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Conservation of a wedding dress by dressmaker Juana Valls

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Introduction

In 2019, the Textile Museum of Terrassa added a new acquisition to its modernist dress collection. This is the wedding dress worn by Miss Carmen Rafael Margenedas on her wedding day, the 16th of May 1910, with Mr. Joan Valls Giralt.

Due to its condition, a laborious conservation process has been necessary to bring out the richness of its fabrics and decorative elements.

The dress combines silk satin with tulle and is adorned with elaborate embroidery consisting mainly of beaded appliqués, small silver sequins and imitation pearls. It has a high collar, long sleeves, and a waist slightly above its natural position, following the more upright and slender fashion influenced by the great fashion houses of Paris. The skirt is elongated in the form of a lavishly decorated train, as it was the most visible part of the dress during the ceremony.

Fig. 1. Photograph of the wedding day where Carmen Rafel is wearing the dress made by her mother-in-law, Juana Valls. Photographers A. I E. F. dits Napoleón, Barcelona, 1910.

Fig. 2. Photographs of the initial state of the dress before the intervention. Front and back.

In addition to its richness and quality, an outstanding feature of the dress is that it preserves, sewn to the inside of the garment, the label with the name of the dressmaker who made it, "Juana Valls", the mother of the bride and one of the best-known dressmakers of modernist Barcelona[1]. Her real name was Juana María del Pilar Giralt Miró, but when she set up her business, she took her husband's surname.

Documentation, the step prior to conservation

Before undertaking such a complicated intervention as the conservation and recovery of the wedding dress, the garment was thoroughly documented: it was photographed in general and in detail, after which all the integral parts were measured and defined. Finally, all the alterations were documented and recorded with the help of diagram of its condition, made with the vector software, Adobe Illustrator®. The diagram of conditions or alterations is a tool commonly used in the documentation process of heritage assets. This examination allows us to approach the garment more scientifically and helps us to propose the necessary conservation treatments for each element of the dress.

1 CASAL-VALLS, L., *La figura de la modista i els inicis de l'alta costura a Barcelona. Trajectòria professional i producció d'indumentària femenina (1880-1915)[The figure of the dressmaker and the beginnings of haute couture in Barcelona. Professional trajectory and production of women's clothing (1880-1915)].* Doctoral thesis, directed by Mireia Freixa. Barcelona: University of Barcelona, 2013, pp. 594-600. Available at <http://bit.ly/3HB1HQz > (Accessed: 10/03/2022).

Fig. 3. Example of the documenting process of the condition of the dress. Use of the DinoLite® digital microscope.

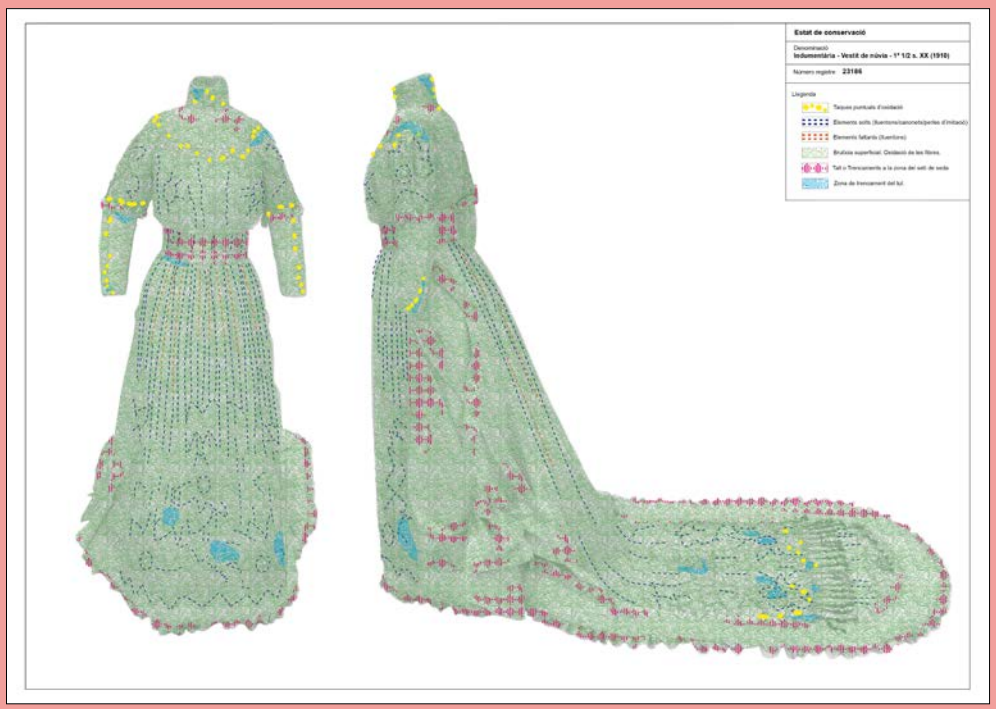

Fig. 4. Diagram of the condition. Diagram created with Adobe Illustrator®.

We found that, although at first glance the dress appeared stable, structurally it suffered from serious problems, mainly due to the alteration of the silk fibres that make up the fabrics of the dress. This phenomenon is known as weighted silk[2]. It is a type of alteration that is found mainly in the late 19th and early 20th century. During this period, different chemical products were introduced into the silk-finishing process, such as metallic salts, mainly made from tin. It resulted in a final product that was heavier and more expensive on the market. However, over time, these salts end up destroying the silk fibre's natural structure, making it brittle and powdery. The vertical tears are characteristic, which leave the fabrics looking as if they had been attacked by a rabid cat, in addition to the evident loss of the elements applied to the garments, such as buttons, hooks or embroidery, as the fragility of the fabric cannot withstand the stress and weight of them.

Unfortunately, this type of alteration at the chemical level is irreversible. What actions can be taken will be focused on slowing down the rate at which the destruction/loss is progressing. Therefore, in addition to direct actions on the garment, indirect actions, relating to preventive conservation, will be equally important, such as creating a space where the garment is kept protected from sudden changes in temperature and humidity, as well as from direct sources of light, and placed in such a way that it does not suffer from stress.

Conservation and recovery process

The first step in the conservation process is cleaning. This is a very significant step, which must be carried out carefully and conscientiously as its effects can be irreversible. In this process, the particles that could damage and deteriorate the fabric are removed. However, we must bear in mind that the piece has a historical patina and that a cleaning process can never return it to its original state, at the risk of damaging it forever.

According to the specialists, there are various ways of classifying the types of cleaning[3]. In our case, the condition of the fabrics only allowed us to carry out the cleaning mechanically, removing surface dirt deposits by means of suction and smoke sponges.

Thus, we carried out a controlled vacuuming of all elements with a ConserVac© vacuum cleaner. The most delicate and damaged parts, which made up 90% of the garment, were covered with nylon netting, which prevents the garment from being damaged by the suction, but at the same time allows the dirt to be removed. The inner part of the train was cleaned with the help of vulcanised sponges, as the preservation of the lining fabric

2 MONTERO, S., "La «seda cargada» en la indumentaria entre 1880 y 1930. Metodología de estudio y propuesta de conservación-restauración" ["Weighted silk" in clothing between 1880 and 1930. Study methodology and conservation-restoration proposal]. *Ge-conservación* (2011), num. 2., p.81-88. ISSN-1989-8568.

Fig. 5. Cleaning of embroidered appliqués with a 1% solution of surfactant in deionised water, applied with cotton swabs.

allowed for the mechanical movement necessary for this type of cleaning. All decorative elements, sequins, pearls, beads, etc., were cleaned with a 1% solution of surfactant in deionised water, and applied with cotton swabs while straightening the sequins deformed by use.

Having finished the cleaning process, we proceeded to strengthen the dress. This step aims to conserve, as far as possible, the fabric's stability. This garment's condition meant that we had to carry out a very invasive treatment. Many parts had to be taken off in order to treat them individually, deciding on the most appropriate treatment according to their condition, shape and constituent elements.

Two methods of consolidation are commonly used in the conservation of fabrics: stitching or adhesive consolidation. Both are supported by a secondary textile support that provides stability to the antique fabric. In the case of consolidation by stitching, the fixation is done employing silk threads and conservation stitches, whereas, as the name suggests, the second method is based on the adhesion of the secondary support to the original fabric by means of a binder that can be of different type of adhesives: cellulosic, vinyl, acrylic, starches, etc.[4]

Stitch fixation is the most common and the least "invasive", and is reversible, although full reversibility is impossible. Within this type there are different subdivisions: small localised losses can be fixed on a cut-to-size support, or if the fabric suffers from many losses or tears, a full support can be used. If the fabric shows many structural alterations, in many cases it is encapsulated, i.e. the original piece is protected between two semi-transparent fabrics such as tulle or crepeline, which, despite their subjection, allow the original fabric to be seen. Adhesive consolidation has the disadvantage of being almost irreversible and often stiffens the pieces. It is used when the condition of the fabrics does not allow the use of stitching. These two approaches can also be combined, as we have done with this dress.

3 LÓPEZ REY, M., *Métodos y materiales de limpieza alternativos al medio acuoso en tratamientos de conservación y restauración de materiales textiles* [Alternative cleaning methods and materials to aqueous media in conservation and restoration treatments of textile materials]. Unpublished doctoral thesis, directors Margarita San Andrés Moya and Ruth Chércoles Asensio. Madrid: Complutense University of Madrid, Faculty of Fine Arts, 2017.

4 MONTESINOS FERRANDIS, E. Mª. [et al.], "Aproximación al estudio de adhesivos para la consolidación y el refuerzo de tejidos históricos: Materiales y métodos" [Approach to the study of adhesives for the consolidation and reinforcement of historic fabrics: Materials and methods]. *Arché* (2008), num 3, p. 143-146. ISSN 1887-3960. Available online at: <http://bit.ly/3Rg38qX> (Accessed: 12/02/2022).

Fig. 6. Example of the consolidation process. Fixing with adhesive and stitching.

Fig. 7. Detail photo of the ribbon on the right side of the skirt, before and after the conservation process.

Adhesive bonding requires several previous steps. Firstly, deciding which adhesive to use. In the world of conservation, there is a wide range of adhesives. Depending on the characteristics of the piece to be treated, the most suitable is chosen. In this case, we used Klucel G, a cellulose-based adhesive, which comes in powder form and is diluted with water. We opted for a concentration of 3% to achieve a correct adhesion and still maintain a certain elasticity while avoiding the characteristic glossiness of higher concentrations. In this approach, the adhesive is not applied directly to the fabric, as this could damage it and is difficult for the conservator to control but is applied to the fabric to be used as a support. In our case, we opted to use a natural silk crepeline. With the help of a wide brush, the adhesive was applied to the crepeline in such a way that a small adhesive layer or film was created. Once dry, it is ready for use. The adhesive needs to be reactivated, in the case of Klucel G, this can be done by applying alcohol or acetone.

The pieces fixed with adhesive have been the wide ribbons, the bows that decorate them as well as the flounces that surround the tail. As the adhesive needs to be applied on a flat surface, these fabrics had to be flattened beforehand.

Fig. 8. Exhibition support. 3D mannequin made from the ©Bodyteca Histórica de Carmen Lucini with the actual measurements of the dress.

Cold steam, glass and, weights were used. In the case of the flounces, the adhesion was done on the front side, as they had to be folded back on themselves and then ruffled again. In this way, the fabric was encapsulated and protected.

The stitching was concentrated on the pieces where the basic fabric was tulle decorated with sequins, beads, and imitation pearls in various motifs. All of these elements generated tensions that the tulle could not withstand, causing it to stretch. In order to reinforce it, but at the same time maintain the transparency of the tulle, a silk crepe was used as a support on which the tulle was fixed all around the perimeter with single-headed silk thread, while all the applied elements were reinforced and those that had fallen, but we still conserved, were reattached.

The last step in the conservation process was the reassembly of all of the pieces, respecting their original placement and shape. Taking into account that the interventions carried out have partially modified them, giving them a different volume from how they were originally.

One of the reasons for the intervention on the dress was that it would form part of the exhibition "Un museu, mil trames" (One Museum, thousands of threads), which commemorates the 75th anniversary of the Textile Museum of Terrassa. For this reason, a made-to-measure support had to be made where the piece could rest adequately free of undue stress. The support is a mannequin made from the actual sizes of the dress, made from acid-free, pH-neutral paper and starch glue. To achieve a comfortable surface, it has been lined with cotton wadding and covered with a cotton knitted fabric. The creation of made-to-measure supports, both for storage and the exhibition of the pieces, is part of preventive

Fig. 9. Final photograph of the dress, once the conservation treatment is finished and fitted on the made-to-measure mannequin.

conservation. Providing a base on which the pieces can rest without suffering is just as important as a good conservation. Both have to work hand in hand, because if this last step is not taken into account, all the previous work may prove to have been pointless. The dress, once conserved and assembled on a custom-made mannequin, features all the details.

Fig. 10. Dressmaking Secrets Example of the elements that have appeared "hidden" between the folds and the different garments that make up the dress.

Dressmaking Secrets

During the dismantling of the dress, a considerable number of needles were found embedded and forgotten between the folds of the fabrics, which leads us to think about the dressmaker's work method, first arranging the garments with needles so that they could be moved as she wished before sewing them in place. In one of the folds, between the sash and the skirt, was found a golden-headed needle, topped by a small pearl. We don't know if this needle had any special symbolism or if it was forgotten by chance. We also discovered, hidden inside one of the ribbons, a fragment of the artificial flowers that once decorated the dress, namely a wax pistil and the paper and wire peduncle. These flowers can be seen in the original photograph of the wedding.