Strong Museum exhibitions have traveled to museums across the country. These include: *Dining in America* (1986-1989); *Sailors' Valentines* (1988-1990); the NEH-funded *Fit for America* (1987-1992); *Ice Cream for All* (1991-1994); *There's Always Room for Jell-O* (1997-1999); *Memory and Mourning* (1995-1998); and "Say Ahh!" (1996-1999). The traveling versions of the exhibits *Altered States* and *Can You Tell Me How to Get to Sesame Street?* are still on the road.

Several upcoming major exhibitions that will be highly interactive in nature will showcase museum collections. *Playing to Learn* (2004) will highlight toys and dolls. *The Secret Garden* (2004) will feature garden furniture, implements, and trade advertising reflecting Rochester's rich history as "The Flower City." *America's Cultural Landscape* (2005) will examine how, through migration, people have changed the landscape and the landscape has impacted American culture. And *Two History Place* and *Three History Place* will extend the turn-of-the-century experience now available in *One History Place* by focusing on the 1920s and the 1950s.

### **Study Collections and Constructivist Interpretation – Providing Connections**

Each Strong Museum exhibition features artifacts that inform one or more interpretive themes, but in addition to this use of the collections, the museum also maintains on its second-floor, somewhat separated from the majority of exhibits, a 20,000-sq.ft., artifact-dense display space for "study collections." Created as part of the original museum design, initially this space was intended to put more collections on view than would have been possible with traditional exhibitions, and thereby to serve collectors primarily. However, because guests could access only traditional "type, name, size, and date" catalog information about these objects, this large area attracted only minimal interest, generated almost no repeat visitation, and informed few people about anything related to the humanities or any other field of knowledge.

In 1999, the museum completed the first of three phased renovation efforts designed to retain the artifact-rich nature of the "study collections" space while significantly enhancing its interpretative impact for a wider audience. Occupying the center one-third of the second floor and containing many hands-on, interactive components, this newly renovated area provides an introduction to American material culture and enables guests to learn how to ask questions about artifacts, make connections with them through memory and recollection, and talk about them with other people. The premise of the space is a *TimeLab* in which guests consider who Americans are, who they think they are, and how they express their identities through what they eat, what they wear, and the objects they use.

Based in constructivist learning theory, *TimeLab* uses inquiry to prompt guest engagement with the collections. It does this by arranging a dense concentration of artifacts, images, audio, and video in a chronological and thematic manner that enables people to connect with them through personal and national memories. In the conceptual language of the *TimeLab*, living memory "powers" time travel, and "time travelers" (the exhibit's users) investigate themes that expose aspects of American identity. Guests use historical artifacts and images to investigate gender constructions; popular conceptions of heroism and celebrity; self-presentation through fashion, activism, and political protest; tastes and preferences in food, music, and entertainment; and shifting perceptions of humor, risk, beauty, veneration, and other emotional states. In short, *TimeLab* teaches basic concepts of historical investigation and material culture to the upper ages of our core audience.

The museum evaluates all of its exhibitions both formatively and summatively, but it has subjected *TimeLab* to especially rigorous examination with the help of Professor Emeritus George Hein (Lesley University, Cambridge, MA), Professor David Carr (University of North Carolina at Chapel Hill), and Minda Borun (Franklin Institute, Philadelphia, PA). The evaluators praised *TimeLab's* originality of method and design, and qualitative studies revealed that guests spend about half again as much time in it as they traditionally do in comparably-sized history exhibits.

The second phase of renovating the “study collections” is currently underway. One sub-phase is scheduled for completion in October 2001 and the second and last is scheduled for completion by summer 2002. The first sub-phase of current renovation will create a learning environment of approximately 5,000 sq. ft. entitled *Making Things Happen* and will focus on how aspects of social history such as immigration, industrialization, labor, and the changing role of women impacted our work processes, domestic lives, understandings, values, and relationships.

Sections previously filled only with un-interpreted household furnishings will in the future also house toys, clothing, textiles, art, and household tools, among other objects. In combination with the same kind of interpretive supporting materials used in *TimeLab*, this will result in a chronological exposition of industrialization, immigration, progress, and class as they relate to American identity. The juxtaposition of materials on industrialization and immigration will reflect the intertwining relationship between the two processes.

The third phase of renovating the “study collections” is currently in planning. The last section holds a significant portion of the museum’s toy collection, including dolls and dollhouses. Here the museum will utilize the same general constructivist techniques employed in *TimeLab* and *Making Things Happen* to explore the role of play in the everyday lives of Americans.

### **Educational Programs for Schools**

The museum’s collections and all interpretive exhibitions are complemented by a school curriculum of more than 50 different lessons for students in Pre-K to grade 12, and by support services for teachers who use them. Topics mirror the museum’s collections and the exhibitions and include: industrialization; immigration; how toys have defined gender roles; 19th-century childhood; African-American identity; environmental issues; and many others. For advanced high school students, the museum offers a series of day-long college-level Advanced Placement Conferences on topics ranging from “The Nation in Transition: 1875-1925” to “The 1890s: A Clash of Culture” to “From the Roaring 20s to Vietnam: America Comes of Age.” This program serves 40,000 students annually and is growing at an average rate of 20%. Over the last three years, we have taught classes from 115 different communities throughout Western and Central New York.

Strong Museum does not allow traditional field trips. School classes may access these programs only by reservation, and classes are taught by museum educators. All lessons are based on New York State Learning Standards for Social Studies, English, or the Arts. They are grade-specific, delivered in small-group settings, and designed to stimulate creative thinking. They use inductive teaching methods hands-on object study and primary source materials. And consistent with the Theory of Multiple Intelligences and varied learning styles, they recognize, and thus accommodate, how students possess and use eight different intelligences in various combinations to know, understand, and learn. The museum provides Standards-based pre- and post-visit activity packets to help teachers plan their students’ visits to the museum and follow them up in the classroom. We also provide in-service workshops and exhibit orientation sessions to help teachers use all types of museum resources, including study guides, lessons, and collection-related slides and bibliographies.

### **Condition of the Collections and Storage Conditions**

Strong Museum’s collections number approximately 500,000 artifacts and are growing at an average rate of 2,500 objects per year. This aggressive growth is related to the elimination of the 1940 end date from the museum’s original mission statement and to the development of specific humanities-based collecting goals and a *Framework for Interpretation* as discussed in the “Institutional History” section described on page 2.

Of the 500,000 artifacts in the collection, approximately 20,000 are on view in public areas of the museum, and approximately 480,000 objects are in “closed” storage.

Strong Museum currently utilizes three secure, on-site areas for storage of the 480,000 artifacts not on public view. The largest space (approximately 13,000 sq. ft.) is Room 340, which is located on the museum’s third floor and includes a separate curatorial workspace. Two additional spaces, Rooms 123 (approximately 2,500 sq. ft.) and Room 190 (approximately 1,200 sq. ft.), are located on the museum’s first floor. In addition, the museum annually leases space in an off-site warehouse for storage of approximately 400 oversized, less vulnerable artifacts including household equipment, lighting fixtures, selected furniture, architectural elements, bicycles, carriages, carousel animals, and a small electric car.

An overriding challenge related to the collections is the lack of adequate storage space, particularly as the collections continue to grow. Despite ongoing efforts to make storage methods more space-efficient, many items in the collections are at risk because they are currently being stored under progressively crowded conditions. And as we have been able to create “additional space” within storage rooms to accommodate incoming objects, the collections have lost their once-rational organization. Although we have attempted to keep collections of like material together in the same storage room, this has often proved impossible. As a result, several of the collections – notably furnishing textiles, decorative arts and ephemera – are housed in two or, in some cases, three separate locations.

With the growth of collections and their greater utilization for interpretation and research there also comes a need to upgrade the storage and care of these irreplaceable materials, and to do so in a manner that will ensure both their long-term preservation and their accessibility as educational resources for a wide public audience ranging from scholars and teachers to children and adults. When the museum was under construction in the late 1970s and early 1980s, the institution paid significant attention to what was then groundbreaking open storage “study collections” and less attention to non-public closed storage. The museum installed what were then current, state-of-the-art security and HVAC systems for closed storage. However, it purchased storage units that consisted almost entirely of static, unenclosed shelving systems. Those systems no longer adequately support and protect the evolving and growing collections.

At present, artifacts such as dolls, toys, games, and sporting equipment lie close together or, in some cases, even stacked on shelves. These objects are exposed to dust generated by everyday activity and to light from 24-hour emergency lighting and general room lighting which must be illuminated whenever work is being carried out in the museum’s actively used storage spaces. Given their exposure on open shelving, these objects would be extremely vulnerable to damage in the event of a fire sprinkler release or smoke in the building. Much of the clothing is folded many times to fit into narrow boxes, and much is stacked several-deep inside boxes. Most of our furnishing textiles, the majority of which should be stored either flat or rolled, are also folded and stacked. Given current conditions, it is impossible to extract a single piece without disturbing and handling many others, making the furnishing textiles collection difficult to access. Many of these objects are vulnerable to physical damage from the weight of objects resting on one another, from abrasion, and from incidental handling (See Appendix G, Images of Storage).

The collections need more storage equipment, and storage units need to be designed to better suit the physical needs of the artifacts and to provide a more protective environment.

Additionally, the museum faces the need to improve environmental conditions for some of the collections in closed storage. Room 123 and Room 190 are not environmentally controlled to current museum standards and therefore, exhibit higher temperatures and a more variable relative humidity than is desired throughout the year. Even more pressing is the need to improve environmental conditions for the nearly 400 oversized items now stored in the off-site warehouse. The museum has not been satisfied with the environmental conditions provided by the owner of the warehouse, and has been unable to adequately control the storage

condition of these objects. The warehouse has minimal environmental control in the form of winter heating, and the space is not particularly clean.

## **B. HISTORY**

### **Conservation History**

Since opening in 1982, Strong Museum has conducted a number of general and collections-specific conservation assessments to establish collections care and conservation treatment priorities. Surveys include assessments of: the archives, paper, and photograph collections in 1983; the furnishing textiles collection in 1988; and the prints and drawings collection in 1992. In addition, we assessed the painting collection, and daguerreotypes and other cased images in 1992. Strong Museum conservator Rick Sherin combined the results of these surveys in a general assessment of the care and management of the collections in 1995 (See Appendix H, Conservation Survey), and the museum developed a detailed Long-Range Collections Care Plan based on this information (See Appendix I, Long-Range Collections Care Plan). By following this plan, we have been able to improve collections storage and exhibit conditions and carry out conservation treatment programs in a rational, systematic, and efficient manner.

Many recommendations in the original collections assessments have been implemented: storage and exhibit conditions have improved in numerous ways; additional item-by-item condition surveys were completed or are underway, helping us to prioritize both rehousing projects and conservation treatment projects; and conservation treatments are ongoing, performed both in-house and by contracting with conservation specialists. A detailed description of conservation and collections care projects comprises Sections I and II of the Long-Range Collections Care Plan (Appendix I).

### **Expansion Project**

Given our pending expansion project, Strong Museum now has a unique opportunity to address the ongoing challenges noted under **Section A Condition of the Collections and Storage Conditions on pages 13-14**. These include overcrowded storage spaces; inadequate and, in some cases, inappropriate storage equipment; the need to rationalize and reorganize collections; and poor environmental conditions, especially at our leased off-site storage warehouse.

By 2005, Strong Museum will have added 142,000 sq. ft. of new construction to its existing 168,000 sq. ft. and will have nearly doubled the size of the existing building. On the first floor, new gallery space will offer significant additional exhibit and program space to serve the museum's continually growing admissions and membership. The new gallery space will feature 6 new major interpretive exhibits that will significantly enhance the museum's experiential offerings. Renovated space will provide additional exhibition design and fabrication, education, and guest relations areas. A newly constructed lower level will feature 37,000 sq.ft. of space devoted to collections storage, care, and study. *Construction* of this new collections care unit space will be funded through the museum's current \$26 million capital fundraising campaign in support of the expansion project.

This new storage space will ease the burden on current storage space, which is filled to capacity, and it will be designed to accommodate compact shelving. Rails will be installed throughout. In addition to accommodating growth of the collections into the foreseeable future, we have included a growth factor estimated to allow development of the collections for at least 20 years.<sup>1</sup> The new storage space will also

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<sup>1</sup> Details of methods used to plan storage are found in Section C of this narrative, "Methodology and Standards."

eliminate the need for, and annual expense of leasing inadequate off-site warehouse space. Construction of the new collections care unit will also allow the museum to re-locate and upgrade conservation areas.

In addition to re-located and upgraded conservation laboratories for objects, paper, and furnishing textiles, the new space will include a small photo studio for registration photography; curatorial workrooms for registrarial activities and use by both our own curators and visiting scholars; a 12 ft. x 20 ft., 10,000-pound capacity freight elevator for moving objects to and from the new collections storage area; an artifact processing room; holding rooms or artifact staging areas for in-coming and out-going exhibitions; a collections data management center that will house computers, files, and electronic as well as paper records; a packing area; a refrigeration unit for pest control; and an emergency supply center.

Room 340, our largest existing storage room, is environmentally controlled and will remain in use for collections storage. We will move the recreational artifacts and rug collections as well as a portion of the furniture collection from Room 340 to the new storage space. Movement of these large collections out of Room 340 will provide an important opportunity to centralize and reorganize, within Room 340, the other major collections that are now dispersed among three different locations – Room 340, Room 190, and the off-site warehouse. These collections include housewares, communications, transportation, and garden furniture and accessories.

With the completion of the expansion, the museum will have two large on-site storage areas – the new 24,145 sq.-ft. collections storage space and the existing 13,000 sq.-ft. Room 340 which combined will provide approximately 20,500 more sq. ft. of storage space than current capacity. More importantly, the two storage areas will provide better environmental conditions for the artifacts. The aforementioned Room 123 and Room 190, which have never been adequately humidity-controlled, will no longer house collections. Instead they will be reconfigured to house administrative staff functions.

### **Configuration of the New and Reorganized Collections Storage Spaces**

This application for an NEH Preservation and Access grant requests support for the *storage* necessary to provide better and more accessible storage of the collections and the *staff time* necessary to move the collections to the new storage space and to reorganize collections in existing storage space.

Because of the specialized nature of museum collections storage and work spaces, the museum has engaged the services of Sears and Russell Consultants, Ltd. to assist in the detailed planning of the new storage and curatorial spaces as well as for the reorganization of Room 340. As a result of the planning process, 22,950 sq.ft. in the new collections care unit will be allocated for the recreational artifacts, clothing, furnishing textiles, art (non-paper), and furniture collections. An additional 1,195 sq.ft. will be allocated as separate storage with a cooler and drier environment for the paper-based artifacts (mostly documentary artifacts and art). And there will be a separate space with a self-contained ventilation system for artifacts made of unstable plastics. A series of rooms comprising 12,855 sq.ft. for conservation care, artifact handling, and data management will be located near this new storage area (See Appendix A, Collections Care Unit Floor Plan).

With the completion of the new collections storage space, we will move all objects from the off-site warehouse to the museum and integrate them with appropriate collections. We will move the documentary artifacts, advertising, art, clothing, and furnishing textiles collections from Room 190 and Room 123 to the new storage space. And we will move the recreational artifacts and rug collections and much of the furniture collection from room 340 to the new space, allowing uncrowding and reorganization of the housewares collection.

By the conclusion of the three-year project, the museum's collections will be uncrowded and reorganized in logical order and they will be housed in environmentally controlled spaces and according to recommended storage methods. Completion of this project will ensure excellent long-term preservation of Strong Museum's unique collections and accessibility to these collections for teaching, exhibition, public programming, research, and study.

### **C. METHODOLOGY AND STANDARDS**

Museum curatorial and conservation staff have thoroughly researched the collections storage practices of similar institutions that have preserved, stabilized, and moved their collections, and in preparation for this project in particular, have attended move workshops sponsored by the American Association of Museums and the Society for the Preservation of Natural History Collections. Based on our research, we have designed the plans outlined in this proposal for storage methods and equipment, the layout of the collections storage and work areas, storage and mountmaking methods and supplies, as well as the collections storage and workspace environments (temperature, relative humidity, light, pollutant filtration, and choice of finishing materials).

#### **Storage Equipment Specifications and Layout**

Working with the curators and conservation staff, and through visits and consultations with other institutions with holdings similar to ours, Strong Museum's director of collections and chief of conservation have identified the most appropriate, safest and most efficient storage methods (e.g. shelves, drawers, hangers, rolls, within boxes) for each collection. The chief of conservation, along with a curatorial assistant and the assistant registrar, conducted a detailed *Space Needs Survey* of all portions of the collections that will be rehoused in the new storage area. Working on a shelf-by-shelf and box-by-box basis, (with some variations of method according to the nature of the particular artifacts involved), we projected the square footage and the headroom needed in drawers and shelves for each collection to be housed correctly and without crowding, or the amount of rail space required for hanging clothing.

The projected growth of each collection over the next 20 years was then factored in. These calculations provide estimates of the number of drawers, the number of shelves, and the number of mobile and stationary bays required to rehouse each part of the collection.

Subsequently, Sears and Russell Consultants, Ltd. worked with the results of the detailed *Space Needs Survey* to develop a layout for a storage system consisting of both mobile and fixed units within the new storage space. The rails for the system will be laid in the floor at the time of construction, eliminating the need for a built-up platform. A manual (non-electric) system has been selected, both for reasons of economy and because manual systems are reputed to be more reliable.

All of the storage equipment to be installed in the new storage space will be new, with the exception of the existing sliding racks which hang paintings. They will be transferred to the new storage area and supplemented. The mobile storage units will consist of eight-foot high ranges of bays that will support drawers, shelves, and bracket units. Most of the mobile system will consist of units 42.5" wide and 32" deep (an efficient fit between structural columns); some (shelf units, in particular) will be shallower to suit small objects, some will be standard-sized enclosures such as document boxes and some, particularly for furnishing textiles, will be large. For maximum flexibility, drawers and shelves will be interchangeable within like-sized case units, with adjustments on one-inch vertical centers. All materials used in the fabrication of the storage equipment will be non-reactive. The storage units themselves will be powder-coated steel, with gaskets between carriages composed of silicone and mechanically attached with no use of adhesive. Some drawers will be oversized to accommodate large, fragile items – in particular clothing. Aluminum trays with Corr-x (a high-density polyethylene) inserts will support other large textiles. Less fragile clothing will hang

on rods. Small rolled textiles will be placed in “bottomless drawers” with notched sides, while larger textile rolls will be fitted on cantilevered supports within the mobile system.

The fixed units within the mobile system will be used for extremely fragile objects such as some of the mechanical toys and dioramas of miniature rooms. These objects typically have elements that are loose by nature, and should remain stationary. (These special requirements have been taken into account in the *Space Needs Survey*.)

Based on these equipment requirements and the space layouts, the museum obtained estimates from two vendors of mobile storage systems and two vendors of museum quality storage equipment. For this application we have selected Delta Designs Ltd. and Spacesaver Corporation. Both firms have reputations for producing high quality products that meet requirements for museum collections in the use of non-reactive materials and smoothly operating mechanisms. And both firms are known for reliable delivery practices (See Appendix J, Vendors’ Estimates, Specifications, and Materials).

Much of the stationary open storage shelving in Room 340 will be vacated when the recreational artifacts collection is moved to the new storage space and will be reused to house the more robust objects that comprise the housewares and communications collections. Existing pallet racking will remain in Room 340 to be used for garden furniture, large household appliances, and the transportation collection – objects that are now dispersed among three storage areas on site and at the off-site storage warehouse. We will also move existing powder-coated cabinets that contain household silver and other fragile items from a curatorial workspace adjacent to Room 340 into the more secure storage section of Room 340.

## **Supplies**

As part of the *Space Needs Survey*, collections and conservation staff itemized the storage supplies needed to rehouse the existing collections. These supplies include abaca tissue and polyethylene foam to line drawers and shelves, acid-free tubes, and mountmaking materials including polyethylene planks, acid-free corrugated board, stockinet, polyester batting, hangers made of non-reactive materials. Although a variety of sizes and shapes will be ordered, we may trim hangers to fit garments, and pad hangers with stockinet or muslin and polyester batting where appropriate. Mounts for hats will be composed of stockinet and polyester batting or, in the case of brimmed hats, of padded, rigid polyethylene. Dolls lying in drawers will be supported with strips of rigid polyethylene to avoid crushing the hair and clothing. Dolls standing on shelves will have padded, customized support mounts. All of these materials have been specified by the museum’s conservation team to meet current standards for use near and in contact with museum objects. These materials are itemized with estimated prices in Appendix K, Storage Supplies. The prices listed are from vendors well known in the museum community with proven histories of supplying high quality products.<sup>2</sup>

## **Environmental Conditions**

Environmental systems designed to meet the museum’s specifications will keep stable levels of temperature and relative humidity consistent with currently recommended standards for mixed museum collections in the new storage rooms and work spaces. We will maintain a temperature of 65°F at 45% relative humidity (RH) plus 0% or minus 5% for the general collections and keep the paper-based artifacts and photographic collections at a temperature of 60°F at 35% RH plus 0% or minus 5%. We will also maintain cooler, dryer conditions for unstable plastics in a special storage space to prolong the life of these materials (air from this space, which will contain off-gassed acidic components, will be evacuated from the building without being

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<sup>2</sup>The quantity of supplies specified supports the needs of the current collections only; there is no addition to this figure for future growth, which will be covered by the museum’s annual budget allocation for storage materials.

recirculated). We will maintain workspaces adjacent to storage areas at 72° F and 45% RH plus 0% or minus 5%.<sup>3</sup>

Fine particulate filters and a combination of charcoal and potassium permanganate filters will remove particulates and chemical pollutants to meet recommended standards for museum collections.

There are no windows in the storage area of Room 340 nor will there be any windows in the new collections storage area. As in Room 340, the new storage area will have UV-filtered lights on zoned switches. The design of the mobile system will ensure that collections are not exposed to incidental light from night and emergency lighting systems or while staff are working on the collections.

We have taken great care in planning the new collections storage space to ensure that no sources of water from restrooms, kitchens, or cooling equipment will be located above collections spaces and water pipes, except for sprinkler pipes, will not run through collections spaces. Smoke and heat detection systems and a dry-pipe sprinkler system will be located in all storage spaces. Electronic card readers will control access to collections storage and work areas.

#### **D. PLAN OF WORK**

The collections staff developed the move process in detail from the initial preparatory stage, which has already begun, through the final installation. The detailed schedule, which follows, is based on their extensive combined knowledge of and experience with the collections. We will hire a move assistant dedicated to the project and have phased the activities involving the various collections in such a way that responsibilities are spread widely among staff. In this way, other museum activities can continue throughout the three years of the project, albeit at a reduced rate. A time line and exact time estimates for each person for the work described below are contained in Appendix L, Plan of Work.

##### **Pre-Grant Activities (Fall 2001–September 2002)**

**Inventories:** Approximately one year before the start of the proposed grant project, we will begin preparations for the move of the collections. For several years we have conducted routine, or “perpetual” inventories of selected portions of the collections. We will accelerate both the speed and the scope of this work to complete inventories of the art (paintings, sculpture, ephemera, photographic materials), clothing, and furnishing textiles before October 2003. (These will be the first collections moved to the new space after the completion of construction).

**Bar Coding:** In conjunction with the inventories of these collections, we will begin to bar code objects to ensure accurate and efficient tracking during the move. In the case of very small objects or boxed objects such as photographs or postcards, we will bar code groups of objects<sup>4</sup>. Based on our research of institutions that have employed bar codes for moving collections, we have identified bar code software fully compatible with Argus, our collections data management system. We will purchase this software and the necessary hardware in the summer of 2001. Using the Argus database, we will print bar codes (which will be the same as object catalog numbers), object name, and selected other information (e.g. artist, manufacturer, date) on

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<sup>3</sup> As part of the early planning process, we considered maintaining cooler temperatures in storage areas to promote even better long-term preservation. Because we believe that it is important to allow work, including regular inventories, to take place within storage areas, and to lessen the short-term movement of artifacts back and forth to study rooms, we have selected these parameters as a realistic target.

<sup>4</sup> Ultimately we expect to give individual bar code labels to virtually all objects in the collections to aid in day-to-day collections activities, but we do not plan to introduce bar coding at that level of detail for the purpose of the move project.

labels. The curators of the art, clothing, and furnishing textiles collections, the registrar the assistant registrar, and two curatorial assistants will perform the work associated with bar coding.

**Conservation:** During inventory/reorganization work, the curators and conservators will identify objects that require stabilization before being moved. The conservators and the conservation technician will perform appropriate conservation and stabilization treatments. The conservators will also start to fabricate mounts for objects that require them, such as hats, dolls, and toys. Space in Room 190 now used for staging objects for exhibition will be used to house objects as mounts are made.

**Building Construction:** The 18-month construction project will begin in Spring/Summer 2002. All new construction activities will take place on areas of the museum property that are remote from current storage areas, and we do not expect to have to take any action to protect collections during construction.

**Move Assistant:** We will advertise for a move assistant to begin work six months into the grant project. This individual will work exclusively on the move during the full three years of the project. The chief of conservation will train the move assistant (if necessary) in object-handling methods, and the registrar will provide training in use of the bar code and tracking system.

### **Project Year 1 (October 2002–September 2003)**

**Rails:** The vendor will lay the rails for the mobile storage system in October 2002. The director of collections and the chief of conservation, in coordination with the expansion project construction manager, will place orders for the storage equipment *specified in this proposal* and for supplies for the first year of work.

**Inventories and Bar Coding:** We will complete the inventories and bar coding of the clothing, furnishing textiles, art, and recreational artifacts collections. The curators, the registrars, the two curatorial assistants, and the new move assistant will conduct this activity.

**Reorganization of Collections:** The curators responsible for collections that will be moved to the new storage area (recreational artifacts, rugs, clothing, furnishing textiles, art, documentary and advertising artifacts, and a majority of the furniture) will continue to reorganize their collections. They will order the collections in a more rational way (i.e. in the case of clothing, by date; in the case of dolls, by date and maker) and group objects that will be stored in the same manner. The move assistant, the two curatorial assistants, and the objects handler will assist the curators in these activities.

**Conservation:** The conservators and the conservation technician will continue to perform conservation and stabilization treatments and to fabricate mounts for objects that require them. The chief of conservation will order additional storage materials (mount-making materials, textile tubes, hangers, a portion of the acid-free trays and boxes, and incidental supplies) to be delivered once the new storage area is completed. Prior to the move, these materials will be stored in the new workspaces adjacent to the new storage space for use during the move.

**Storage Equipment Installation:** The construction of the new collections care unit is scheduled to be complete and systems fully operational in the summer of 2003. In late August 2003, Spacesaver Corporation will install mobile carriages onto the rails. During September, Delta Designs Ltd. will install storage equipment onto the carriages.

### **Project Year 2 (October 2003–September 2004)**

We will begin to move the collections to the new storage area in October 2003. Throughout the move, the chief of conservation will act as move coordinator, managing move activities, monitoring the move schedule, and ensuring that correct storage methods are used and that storage supplies are available as needed. A “move team” consisting of the objects coordinator, the move assistant, and two curatorial assistants will be responsible for moving artifacts from previous storage areas and installing them in new storage equipment. The curator of each collection will closely supervise move activities and will be responsible for the final organization of his or her collection in the new space. The registrars will track each object (or, in the case of boxed objects, each group of objects) to its final location by scanning bar code labels.

**Move of Art:** We will move the paintings, hanging advertising, textile art, and sculpture collections in order to empty Room 123. We will start with these collections because the sliding racks, which store paintings, will be moved to the new storage area for reuse. The move team will use padded transport carts to move these collections to the new Collections Work Area 2 and Holding Rooms 1, 2 and 3 (See Appendix A, Collections Care Unit Floor Plan). The curator responsible for this collection will oversee the move. For an interim period of approximately two weeks, the paintings will hang on wall screens and rest on padded blocks around walls and on counters. During this time, The Compton Company, Inc. will remove the existing sliding painting racks from Room 123 and install them in the new storage area. As soon as this work is complete, the move team will rehang the paintings on the racks, together with a number of other paintings and hanging advertising signs that are currently housed in Room 123, Room 190, Room 340, and the off-site warehouse. The move team will install sculpture and textile art into the new drawers and shelving units. We estimate that it will take about six weeks to complete this move.

**Move of Paper:** These artifacts (prints, art on paper, ephemera, and photographic material) are now stored in Room 123 and in the museum library. The move team will relocate this material directly to the new paper storage area, where it will be arranged according to the curator’s new organizational plan. Even though this is a large collection, we expect to complete this move in two weeks because the majority of items will be in acid-free boxes and arranged in order prior to and during the move.

**Move of Clothing and Accessories:** During the relocation of the sliding painting racks, the move team will start to move the clothing collection now housed in Room 123. Because this collection is primarily contained in boxes, we will move it in its boxes to Collections Work Area 1. From this staging location near the new storage area, it will gradually be installed into the new storage equipment by the move team, the curator, and the conservators. We estimate that the clothing collection move and installation will require a total of 27 weeks, which will be divided between Year 2 and Year 3 of the project.

**Move of Furnishing Textiles:** Likewise, furnishing textiles will be moved from Room 123 and Room 190 to Collections Work Area 2 (now vacated by paintings). This collection, largely stored in boxes, will be gradually unpacked by the move team and installed in the new storage locations. We estimate that moving and installing this collection will require just over fifteen weeks, twelve of which will occur in Year 2 and two in Year 3.

**Inventories and Bar Coding, Stabilization, Reorganization:** As these collections are being moved, we will continue to prepare the remaining collections that are scheduled to move in Year 3 of the project (recreational artifacts, furniture, and the oversized objects now stored off-site). Registrars and curatorial assistants will inventory and bar code artifacts while curators reorganize their collections in the new space. The conservation staff will assess condition and perform stabilization treatments as needed, fabricate mounts, and begin to clean the objects that will be moved from the off-site warehouse.

**Project Year 3 (October 2004–September 2005)**

In the third and final year of the project, we will complete the installation of the clothing collection and the furnishing textiles collection in the new storage space; we will move the recreational artifacts, and much of the furniture collection from Room 340 to the new storage space. We will move all objects from the off-site warehouse to the museum and will complete the reorganization of Room 340.

**Move of Dolls, Toys and Other Recreational Collections:** We will transport artifacts that will be stored on shelves on padded carts, install them directly in the new storage equipment, and track location with bar codes. Artifacts that will be rehoused in drawers will be reorganized in their new drawers with padding or mounts as required, transported in a “drawer cart” (See Appendix J, Vendors’ Estimates, Specifications and Materials), and slotted into new mobile storage cases. The move team will carry out the move activities. Curators will oversee the movement and participate in the installation of their collections in the new space. The chief of conservation will continue to coordinate the move schedule, monitor storage methods, and ensure that storage supplies are ordered in a timely way. The registrars will track locations, and the conservation staff will continue to provide stabilization treatment and fabricate mounts as needed.

**Move of Large Furniture:** East End Movers, the museum’s longtime preferred vendor, will move the large items of furniture within the museum from Room 340 to the new storage space. The curator, the chief of conservation, the objects handler, and the move assistant will actively participate in this process, and the registrars will track objects as they are moved. This move, including preparation time, will take approximately two weeks.

**Move of Warehoused Objects:** East End Movers will provide transportation and experienced manpower to move the 400 oversized objects from the off-site storage warehouse to the museum. The curators responsible for these artifacts will oversee the process and the chief of conservation, the objects handler, the move assistant, and the registrars will also be involved. This move with preparation will take approximately six days. The majority of these objects will be moved from the off-site storage warehouse to Room 340, with others being integrated with collections in the new storage area.

**Reorganization of Room 340:** This is our largest existing storage room with 13,000 sq.ft. We will continue to use this environmentally-controlled space for storage of the housewares, communications, and transportation collections, large household appliances, site features, architectural elements, garden furniture and sculpture as well as selected pieces of furniture.

As mentioned previously, objects from these collections are now dispersed in a number of different locations – Room 190, the off-site warehouse, a curatorial workroom adjacent to Room 340, and Room 340 itself. Moving the recreational artifacts, furnishing textiles, and most of the furniture from Room 340 into the new storage area will allow us to draw the remaining collections together in Room 340, integrate objects from the warehouse, and organize objects in logical order. We will reuse the stationary open storage shelving now in Room 340 to house these collections, and existing pallet racking for larger items such as the garden furniture, kitchen appliances, and the transportation collection<sup>5</sup>. We will move 18 existing powder-coated cabinets from the adjacent curatorial workspace into Room 340, where they will continue to house household silver and other particularly fragile or environmentally sensitive items.

The move team will be responsible for moving items from other on-site storage spaces to Room 340. The curators will reorganize their collections, integrating objects from other storage locations and from the warehouse in logical order. Throughout this process, the registrars will track locations as objects move, and the chief of conservation will monitor storage methods and materials and fabricate any storage mounts that

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<sup>5</sup> As mentioned earlier, because these collections consist largely of porcelain, stoneware, stable plastics, coated metal and glass, we feel that the open design of these shelving units is acceptable for these objects. In the longer term, we plan to replace this equipment with a mobile system to make more efficient use of the space in Room 340.

may be required. This final stage of the move, which will take place in the second half of the Year 3 of the grant project, will require approximately one month of the move team's time, with three to four months' work by the curators.

#### **E. STAFFING (See Appendix M, Resumes and Job Descriptions)**

##### **Contract, Part-time, and Adjunct Staff**

Strong Museum employs staff on full-time (37.5 hours per week), part-time (between 17.5 and 37.5 hours per week), adjunct (less than 17.5 hours per week), and contract bases. The museum provides fringe benefits at varying levels to these classifications of employees.

**Barbara Moore, Chief of Conservation**, will serve as *move coordinator* for the project, managing the project activities and schedule. She will ensure that correct storage methods are used and that supplies are available as needed. As chief of conservation she will perform stabilization treatments and fabricate mounts for artifacts as necessary. She will also train the move assistant in object-handling techniques. Moore is a contract employee with Strong Museum and works 30 hours per week. She will spend 80% of her time on the project throughout its duration. Moore holds a graduate diploma in conservation from the University of London and is a professional associate member of the American Institute for Conservation. She has thirty years experience as a conservator, serving as Assistant Director for Conservation and Collections and Chief Conservator of the Peabody Museum of Natural History, Yale University, before coming to Strong Museum. In this position, she worked as principal investigator on numerous conservation grants. She also works in private conservation practice.

**Richard W. Sherin, Projects Conservator**, will work with curators and other conservators to perform stabilization treatments and fabricate mounts for artifacts as necessary. As a part-time employee of Strong Museum, he works 20 hours per week. He will spend approximately 60% of his time on the project. Sherin holds an M.A. and Certificate of Advanced Study of Conservation and Historic Artistic Works from Cooperstown Graduate Program. He has more than twenty years experience in the field of conservation, serving as Strong Museum's chief of conservation from 1984-2000. Sherin is a professional associate member of the American Institute for Conservation, a co-founder of the Western New York Conservation Guild, and consults widely through the Heritage Preservation's CAP program.

**Darlene J. Gengelbach, Conservation Technician**, will assist the conservators in performing appropriate conservation and stabilization treatments as well as fabricating mounts for the doll and toy collections. As an adjunct employee of Strong Museum, she works 7.5 hours per week. She will spend approximately 90% of her time on the project throughout its duration. Gengelbach has been a conservation technician at the museum for more than 20 years, providing preservation, conservation and restoration of the doll and toy collections. She also owns a private business that offers consulting, preservation, conservation, restoration, costuming, appraisals, lectures, workshops, and research in the doll and toy field.

##### **Full-time Staff**

**Patricia M. Tice, Director of Collections and Curator for the clothing, furniture, and furnishing textiles collections**, will oversee the move and reorganization of these collections throughout the project as well as the inventory and bar coding processes. She will spend nearly 40% of her time on the project during Years 1 and 3, and 60% of her time during Year 2. Tice holds an M.A. in Museum Studies from the University of Michigan where she was also a National Endowment for the Humanities Fellow. She has more than 20 years of curatorial experience and is widely respected in the field as a lecturer and consultant.

**Christopher Bensch, Chief Curator and Curator for the housewares collection**, will be responsible for overseeing the reorganization of this collection in Room 340. He will spend 30% of his time on the project during Year 3. Bensch holds an M.A. in American Material Culture from the University of Delaware, Winterthur Program in Early American Culture. He joined Strong Museum's curatorial team in 1989 from the Munson Williams Proctor Institute in Utica, New York, and he has more than 20 years experience as a curator.

**Patricia Hogan, Curator for the recreational artifacts collection**, will oversee the moving and the reorganization of the dolls, dollhouses and dollhouse furnishings, toys, games, and sporting equipment. She will spend approximately 20% of her time on the project during Year 1 and approximately 30% of her time during Years 2 and 3. Hogan holds an M.A. in Museum Sciences from Texas Tech University and has more than 25 years experience with cultural organizations. Prior to joining Strong Museum in 1998 she worked for the American Association for State and Local History and in private business as a consultant and editor.

**Nicolas Ricketts, Curator of the art and documentary artifacts and advertising collections**, will oversee the movement and reorganization of the collections for which he is responsible. He will spend approximately 25% of his time on the project during Years 1 and 2. Ricketts holds an MA in History Museum Studies from the Cooperstown Graduate Program and has 20 years experience in the museum field, working in curatorial, registrarial, and exhibit-design positions.

**Ginger A. Sweeney, Curatorial Assistant**, will be a member of the *move team* – staff responsible for moving artifacts from old storage areas and installing them in new storage equipment or reorganizing them in Room 340. She will spend nearly 50 % of her time on the project during Years 1 and 2 and 30% of her time during Year 3. Sweeney has performed coursework in the Master of Fine Arts at the Visual Studies Workshop (Rochester, New York), and has been a curatorial assistant at Strong Museum since 1999. A second **Curatorial Assistant** (currently a vacant museum position) will also serve on the *move team*. This individual will spend more than 50% of his or her time on the project throughout its duration.

**Janet S. Guldbeck, Registrar**, will be responsible for inventorying, bar coding, and tracking the artifacts as they are moved and reorganized in their new storage spaces. She will also train the move assistant in bar coding and artifact-tracking procedures. She will spend 30% of her time on the project throughout its duration. Guldbeck holds an M.A. in Museum Administration the Cooperstown Graduate Program and has more than 35 years experience as a museum curator and educator. She has been registrar at Strong Museum for 17 years and is skilled in collections data management and museum storage issues.

**Kate T. Morgan, Assistant Registrar and Collections Data Manager**, will assist the registrar in the above-described duties and will serve as a member of the *move team*. She will spend 50% of her time on the project throughout its duration. Morgan holds a M.S. in Museum and Field Studies from the University of Colorado and served as a graduate assistant to the director of the University of Colorado Museum of Natural History. While pursuing graduate studies, she performed internships with several museums throughout the United States including the Smithsonian Institution's National Museum of American History.

**Thomas M. Reeder, Objects Coordinator**, will be a member of the *move team* and will be responsible for facilitating move preparation activities and for moving artifacts from old storage areas to new storage areas throughout the project. He will spend approximately 30% of his time on the project in Year 1, about 40% of his time in Year 2, and 60% of his time in Year 3. Reeder has been on staff for 6 years and has served as objects coordinator for 4 years. He is well trained in all aspects of objects handling and has helped with object moves on a number of specialized projects.

A **Move Assistant** will be hired to begin work six months into the grant project. This individual will work exclusively on the move during the latter two-and-a-half years of the project. As a member of the *move team*

he or she will work with the museum's conservation and collections management staff to prepare the collections and carry out the move, assist the objects coordinator in relocating artifacts, help track object locations, help conservators to create storage mounts for fragile items, assist collections and conservation staff to install artifacts in new storage equipment, and assist in the reorganization of Room 340.

## **F. DISSEMINATION**

With the completion of this project, Strong Museum will be able to share information about our collections and storage methods within a safe and secure environment that provides adequate space for touring and demonstration. The collections will be more accessible to our audience, including museum colleagues and associations, graduate students enrolled in museum studies, and to students participating in museum-based school lessons.

Strong Museum annually hosts graduate students participating in the museum studies program at the Cooperstown Graduate Program for tours and sessions with the staff. The new collections care unit will model state of the art equipment and preservation methods for these students entering a museum profession.

The museum also will be able to accommodate requests from professional and affinity organizations of collections-related and conservation professionals to host collections-related meeting and seminars. The Costume Society of America has requested that Strong Museum host national and regional meetings to feature the new collections care unit and how it relates to clothing and textile preservation, exposing the project to approximately 500 curators, researchers, and collectors from across the United States. Similarly, the Textile Society of America has expressed interest in holding symposia and touring Strong's improved storage facility. Strong Museum curator Nic Ricketts, who serves as Secretary for the Ephemera Society of America, reports that this national organization has requested use of Strong Museum's facilities for future symposia. The Association of Game and Puzzle Collections, and the regional and state chapters of United Federation of Doll Clubs have always demonstrated interest in Strong Museum collections and curator Patricia Hogan plans to invite these groups to tour the new collections care unit in conjunction with sessions on preservation. Chief of Conservation Barbara Moore will host the Western New York Association of Historical Agencies at a workshop on preservation, which will include a discussion and inspection of the collections storage areas, conservation labs, and registrar's areas.

Additionally, the collections and education team envision a new school lesson for Advanced Placement high school students utilizing the new collections storage area, which will provide more space for such activities. The lesson will give students access to collections in storage, encourage the use of museum artifacts as primary sources, and will culminate in a museum-school project. Curators and educators are also investigating school lessons that provide younger children access to collections in storage in conjunction with school lessons emphasizing the use of primary sources.