Photographic albums have been discussed in the conservation literature at some length in the past two decades. Treatments have varied widely in their approach to the photographic album, though the trend appears to be towards more conservative treatments. Discussions about these treatments have often focused on the dilemma of treating a single object—a book, that has many components—binding, pages, handwriting, and of course photographs. The dilemmas involved in the treatment of composite objects are as old as conservation, and the discussions of the past two decades, have, not surprisingly, not provided any definitive answers for the treatment of photograph albums, but have provided a resource for the consideration of current treatments. I will be presenting today the details of my own encounter with these issues, my assistance in the treatment of a single album in the Topley Collection of the Library and Archives Canada, and the conservation survey of the 66 albums which make up the Topley Index, a pictorial history of William James Topley’s Ottawa portrait studio.

History of Topley and his Studio
William James Topley (Fig. 1) was born in 1845 in Montreal, and raised in Aylmer, a town just outside Ottawa in modern-day Quebec. His first exposure to photography was from his mother who purchased a camera in Montreal in the late 1850s. In 1863, at the age of 18, Topley was listed as an itinerant photographer, but by 1864 he was working at apprentice wages for William Notman in Montreal. (Notman was a kind of Yousuf Karsh of 19th century Canada, who later had over 20 studios including some on the East coast of the United States). In 1867, the year of Canada’s confederation, when Topley was only 22 years old, he was placed in charge of a new portrait studio opened by Notman (his first outside of Montreal) on Wellington Street in Ottawa in a new purpose-built structure across from the new Parliament buildings. Topley clearly had very good business sense, becoming the “proprietor” of the
Notman studio by 1872, and by 1875 opening a studio under his own name (Fig. 2). Visible on the left side of the building are the classic 19th century studio windows used for portrait photography and for exposing albumen prints by the light of the sun. After building this rather overstated studio in 1876 he soon found that he had to abandon it and move to smaller quarters on Sparks St. (Fig. 3), where he and later his son continued to operate the Topley studio until they sold it in 1923. Again the skylight windows can be seen. Naturally, the studio attracted many political figures, including all the Prime Ministers from Sir John A. MacDonald to Mackenzie King. He catered to the well-to-do-- as he himself said “If I can see beauty in the human face, and reproduce it, I can command three times the reward for my work than he who simply shoots a plate at his patron. True, in a small city, such a course limits trade, but one-half of the business with three times the prices is much better for mind and body and pocketbook.”

*Figure 2. (Top Left) Topley Studio on the corner of Metcalfe and Queen Streets. Figure 3. (Bottom Left) Topley Studio, 104 Sparks St. c.1880.*

**Description of the Albums**

From the start of business in the Ottawa studio in February of 1868 until the sale of the studio in 1923, a print of nearly every glass plate negative was placed into an album (Fig. 4). For the first seven years these were albumen prints in the carte de visite and cabinet card sizes (Fig. 5). Separate albums were maintained for each format as seen here with the CDV album page on your left and the cabinet card album on your right. In the late 1870s, a new album format was introduced. From this time on, all proofs

*Figure 4. (Left) Topley Index Albums, 1920s. Figure 5. (Right) Topley Index Albums, c. 1875, concurrently made cabinet card and carte de visite format albums.*
are printed in approximately carte de visite size and placed into a single album, regardless of the format of the original glass plate negative. These are still contact prints however, so negatives larger than CDV size are correspondingly cropped as for example in the group portraits at upper left, which are printed from 8x10 inch glass plate negatives (Fig. 6). The index continues in this fashion, with a new album every year or so until the conversion to silver gelatin developed out prints which occurred on this page in 1904 (Fig. 7). The purplish prints are gold toned albumen while the silver gelatin prints are a more neutral black and white.

**Binding construction**

The albums themselves vary in construction and the type of paper used. They were manufactured commercially by various Canadian stationers usually in Montreal or Ottawa. They are basically customized ledger books, rather than typical photograph albums. They are sewn, often with guards to allow for the thickness of the photographs, and are typically ½ leather bindings with sheep skin spine and corners. The pages vary from quite thin and flexible to thick and very brittle, and are ruled in blue or red ink for cabinet or CDV size prints. The negative number and a brief description is written in iron gall ink below each photograph.

**Condition**

Since the acquisition of the Topley collection by the Archives in 1936, the Topley Index has served as a finding aid to the glass plate negatives. Shown here is a portion of the approximately 150,000 Topley glass plate negatives in the LAC vault (Fig. 8). The Index was available to researchers until the late 1980s when it was deemed too fragile for access by anyone but archivists.
Treatment of the first album of the Index

Upon my arrival at the Archives, my first task was to assist book conservator Lynn Curry with the treatment of the first album in the Topley Index (Fig. 9). The treatment had begun months before, and I was to assist with the flattening of the pages, and the reattachment of 159 loose albumen prints that had been removed for the treatment of badly mold damaged and soot stained pages, and 9 other prints that had been found loose when the album arrived for treatment.

The pages to be flattened were very distorted by a combination of the mounted albumen prints and the many crude repairs made to the pages, probably while still at the Topley Studio (Fig. 10). After extensive testing, flattening was accomplished by humidification for 24 hours in an impromptu humidification chamber, followed by fifteen minutes in the dome of a suction table with an ultrasonic humidifier, and then flattening between Reemay and felts under weight. This accomplished the gentle flattening necessary to make the pages more accessible, for people as well as digital capture, and to make them easier to store, but without pressing the many imperfections and ripples in the pages into severe creases (Fig. 11).

The next challenge was the reattachment of the loose albumen prints. Because of their often poor and fragile condition, these were lined with japanese tissue and wheat starch paste, trimmed flush and then…. Well, our initial tests showed that lining with paste was going to cause considerable recurling of the pages, as we were hoping to do this without rehumidifying all of the pages. Klucel G in ethanol was attempted, but as expected was not strong enough. So, I tried a mixture of 5% Klucel G in ethanol, 10% methyl cellulose, and thick Zin Shofu, in proportions of 12:1:1. This combination was chosen with the idea that we wanted to minimize paper expansion, and yet have some water and paste content to swell the
fibers and promote adhesion. A literature search revealed no record of such a mixture having been used before, and perhaps with good reason—it appears that the alcohol causes precipitation of the starch. While both adhesives worked, in the end we chose to use wheat starch paste—it was slightly stronger, and the securing of the photographs to the page was too important to trust with an untested adhesive mixture. However, I was intrigued by the results, since I was able to achieve much better adhesion than Klucel G in ethanol alone, with less than 10% water in the mixture, properties which could be useful in some circumstances.

**Survey**

Now I would like to zoom out for a moment and look at the entire Index—all 66 albums. Although the Topley Index had been on the conservation plan for some time, there was no record of their condition. So Lynn Curry and I set about doing a 1 week survey of the albums. The goal was simply to create a list of the albums with very basic information about each one that would assist in choosing albums for treatment and working them into the annual treatment plan.

Speed and simplicity were desired, so we worked in Microsoft Excel. The first nine columns fingerprint the album and its basic characteristics—barcode #, start and end date, start and end negative number, the format and photographic process, and finally the estimated number of pages and prints (Fig. 12). The next eight columns then detail the number of hours (or pages) involved in each step of the treatment: dismantling, rebinding, surface cleaning, humidification and flattening, paper repair, and photo repair. Then the total time required was calculated in the next column, the type of treatment (conserve binding, rebind, or dismantle and store pages separately) given in the next, and finally a notes column (Fig. 13).

The intention is to treat one or two albums each year. The survey provides the details necessary to choose an album for treatment based on condition, treatment time, and the specialization of interns. Curatorial input from the archivists will play a role as well.

**Treatment Considerations**

But the more interesting aspect to me was the balancing of the needs of the various parts of the album in binding choices and for humidification and flattening. Many of the albums have badly warped pages which would make rebinding or storing in separate folders extremely inconvenient and unsafe for the pages and the photographs (Fig. 10). While humidification and flattening would seem to be an obvious
Figure 12. (Top) Detail of survey spreadsheet #1. Figure 13. (Bottom) Detail of survey spreadsheet #2.
choice—what about iron gall ink and albumen prints? Both are known to have adverse reactions to the introduction of humidity. The cracking of albumen print emulsions when wetted and dried is a problem that has been discussed in the conservation literature for over twenty years. Iron gall ink degradation is thought to be exacerbated by humidification and flattening techniques which cause the lateral migration of the Iron (II) ions through the paper. The writing in the album pages tested positive for the presence of the water-soluble and cellulose breakdown catalyzing Iron (II) ions.

So with all these conflicting treatment options what do we do? Do we freeze, unable to do anything good for fear of doing harm as well? In the case of the first album which was treated aqueously, humidification and flattening was deemed imperative, both for the safety of the pages and the photographs, as well as for access. For the time being, humidification and flattening has been included in the survey estimate for those pages which are so severely warped that they are putting the photographs in danger when accessed or handled. However, introduction of moisture to the albumen prints and the iron gall ink continues to pose a dilemma for those pages needing to be flattened.

And then there is the binding choice--- whether to keep an album bound or disbind and house the pages separately. This decision was based primarily on the condition of the pages, and by extension, the time required to make the repairs necessary for rebinding. Nearly any album can be rebound, but sometimes it’s not practical. For example, the tattered pages of this album would require many hundreds of hours of repairs (Fig. 14), and even after that would still be ill-fit for rebinding—the paper is moderately brittle, thin, and quite weak. The pages of the next album need few repairs, but are so brittle that they have already cracked at the gutter, and would not withstand rebinding (Fig. 15). And some are in good enough condition to withstand rebinding (Fig. 16).

*Figure 14. Topley Index Album, 1881-82 (tattered).*
Other questions were on my mind as we examined the albums: How crucial is the original bound format? Does it reflect an artistic or historically important choice that must be honored to maintain the integrity of the album? Or is the bound format merely a protective and functional feature which can be more easily relinquished?

A set of options for the treatment of photograph albums might look like this, though of course there are other possibilities not mentioned here:

1) Conserve the existing binding  
2) Rebind  
3) Disbind and store pages individually in sleeves or folders  
4) Reformat (reattach each individual object in a new album)

The treatment of the Jacobs album at the archives in the late 1980s placed a premium on the safety of the photographs, and the experience of the original format, resulting in the reformatting of the album—the removal of every photograph from the original pages, and the remounting of them into a new custom made album (Hill 1991).

The original pages minus their photographs were then stored separately. While reformatting seemed a proper treatment at the time, it was now seen as too invasive, and not appropriate for the Topley albums. This leaves 3 options.

And so we return to our three representatives (Figs. 14-16). Good will simply have the binding conserved, or perhaps dismantled and rebound if necessary (Fig. 16). Brittle will clearly not survive rebinding and will be disbound and the pages stored separately (Fig. 15). Tattered could be rebound but it would require an inordinate number of treatment hours to repair the pages enough to make rebinding possible, and even then might be too weak (Fig. 14). So again, it must be disbound and the pages stored separately. But there were many others,
caught somewhere between good and tattered or brittle that had us in more of a quandary. I felt that we needed significant reasons to not rebind and thus abandon the original format. From my training, largely in the context of art museums rather than archives, it had already been a significant shift for me to accept disbinding as acceptable at all. The loss of original format seemed almost heretical at first.

A glance through the literature on photograph albums revealed a number of talks given in 1985 at the winter meeting of the Photographic Materials Group. Of these Gary Albright’s “Photograph albums: some thoughts on treatment” was particularly apropos. He asked the question which I had not formulated and which I thought cut to the heart of the matter: Which is more important: the photographs or the album as a whole? Despite the importance of the original album format, the album was made as a carrier to protect the photographs and make them easier to handle. If that function is lost, or worse, if the condition of the album is such that it is damaging to the photographs, then we must face that reality and save the photographs, rather than let both be destroyed in an attempt to save the album as a whole. And that is what has nearly occurred: many of the photographs in these albums have suffered as a result of treating them as albums despite the clear message sent by the paper: “We can no longer bear this responsibility, our cellulose chains are too short, we can no longer provide a sound support for these photographs under these conditions.” And yet, the pages continued to be turned, or in some cases have been inappropriately rebound, and the photographs and the albums have only suffered as a result.

And so, I finally came to the realization for myself, that original intent has its limits and we must respect the material. Or as Caroline Keck once said “Survival pattern is what matters.” (Keck 1977) And though I have taken this out of context, I believe that it still applies, and I could not agree with her more. It was the justification I needed in order to feel at ease with disbinding.

In the final tally, nearly half of the albums will be disbound. Of course, this will be not only well documented, but all original materials will be preserved, and the original context will still be respected by housing the folios together and in the proper order (as shown here in the case of the first album of the Index) (Fig. 17). So that if it is desired, the original binding could be reconstructed at any time.

Figure 17. First album in new housing.
**Photo techniques and curiosities**

And while I found these conservation issues fascinating, even more so were the photographs themselves. As Lynn and I thumbed through 55 years of portrait studio history, different photographic techniques and styles were revealed, as well as fashions typical of particular decades. While I had read about many of these things and seen individual examples in antique stores and flea markets, it was enlightening to see multiple, well-dated, examples, and in some cases the negatives from which they were printed.

One of the more straightforward techniques is that of the painted background, seen here in an 1871 portrait (Fig. 18). Credited to an English daguerreotypist who first used one in 1840, the painted background is one of the most ubiquitous of 19th century studio props. It is seen more exposed in this 1905 image, intended for a locket, where the edges of the typically 8x10 foot cloth background can be seen (Fig. 19). Another interesting feature is the raised circular platform that could be rotated to adjust the angle at which the light from the skylight fell upon the sitter.

Another technique used by Topley from the start was the snow scene. The painted background is still used, but the snow scene imagery is further embellished with sheepskin on the floor and course salt sprinkled on the subject (Fig. 20). This was an often portrayed scene throughout the life of the Topley Studio.

The composite and cut-out were techniques Topley had probably learned from William Notman, who was known for them. The cut-out as seen here, is quite crude and rarely used and is simply a cut-out of the subject pasted onto a print of the background and then rephotographed (Fig. 21). The composite photograph is a more refined technique using multiple negatives exposed on a single print, creating a kind of virtual
photographic background as in this image of a man in costume standing amongst teepees (Fig. 22). It can also be used for decorative purposes as in this 1872 cabinet card, showing a fern border—a common motif at this time in the Topley studio (Fig. 23). Or again for an outdoor scene—here you can see the kids in the upper cabinet card seated in a sled like studio contraption, sheep skin rugs below, while in the lower image they appear to be in the snow, the line of trees from a second negative printed in behind them (Fig. 24).

And then there were the changing fashions. Certain things stood out while examining the albums from the last three decades of the 19th century. Beginning in the 1870s, women’s fashion saw the rise and fall of the bustle (Fig. 25). Draped overskirts and trains were quite common, despite the tendency to drag on the ground and get dirty. The outfit was often accompanied by a parasol or fan, and often with the addition of ribbons, cravats, and various jewelry, the overall effect sometimes being called fussy. Boys often wore dresses, a fashion which continued at least to the end of the century,
though off-shoulder dresses for boys were happily on the way out. The wing collar was a common style for men. The hair was also shorter than in previous decades and typically brushed back and away from the ears. Beards tended to be shorter and there were more moustaches.

At the start of the 1880s, the bustle and the train seemed to fall away for a time. The high necks and tiny waists contributed to a more tightly sheathed look (Fig. 26). The hair was generally worn up, and often with curly bangs. Hats were of moderate size and often decorated with ribbons, feathers, and the like.

The 90s brought more radical changes. The sheathed look of the 80s gave way by the mid-90s to the enormous sleeves so characteristic of the decade, which can be seen here even on a young girl in 1891 (Fig. 27). The 90s craze for bicycling was reflected in the album, such as in this cabinet card portrait of Miss McLaren of 1896 (Fig. 28). (Dalrymple 1991)

But with all the changing fashions, one thing remained constant, and has even to the present day—retouching. Many of the glass plate negatives have been retouched to remove what were apparently considered facial blemishes. Many of the early photographic processes magnify even the slightest freckle or facial blemish, due to their lack of sensitivity beyond the blue part of the spectrum (reddish skin or spots appear very dark). It follows that the facial features of many people in these old photographs are often exaggerated, such as the unretouched portrait of Mr. Wickware (Fig. 25). Women's dresses, 1869.

Figure 25. Women's dresses, 1869.

Figure 26. (Above) Curly bangs and hats with ribbons, 1886.

Figure 27. (Bottom) Girl with large sleeves, 1891.
The telltale signs of retouching became very obvious after viewing several albums. It is typically seen as a kind of stippling, seen here on the face of Mr. Wickware (Fig. 30), created by the retouching pencil. Retouching is accomplished on the negative by first applying a retouching varnish which gives the surface enough tooth to accept the pencil markings, and then applying the pencil, often with a stippling action as is seen in many of the Topley portraits.

There is not enough time to present more of the techniques or fashions of the Topley Index. The Index and the Topley collection as a whole have not to date been studied in any depth, but it is certainly a rich resource for future research. However, for all of the albums to remain with us for future generations will require respect for the material and its limits, and the occasional sacrifice of original intent. In the end, it really is the survival pattern that matters.
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