

VAMA.018  
CRBIB# 401404  
382/133768

# **FURNITURE CONSERVATION SURVEY**

## **SUMMARY REPORT**

**SITE: THE VANDERBILT MANSION**

**ROOSEVELT VANDERBILT NATIONAL HISTORIC SITE**

**HYDE PARK, NEW YORK**

Survey and Report Conducted under funding from

The National Park Service

North Atlantic Regional Office

Cultural Resource Center

15 State Street

Boston, MA 02109-3572

Survey and Report by  
Robert Mussey and John M. Driggers

Robert Mussey, Inc.  
1415 Hyde Park Avenue  
Boston, MA 02136  
617-364-4054

January/February, 1992



## EXECUTIVE SUMMARY

The Vanderbilt Mansion offers the visitor a chance to see something unusual: one of the finest intact collections of furniture made during the Gilded Age. The collection comprises some of the best furniture of the period; most are excellent reproductions of earlier styles. Likewise, the upholstery fabrics and trims, even the reproductions, are extraordinary. Taken together, the furniture and its decorative coatings and fabrics are outstanding examples of a by-gone era.

Unfortunately, this valuable collection is in jeopardy. The unstable interior environment threatens the entire collection. Preserving the collection depends ultimately on stabilizing and controlling the Mansion's environmental conditions.

### MAJOR FINDINGS

- The unstable environment is the major cause of deterioration in the collection.
- Most of the painted and gilded furniture is actively deteriorating.
- The collection overall is structurally stable.
- Past practices have produced additional degradation, namely, the use of bronze paint, linseed-oil polish, and reupholstery using harmful traditional methods.
- Recent care and maintenance practices are conservative and generally appropriate.
- Serious past and present insect damage is evident.
- Unexhibited furniture is scattered and poorly stored.
- Potential for on-site conservation by Park staff exists.
- Relatively little is known about the collection, hampering its full interpretation.

### SUMMARY RECOMMENDATIONS

We have ranked our recommendations below. These rankings represent what we believe to be more or less important relative to the conservation of the furniture collection. Evenso, we realize that the Park Service must take many other things into consideration when allocating its scarce resources, for example, the results of the Environmental and Textile surveys. Thus we encourage the Park Service to consider

the results and recommendations from all the surveys before allocating its resources for conservation of the Vanderbilt Mansion.

#### **First Priority (Short-term)**

- Develop a long-range conservation plan for the Mansion.
  - Stabilize the interior environmental conditions as soon as possible, to minimize annual fluctuations in temperature and humidity.
  - Eradicate dermestids, since these pose a serious threat to important upholstery.
  - Remove all upholstered furniture from the Oak Room, fumigate it, and return only after the room is free of dermestids.
  - Arrange for emergency, first priority furniture conservation.
  - Research orrerys and formulate treatment plan.
- 

#### **Second Priority (Mid-term)**

- Continue to monitor and improve interior environment.
  - Consolidate and upgrade furniture storage.
  - Decide whether the third floor is to be exhibited, then take appropriate action.
  - Provide training for in-house conservation staff; since facilities already exist, visiting professional conservators could provide hands-on guidance in dealing with prevalent problems.
  - Arrange for second priority furniture conservation.
  - Stabilize deteriorating upholstery and develop plan for upholstery restoration.
  - Monitor for insects and treat as needed.
  - Improve collections management procedures.
  - Arrange for treatment of the orrerys.
-



### **Third Priority (Long-term)**

- Continue to monitor the environment and for the presence of insects.
  - Begin upholstery conservation and reupholstery treatments based on prior research.
  - Arrange for third and fourth priority furniture conservation.
  - Collect and organize information on the history, condition, and prior conservation of the collection.
  - Photograph the entire collection.
  - Update and enhance the collection's catalog information system.
-

## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	ii
SUMMARY OF SURVEY RESULTS .....	1
OVERALL CONDITION OF FURNITURE COLLECTION .....	1
RESULTS OF OBJECT-BY-OBJECT SURVEY .....	5
SUMMARY OF SURVEY RECOMMENDATIONS .....	8
FIRST PRIORITY .....	8
SECOND PRIORITY .....	8
THIRD PRIORITY .....	9
DESCRIPTION OF SURVEY METHODOLOGY .....	11
THE VANDERBILT MANSION FURNITURE COLLECTION .....	14
CONDITION OF THE COLLECTION .....	17
GILDED FURNITURE .....	17
PAINTED FURNITURE .....	17
OTHER FINISHED FURNITURE .....	18
UPHOLSTERED FURNITURE .....	19
STRUCTURE AND VENEER .....	21
PRIOR AND CURRENT CAUSES OF DEGRADATION .....	23
ENVIRONMENTAL INSTABILITY .....	23
SOOT AND DIRT .....	25
INSECTS .....	26
ULTRAVIOLET AND VISIBLE LIGHT .....	26
CORROSION AND DAMAGE: FURNITURE HARDWARE .....	28
POOR QUALITY PRIOR RESTORATION .....	29
VISITOR AND STAFF USE OF COLLECTIONS .....	33
RECOMMENDATIONS FOR PREVENTIVE CARE .....	35
UPHOLSTERY CARE .....	36
FURNITURE CONSERVATION STANDARDS .....	39
HOUSEKEEPING PROCEDURES AND SUGGESTED CHANGES ..	40



OBJECT CONDITION SURVEY FORMS .....	42
BRIEF CONDITION NOTES .....	42
INDIVIDUAL OBJECT CONDITION SURVEY FORMS .....	44



## SUMMARY OF SURVEY RESULTS

### OVERALL CONDITION OF FURNITURE COLLECTION

The major problems we found in the collection were:

1. Extensive prior and very active flaking and loss of gesso, bole and gold leaf; flaking and loss of paint. This is primarily due to long-term severe environmental fluctuations. In particular, year round humidity may fluctuate from 15% to 95% in some spaces. There are only a couple of rooms in the house which have stable conditions, and these are not exhibit rooms. Losses of this type range from very minor, but more typically involve large areas of the objects.

Unfortunately, misguided restorations have led to inpainting of losses with insoluble gold (bronze pigment) paints, which have variably darkened and discolored. In the worst cases, entire gilt objects are gold painted. The aesthetics of the delicate and superb gilding is seriously compromised in many cases. Fortunately, there has apparently not been any of this gold paint restoration for the past 25 years or so.

2. Upholstery textiles and trims are seriously degraded. This is in part due to long-term sun exposure which has embrittled and faded fabrics. Some is due to chemical degradation of the fibers from elevated heat, and some to soot accumulation and damage from soot. Last, prolonged use and mechanical damage have been an important cause. Many of the fabrics are extremely fine. Those on the third floor are among the best preserved of the period we have seen.

Upholstery trims are extremely fine, varied, and a superb collection, perhaps the finest we have ever seen in any one collection representing this period. They unfortunately employ very fragile silk, and brass threads which tarnish. The least used and exposed are in very good condition, but most are seriously embrittled, many broken, and many with extensive losses. Typically, brass thread and wire trims are seriously tarnished. Some trims have lost a large percentage of their total length. Many are on the verge of falling off or apart. Some have already been removed and stored.

3. Extensive problems with upholstery are longstanding. This led to considerable previous reupholstery or upholstery restoration. This was generally of high quality workmanship. In many cases, original fabrics and trims were removed, springs and foundations replaced, and the same fabrics and trims reused. In other cases, only original trims were saved and reused. In all cases, reupholstery unfortunately used chemically unstable jute for



foundation and stuffing work. Already desiccated and rotting, the materials will, in turn, eventually need replacement.

In some cases, jute underside webbing was replaced with corrugated metal webbing. Though this does not match original materials and treatment, it is stable, and can be retained.

Unfortunately, many of the reupholstered pieces did not accurately recreate the tight, boxy squared edges of the original seating furniture foundations. Many pieces are too "puffy" and overstuffed. This is not remediable until the next full reupholstery.

The upholstered collection is a very important one, and it survives with a surprising number of original fabrics and trims, especially on the third floor. A long range conservation plan should take an extremely conservative approach with these important artifacts. Dramatic, rapid development of the field of upholstery conservation in the past decade has provided totally new approaches. These employ tackless systems, minimally intrusive treatments, and chemically stable materials. These methods and materials should be used for future Vanderbilt upholstery conservation treatments.

3. Furniture in the Gold Room is in especially poor condition. The specific reasons why these are worse on average than the rest of the house may be: three window exposures; especially severe environmental conditions; proximity to main Entrance Hall.

4. Environmental conditions in the house are quite severe. Though UV filters have been in place for about 10 years, these have lost a considerable amount of their effectiveness and need replacement.

Relative humidity and temperature fluctuations are severe, as noted above. The kinds of furniture collections represented in the collections are especially susceptible to these conditions.

5. The antique European pieces in the collection are mostly marriages, fakes, or mixtures of old and new parts. The exact history of each would need to be established by more intensive inspection of each than permitted in our survey. Only the mirrors in the dining room and the pair of cassones in the first floor south alcove appear relatively original. It is unlikely the Vanderbilts were aware of these alterations and checkered history when originally purchased.

Nearly all of the European pieces have had extensive restoration. Some of this was due to the serious insect infestation so typical of European pieces. Some was due to damage and degradation of gilding, such as the single gilt



cassone, North Foyer, first floor. The restoration of this piece makes it look totally unlike it did originally, though it was probably done before it entered the collection so should be retained.

6. Almost all of the gilding in the collection is water gilding. A few selected pieces are oil gilt: center table, center of main Entrance Hall; pair of side tables, dining room. Gilding on these 3 is in extremely poor condition. This may be due to poor quality materials at original manufacture, or to especially severe environmental conditions in these locations. These may require complete regilding to ever be stable and look anything like they did originally. This may be desirable especially in the case of the main entrance hall center table, since it is in such a prominent central location, and is the first thing visitors see when they enter.

7. Significant parts of collection have been seriously damaged by linseed oil type polishes, repeatedly applied as a nostrum over many years. These have severely darkened, crazed, and imbibed dirt. They are extremely disfiguring in some cases: the pair of gilt carved sculpture stands in the main entrance hall are now barely visible as gilding; the pair of cassones in the first floor south foyer are so dark that the parcel gilding is now barely visible. Because linseed oil when aged is so tenacious and insoluble, no simple inexpensive treatment will reverse this degradation and improve the appearance dramatically.

8. Furniture survives in superb condition on the third floor. These suites are extremely important survivals. Because the third floor does not lend itself to exhibit, for now these should be covered with dust covers, and available only to scholars by special arrangement.

9. We found no active powder post beetle infestations. All damage of this sort appears to be old and inactive. Past infestation of the French Empire suite on the third floor is all old, though some which appears more recent is not now active. Some of these pieces are now displayed in a plexi-fronted case in the visitors' center.

However, there is serious, long-standing and active ongoing damage from dermestid beetles in carpets and wall coverings. Fortunately, only the Oak Bedroom upholstery on the third floor appears to be damaged from these beetles. We could not tell for certain during the survey just how recent the damage was.

There are also ongoing problems with cluster flies and wasps due to poor sealing and weatherstripping of the building and windows.



10. Storage is spread throughout several areas, primarily the basement and various rooms on the third floor. Buffering is generally good, but shelving and buffering do need to be upgraded. Consolidation into fewer spaces would be helpful. Most stored collections will probably not be exhibited according to current plans, instead forming a study collection. Environmental conditions in storage areas vary, but many are more severe than is optimum for long term preservation.

11. Some serious structural problems were found, which if not repaired and stabilized may lead to catastrophic failure. These include, but are not limited to: armoire, Blue Bedroom; dining room table; armoire, third floor hallway; marble top of dresser, Blue Bedroom; pair of Orrerys, Dining Room; several pieces, Gold Room.

12. Collections maintenance methods and materials are very conservative and generally appropriate. Staff are well trained, extremely familiar with collections, and assiduous in their work. Other sections of this report detail some recommended minor changes.

13. Considerable curatorial and intellectual research is required to broaden the provenance, understanding, and history of the collection. Relatively little effort has focused on this in the past, therefore a fully educated interpretation to the public is impossible. Additional curatorial research will be required to reach final conservation decisions in some cases. Current staff know a great deal about the collection, but a large percentage of this special knowledge and experience is unrecorded. The Park Service should take advantage of this special human resource and systematically record this knowledge in object files and curatorial binders. Systematic staff interviews may be helpful.

14. The pair of orrerys in the Dining Room are a special case, very rare and important--World Class in the opinion of many experts. They are in very poor condition, having been damaged by the inherent vice of the method and materials of their construction; by visitor handling in their prior location near the room entrance; and by environmental damage leading to cracking and flaking, dirt, and tarnishing of metals. High priority conservation treatment should be preceded by further research and investigation by specially qualified experts and historians of scientific instruments.

15. Collections management policies and practices are generally appropriate, for which staff should be highly commended. Some upgrading and changes are recommended.



## RESULTS OF OBJECT-BY-OBJECT SURVEY

PRIORITY	CONSERVATOR (Estimated Hours)	ON-SITE STAFF (Estimated Hours)	TOTAL OBJECTS
#1	638	1,480	18
#2	1,055	1,755	86
#3	1,317	2,222	96
#4	109	1,255	136
#5	0	0	47
TOTAL	3,119	6,712	383

Object condition reports on these 383 are appended. There is some room for individual judgment about whether objects with specific conditions should have a particular ranking, but the above categories should give good overall guidance to formulating a long-range treatment action plan.

At the Curator's direction, approximately 105 objects in storage in basement rooms and third floor servants' rooms were examined more cursorily, with no specific object condition reports. These will probably never be displayed, and are considered more as study objects. Some will require basic stabilization treatments for safe long-term storage. Brief notes on them are appended.

The priority #'s 1-4 given are those defined in the Project Bid Documents and applicable Task Directive--we have added # 5. These are defined as:

Priority 1: Critically unstable. Objects in this category show signs of active or accelerated physical, chemical or biological deterioration and are in urgent need of conservation attention. Examples within this category include, but are not limited to, insect infested objects, those rapidly corroding, and embrittled and excessively fragile objects undergoing continual and cumulative damage due to improper conditions or display techniques. Conservation attention should be given immediately, or within approximately one year, depending on the severity



of the on-going condition. Failure to treat these will probably result in serious damage, loss of structural or aesthetic integrity.

Priority 2: Significantly unstable: These objects show signs of past and prolonged deterioration resulting in fragility or physical weakness that is either presently or potentially threatening to the preservation of the object. Loss of artifact material can be considered to be imminent without intervention. Conservation attention should be received within approximately one to three years.

Priority 3: Moderately or potentially unstable: These objects often have structural problems caused primarily by damaging incidents like breakage or mishandling. They may have problems such as in Priority 2, but less severe. These may have been repaired at one time, and the repair itself may be failing, allowing movement in the joints, of poor quality, or disfiguring. Conservation treatment may involve laboratory intervention, or more simple preventive conservation measures such as protective housing in storage, or application of a barrier coat on metal, depending on the condition and interpretive goals for individual objects. Conservation attention should be given as needed within five years.

Priority 4: Stable, but damaged and/or disfigured: These objects are broken or have other conditions of structural or surface damage, but are not unstable in the sense that an identified condition will worsen with time if stored or exhibited protectively. Any surface dirt, grime or accretions are not actively threatening to the preservation of the object. Although these objects exhibit some instability, it will be necessarily eventually to mend and/or clean them for cosmetic purposes if selected for exhibit or photography for publication. Conservation attention should be given as needed.

Priority 5: Stable, no treatment required. Fully exhibitable. Requires only routine maintenance treatments.

Of the 18 objects to which we assigned # 1 priority for treatment, we judged that immediate treatment is required or further serious structural problems will result; or serious additional loss of gilding, gesso, paint or veneer will result; or serious loss of important original upholstery will result; or there is evidence of possibly active insect infestation.

Assumptions underlying above estimated treatment hours:

In most cases, treatments are to stabilize and repair, with some compensation for losses where critical; including inpainting. Treatments and estimated hours are not for major compensation for losses of gesso, bole, and gold leaf. In some cases, the Vanderbilt might choose on selected pieces to have more major



restoration done of gilding, involving major compensation. Major additional hours would be required in addition to the above.

In most cases, upholstery stabilization and relatively minor treatments are included in the above hours estimates. Because upholstery conservation/reupholstery treatments can vary so widely depending on the assumptions and approach, major reupholstery is not included in the above estimated hours. Nor is treatment for textiles and trims (being covered by textile conservator in her report), or the cost of purchasing reproduction fabrics or trims. Considerable additional time would have to be dedicated to each upholstered object to arrive at final treatment methods, materials, and costs.

The above estimates do not include time or direct costs for documentation and photography, since that too can vary widely depending on the type of photography, how much, how detailed, etc. Direct materials, transportation, and insurance costs are not included either, nor any other overhead cost factors.

Estimates for treatment by in-house furniture conservation technicians assume a primary recommendation of this report: that qualified furniture conservation technicians must be hired as regular staff to adequately address the enormous deferred furniture conservation needs. Technicians will need some specialized training and supervision by qualified contract furniture conservators to accomplish these treatments.



## SUMMARY OF SURVEY RECOMMENDATIONS

### FIRST PRIORITY--Short-term

1. Based on the three current conservation surveys, write a formal, long-range conservation plan.
2. Stabilize environment to the greatest extent possible according to Steven Weintraub's recommendations to reduce the severity of annual fluctuations.
3. Take all necessary steps to safely eliminate dermestids. These pose a serious threat to important upholstered collections.
4. Remove upholstered furniture from the Oak Room; fumigate with Vikane or other similar approved fumigant. Do not return to Oak Room until the room is free of dermestids.
5. Arrange for emergency, first priority furniture conservation treatments as detailed on individual object survey sheets.
6. Retain specialist consultant(s) to do research on orrerys. Based on their findings and recommendations, arrange for a furniture conservator to do technical investigation of paint history on bases, then to provide a final proposal and estimate for conservation treatment.

### SECOND PRIORITY--Mid-term

1. Continue to monitor and improve interior environments.
2. Consolidate and upgrade furniture storage areas. Consolidate to rooms with the most stable long term environment. Upgrade shelving, buffer materials, dust covers for all stored objects. Create aiseways. Add readily readable ID tags.
3. Take all third floor furniture off active view. Apply dust covers to all. Continue to monitor for dermestid infestations even though these pieces are stored.
4. Retain fully qualified furniture conservators to come work on-site for 1 or 2 weeks at a time in your lab. They could come with an arsenal of materials, solvents, cleaners, and materials. This would be an ideal opportunity to pull several selected pieces from the collection with typical problems, and demonstrate hands-on techniques for treating these to in-house conservation



technicians. These skills and materials would then be applicable to large groups of objects in the collection. The consulting/training conservator would be able to try out specific formulations on many different objects to determine the appropriate materials to use in many different cases.

We believe the use of in-house conservation personnel can be a critical and central component of professionally addressing your enormous furniture conservation needs. Fully trained contract senior conservators can continue to be used to do the most difficult, demanding, and specialized treatments which in-house staff are incapable of.

Given the presence of a fine conservation facility on-site, we believe VAMA should also seriously consider hiring a qualified professional conservator to staff this facility. Much of the conservation supplies, materials and equipment required is already on-site.

5. Arrange for # 2 priority furniture conservation treatments.
6. Define priorities for upholstery conservation. Define standards and methods to be used for upholstery conservation treatments which will best benefit VAMA furniture. Research reproduction fabrics and trims. Begin to retire most fragile fabrics and trims to storage. Do stabilization upholstery treatments at this point as highest priority, restoration later.
7. Continue insect monitoring.
8. Upgrade collections management procedures as previously outlined. These are a critical component of a preventive conservation program.
9. Treat orrerys based on prior research and proposal by furniture conservator.

### **THIRD PRIORITY--Long-term**

1. Continue monitoring of insects, environment.
2. Begin priority upholstery conservation/reupholstery treatments based on prior discussion of basic approaches and fabric and trim research.
3. Arrange for # 3 and # 4 priority object treatments.
4. Interview all staff on history, condition, and prior conservation of furniture collection. Record in object files.



5. Begin program to conservatively clean, polish and lacquer furniture hardware. This can be done in-house after intensive training by consulting qualified conservator.
7. Begin program to photograph the entire collection.
8. Begin program to update and rewrite catalog cards. Begin curatorial and intellectual research on furniture collections to deepen understanding of what they are, where they came from, and their specific histories.



## DESCRIPTION OF SURVEY METHODOLOGY

Since the Vanderbilt has not received much attention in recent years from the National Park Service (NPS) (most resources have been focused on the Roosevelt Home after the 1982 fire), this survey was conducted as part of a larger overall project to systematically survey the environmental conditions in the Mansion, the textiles, and the furniture.

The survey was preceded by a series of phone communications between Vanderbilt staff and the surveyors for preplanning. Staff sent background reading several weeks ahead of time to familiarize us with the institution, collections, and previous planning. These included:

- The Vanderbilt Mansion, Charlotte Scholl/Richard Cheek
- Scope of Collections Statement, Vanderbilt Mansion National Historic Site; draft
- Final Master Plan: Vanderbilt Mansion: January 1976
- "French and Company Inc: Proposal and Estimate for Restoration", dated October 18, 1943

A custom computer "macro" was pre-programmed by the Surveyors to create a reproducible computer survey form exactly corresponding to the object information requested in the applicable "Order for Supplies or Services". This was prepared using Wordperfect 5.0. This report and all object condition forms were prepared using the same computer program.

The on-site survey took place over an intensive one-week period in January, 1992. Robert Mussey and John Driggers, furniture conservators of Robert Mussey, Inc., conducted intensive staff interviews with Curators, Curatorial Assistants and Technicians, some maintenance staff, and with Conservation Lab personnel. Prior conservation work was inspected at the Roosevelt home to assess appropriateness, methods and materials, and quality of work.

An initial one-hour meeting was held, attended by Roosevelt-Vanderbilt site administrators, regional NPS staff, site and Vanderbilt Mansion Curatorial staff, and surveyors. Broad discussion of overall goals for the survey were identified, including:

1. Describe and quantify the conservation problems
2. Identify agents of deterioration
3. Assess suitability of previous conservation
4. Identify and describe the needs for conservation funding
5. Rank recommendations for a long-range preservation "action plan"



6. Identify skills levels of current staff; assess their qualifications to carry out various elements of an action plan; suggest upgrading of training where appropriate.
7. Identify past and current furniture maintenance; suggest changes and guidelines for future maintenance.

We were then conducted on a morning-long intensive room-by-room tour of the Mansion by Curatorial staff. This included all basement rooms, exhibition rooms, storage rooms, servants' quarters, halls, closets, etc. Expert running commentary was provided by the Curator and Curatorial Assistant. This served to familiarize us with what is known of the objects, their provenance, condition, prior conservation history; storage conditions; collections maintenance policies; collections management policies; prior restoration treatments; the house environment; refurnishing options; staff knowledge of collections.

The survey continued with the object by object examination and recording, which proceeded for 4 1/2 days per conservator. This was done on 2 portable IBM-type computers. Staff expedited this process by pre-identifying the catalog numbers of each object. Throughout this survey, staff were able to answer a multitude of questions about the house, the collections, and possible plans for the future. We, in turn, provided a running commentary on what we were finding, and to acquaint staff more intensively with the collections and our proposed recommendations for conservation.

We were also able to examine some additional internal documents during the survey, including two folders with lengthy histories of the property.

On Thursday, we spent approximately 1 hour with assembled Curatorial, technician and maintenance staff discussing collections handling and cyclical maintenance. Having inspected the collections for 3 1/2 days at that point, we reviewed what we thought to be the best collections handling and maintenance procedures for these specific furniture collections. Staff provided us with extensive information on past and current procedures. A fine give and take education session resulted.

On Friday, we spent the morning with on-site conservation lab personnel. This included a lengthy tour of the conservation lab facility; inspection of storage methods and buffers; inspection of conservation tools, equipment and materials. At this time, we inspected selected hygrothermograph charts from 3 previous years, and discussed some of the broad conclusions that could be drawn from the charts.

We then moved to a lengthy tour of the Roosevelt Home to inspect previous conservation treatments, primarily by in-house staff, of furniture and metals subsequent to the fire. Treatment philosophy, methods, and materials were explored. Staff was interviewed regarding their awareness of conservation standards, areas of



skill competence, need for additional training, familiarity with furniture conservation problems and contemporary standards, etc.

Finally, we conducted exit interviews and discussions with the Curator and curatorial staff.



## THE VANDERBILT MANSION FURNITURE COLLECTION

The furniture collections in main exhibit rooms date from the late 19th and early 20th centuries. These objects are predominantly high quality reproductions of various earlier period European styles. There are perhaps only a dozen pieces which date from much earlier periods. And many of these antiques appear to be "marriages" or intended fakes (reproduction pieces made of old wormy wood and some newer wood in older styles, or mixtures of period elements mixed with new elements). The Vanderbilts and their decorators do not appear to have been interested in the genuineness of antiques, but rather in creating an effect suggesting the grandness of antique styles. In keeping with the Vanderbilts' wealth, the decorators apparently spared no expense in purchasing the finest fabrics and the finest reproduction furniture then available.

The only pieces which appear to be truly of the early age they purport to represent are:

- the pair of Italian cassones, 1st floor South Entrance Hall foyer (bun feet, base, rear legs are modern);
- cassone, North Foyer, 1st Floor entrance hall, though "ruined" by previous restorations;
- pair of gilt torcheres, South Foyer (with many layers of restoration gesso, gilding, and gold paint);
- pair of gilt mirrors in dining room;
- two unmatched refectory tables, Drawing Room--both are mixed old and new parts;
- Octagon Table, Drawing Room--old and new parts;
- throne chairs, 2nd floor hall--appear to be some old parts mixed with new parts; 1st floor stair hall--some old, possibly. some new parts; pair of armoires, 1st floor Entrance Hall--some old parts, but appear to be made up pieces to us.

Definitive identification of the true provenance of the above pieces would require perhaps many hours of inspection and further consultation with European furniture specialists. It is unclear whether the Vanderbilts bought these pieces as genuine antiques, since most period personal documents are unavailable.



Numerous sets of gilt reproduction French and Italian furniture are of superb quality: some chairs have true period tapestry upholstery coverings, many of early 20th century reproduction-style tapestry covers. The carving, joinery, and gilding was originally superb, though deterioration has compromised much of this original quality. Similarly, white- or gray-painted reproduction French bedroom suites are of fine quality and execution.

Spread through several rooms in the house are superb French reproduction marquetry and veneered pieces, made by the Parisian firm of P. Sormani with extensive gilt ormolu of extraordinary quality.

Some of the suites of reproduction furniture are of American manufacture. These include, but are not limited to:

- large Mauve bedroom (Probl. American)
- oak suite, third floor: unmarked, but possibly by Herter Bros., NYC
- Arts and Crafts suite, "Green" Guest Bedroom, third floor: no label found, but secondary woods all American, similar to Mauve Room furniture
- Head Housekeepers bedroom, painted with floral decoration, label of manufacturer "Pooley", Philadelphia
- Maple veneer suite, Rm. 53
- Painted suite, Rm. 48, Label of Paine Furniture Co., Boston
- Colonial Revival mahogany suite: Rm. 45
- Individual pieces of furniture: Mr. V's Bedroom, one labeled
- most other furniture in servants' rooms

It seems likely that some of the furniture was moved from other Vanderbilt houses when the house was originally furnished or at a later date. For example, the French Empire furniture suite in the third floor Empire bedroom, has a Newport, Rhode Island, restorer/upholsterer's label on the underside of one chair or settee, and may have come from the Vanderbilt's Newport home.

Several of the bedroom sets now painted white appear to have been painted more of a gray or glazed white color (see chipped areas). It is unclear if these suites were moved from another house then repainted for the Vanderbilt Mansion, or if they



were always in the Mansion, and the grayish color represents an early paint scheme, the white a later one.

One of the extraordinary aspects of the collection is the number of superb quality upholstery fabrics of many types dating probably to the first period of original house furnishing: Japonesque printed cotton or linen; tapestry style; cut and voided velvets; silk damasks, and others. Trims, gimps, and fringes also dating from this first period are absolutely extraordinary: we do not believe we have ever seen a finer collection of original trims in one collection. In previous reupholsteries, the period fabrics were often discarded, but many of these trims were fortunately saved and reapplied on modern reproduction fabrics. The upholstery collection should be considered one of the finest of the "Gilded Age" in this country in our opinion. [Note: many of the modern reproduction fabrics are very accurate; others bear a very poor relationship to the originals they replaced].

Some of these period fabrics and trims are in extraordinary original condition (Green Room, third floor) and only moderately faded and degraded. Others are in very poor condition, totally faded and desiccated (Small Mauve Room), however these remain very important documents of earlier periods of furnishing. Other deteriorated fabrics and trims removed from seating furniture during previous reupholstery have fortunately been saved in storage.

It is believed that few pieces which were present in the house when given (1940) to the Federal Government are missing. This is documented by an excellent, but incomplete, series of photographs done at the time when the house and contents were put up for sale.

In summary, the furniture collection represents a remarkably complete and relatively unaltered statement of the Gilded Age. It is probably one of the most unaltered complete collections of this period we have seen. There is an unusually high percentage of period fabrics, upholstery, and period carpets. Furniture for the most part is displayed in the same locations as in 1940. The Vanderbilts do not appear to have taken an extremely active role in the original furnishing, preferring instead to delegate most decisions to the variety of decorators retained for this role. The furnishings are therefore somewhat "generic", but as such remain extremely important in expressing the "zeitgeist" and the richness of upper class decorative arts of the period.

Unfortunately, most small objects were retained by the Vanderbilt family heirs before 1940; there has never been a formal paint study in the house interior; few original wall coverings remain; some reproduction fabrics are not good reproductions. Therefore, the context for the furniture is incomplete, and inaccurate in some respects.



## CONDITION OF THE COLLECTION

### GILDED FURNITURE

The most ubiquitous problems we found in the collection are with gilded surfaces. Water gilding, which predominates in the collection, is composed of: base layers of gesso, bound with rabbitskin glue; bole (a fine clay), also bound with rabbitskin glue; gold leaf or other metal leaf; leaf is sometimes burnished to a high gloss, sometimes coated with a patinating toner to create contrast or dull the appearance.

The gilt objects have had ongoing problems with desiccation and embrittlement of the glue binder in the gesso and shrinkage and swelling of the ground wood, leading to flaking and loss of gesso and gilt. These problems are so extensive in some cases that it appears they date well back in the history of the house.

Because flaking has been occurring for a long time, a significant number of gilded objects have been "cosmetically" repaired with "gold paint". Given the large percentage of gilt pieces in the collection, this is a serious problem.

Naturally, the visitors are kept at some distance from the objects by barrier ropes, and only one or two sides of the objects are visible from vantage points. So the seriousness of the problem is not always immediately apparent. But the problems are indeed serious.

In effect, many of the gilt pieces are incrementally losing their visual meaning, which derives so fundamentally from their surface gilding, slowly but inexorably. In time so much gilding is lost that their value for exhibition becomes fundamentally compromised.

Please note, however, that this loss of gilding is quite variable. Some sets of furniture are much more stable, and have lost very little gilding. This may be due to superior formulations for gesso and bole, more dimensionally stable ground woods, historic use in a more environmentally stable room in the house, or to use in a room that was very little used. Nevertheless, there are enough pieces surviving in relatively untouched condition that there are visual references for what they originally looked like.

### PAINTED FURNITURE

Painted finishes, like gilt surfaces, have a fairly similar history, prior restorations, and current losses due to flaking. This is due again to embrittlement of thick paint coatings with consequent loss of flexibility, coupled with cyclical movement of ground woods due to environmental fluctuations, especially relative humidity.



Condition again varies from object to object and set to set. Flaking is more severe with very thick paints, especially where outer paints appear to cover older underpaints. Flaking may be due to loss of adhesion or variable stresses resulting from variable ageing of coatings of differing constitution.

With paint losses, deep voids result, revealing the ground wood or lower primer coats. This leaves a "speckled" appearance. As with the gilding, there is a prior history of inpainting losses to hide the damage. Unlike the gilded objects, this inpainting does not appear to have caused further damage, since inpainting is localized to the loss and does not overlap the intact paint.

## **OTHER FINISHED FURNITURE**

Other finishes in the house range in type, history, and condition, so it is difficult to make sweeping generalizations. The veneered and marquetry French furniture by Sormani is in very good condition, having been refinished in the 1960's. The finish is, however, an inappropriate modern cold looking sprayed lacquer. Much of the reproduction Italian walnut furniture has original linseed oil or wax finishes. These were very thin and without much gloss originally, so their current appearance remains largely in accord with that "quiet" look.

The two refectory tables and the walnut octagonal table in the Drawing Room have a more complicated history, since they appear to be made up of new and old parts. These also have a long history of insect infestation, consequent loss of chunks of wood, resulting application of repair patches and wood putty to compensate, and a varied history of dark inpainting and selective finishing to integrate this patchwork quilt. This varied surface has been further altered and darkened by repeated application of linseed oil containing polishes and pommades, which has itself darkened further. This is not a condition we recommend doing anything about, because removal of these restoration layers will make the checkered history glaringly obvious.

The two Italian cassones in the South Foyer first floor, are also made of new and old pieces, and have a rich and varied history. It appears to me that these have restoration parcel gilding, which has been slathered over with repeated coats of linseed oil for many years. This has now darkened and crazed dramatically to the point that the gilding is barely visible, especially in the low light in this hall area.

Linseed oil has wreaked similar havoc on the two carved and gilt sculpture stands in the Main Entrance Hall first floor. The accumulated layers are so thick and the long-term darkening of the oil so severe that this is almost not apparent as gilding.



Found commonly in the collection is local damage on tops (tables, commodes, dressers, desks) from spills of water, perfume, and other unknown delights. These range from superficial to completely disfiguring. The degree of aesthetic compromise is related to the viewing distance and angle to the visitor. In general, these kinds of problems are merely aesthetic, not requiring treatment for any other more pressing reason. Much of this damage has been disguised with table covers or flower vases. Liquids damage is found more commonly on the third floor, perhaps as a result of these areas having been used as a "hotel" for government personnel many years ago.

## **UPHOLSTERED FURNITURE**

The upholstered collections represent work from the golden age of upholstery. During this period, upholstery techniques were at their most advanced, and the craft and training traditions still maintained a large pool of skilled labor drawing on traditions from preceding centuries. Techniques used in this period and in the collection include tufting and buttoning; the use of tightly sewn foundation edges ("box" edges) forming nearly a right angle; springs, requiring considerable skill to install and restrain at proper tension.

The finish fabrics and trims represent some of the most elaborate and expensive available in their day.

We have described previously the relatively high percentage of original or partly original upholsteries present. Unfortunately, the upholstered collections have suffered serious problems.

Most of the foundation webbing and sacking in the early 20th century was made of jute, chemically a seriously unstable fabric and fiber. It tends to become extremely acidic, and can badly damage finish fabrics that it contacts. The more immediate problem is that as it degrades, it weakens and breaks easily, so that under the accumulated pressure of historic use, and the static ongoing pressure of tightly bound springs pushing against it, it breaks and tears. This inevitably leads to breaking out of bottom springs, collapsing of upholstery foundations, shifting of stuffing and uneven wear on finish fabrics, etc. In contrast, the linen webbing, sacking and underupholstery used in the 18th century was chemically quite stable, and tended to last much longer. So this problem with jute is an inherent vice, like a time bomb.

This has expressed itself liberally throughout Vanderbilt collections. It appears that a high percentage of upholstered pieces developed these problems, and therefore were partially or fully reupholstered. Several pieces can still be found with rotted jute webbing and springs hanging out the bottom.



Extensive previous reupholstery was found during our survey, especially in rooms which received the most use on the first two floors. In much of this, the standard approach seems to have focused on removing, saving, and reusing period textiles and trims wherever possible; replacing rotted jute webbing with new jute webbing; replacing or reusing original coil springs; replacing or augmenting underside jute webbing with corrugated metal springs (which the coil springs are "screwed" into).

Where original fabrics were too degraded, modern reproduction fabrics were purchased. In some cases these are fine reproductions, either accurate or very similar in design, pattern, color and fiber to the originals. In other cases (throne chairs, second floor hall; Red Rooms), reproductions are of a very poor match, passable only. In many cases, samples of the degraded original fabrics were saved, are now stored in the museum storage areas.

The condition of the fabrics now displayed on chairs varies widely. Most are dirty to one degree or another, despite regular maintenance vacuuming.

In virtually all cases where there was reupholstery, usable original trims and fringes were saved and reused, and generally reapplied to reproduction fabrics by sewing. We also found some glue. Where only portions of the original trims were reusable, fragments were augmented with modern reproduction trims to match as closely as possible. Matches vary in fidelity. Fabrics colors are universally bleached to varying degrees, depending of course on the type of dye used, the severity of exposure, etc. Some fabrics are so totally faded their pattern and color has virtually disappeared (Small Mauve Room). Others have selectively faded, appearing yellow or tan when they were originally green (Empire Bedroom).

Other fabric damage noted results from long-term fiber degradation, which when coupled with historic use has led to shattering, tattering, and wear and loss (most frequently on arms, edges of seats, etc.). Where this occurs, undercovers (or "scrim"), or batting or stuffing are showing.

In only two egregious cases (Drawing Room), previous restoration of a badly worn cut velvet fabric included inpainting of areas of damage or loss with pigmented paint, leaving the fabric looking more like garish rubber boat seat upholstery.

Other previous upholstery repairs are minor, such as sewing repairs, or adding a few upholstery tacks. Because silk is the primary material used to make most of the original trims, tassels and fringes, remaining originals are generally in extremely fragile condition. In many cases, they are torn and hanging, sometimes with considerable areas of loss. Because of their complexity, they have accumulated considerable dust, dirt, and soot. And because of their fragility, they cannot be readily cleaned. So their aesthetic appearance is often severely compromised.



Fortunately some original trims removed from seating furniture have been saved in Collections storage areas.

Many other upholstery trims employ brass threads, thin wire, or thin flat wire, sometimes woven into a flat tape, sometimes braided into a long coil or hanging "bob" (see green silk in Green guest bedroom). Since brass tarnishes over time, most of these trims are badly darkened, and barely resemble their bright shiny golden original appearance.

Since many of these trims and fringes are extraordinarily complex, they were expensive in their day, and many times that expensive today. Many of these trims are not even available today, though some could be custom made, no doubt at considerable cost.

## **STRUCTURE AND VENEER**

The furniture collections present a fair share of structural and veneer problems, though far less than most collections we have surveyed. This may be due to: the very high quality of the reproduction furniture; the relatively recent provenance, most being late 19th or early 20th c.; the fact that the house was used only as one of several Vanderbilt houses, and was unoccupied much of the year; no children were raised in this house; the collections have been under National Park Service care for the past 50 years, receiving reasonably heightened care and presumably no use; the fact that there are relatively few true antiques in the collection.

We did find a few very serious structural problems, many of which staff are already well aware: serious structural instability and loosening of glass door hinges on the Armoire in the Blue Bedroom; cross-grain shrinkage cracking of the side panels of the two Sormani commodes in Mrs. Vanderbilt's bedroom, leading to cracking of surface veneer; serious weakening due to insect weakening, especially on the two "armoires a deux corps" in the main entrance hall; glue joints failing on the stretchers on the dining room table; shrinkage cracking in the Entrance Hall gilt center table, and in one refectory table in the Drawing Room. The orrerys also have serious structural shrinkage, delamination, and deformation.

Other extensive structural problems were found on servants' room furniture and furniture stored in the basement, though most of this will never be exhibited. This list is not intended to be complete, only to indicate that we did find some problems, but relatively few considering the size of the collection. Please consult individual object condition sheets for a full listing.

There are relatively few veneered pieces in the collection, or we would have found many more veneer problems. The major problems we found are on the veneered



parquetry desk in the Gold Room, with areas of delamination and on the veneered chest of drawers in the Empire Bedroom. Other veneer cracking problems are found on the two Sormani commodes in Mrs. Vanderbilt's bedroom.



## PRIOR AND CURRENT CAUSES OF DEGRADATION

### ENVIRONMENTAL INSTABILITY

The relatively uncontrolled interior environment in the Mansion is, in our opinion, the single greatest cause of serious and ongoing damage to the furniture collections. It is the primary cause of the unchecked flaking and loss of gesso, gilding, and paint. Due to the complexity of gilt and painted surfaces, and the expertise it takes to conserve them, damage is occurring at a disturbing rate. Expenses to treat these problems of gilding and paint loss will be very large. But treatment and stabilization only treats the symptom, not the cause. Without environmental stabilization, conserved but still fragile objects will be returned to the same environment which caused the problems initially.

Previous sections of this report have described damage especially to gilding, painted finishes, and veneered surfaces from long-term environmental changes. The mechanisms of this damage are worth detailing here.

Virtually all of the furniture is made of wood. Due to its inherent nature, wood is "hygroscopic" throughout its life as a tree and when converted to furniture. This means it has a permanent ability to release and absorb moisture so that it can reach equilibrium with the surrounding environment. As it takes on moisture during damp seasons, it swells in dimension across the grain--this varies according to the particular species of wood, the way it is cut out of a log, and the particular grain structure of the individual piece. During periods of low surrounding relative humidity, it in turn gives off moisture, resulting in corresponding shrinkage. Even when old, wood continues to shrink and swell. This may stabilize a bit over time, but severe RH fluctuations will reactivate it. [Wood is much less sensitive to temperature changes. Changes in temperature merely change the local relative humidity, the primary cause of wood response.]

Most furniture is made up of complex constructions of many pieces of wood, often joined with grain of one piece opposing the grain of adjoining pieces. When humidity changes, these various pieces begin moving, often against each other. When furniture is new, these joints and the glue that adheres and restrains them have some inherent ability to accommodate these changes. However, as furniture ages, the glues age too. Cyclical shrinkage and swelling eventually ruptures a joint. If cyclical swelling and shrinkage reaches a certain maximum, severe cracking and splitting of partially restrained wood structures results. This is prominently visible at the Vanderbilt Mansion on both Italian walnut refectory tables in the Drawing Room. The huge baulks of wood making up the tops have shrunk, resulting in gaping splits. Prior attempts to restrain this with double-keyed dovetail repairs on the underside have been unsuccessful. The tremendous forces exerted have sheared these keys across the grain, and the cracks in the top have widened even further.



The problem is often most severe with European-made furniture later imported to America. This is because the prevailing humidity in Europe is higher than here. When the more damp wooden furniture is then exposed to the much lower prevailing humidity, especially with central heating, radical shrinkage often results.

These results are visible on the French Empire veneered chest in the Empire bedroom. Once veneer is loosened, continuing cyclical fluctuations tends to proceed at an advancing pace, quite prominently visible in this case.

The Entrance Hall gilt center table, and the pair of gilt side tables in the dining room are important special cases. They have serious and distinctive problems peculiar to aged oil-gilt surfaces (as opposed to water gilt). With this type of gilding, the gold leaf is secured to the wood or gesso substrate with "gold size", which is an oil/natural resin varnish. This is subject to the same long-term degradation as any organic varnish. The degradation is accelerated by extremes of environmental changes, and high heat.

In both cases, the size has degraded, leading to serious flaking and instability of the overlying gold leaf. On the center table, size and leaf have been laid directly on the wood ground. There is serious shrinkage cracking of the large members of the wood ground, extreme wear and loss of gilding, and heavy dirt accretions. Some of this may be due to its prominent location immediately in front of the main front door of the house. It probably got more blasts of cold and hot air, more dirt accumulations, more regular abrasive dusting, and more application of polishes than most other pieces in the house. It is in very poor condition.

The two gilt dining room side tables have size and gold leaf laid over an intermediate gesso. Tremendous instability of this gesso has lead to extensive flaking and loss. This occasioned many applications of gold paint--in fact, most of the surfaces are overpainted with gold paint. As noted previously, ageing and shrinkage of this overpaint has exerted additional pulling on the leaf and gesso, accelerating gesso loss. They are a mess, extremely unstable, and aesthetically compromised.

These three tables are prime candidates for complete stripping and regilding, in our opinion. Continued stabilization and bandaid treatments will spend more money without significant long-term effects. In the case of the center table, it is the first thing visitors observe when entering the house, and is a poor introduction to the fabulous interior they should be seeing.

The environmental fluctuations have had little or no effect on inorganic furniture materials in the collection, such as metals, marble, and stone, as would be expected.



The fluctuations are not new. The prevailing outside environment in Hyde Park ranges from extremely cold dry winter conditions, to extremely hot, damp summers. As detailed by previous years' hygrothermograph charts, yearly relative humidity can range from 15% to near 100%, even inside certain rooms in the house. Damage from flaking gilding has probably been long-standing, perhaps from the date of original importation. However 90 years later, these gilding materials are now much more desiccated, aged, and embrittled. Even small fluctuations today are the probable cause of the rampant flaking seen today.

A team of conservation consultants is preparing a comprehensive survey report of environmental conditions within the Mansion and recommendations for improvement. Therefore, this report only documents the severity of the conditions we found, and their negative effects on the furniture.

## **SOOT AND DIRT**

We have noted previously the accumulation of soot and dirt on upholstery fabrics and delicate trims. The problem is similar though less dramatic with other surfaces. In the past year or two, there has been a problem with malfunction of the central furnace, resulting in tremendous production of soot and its distribution throughout ductwork to the first two floors.

Staff are well aware of the potential problems that constant handling and cleaning of sooty collections can cause, and a policy has been in place for at least a year to discontinue much routine cleaning until the source of the problem is fixed. This is wise.

Many furniture surfaces show the incremental results of long-term soot and dirt accumulations. This appears especially severe on surfaces which were routinely oiled with linseed oil or other oily polishes. Since these take a long time to dry hard if they dry at all, they have tended to collect and accumulate dirt over a long period of time. This no doubt explains part of the reason why some of the natural wood finishes have darkened so severely, though other contributions to darkening have been made by inherent darkening of the oils themselves.

Secondary damage from dirt and soot has occurred to many gilt, veneered, and painted surfaces. When it accumulated on gilding or paint, it had to be dusted off. This process in and of itself is mildly abrasive, leading at least to wear otherwise intact metal leaf. Many surfaces of gold leaf have therefore been worn through to the underlying red bole. This is somewhat disfiguring.

More serious is the problem of dust rags and dusters catching on ragged edges of prior gilding, paint or veneer losses, and pulling off more fragments. During our



survey, we found many threads from dust cloths caught on these raw edges, positively indicating that many losses have occurred through this medium. This "collateral" damage of soot and dirt may, in this case, be the most serious.

## INSECTS

The furniture collection has been and remains blessedly free of most infestations. We did find some evidence of previous wood boring beetle infestation in a number of pieces worth noting. None appears to be active.

- French Empire Suite: Empire bedroom, and exhibit case in Visitor Center. Known previous infestation, though all have been closely monitored on white paper over a period of years, and none is now apparently active.

- Two cassones, South Alcove; two armoires a deux corps, Main Entrance Hall; two refectory tables and octagonal table, Drawing Room. None is active, though serious weakening has occurred to some elements of some of the pieces. Most have had extensive previous restoration and repair because of these problem.

- Selected other elements of married pieces of furniture: throne chairs, first floor Entrance Hall and second floor hall.

Some insect "sticky traps" are used in the Mansion though we did not notice nearly enough to ensure thorough coverage of all museum spaces.

More serious is the threat to upholstery textiles from dermestids, probably carpet beetles, exact species unidentified. These have been a serious problem for many years in carpets and wallcoverings in many of the rooms, especially on the second and third floors. We therefore looked very carefully at upholstery textiles to see if there are signs of previous or current infestation.

We observed relatively few occurrences of damage to textiles, in fact only on the 4 upholstered pieces in the Oak Bedroom, Third Floor. We could not tell if this was a result of recent or current activity, but believe some may be active. We did not actually observe adult insects or eggs. Nor did we attempt to detect presence of infestations in underupholsteries. However, it is clear that there is a real ongoing threat to upholsteries in this room, and an aggressive program should be undertaken to monitor for activity, and to fumigate if found.



## ULTRAVIOLET AND VISIBLE LIGHT

Damage from UV and visible light is most prominent on upholstery textiles, but is found also on all types of gilding, paints, and natural wood finishes.

Both UV and visible light cause damage to finishes in several ways. First, they promote chemical processes of degradation, oxidation, hydrolysis, polymerization and crosslinking of the various organic materials in finishes: oils, shellac, resins, dyes and organic pigments. This leads to embrittlement, darkening or yellowing, crazing, and other discoloration. Some types of pigments, dyes and colorants may be bleached.

Damage is further promoted by the local heating effect when visible light and infrared radiation strike organic furniture surfaces during sunny hours of the day. Local heat is generated, accelerating the destructive chemical processes cited above. Equally important with fragile finishes, cyclical local heating leads to cyclical local changes in relative humidity, and therefore shrinking and swelling of wood substrates. When various organic finishes are new, they have some innate flexibility, and can shrink and swell in tandem with underlying wood substrates. But when aged, these finishes lose their original flexibility. Local heating and RH changes then begin to result in flaking and loss.

It is not possible to say what percentage of the problems of flaking paints and gilding are due only to UV and visible light radiation, but certainly they are a major contributing factor.

Some objects show this finish damage dramatically. Most prominent is the Steinway piano. This finish is done with base coats of grain filler and varnish, then an overall layer of oil gilding, which is then overpainted with various types of painted decoration, lettering, portraiture, etc. Last, many thick coats of protective overvarnish were applied, leveled, and polished by a handrubbed abrasive processes.

The varnishes used on this piano, typical of fine piano work of the period, were cooked drying oil/natural resin type varnishes. These were unfortunately particularly susceptible to sun and UV damage. Serious finish damage shows up on this fabulous piano as degradation of the varnish, which has darkened, and pulled into distinct "islands" leaving voids or valleys between them. The varnish unfortunately has also pulled the underlying painted decoration, gilding, and undervarnish at the same time, so valleys go completely down to the base wood, which has now become dirty. The overall effect is an extreme compromise of aesthetic quality. It is obvious in this case that sunlight is the primary cause of degradation, because the damage is only obvious on the sun side near the window. Other areas of piano finish and gilding are only lightly crazed, and the original aesthetics is only very lightly compromised.



Because of the insoluble nature of these oil/resin varnishes, conservation/restoration of these fine piano surfaces will be extremely difficult, and only partial improvement can be expected.

Sun bleaching damage is also visible on various finishes on the French Empire furniture in the Empire bedroom, especially on objects right near windows. Both the natural wood colorants and the shellac finishes themselves are bleached. Fortunately since these finishes are most likely shellac, they are more restorable with relatively conservative treatments than the materials of the piano finish.

Sun damage on the upholstery textiles and trims is perhaps the most pervasive damage in the furniture collections, and the most irreversible. This has been detailed in a previous section of this report. This damage has had a fundamental compromising effect to the furniture.

This report does not cover this subject in more detail, since a consulting textile conservator is concentrating on textiles. However, it is worth noting that damage to textiles necessitates the need for major upholstery conservation/restoration treatments in many cases. Just the physical processes of removing damaged textiles and upholstery may subject the chair or sofa frame to other types of collateral damage: from pliers removing tacks, from splitting of wood frames, from additional inadvertent damage to already embrittled gilding and paint.

#### **CORROSION AND DAMAGE: FURNITURE HARDWARE**

The glittery, showy original appearance of the house was amplified by use of highly polished, and in many cases gilt, brass and "ormolu". The long-term effects of air pollution (sulfur in coal and oil heating residues) has been to tarnish and corrode the metals. This varies from piece to piece in severity.

Long-term faithful and routine maintenance polishing has taken its typical toll in abrading some hardware surfaces. This polishing often promotes active tarnishing and corrosion by abrading the surface tarnishing and presenting fresh metal to atmospheric gases and pollutants. Happily, we did not find the usual accumulations of whitish brass polishing sludge accumulated behind hardware and in surrounding wood grain.

However, restoration in the 1960's and 1970's of the Sormani-made furniture involved aggressive cleaning of the ormolu--it appears to us that some or much of the original gilding was removed in this overly-aggressive restoration.



More recent in-house conservation of ormolu on the Empire bedroom furniture was fortunately less aggressive, and much of the original gilding remains in good condition.

## **POOR QUALITY PRIOR RESTORATION**

The collection has had its fair share of miscellaneous and varied restorations, of varying quality, competence, and current condition. The gilt furniture has extensive inpainting of losses with bronze-pigmented paints. A pair of chairs in the Head Housekeeper's Sitting Room has crude metal brackets applied to sort of repair broken front legs. Virtually all furniture in the Servants' Kitchen and Dining Rooms has been refinished, capably and fairly appropriately. Furniture in Servants' bedrooms have a variety of repairs as might be expected. As noted previously, it appears all of the French Empire bedroom furniture has been previously repaired, restored, and refinished, perhaps before it entered this collection. And it appears that some white painted bedroom suites were painted more of a gray or dark glazed color originally. Repainting to a white may have occurred at some unknown date while in this collection, or as it first entered the collection.

But we felt the collection has received much less routine repair, restoration and refinishing than is typical of collections of this age and size. Again, this may be due to the relatively light use the house received, and only over a 40 year period. No doubt this is also due to the fact the property came with no major endowment. This has limited the restoration that could be done, and we add that this is probably fortuitous. Most collections we inspect have been severely compromised in many respects by well-intended but poor quality or uninformed restoration, and have therefore lost some of their best qualities or surfaces.

Virtually all antique European furniture is extensively restored, many are marriages of old and new parts. A prominent exception appears to be the pair of gilt mirrors in the dining room, which have few major restorations except for regilding.

Excepting these, most European antiques have had the typical European history of extensive woodworm excavations and consequent weakening and breaking off of chunks of wood. They have therefore had extensive repair, replacement and recarving of losses, feet, repairs to strengthen cracks, etc. Much of this is fair to poor quality work. Since the carved surfaces are relatively crude, very complex and dark, these moderate to poor quality repairs were easily disguised, especially considering the Vanderbilts' lack of knowledge of antiques.

The gilt furniture has experienced desiccation, shrinkage, and loss of gesso and gilding, varying from scattered, to very extensive. At some point and continuing up into the 1960's, the standard treatment for these problems was to overpaint areas of



loss with bronze pigment ("gold") paint. In the best cases, this was confined only to the specific areas of local gesso losses. Unfortunately, in many other cases, entire gilt finishes or extensive portions of them were overpainted. Curator's work progress reports from the 1960's record ongoing treatments over many years' time as "Touch up gilding".

Unfortunately, there are four problems with this now. First, the gold paints used were of many different colors, and they do not all match--this leaves a blotchy appearance. Second, the pigments used in gold paint are based on brass and bronze--over time, these tarnish and darken, leaving the surface very dark. Third, the vehicle in most gold paints is a very tough, tenacious and insoluble resin varnish. This not only can be very difficult to remove, but as it ages, it dries and becomes embrittled. As it does, it shrinks, and exerts a pulling pressure on the gold and underlying bole and gesso. So over time, it actually tends to pull off more and more gesso and gilt. And fourth, any pigmented coating over gold leaf seriously alters the true rich, metallic look of uncoated gold leaf.

The veneered furniture by P. Sormani, Paris, probably early 20th century, has with one exception been thoroughly stripped, sanded, restored, and refinished with modern spray lacquer. In our opinion, the work was capable but overly aggressive, and the spray finish has a "cold" appearance, obviously and incorrectly sprayed. These should have been finished with a fine French Polish of warm colored shellac. Only the Sormani-made tambour top desk in the drawing room has escaped this fate. While the finish on this does need some conservative conservation treatment, it fortunately retains a sense of reasonably well-cared-for age.

It appears also that the treatment of all the gilt ormolu on these refinished veneered pieces was overly aggressive. To our eyes, we would guess that the gilding has been eroded and abrasively polished in the restoration process--nothing can be done about that now.

### **The Orrerys**

The pair of orrerys deserve special mention on their own. They are among the most important, rare and valuable pieces in the collection, and this value is independent of their relationship to this collection. We examined these intensively, both the working upper portions and bases. They have had a long and checkered history, and much remains to be learned about them, which will require future research.

What can be said at this point is the bases probably have not accompanied the working upper portions since manufacture. The bases appear to be sculpture pedestals of different provenance. The bases have extensive previous restoration due to environmental instability. These are of "coopered" wood construction, built up of strips of wood into a larger construction, then lathe-turned. The original finish



appears to have been a gray-painted marbleizing, which was then protectively overvarnished.

Through environmentally-caused shrinkage, the monumental wood construction shrunk, opening up some joints, cracks, and gaps, with some surfaces no longer in plane. To restore this, various wood strips and putties were applied in the gaps, and inpainted, matching the now-darkened, yellowed and aged color of the overvarnish. At some point, gesso and paint started flaking, and this required more inpainting. Additional cracks opened, this required more filling and inpainting. Each inpainting was done to match further-darkened and yellowed colors, so the character of the surface became progressively darker and yellower. Its appearance now scarcely resembles its original look.

The construction of the upper wood and glass portions surrounding the works is of solid oak and mahogany construction, with complex miters at the corners. Unfortunately, these wood elements have shrunk considerably, but the brass portions mounted to them could not. This led to bending and jamming of various portions of the brass works, warping and distortion of critical wood structural elements, delamination and sagging of the mitered mahogany corner elements, etc. Some ormolu mounted glass side panels broke, others fell out. This resulted in considerable dirt accumulations on working brass elements, now heavily encrusted.

This occasioned a series of crude previous repairs, including "baling wire" to hold some sagging and collapsing portions. In addition, accessible brass elements were heavily polished with abrasive metal polishes--these have now tarnished heavily again. And the previous proximity to visitors at the entrance to the Dining Room made various planets and metal arms accessible to breakage and theft, both of which have taken their toll.

As a result of all this, these important objects are seriously unstable and compromised. Some of the problems are due to inherent vice, many others to inadequate or poor quality previous restoration.

### **Upholstery**

It is worth dwelling at length also on previous reupholstery, since there are so many upholstered pieces and the textiles are so prominent and important a part of the larger aesthetics of the Mansion. There has been extensive reupholstery as previously noted. Much of this appears to have involved removal of original textiles and trims, and reusing them wherever possible. Before replacement, many of the upholstery foundations were replaced, including at least webbing, springs, stuffing and spring ties, sacking and scrims. It is unclear if any of the original stuffing was replaced at the time, since this interior element is not visible under the upholstery.



Unfortunately, the materials used in the underupholstery recreation were primarily chemically unstable ones, especially jute. These jute elements are now themselves somewhat degraded. But it will be impossible to replace them when they rot and break without again completely removing the entire finish fabric, trim, stuffing and entire underupholstery. As these jute reupholstery materials in turn degrade themselves, they will need to be replaced again. If chemically stable linen (or polyester) had been chosen, these reupholsteries could remain stable almost indefinitely. Instead, they will again have to be redone in the future.

In many cases of reupholstery, underside webbing was replaced with a modern substitute--"accordion" metal spring webbing, which the spring ends are inserted in. This is a peculiar webbing material not often seen, and used for only a short period of time by the upholstery trade. It is coated with some tarry adhesive then an outer paper, probably to keep it from rusting.

Though it is very different from the original jute webbing, it has two advantages for the collection: it is chemically stable; and it requires only one or two nails per end, as opposed to 6 or 10 nails to hold each end of a wide jute web. It therefore causes less tack and splitting damage to aged wood upholstery frames. Unfortunately, these corrugated webs do nothing to restrain the coil springs from exerting their considerable accumulated pressure onto the fragile, organic underupholstery materials above them.

In all cases, reupholstery has been done with traditional tacking systems. Considering the complex number of layers in a sprung upholstery system, it takes many thousands of tacks to upholster a large frame. Each tack is wedge shaped, designed to be easy to drive. Each therefore acts as miniature splitting wedge, tending to split the frame apart--the more tacks, the more extensive the splitting. And the more times something is reupholstered, the worse this splitting damage becomes, until at some point huge chunks of wood begin to split out, and the wood becomes spongy and full of holes, unable to even hold further tacks.

This problem tends to become most severe with sprung frames, (which describes most of this collection), since springs put a tremendous amount of pressure on light wood frames. Even when someone is not sitting on it, major ongoing pressure is working away.

The upholstery foundations in this collection have, however, received less damage, and have been redone less frequently than most other collections we have surveyed. This is probably because the house was not used full time, and till its acquisition by the Government in 1941, furniture was only used for approximately 40 years.



On the positive side, previous upholstery restorations have been of high quality for the standards of that day; there was a real respect for the original fabrics and trims wherever possible.

But severe problems remain. In reviewing records of previous treatments, it is clear the Vanderbilt Mansion has not previously had furniture conservation done to modern standards of reversibility of materials and methods, conservative approach, and full documentation of locations, materials and methods. Plenty of previous old-fashioned restoration has been done. This was documented in very sketchy fashion in a series of work progress notes, starting in the 1940's and extending into the mid 1960's. These say things like, "Touch up gilding", meaning apply gold paint to gilding losses, or overpaint with gold paint. During the 1960's and 1970's, apparently other restoration work was done, but there is little or no documentation and staff have only hints about just what was done. The curatorial files are therefore impoverished about what many pieces looked like originally, though some original fabrics and trims were routinely saved in storage, or reused on the objects.

## VISITOR AND STAFF USE OF COLLECTIONS

In previous eras, some use of the furniture by staff was allowed. At one point decades ago, a portion of the house was used as a "hotel" by the National Park Service. During Franklin Roosevelt's presidential service, portions of the house were used as the offices and living quarters for the Secret Service and other government security forces. Though these uses were wisely discontinued long ago, no doubt they took their toll on specific objects. This use and probable abuse cannot be documented specifically.

At the current time, there are very strict policies regarding no use of collections by guides, other staff, or visitors. Staff are very aware of the damage this sort of use can cause. No collections are now actively used in offices or other staff spaces. It appears at one time that some seating furniture may have been actively used by guards or guides, such as one of the throne chairs, second floor hall area, with much more wear on the seat than any other in the area.

Only one piece of collections seating furniture is used by visitors for sitting--the green upholstered sofa, second floor hall, north alcove. It is believed that the sofa will not be easily damaged by visitors. This policy of use has certainly resulted in more wear on the reproduction upholstery than if it were not used. Perhaps more important, visitors' proximity to the monumental gilt painting frame immediately behind the sofa has resulted in visitor handling, touching, and inadvertent damage and wear to the fragile gilding elements.



But by and large, the policy of no staff or visitor use or handling is excellent and highly professional.



## RECOMMENDATIONS FOR PREVENTIVE CARE

From the many causes of previous damage just discussed, some fairly straight forward recommendations can be made:

1. Upgrade environmental controls
2. Upgrade pest control program
3. Upgrade furniture collections storage
4. Determine final refurbishing plans so that conservation decisions are made in proper context.

Since the details of these recommendations are included in reports by other consultants, they are included here as generic recommendations only.

A final specific recommendation is:

5. Upgrade collections management policies and practices.

## COLLECTIONS MANAGEMENT

In general, we found collections management policies to be highly professional, well thought out, and in accord with contemporary house museum standards. Most staff are extremely conscientious, very familiar with the collections, and familiar with the need for rigorous management practices and standards. This was one of the most impressive aspects of the Vanderbilt management we noted during our survey. We were impressed by the devotion and fidelity of the staff in adhering to collections management policies.

We would, however, recommend upgrading the following:

-Barrier ropes do not in all cases prevent visitors from reaching or touching all objects. You may want to consider low plexiglas fixed barriers in some locations.

-The policy which permits visitor use of the sofa in the North Alcove, Second Floor Hall, is leading to accelerated wear to the upholstery, unnecessary expense for eventual reupholstery, and ongoing damage and erosion to the fragile gilt picture frame behind it. We would strongly urge that this sofa be roped off and no use allowed.

-It was reported to us that guides and guards sometimes sit on the third floor hallway upholstered chairs. These are extremely important chairs with fragile original upholstery. These chairs should be roped off, and clear policies enforced that prohibit use.



-Catalog cards are at best sketchy, at least incomplete, and often incorrect. A long-term effort should be expended to upgrade these. This is critical, since proper conservation treatment decisions can only be made if you know what each object is, and therefore its important attributes worth preserving.

-A photographic catalog should be created. There is none now. This is one of the only accurate ways to monitor long-term object condition.

-Many staff members have an impressive familiarity with and knowledge of the collections, the history of the house, etc. Yet limited amounts of this information are recorded in curatorial and object files. We strongly recommend a stepped-up, long-term effort to systematically interview appropriate staff, record the information, and put it in object files or other curatorial binders. Proper conservation decisions can only be made with full knowledge of what each object is, and what aspects are especially worth conserving.

-Current policy allows semi-regular playing and use of the piano by volunteers. We strongly recommend this be discontinued immediately. Those who believe that interpretation of an historic house must involve gradual damage to its objects to create "ambience" become part of the problem. This approach is an anachronism. Regular use of this instrument will inevitably result in additional damage to the piano (the soundboard is now cracked), the finish is badly damaged at the playing end, and the finish on the feet is badly abraded. As an alternative, a concert on the piano could be recorded on high quality recording equipment, and replayed for visitors to recreate ambience. A musical instrument does not need to be regularly played to be best preserved. We recommend releasing tension on the strings, and providing a full dust cover for the interior works.

-Current policy also calls for gradually restoring clocks and regularly running some of them. We strongly recommend against this also. Most damage which occurs to clocks in historic houses is as a result of incidental mechanical wear and damage caused by regular handling, winding, wear, and accidents. Hinges become extremely worn, doors bind, winding keys scratch surfaces around key holes, and all with the best of intentions. Clocks could be run for one week per year to keep gears and working parts clean. Beyond that, we recommend discontinuing regular running and use.



## UPHOLSTERY CARE

### **Adopt contemporary standards and methods of upholstery conservation.**

We have discussed the importance of the amazing number of surviving original trims. And we have highlighted the very poor, fragile, dirty, and fragmentary condition of many of them. Since they constitute such an important aspect of the visual appearance of the interiors, their long-term survival, care, and conservation is critical. It is fortunate that so many of these have been saved during previous reupholstery and reused. Typical reupholstery practice in historic houses up to now has been to discard them, and substitute inferior modern substitutes, or nothing at all.

However, many of these are so fragile, brittle, fragmentary and damaged that they are in danger of losing all their substance and meaning. Those in worst condition should be removed, retired to storage, and properly stored with buffer and packing materials. Modern reproductions should be substituted. Otherwise, they will be entirely lost. We cannot overemphasize their rarity and importance.

A long term program should identify and replace those in the most fragile, threatened condition (through textile conservation survey), those that are rarest, and those which can be damaged by routine visitor traffic and object handling and maintenance by staff.

The next and major problem becomes how to provide for the accuracy and expense of modern reproductions. As the Vanderbilt has discovered, this is indeed a major expense. In a few cases, appropriate reproduction trims are available as off-the-shelf in-stock items. In most cases, this is probably not true, and trims would need to be custom made.

We highly recommend a custom-trim maker in the Boston area with whom we have extensive previous experience. She is:

Giselle Haven  
123 High Street  
Brookline, MA 02146  
617-232-5598

In some cases, the materials which went into the original trims are simply not available or reproducible today. This is especially true of some of the trims employing brass thread or wire. The degraded condition of the original brass trims will simply not be recoverable. It is all the more important, therefore, to preserve the originals in storage before they are totally degraded and compromised on the objects themselves.



There will be no simple solution to the high cost of reproducing trims. Their central and fundamental contribution to the interpretation of the house should, however, be clearly recognized. If they are replaced with low-cost modern alternatives, the true lavish aesthetics of the house will be greatly diminished and falsified. We recommend regular annual budgeting for this expense, and spreading it out over a very long period, starting first with those in worst, most unstable condition.

Intensive research and attention has been paid by the museum curatorial and conservation fields to upholstery history and conservation in the past 15 years. Indeed, the field of upholstery conservation was only created about 10 years ago, but has developed rapidly. The impetus for this rapid generation was in part a recognition of the importance of original upholstery to the complete object, and the compromising effect that traditional reupholstery had by removing all and replacing it. In part, it has also been due to the recognition that traditional upholstery materials were not chemically stable. And it involved the use of hundreds or thousands of tacks, each acting as a miniature splitting wedge on often-fragile wood frames. Multiple reupholsteries over time therefore turned wood frames into "Swiss Cheese".

Contemporary upholstery conservation therefore has evolved to the following generally accepted practices:

- preserve as much original material as possible on the frame, including finish fabric, trims, and underupholstery;
- stabilize and augment original materials where possible, and replace them only where critically necessary;
- use chemically stable materials where possible--linen, polyester or polyethylene, as opposed to unstable jute;
- minimize damage to wood frames. This has led to exciting advances in "minimally intrusive" and "minimal tacking" methods. In some cases, all foundations and stuffing are dispensed with, and solid carved blocks of "Ethafom" are shaped and placed on frames to imitate the shape of the original upholstery. This means that springs and their damaging pressure and tacking requirements can be entirely dispensed with. Soft padding and finish fabric are then applied over this, looking exactly like the original but causing no further damage to fragile frames. In other cases, staples are used instead of damaging tacks. Staples are applied through the finish fabric and a thin polyethylene strip, minimizing staple penetration, and making them easy to remove in the future with no damage. Other methods have been developed to allow fabrics and foundations to be attached by sewing instead of tacks.



-thoroughly document all aspects of the original upholstery with photos and in writing; and document the conservation process and materials used.

Due to the importance of the upholstered collection to the overall mission of the institution, it is therefore critical that future upholstery treatments be carefully considered, and much more well thought out and conservative than those to date. What was traditional and appropriate 30 or even 10 years ago is no longer considered good practice. The methods and materials of the average local traditional upholsterer is no longer acceptable.

This is a highly technical field, and there are few conservation labs which do these upholstery conservation treatments. Most of the treatments require a high level of training, though with special training, in-house staff could be trained to do some of the less demanding parts of the treatments.

## **FURNITURE CONSERVATION STANDARDS**

Previous restoration done at the Vanderbilt was according to old-time standards. Few of the criteria we consider important today in conservation were met. In order not to lose progressively more history and meaning through future restoration and conservation, The Vanderbilt must adopt full professional furniture conservation standards prevailing today in museums. These would include:

- A fundamentally conservative basic approach, focusing not on total restoration wherever possible. The progressive erosion of original gilt surfaces must be replaced with a program to stabilize flaking, compensate for losses, and selectively in-gild and inpaint. Wholesale overpainting with gold paint is unacceptable.

- Where textiles and trims must be retired to storage, they should be meticulously removed and properly stored with adequate buffering material.

- The final conservation treatment should be preceded by a detailed treatment proposal from a conservator or a conservation technician. It should include the reasons for treatment, the goals, the locations to be treated, the options rejected and why, the materials proposed and why they are appropriate, and how the treatment can be reversed if required, the nature of the documentation to be provided.

- The final treatment proposal should be approved by the Curator.

- Each treatment should be accompanied by full documentation. This should include before, during and after photographs, both overall and of appropriate



details, prints and negatives. It should a detailed written after-treatment report, documenting full details of methods, materials, locations, and results of treatment.

-The Vanderbilt should set rigorous standards for applying these recommendations. RFP's for contract conservation services should clearly state all that is expected.

-Conservation standards do change, and highly qualified conservators may not necessarily agree 100% on final methods and treatments. Multiple proposals should be solicited where possible so staff have a choice to evaluate.

## **HOUSEKEEPING PROCEDURES AND SUGGESTED CHANGES**

In general, the Vanderbilt has very conservative and appropriate housekeeping methods and standards to best promote long-term preservation. We were extremely impressed with the knowledge that maintenance and technician staff have about how to handle furniture, how knowledgeable they are about museum policy, and devoted they are to daily application of appropriate standards. We were very impressed also with the results of routine care: the collection and historic rooms are some of the cleanest we have seen, this despite the recent problems with soot from the furnace. There are not the usual dust kitties, spider webs and droppings, and dust accumulations. But because of the soot problem, there has been a policy of no vacuuming of textiles and less frequent dusting, in order to avoid damage from the constant cleaning that would be required. It was decided to reduce or in some cases to eliminate cleaning until the problem is solved.

Current policy and use call for:

-Vacuuming twice a year of textiles through protective screens with low-power vacuums. This is appropriate in our experience. However, the recommendations of the textile conservator should be followed regarding the care and cleaning of all textiles. In any case, extreme care should be taken to avoid all fragile and torn fabrics and trims.

-Very light dusting of gilding, carving and painted surfaces with untreated cotton dust rags. However, given the extreme problem with flaking gesso, gilding and paint, we did find many cotton rag fibers caught on raw edges of these losses. No doubt some of this regular dusting has pulled off additional gesso, gilding and paint flakes.

-Use of no furniture polishes, including linseed oil types, lemon oil, cream emulsions, silicone types, and waxes.



-Very minimal handling of furniture. Where possible, furniture is handled with white cotton gloves. Staff seem to be well trained in how to safely handle furniture, and where best to handle it to prevent damage. They are well aware of how fragile the fabrics and trims are.

-Clear or natural wood finishes are not currently cleaned or washed or waxed with anything.

-Staff are trained to report any change in condition of each piece of furniture, and to collect, number and identify any piece or part which becomes detached.

-From their many long years of familiarity, curatorial staff and technician staff have gained an impressive detailed familiarity with each piece of furniture.

-No live flowers are used in the house to cause water rings or insect problems.

-No use of metal or hardware polishes.

**Some changes are recommended to current approaches.**

-Discontinue use of dust rags on gilt, painted, and complex veneered furniture. Substitute instead softest round mop brushes (available from Talas, NYC)

-Natural wood finishes, particularly horizontal surfaces, should receive a thin, even coat of paste wax every 3-5 years. This will help dust to slip off. Microcrystalline wax is acceptable, but commercial brands such as Trewax, Butcher's, Minwax are also acceptable. It can be applied with a soft cotton rag, or a soft brush in carvings or profiled areas. If blanching or whitish areas appear after waxing, these may be eliminated with moderate heat from a hair dryer or low-temperature hot air gun. One technician only should be assigned to waxing. Care should be taken on veneered pieces not to catch waxing rags on loose veneer edges.

-If at all possible, do not handle furniture at all by aged upholstery. If it must be, use clean cotton gloves.

-Vacuum up flies and wasps from all rooms more regularly.

-Discontinue the use of any treated rags. Eventually, oily buildup will occur, which will catch and hold more dust and soot.

-Furniture should be moved as infrequently as possible for housecleaning purposes.



The shortness of this list speaks well for your current policies and practices.



## OBJECT CONDITION SURVEY FORMS

### BRIEF CONDITION NOTES

#### Basement:

Male Servants' Room # 4: Used as a storage area with limited access, very narrow aisles. Most pieces appear to have some damage to finish from variable causes, and some damage to structure, though most is relatively minor.

The top of the tambour desk from Mr. V's bedroom is stored here on end. This provides improper support, and is causing permanent warping and damage. This should be repaired and stored in its normal horizontal position.

Two veneered bureaus have delaminating, loose, and missing veneers; missing escutcheons: poor overall condition.

Round oak table: broken top, needs structural repair.

Square-top table, splayed legs: entire base delaminated, joints coming apart, very unstable.

#### Third Floor, Servants' quarters:

##### Room 54:

1118: Dresser with mirror. Mirror frame and support is broken, hanging loose. Probably refinished.

1120: Dresser. OK, except for perfume damage on top finish.

3763: Brass bed. heavily tarnished, but otherwise OK.

UNK: Armoire. OK.

UNK: Chairs, oak with pressed leather seats. Seats are broken through and need replacement.

##### Room 53:

Maple veneered suite, generally fine condition, some paint spatters.

3075,3076: Side chairs, caned seats. Seats broken out.



3077: Rocker: caned seat OK.

3080,3081: Chests and mirror. OK

3079: Armoire, OK.

3073: Bed, OK.

3078: Dresser, OK.

Room 52:

1028: Dresser. Perfume damaged finish on top, with considerable wear, structurally OK.

3762: Brass bed: heavily tarnished.

UNK: Washstand. OK, casters removed and missing.

1033: Rocker: right arm loose at stile.

Room 51:

UNK: Armoire, pine: OK.

1141: Desk, fumed mission oak style: faded finish on writing lid.

1146: Iron bed and brass finials: OK.

1026: Oak table: worn and stained top.

Room 48:

All painted suite, made by Paine Furniture Co., Boston

1032: Dresser: OK.

1036: Dresser. Flaking paint on top surface.

1036: Caned bench: OK.

1034: Chair with caned seat. Caning broken through.



1038: Table: with paint losses and loose veneer.

1031: Bed: several veneer losses.

Room 45:

Suite of mahogany veneered furniture--nice quality.

1040: Brass Bed: heavily tarnished.

UNK: Table: degraded finish.

1048: Table: structurally unstable, lots of wear from use.

1043: Chest: OK.

1041: Dresser: water a perfume marks on top surface.

Room 42:

1053: Oak dresser: very worn top

Room 41:

1121: Oak dresser: refinished, but the finish has crazed and crawled, poor appearance.

1119: Oak dresser: mirror removed

UNK: 3 chairs: all are structurally broken and in poor condition.

**INDIVIDUAL OBJECT CONDITION SURVEY FORMS**

Submitted under separate cover.