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Author(s): Herb Stovel
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THE CONSERVATION OF THE BARNUM HOUSE

Herb Stovel*

The Ontario Heritage Foundation (OHF) looks on the historic sites it owns as artefacts, requiring the same intense care afforded works of art and material culture remains by our best museums. Acquisition of the Barnum House by the Ontario Heritage Foundation seemed to emphasize the need for special care: an 1819 frame house, one whose composition and detailing proclaimed it one of the finest small domestic structures in this province, and moreover, the first "restored" house in the province, in 1940. Since its acquisition by the Ontario Heritage Foundation in 1982 a plan responding to these qualities has been under development. This plan will transform the Barnum House into the first museum of restoration in this country. A key component of that plan is a commitment to maintaining the early 1940 restoration of the house undertaken by Eric Arthur and the ACO, rather than any attempt to re-restore.

These attitudes place the Ontario Heritage Foundation, at least with respect to work on its own properties, rather uniquely among Canadian preservation agencies, on the side of the Anti-Scrape in any Scrape and Anti-Scrape debate.

These attitudes have governed two major repair operations at the Barnum House since its acquisition by the Ontario Heritage Foundation in 1982. Both were taken "under duress": urgent measures suggested by likelihood of imminent structural failures. The first, in the autumn of 1983, involved the repair of a plaster wall in the upstairs ballroom. About 80 sq. ft. of papered plaster above the chair rail had parted from its original wooden lath backing, and supported only by the wallpaper, belled out as much as a foot from its original support. A method of plaster repair espoused in the APT Bulletin by Morgan Phillips in Vol. 12, No. 2, 1980, was employed and modified to return the plaster to its original location.

Arising from the Foundation's view of its buildings and building components as artefacts, the objective of the repair operation was seen as the return of the plaster and adhering wallpaper to its original position, with minimal loss of extant building material. In considering various options, and in wishing to develop repair techniques which could be applied on a wider scale to deal with this common problem of 150 year old houses, the process of plaster consolidation developed by Morgan Phillips seemed to offer the best prospects for success. This method required the injection of a consolidating material from behind the plaster; wallpaper and plaster were protected by a supporting sandwich panel of plywood, plastic foam and building paper while consolidation was carried out.

Steps in the process included the following:

1. exterior siding was carefully removed;
2. plaster was cleaned from the cavity between plaster and the wooden lath to which it had been originally attached;
3. holes were drilled in wooden lath to receive injection of a pre-wetting solution, and the formulated consolidant;
4. application of consolidant following slow and gentle return of the plaster to its backing lath, pushed in place by the support shoring.

By most standards, the operation was a success. Only a number of 1" diameter holes in the wallpaper, flanking the eaves cavity mar its original appearance, in areas inaccessible from the outside. Modifications to Morgan Phillips formula developed on site (e.g. the introduction of ethyl alcohol as a pre-wetting agent rather than water, averting staining by the wallpaper paste) proved effective. The collaboration between members of the contracting team of Rod Stewart Construction Ltd., and the Ontario Heritage Foundation was a model of the kind of creative interchange necessary, but seldom found on historic sites between contractor

*Herb Stovel is a restoration architect, working for the Heritage Canada Foundation as Assistant Director of its Main Street program, responsible for Education and Training. He has been a member of the Board of Directors of APT since Sept. 1983. (Photographs 2,3,4,5,6 courtesy Rod Stewart Construction Ltd.)
wooden studs had rotted away requiring replacement, and where, flanking the chimney breast, sections of plaster would be destroyed by the lifting operation, these elements were carefully removed and stored for later re-attachment. Detachment involved use of a sandwich system of plywood supporting panels, plastic foam and protective paper. Where studs were healthy, as above the fireplace, studs, lath and plaster were removed as a unit.

3. Underpinning of the wing was carried out, as no stone foundations had been used originally.

4. The chimney stack was partly taken down and rebuilt, while being underpinned. It was apparent on close inspection that without the support of the adjacent structure frame, the poorly constructed brick and rubble chimney would long since have collapsed.

5. The wing was slowly and carefully lifted back in place to close the two inch gap between wing and main house.

6. Plaster panels removed prior to the lifting operation were re-installed in original configurations following workshop consolidation of plaster and lath with the Morgan Phillips method and materials described earlier.

7. Wallpaper removed prior to work was glued back in place.

Although the above may be dismissed as the kind of care that only public agencies with large budgets can afford, it should be noted that the Ontario Heritage Foundation supports all capital work on its 32 historic sites with an annual budget which has never exceeded $450,000.00. Work was performed economically, as much as possible outside the formal tendering process whose false economies are so favored by government. But let’s allow the Society for the Protection of Ancient Buildings to examine this project.

While the work described may be conceptually Anti-scrape, (the repair of the building in an as-found state), technical analysis might suggest otherwise.

The great efforts to save 1940’s wallpaper and original plaster were achieved at the expense of original

and client/manager. But what would the Society for the Protection of Ancient Buildings say?

Let’s hold the response, until we’ve looked at another repair operation.

During the summer of 1984 further repairs were carried out on the building’s east wing, which had separated at roof level by 2” from the main house. The wing was lifted (while new, improved foundations were provided) and restored to its original configuration, with again, the primary objective being the least possible disruption of extant material.

The stabilization process was much more complex than the plaster repair operation already described as the lifting process had to maintain all components of the wing — structure, finishes and major elements including the fireplace stack — in an intact state.

Steps in the process included:

1. A system of two connected steel trusses was designed to minimize contact points in lifting the wing. The trusses, supported on three points, were bolted to the structure at only two points — the outward corner posts of the structural frame.

2. Where the original wooden sill, and the lower part of


3. Shoring and wall supports used in ballroom to support plaster surface during repair operations.

4. The east wing and the truss system developed to permit lifting. Note that truss only makes contact with wing at two points.
5.1 Plaster below chair rail in South-east corner of wing to be removed, repaired and re-installed.

5.2 Installation of a protective layer of building paper adhered to plaster with polyvinylacetate based adhesives.

5.3 Installation of plywood panels, front and back, and supporting foam next to plaster to form "sandwich": front plywood, foam, building paper, plaster and lath, backing plywood.

5.4 Sandwich unit is removed.

5.5 Sandwich unit removed to the workshop.

5.6 Plaster unit prepared for stabilization, with remains of wooden stud removed.

5.7 Portions of back panel removed to expose lath. Holes for injection of adhesive are drilled, and loose material removed.

5.8 Adhesive injected through drilled holes to form new keys prior to reinstallation.

These sketches prepared by project technical consultant, Adam Zielinski.

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siding, removed and re-nailed. Great care for historic fabric, but what historic fabric? Plaster was removed and saved on the east wing, but at the expense of original studs, sliced through to back the sandwich panel. How important is original plaster, if it only exists behind finish layers of paint and/or wallpaper? As important as original siding, its weathered surface exposed to view? Probably not. Is the exercise of technological virtuosity any more disrespectful for the Anti-Scrape than the arbitrary sacrifice of many old buildings to trendy rehab schemes? These difficulties illustrate the inherent problems of creating practical solutions with abstract ideology.

Let’s also look at the conceptual side in more detail.

The choice between a return to an earlier unified style (a Scrape choice) and maintenance of an as-found state (anti-Scrape) in 19th century debates is not entirely the aesthetic issue it seems. Functional reasons — preferred liturgical arrangements, for example — supported many of those who spoke of the need to “restore”. Nevertheless the choices of our era are indeed more complex. The 19th c. debates for the most part focused on ecclesiastical buildings remaining in ecclesiastical use. Redundant churches had not yet become marine museums. Textile mills had not yet been seen as condominiums. Perhaps the Barnum House can afford an anti-scrape treatment because it is a museum building remaining in museum use?

There is, however, a suggestive link between those spirited, simpler debates and the complex matrix of economic, functional, and life safety determinants shaping contemporary decisions on our old buildings: many of the Scrapers or restorationists based their views on the need for buildings to have a future. Sir Arthur Bloomfield counters John Ruskin (“We have no right to touch them. They are not ours. They belong partly to those who built them, and partly to all the generations of mankind who follow us.”) with “We not only have the right to, but we must do it... unless the natural course of history is to be stopped.”

Though this would appear to place modern adherents of functional determinism firmly in the camp of the 19th century Scrapers, this contention would be as misleading now as it was during the 19th century debates. Architects are as obliged in 1984 as they were 100 years ago to be concerned with both sides of the coin: to provide for client’s needs, while safeguarding public interest in our past. The key to the sensitive management of both is in ensuring that detailed program statements are balanced with detailed and comprehensive assessments of the architectural and historical values of buildings.

The Ontario Heritage Foundation attempts to do this in drawing on charters like the Venice Charter, or the made-in-Canada Appleton Charter, to use statements of principle to shape the rationale used to determine what is important, and therefore what is to be protected or enhanced in work carried out.

If there’s any important sense in which work at the Barnum House is Anti-scrape, it is that Ontario Heritage Foundation efforts to worry about the sacrifice of any historic material — even modest historical material like 1940’s wallpaper — constantly refocused our thinking on the relative values of the various components of the building.

Why tell an APT audience about the need to carry out historic and architectural evaluations? For the reason that it is important to emphasize the need not just to carry out such studies, but to use them to guide work. Much of the publicly funded work conducted in North America has been exquisitely researched; but such research has often underpinned period restorations which have irreversibly sacrificed all traces of later use. Equally, private sector architects have noted “the need to be practical” in defense of arbitrary and ad hoc decision-making, without reference to any consistent assessment of site values.

We need to make these assessments — and we need to accord them weight in our decision-making.

In the middle 19th century, an unprecedented wave of spending on the building and repair of churches in England gave the word Restoration a bad name. Stefan Tschudi-Madsen’s Restoration and Anti-Restoration...
notes an SPAB report which cites the restoration of 7144 English churches between 1840-73: fully half of the country’s medieval churches!

We stand on the verge of the same assault on our heritage: buttressed by new legislation, new, more sympathetic attitudes in our citizens and legislators, we yet inexplicably stand before our collective heritage with our buildings at unprecedented risk. Without greater attention to the means now within our hands to give our spending more coherence, and endow it with greater respect for history, our successors 100 years hence may give us and the word “preservation” an equally negative review.

For the Barnum House, the question again: Scrape or Anti-Scrape? A visitor to the site finally answered the question. He stated: “I can’t see where all the money went. Frankly the building looks now just as it did before work started!” — music to the ears of any member of the Anti-Scrape Brigade, and to the Ontario Heritage Foundation.