

# International experiences: Gels in Conservation, London 2017

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## Abstract

The dissemination of the work and projects carried out in the field of conservation and restoration as well as the participation of professionals in international events, contribute to the construction of knowledge and methodologies applicable in decision-making and conservation treatments.

## Keywords

International conservation; treatments; cleaning; gels.

As a conservator-restorer, there are always opportunities to connect with colleagues from other countries and learn how they approach similar conservation problems, and nurture from them in order to complement and rethink our own practices. However, it is important to have the curiosity to participate in the continuous construction and development of our profession. Also, to be willing to participate in international specialized events, and show the work carried out in our institutions, laboratories, classrooms and work centers; taking into account that our education as conservators-restorers in Mexico provided us with the basis to be at the same specialized level as our peers in other parts of the world.



### Gels in Conservation Conference

My first experience participating on an international event was during the Gels in Conservation Conference, organized by International Academic Projects Ltd. and the TATE Museum, held in London 2017, where multiple specialists from more than thirty countries met to present their work around the application of gels in conservation treatments.

Having recently graduated from a Bachelor's degree program in cultural heritage restoration, the starting point for my team's participation in this event was the support given by our teacher M. Sc. Pilar Tapia, professor in charge of the Documentary Heritage Conservation Lab at the Escuela Nacional de Conservación, Restauración y Museografía (ENCRyM). She suggested we send the research project we carried out during the 8<sup>th</sup> semester of the degree.

We executed this work at the ENCRyM with the support of the School's Training laboratory, and the treatment consisted on the application of rigid gels to remove the aged adhesive impregnated in a graphic work: an Art Nouveau advertising poster from the 1920s in Mexico. As a result, we obtained a satisfactory cleaning that allowed us to return the visual unity to the image. In this way, after sending a summary of the case, we were selected for the publication of an article and the presentation of a poster.

To be chosen for an event of this magnitude, without economic support to make the trip, reaching London did not seem easy. However, the opportunity to present our research work and to get to know the development of the work with gels in other places gave us the drive to acquire the financing needed to attend. When we arrived in London an immigration agent did not understand that we had traveled this far to a "gels" event, however, after hearing the phrase "art conservator" he congratulated and welcomed us. Therefore, the whole imaginary we had about one of the most iconic cities in the world came true. The subway with its signs "Mind the gap", the suburbs, and then the big city with double-decker buses in its streets, the great postcard of the River Thames with the Parliament building behind, the Big Ben and the monumental museums full of ancient treasures.

The organization of the event was excellent, they had sent all the documentation in advance and the elements required for the publication were ready with English punctuality. In addition, they organized a wonderful reception and gave us a copy of the book beautifully edited by International Academic Projects. The program took place at the Emmanuel Center in the iconic Westminster borough. The place was full of conservators from all over the world, mostly women with an average age between 30 and 40 years old, which can give an idea of the role women play and their mastery in this professional field. Likewise, it was very pleasant to meet other Mexican colleagues participating and presenting their work, this being a relevant indicator of the quality of our training in Mexico and the international engagement of the Mexican conservators.

The keynote presentations were given by renowned world-class scientists like Richard Wolbers and Paolo Cremonesi, who talked about the theory, practice and novelties in the use of gels for conservation, as well as their advantages, use, and some methodological proposals about their composition. They also talked about the advances regarding the use of these materials in the past 30 years and how they have influenced our field.

It is important to mention that the groundbreaking work started by these scientists, has set the model for the use of gels around the world and their contributions have been widely spread in Mexico for the teaching of cleaning methods in cultural heritage. It is because of this fact that in our case study we were able to propose this type of intervention treatment, obtaining good results.





Figure 1. Gels in Conservation. Imagen: ©Angélica Vásquez Martínez, 2017.

During the program of the event, we heard about different gel bases: agarose, gellan gum, methylcellulose, polysaccharides and polyacrylics with different additives such as solvents, enzymes and chelants, as well as strategies for their application. While the results offered by the use of gels is a topic that has been discussed throughout our training as conservators, some of the studies presented during the event offered new information related to this topic. For example: the use of biochemical sensors to monitor the application of gels, the use of the gel with a pH that approximates the one of the materials being restored, and more application variants such as temperature and other more specialized compounds used to make the gels.

The study of substances used for the preparation of gels is a very great advance for the conservation field, thanks to this and the parameters already studied, the conservator has a starting point, where is only necessary to take into account the difference between commercial products for their realization, their effectiveness for cleaning, times of action, the relationship between the gel's pH and the pH of materials the gel will be applied to, what repercussions it can have on certain materials at a molecular level, and waste. These tools also allow evaluating, creating cleaning systems, and making the best possible decisions when applying a treatment.

The importance of bringing together several specialists from different parts of the world regarding the use of gels, allowed us to appreciate on a global scale how we are facing certain conservation problems, which criteria we use and how we solve the problems of conservation for various objects and their materiality, going from the cross section of a tree to paper documents, metals, murals, even great works of artists recognized by art history. It is curious that most of the case studies came from museums contexts, which implies that these procedures are being used and investigated to a greater extent by this type of institutions.



The case studies presented by the conservators and scientists during the event showed that the application of gels is quite effective, specifically in materials that are difficult to clean by traditional methods. Each museum or conservation center showed the interdisciplinary work that had been carried out regarding the formulation of the gels, which shows that the contributions of different fields of study helps get the best results in the procedures and the importance to delve more into the chemical processes that involve this kind of treatments. In addition, the difficulties involved in the preparation and application of gels with certain substances were discussed, the tests that had not gone well, the successes obtained in the treatments and some risks that might exist. These experiences and knowledge are very valuable because they serve as a precedent for the use of gels in conservation proposals.

Beyond the exposition of the cases of study, it is important to mention that the implications and effects that cleaning has in the reading and use of the objects treated was never left aside, since in each presentation this was topic discussed. In this regard, the approach and cleaning methodologies used, mostly in works of art, do not differ much from the training from ENCRyM. Since the school and the teachers promote that the students maintain a dialogue with the object and its surroundings, trying to understand its context, perform assessment exercises, make critical judgments about the image, and understanding the materiality to define the intervention and the scope of the treatments that will be carried out, ensuring that these will be the least invasive.

During the presentation of the posters we had the chance to explain what our project was about and also we were able to clarify some doubts, at that point the relationship with other colleagues was closer and we met with the organizers of the event and coordinators of the book. This is how we knew about what other people thought about the project, we received recommendations, congratulations and questions. It was also evident that the conservation labor in Mexico is recognized worldwide, since several professionals from the event had good references about the work we carry out in our country.

### Conclusions

One of the most noteworthy topics of the Gels in Conservation Conference was the possibility of applying substances in certain conservation processes that are not so toxic for our health and the environment. A concern that is not surprising given the current circumstances of pollution at global scale. Although some actions addressing this problem are already being carried out in Mexico, it is gratifying that as a field we start to use healthier alternatives and that we are aware of the impact caused by our actions regarding our own health, and nature. This is an inspiration to continue working on this approach when it comes to conservation treatments, and thus develop what is within our reach to cover this evident need.

The publication of a book that collects all the information presented in the case studies was fundamental, since this will allow any conservator to start from what has already been experienced and improve the results with their own work. The gratitude for the research work carried out by other conservators can be shown by continuing to delve into these issues, make increasingly rigorous approaches to the methodologies we apply and continue publishing the results.

In addition to attending conservation events, to visit museums and know the cultural heritage of other countries can also give us an account of their conservation practices and allows us to get to know their theoretical and practical vision, and thus be able to compare our differences, and allow us to adopt some examples to our benefit.



These specialized events are an example for the discussion and presentation of common topics and concerns of the conservators-restorers, so we can appreciate the results and advances in different topics and methodological approaches, in addition to continuing to question our practices, the decision-making processes and the treatments that we apply, and in general to visualize how our discipline is being transformed. The academic exchanges also strengthen professional ties and resolve current challenges, so it is important to generate interest in participating in these events to disseminate our work on the conservation of cultural heritage and its complexities.

As Mexican conservators-restorers, it is important to write and disseminate our research, results and experiences, as this will enrich the knowledge of our profession and make our work even more visible on an international scale. Even though Mexico was represented in this event, our participation in comparison with other European countries was minimal.

Participating in an event of this stature also works as an indicator of the excellent level of education we receive in Mexico. It also invites us to pursue a dialogue among colleagues, expressing our concerns, discussing solutions to improve the theoretical and practical work that constitutes our profession.

The experience opens up new exploration scenarios in which I can continue applying the knowledge acquired during my training at the ENCRyM, always trying to stay updated. The impact regarding my own configuration as a conservator consisted of growing professionally, directing my interests, and reinforce my curiosity and proposals for the cleaning of cultural heritage with a more solid foundation.

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