# Preserving the Process: Conservation Issues in the Treatment of Cartoons and Working Drawings

# INTRODUCTION

This paper is an attempt to discuss issues in conservation of cartoons and working drawings. The problems presented to the conservator when working with such material are many. In this paper I will attempt to concentrate on only two issues, the assessment and acceptance of damage and the basic problem of preserving a process.

Working drawings fall between categories of archival and fine art conservation. These pieces often look like works of art in themselves but are in fact part of a lengthily process of creation. They can provide evidence of a thought process, a technical approach and a working method of an artist or studio-they are in short evidence of process.

Cartoons and preparatory drawings are often in particularly poor condition. They are usually executed on poor quality materials and often filled with hastily done corrections. Cartoons typically suffer much damage due to extensive physical use of the drawings during the art mak-

ing process, drawings and sketches are often found discarded as they become irrelevant to the way the work is developing or just left in neglect when the work is completed.

# L.C. TIFFANY EDUCATION

The stained glass window, *Education* by L.C. Tiffany, was presented by Mr. Chittenden to Yale university in 1899 and installed in what was then the Chittenden library. The original proposal called for the design seen in (fig.1) the final glass without the originally proposed top panels is illustrated in (fig. 2). There are five remaining cartoon panels in existence, they measure 66" in height and vary in width from 38"-60".

In preparation for creating a glass Tiffany would sketch out his initial idea, in this case there are traces of charcoal under drawing and a full, fairly detailed pastel drawing over the pastel, in some areas, is gouache and over that in a few areas oil paint. There are also some corrections and

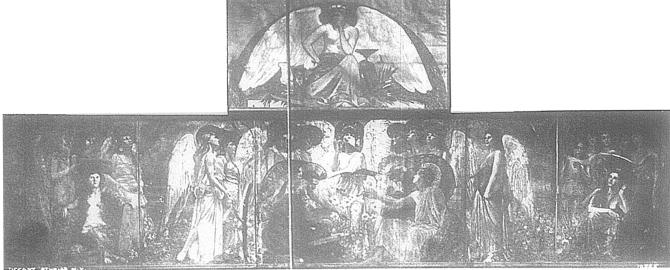


Fig. 1. Education, L.C. Tiffany, Original design proposed ca., 1899

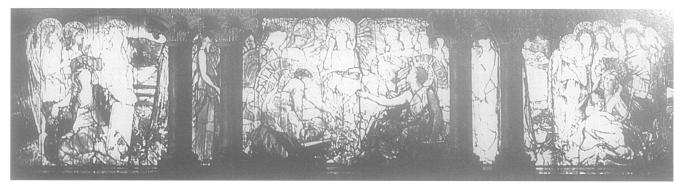


Fig. 2. Education, ca., 1899, stained glass window by L.C. Tiffany, Yale University

changes made by placing a patch of new paper over a previously painted area, and painting over it with oil paint. Stylistic analysis of the various paint areas as well as evidence of paint handling suggest more than one hand at work, probably at least three people contributed to the painted design. The paper support is a brown wood pulp paper fairly thin, similar to rolls of brown wrapping paper used today. The primary support is lined with a second layer of the same paper, then onto canvas and stretched onto a heavy stretcher, (figs. 3 & 4) show two of the 5 panels.

I first examined this work with the members of Rustin Levinsons Florida conservation associates at Rustys' Miami studio. We thought that it could fall into the category of

Fig. 3. Two of the five remaining cartoonpanels used for the glass *Education* 

painting on paper and would call for a collaborative approach.

Initially we thought it was a heavily damaged work which was the victim of several restoration campaigns of rather rough quality, the structural repairs were crudely done and we thought there was much over paint overall. After consultation with Rusty Levinson and the client we decided the work should be done in a paper lab since the support was extremely damaged and needed much repair, Carol Weingarten of Rusty's NY studio collaborated with me on the treatment helping me in designing a treatment



Fig. 4. Two of the five remaining cartoon panels used for the glass *Education* 



Fig. 5. Recto of Tiffany glass

approach as well as working with me on the media problems.

Knowing that some of the evident damage could be original I set out to attempt and distinguish between original studio repairs, later restorations and new damage.

In order to do that I needed as much information as I could get on the workings of the Tiffany studio. This, I thought, would be easily done, since there is so much published on Tiffany and several scholars around to consult with .

In general the studio process was as follows; an original sketch would be done, sometimes but not always by Tiffany himself. Many other designers worked in the studio and the final design was often a result of a collaborative effort. Once the design was approved, layers of paper and carbon paper were placed at the back of the drawing and it was traced. The tracings were used; one to cut for glass shapes and the other to outline the lead cames

Tiffany had revolutionary working methods and was somewhat fanatic about them, he allowed very little painting on the glass and tried to archive all his effect with the glass itself, leading to many innovations in glass making techniques. What he could not achieve in baking the glass or with glass etching techniques he tried to create with layering of glass.

In looking to better understand the glass making techniques of the Tiffany studio I consulted with Tom Venturella, a stained glass conservator in NY, who is both very knowledgeable and extremely generous in sharing his knowledge, (figs. 5 & 6) are examples of Tiffany glass, shot in Tom's studio, front and back views. Note the back view in fig. 6 illustrating the layered structure of the glass window. This type of layering was done in order to achieve a particular effect of color or transparency desired by Tiffany.

Another example of the Tiffany studio innovation in glass making, can be seen in (fig. 7) 'drapery glass' or 'folded glass' used by Tiffany to create drapery. As you can imagine, one has to be looking at the drawing while manipulating the glass



Fig. 6. Verso of Tiffany glass

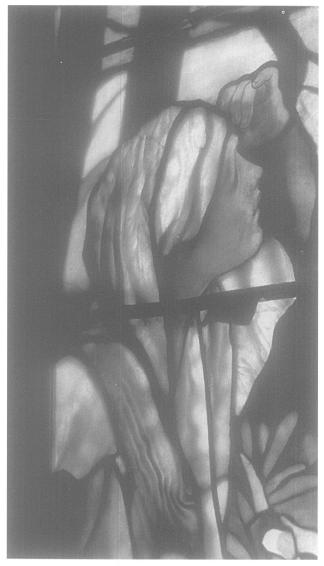


Fig. 7. Example of Tiffany Drapery glass



Fig. 8. Law 66" x 38" one of five remaining cartoon panels for Education, before treatment

sheet in order to get the desired effect. This in just one indication of the extensive use of the drawing during the glass making process. As the drawing was on poor paper, fairly large and extensively used, it was delicate and tore often.

When I saw the layering of the glass it occurred to me that a parallel might be seen in the cartoon. I had been puzzling over the nature of the damage and at it being so actively continuing, the idea that there were uneven layers behind the primary support causing the unexplained new breaks and tears seemed worth pursuing. I begun to lean towards a theory that perhaps all the repairs and so called over paint were original. The condition of the panels and the appearance of the repairs can be seen in the example of the panel representing *Law* (fig.8). Figures 9-12 show details of typical damage and repair. As can be seen by the illustrations, all panels were extensively damaged and actively degrading, some conservation action was called for.

I proposed to take one panel, which exhibited typical damage, and do a detailed examination which was then followed by treatment. The treatment of the remaining four panels is now under consideration incorporating the many painful learned lessons from the first panel.

Armed with my new theory that all existing repairs were in fact from the Tiffany studio I went in search of proof. What I was hoping for was some visual history to confirm my suspicions and here I encountered the most amazing obstacles, scholars send me on wiled goose chases, primary source material disappeared and an amazing amount of misinformation was delivered. It was interesting to learn that simply going to an 'authority' on a subject, and asking for their expertise was not at all a sufficient way to collect reliable information. I did however establish some visual history for the cartoons through publications.. The examination of these suggested that indeed it appeared possible that much of the damage and its repair were from the Tiffany studio. The only way to know one way or the other was to remove the lining and take a closer look.



Fig. 9. Law detail of top left showing new damage caused by the mounting system



Fig. 10. Law lower center, detail (foot) showing original fills, old and new tears, over paint and flaking paint



Fig. 11. Law detail of face showing an original mended tear with glue residue and paint damage



Fig. 12. *Law* detail in drapery area showing paint damage and loss, typical to areas of gouache over pastel

Since all the fills on the recto were actually tinted and painted lining paper, I carefully cut them out to be reused if they were original. I peeled off the canvas, started on the lining paper and confirmed the theory, a rich archeological site was uncovered, layers and layers of 'stuff' off the studio floor, attached with the thickest animal glue I ever encountered, covered the verso in clusters-I panicked, here was the source of the damage and it was all original! The back was not the most beautiful part of the work but it certainly was as important as any other aspect of it. Bits of studio stationary (fig.13), packing labels, old letters, all and more used to continuously repair and remend torn areas. 4-5 layers of paper with as many layers of animal glue in one spot, nothing at all in the adjoining area; causing the inevitable cracking and breaking at the areas of primary support located near these thick repairs.

Reassessment of the condition of the drawing showed it to be of the following unfortunate combination; a weak primary support with no fold strength but an amazing expansion and contraction pattern, heavy stiff patches thicker and stronger than the support with dry degraded animal glue and no expansion at all, and a delicate powdering, flaking cracking, and peeling paint layer. What was I to do?

A short and unsatisfying struggle with my conscience led me to the following miserable compromise; Document a lot, Stabilize the paint layer, keep all original mends, repairs, fills and patches on the recto, and to my horror, remove the verso patches and replace them with the usual Japanese paper and wheat starch paste. This extreme action, of removing original repairs which have great documentary value, seemed unavoidable since the old repairs were the cause of much new damage inflicted on the piece. Try as I did, I could not fined a way to leave them and preserve the whole piece, they were therefore sacrificed in order to achieve some degree of stabilization to the piece, but as compromises go I still feel it to be extreme and unsatisfactory.

The drawing was placed in a humidity chamber and when it was expanded it was cut off the mount at the edge. The consolidation was done matching consolidants and delivery method to the media. The gouache was treated were ever possible by regenerating its binder using cold ultrasonic steam followed by light pressure (repeated several times over a period of many days). In areas were this was not sufficient the consolidation was done with 2-3% gelatin in deionize water applied with the ultrasonic humidifier. The pastel was strengthened with steam and no pressure. A few areas of oil paint were treated with dilute B 72.

The drawing was placed face down and the linen removed mechanically. The lining paper and many patches were removed using very light applications of moisture, or when needed using Laponite or/and methyl cellulose poultices, applied over tissue. Occasionally a light steam application was necessary in order to soften the thick animal glue. After the back was cleaned of patches, it was mended with a thin Japanese paper and wheat starch paste, the original fills were placed back in their previous position using wheat starch paste. Small losses and areas around the fills were closed using cellulose powder and wheat starch paste with a small amount of dilute jade 403 mixed in. A few areas of loss, not previously filled, were filled with a matching paper and wheat starch paste. New fills were

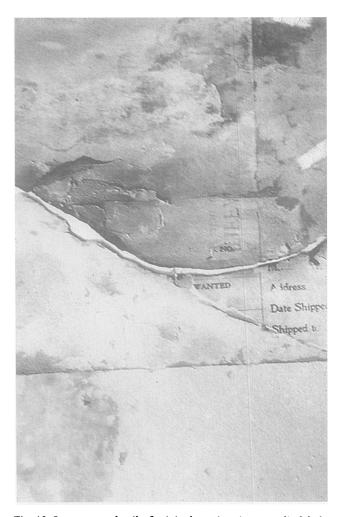


Fig. 13. Law, verso, detail of original repair using a studio label

toned with gouache and old once, no matter how poorly matched, were left with no further toning.

A lining was necessary in order to support the very weak primary support. Since the cartoon was in so many pieces with extensive tears, fills and patches I was concerned that in applying a regular lining of one or two pieces of continuous Japanese paper I would introduce too much tension into the original and have problems with uneven expansion of the primary support. The lining



Fig. 14. Law after treatment

designed was an adaptation of one of the layers of a Japanese drying screen. Squares of a Japanese paper were water torn and placed using wheat starch paste in a brick layers pattern over the whole of the back, the drawing was humidified prior to lining and the paste was applied thin but not very wet (pasted out on a blotter). After lining the drawing was left to air dry between felts. During drying the primary support shifted the lining squares slightly to match it's own various expansion contraction patterns. The result was a strong support for the drawing without additional pressure or too much constraint on the primary support (this technique was suggested to me by K. Bachmann). After 2 weeks of drying a second traditional Japanese paper and wheat starch paste lining was placed overall using a thin paper.

In the after treatment photo of this panel seen in (fig.14) one can plainly see all the original damage. Tears and fills all remain visible on the recto and give some testimony to the the raw haphazard haste of repair during work and the extent of the repair which testifies to the extent of use, but the most valuable element of the process, the actual mends and patches, are all lost. In a sense a part of the studio and its workings were removed.

# J. SOROLLA THE REGIONS OF SPAIN

Another example of the complex consideration applied to the conservation of working drawings can be seen in the conservation treatment done for the cartoons by Joaquin Sorolla *The Regions Of Spain*. Figures 15 and 16 show two examples of the cartoons made by Sorolla for the murals paintings of this series located at the Hispanic Society of America, NY. Each of these continuous drawing is assembled from a number of pieces.



Fig. 15. Joaquin Sorolla Regions of Spain 1913-1919, two cartoons or working drawings made by the artist in preparation of the mural project. 3.5' x 25.7' in four sections



Fig. 16. Joaquin Sorolla Regions of Spain 1913-1919, two cartoons or working drawings made by the artist in preparation of the mural project. 3.6' x 8.6' in two sections

In 1911 Archer Milton Huntington commissioned Joaquin Sorolla, a well known Spanish artist to paint a mural series representing the regions of Spain for the Hispanic society of America. The work was to be several paintings 12-14' high and totaling 227 feet in length. Sorolla agreed to do the work alone, without assistance and to complete it in approximately 5 years. In 1912 he begun making preparatory sketches. The first painting, representing Castile and Leon was complete in 1913 the last in 1919. The cartoons shown here are assumed to date 1913-14.

Sorolla died in 1923, Shortly after his death his son contacted the Hispanic society to see if they would like the cartoons left in the artist studio. They did, and the cartoons were deliver to the Hispanic society. From what we can surmise it appears that the cartoon were delivered rolled and proved to be too large for the collections limited storage. The cartoons were eventually cut, probably in order to accommodate storage.

About 7 years ago a curator at the Hispanic society look

at these cartoons and said to herself "These Paintings need help". She logically followed course and consulted in a paintings conservator.

The piece seen in (figs. 17 & 18) are examples of a cut drawing, (fig. 17) had been treated during the above mentioned conservation project, the second half (fig. 18) was discovered after the first was treated. I was to conserve the second piece and then join the two. In doing this treatment I had the opportunity to compare the differences in conservation treatments which are a result of different approach to an object.

Before I discuss the particulars of approach and treatment, it is important to note here that the following is not a criticism of anyone's treatment, the previous conservation treatment was beautifully done, this is a critique of the approach starting most significant-

ly with a curatorial definition!. In other words it is an investigation not a judgment. Both approaches to the Sorolla conservation treatment, described below, have clear advantages and disadvantages. Both can easily be justified as thoughtful and well considered treatments. Because it is one work subjected to different curatorial and conservation approaches it provides a particularly satisfying illustration of the significance of a theoretical approach to the execution of a conservation treatment.

A painting and paper conservator collaborated in designing and carrying out the first treatment described here. What they were confronted with; were mixed media drawings on fairly thin brown wood pulp paper (similar to Tiffany) lined with a thin and crumbling fabric lining attached with animal glue. The design is in some areas relatively straight forward paintings, but more often corrections and changes appear.

Sorolla would cut away a sections of the primary support and insert new paper in order to paint in a change,



Fig. 17. Example of a cut cartoon left half, before treatment 3.4' x 4.5'



Fig. 18. The right half of the same piece illustrated in fig. 17, after treatment

often on top of it there would be more layering, up to 6 overlapping patches can be seen in some places with layers of painted corrections and changes in between. These layered areas can be seen in (fig.19). As can be seen, the patches were not well or uniformly adhered, allowing for much movement, deformation and cockling to take place.

The conservators designed the following treatment; The paper conservator did consolidation as needed, removed the fabric lining and animal glue, mended and filled with Japanese paper and wheat starch paste and lined with same,



Fig. 19. Detail of paper layers on the drawing surface, used for corrections, additions and alterations

she then passed the work to a paintings conservator who did a Tetco and Beva film lining on the vacuum hot table, a Tetco boarder was left to extend around the margins and was covered with a fine linen, giving the impression of a work on canvas, the piece was wrapped around a stretcher with a solid support. The presentation is beautiful, a coherent visual whole almost a painting-and therein lies my problem, it is not a painting, it is not a complete work, it is a rough, messy patched and repatched surface, with corrections, additions, changes-in short it is a testimony

of process, a step on the way to the final painting-not a painting.

I was brought in to the project 2 years ago and, with the aid of a previous conservator, began to reevaluate the approach. We tried a few compromises but did not find them satisfactory. A new curator Marcus Burke was now at the Hispanic society and happily joined in the process. What we decided was that since these are not paintings, we need not pretend and a new approach was developed to strengthen and stabilize the pieces allowing them to look



Fig. 20. Detail of layered area after treatment

raw, messy and precarious as they really are. What was done on the second half of the painting was first stabilization of the paint layer by consolidation. The work is a multi mixed media with areas painted over each other with often incompatible materials. As a result the consolidation could not be done uniformly throughout. Consolidants and delivery systems were matched to individual paint areas. To further stabilize the drawing during treatment Bookmakers heat seat tissue was used to face select areas. The lining was then removed mechanically

and the animal glue reduced as much as possible using a variety of poultices and some mechanical action. The drawing is on a very weak support and the cuts, inserts and patches created much uneven stress and pressure in the support as well as uneven expansion and contraction patterns. As with the Tiffany the danger of a regular lining was that in designing it to be strong enough to overwhelm these uneven paper characteristics it would further deform the structure of the art work. The primary support if stretched and flattened would have to either tear or release the patches on the recto or if a very strong lining was designed it would possibly flatten the work completely making its layered structure much less visible and forcing the primary support to stretch more than the paint layer could accommodate comfortably. Also, in terms of long term preservation, it appears to me that forcing the support into a flatness which is not at all natural to the general structure of the work, one introduces new stresses that could easily end up in new deformations to both paper and paint layers. I therefore decided to once again use the pieced lining described above in the Tiffany treatment. The Japanese paper used was a very light weight, hand made 100% Kozo. The drawing was humidified in Gortex and the lining applied with a thin, medium wet paste. The drying again was done slowly between felts. Once again the subtle shifts of the lining squares indicated areas in the primary support in which stress was released or uneven expansion and contraction patterns were accommodated. As a result of this lining technique the three dimensional quality of the drawing, which was created by the many layers of patches, was well preserved, (figs. 19 & 20) show a patched area before and after treatment). A second, light overall lining was done once the drying of the first was complete and the primary support well settled.

The lined piece was wrap hinged onto a solid support with no boarder or finish. The disadvantage of this new treatment in comparison to the earlier one, is that it is less strong. This is the unavoidable result of accommodating the original paper structure and allowing the patches to remain partly detached and cockled. In comparison the much flatter and Tetco lined other half of the drawings feels like a solid mass, while this half feels weaker, lighter and more flexible. For comparison you see (figs. 21 &18), showing the two haves of the painting treated in the two described methods (fig. 18) shows the more finished looking piece with its linen boarders and very flat (fig. 21) the more three dimensional, less flat and with an unfinished boarder,(in order to join the two halves and have some degree of visual coherence, the linen boarder was removed and the piece wrap hinged onto a solid support panel. From a distance this works well enough, but on closer inspection the difference in flatness is obvious. The Tetco lined one is about 1/2" wider than the paper lined piece and the join is therefore not exact).

Undoubtedly the more finished piece looked better, and it is stronger, but what is lost is significant! what is lost is the visual chaos created by the work in process, the sense of reevaluation by the artist, the understanding of what he

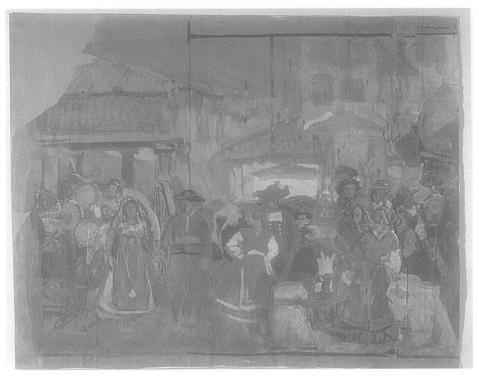


Fig. 21. Left half of painting after treatment

wanted to achieve through the changes-the context-the moment-in short the sense of change and time-The process.

It is important to note here that unlike the example in Tiffany these things are not really lost, nothing was removed, what causes the perceived change is the flattening, which makes the patches less visible and the finish, that transforms the work in our minds changing its context and allowing us to give it new meaning. It is in a way the opposite result of the Tiffany. The Tiffany was left to look damaged, patched, visually noncohesive but in actuality was altered irrevocably, the Sorolla Was left looking hole and coherent but in effect was not really altered much at all.

I chose these examples for their complexity and the level of discomfort they evoke. They clearly show how preserving a process can be a negation in terms. There can be few comfortable solutions when a conservator is faced with the idea that there is value to damage. Not damage, in the sense of a reflection of the history and life of a work, but as part of it. The damage can be part of the working process and the damaging repairs part of the evidence of process,

What is a conservator to do?

# **ACKNOWLEDGMENTS**

I would like to thank Rustin Levinson and the members of both her studios for their collaboration on the Tiffany cartoon, especially Carol Weingarten, a better colleague one could not dream up.

I would also like to thank Konstanze Bachman for her guidance and advice on both projects

Many colleagues had generously spend time reviewing and commenting on the Tiffany treatment and I can not thank all of you enough.

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