

## Plaster – An artistic production in the Museum of Marble in Rance – Belgium

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**Abstract:** The origin of the stone industry in Belgium goes back as far as the Roman occupation. The marble industry, with the oldest pieces of testimony, goes back to the 16th century. The marble workshops were located in the South of Belgium and even at this period the main customers were abroad: France, Britain and its Empire, in the States... The realization of a sculpture in natural stone, as the marble, asks rigor and method in direct link with the material because each small modification on the marble is permanent. The plaster cast is used as a reference point during the work and allows the transfer from the model in plaster to the marble. One of the most important workshops in Rance, worked for years to answer to the orders of sculptures of customers from the different countries. Most of the plaster casts, in connection with the large past work were discovered (recently) and offered at the museum.

**Keywords:** Plaster, model, sculpture, conservation, identification

### Yeso – Una producción artística en el Museo del Mármol de Rance – Bélgica

**Resumen:** El origen de la industria de la piedra en Bélgica se remonta a la ocupación romana. La industria del mármol, con los testimonios más antiguos, se remonta al siglo XVI. Los talleres de mármol estaban ubicados en el sur de Bélgica y aún en este período los principales clientes estaban en el extranjero: Francia, Gran Bretaña y su Imperio, en los Estados Unidos... La realización de una escultura en piedra natural, como el mármol, pide rigor y método en vínculo directo con el material porque cada pequeña modificación en el mármol es permanente. El modelo de yeso se utiliza como punto de referencia durante el trabajo y permite la transferencia del modelo en yeso al mármol. Uno de los talleres más importantes de Rance, funcionó durante años para responder a los pedidos de esculturas de clientes de los diferentes países. La mayoría de los moldes de yeso, en relación con el gran trabajo anterior, fueron descubiertos (recientemente) y ofrecidos en el museo.

**Palabras clave:** Yeso, maqueta, escultura, conservación, identificación

### Gesso – Uma produção artística no Museu do Mármore em Rance – Bélgica

**Resumo:** A origem da indústria da pedra na Bélgica remonta à ocupação romana. A indústria do mármore, com os seus testemunhos mais antigos, remonta ao século XVI. As oficinas de mármore situavam-se no sul da Bélgica e ainda nesta época os principais clientes estavam no estrangeiro: França, Grã-Bretanha e o seu Império, nos Estados Unidos... A realização de uma escultura em pedra natural, como o mármore, exige rigor e método na ligação direta com o material porque cada pequena modificação no mármore é permanente. O molde de gesso é utilizado como ponto de referência durante a obra e permite a transferência do modelo em gesso para o mármore. Uma das oficinas mais importantes de Rance trabalhou durante anos para responder às encomendas de esculturas de clientes dos diversos países. A maioria dos moldes de gesso, em conexão com o grande trabalho do passado, foi descoberta (recentemente) e oferecida no museu.

**Palavras-chave:** Gesso, modelo, escultura, conservação, identificação

## Introduction

The museum of marble opened in 1979 just after the closing of the last quarry in activity in Rance. Five years later, the last workshop closed and the village which was a real commercial center was deserted and the marble industry became a « souvenir » ! The village of Rance is located in the South of Belgium, at the French border, this location was the ideal place for the international trade of manufactured marble pieces and sculptures for centuries. With the end of this local industry and with the departure of population to urban centers, most of the marble workshops were destroyed with the loss of archives and artistic heritage. Thanks to the intervention of local historians, in order to preserve traces of the marble industry, its artists and their masterpieces, a museum was founded. It gathers together all the testimonies in relation with the extraction in quarries, the cutting, the sculpture, a great number of marble objects from various origins, the social history, the evolution of techniques, catalogues of chimneys, decorations, models, plaster casts, photographs and few traces of orders and invoices. Step by step, the museum grown to become one of the most important institutions which shows the history of the marble industry in Belgium. The red marble of Rance is well known all over the world because of its special shades and its red rich in veins and fossils. One of the most important period of prosperity was during the building of Versailles but the « red » was also used for decorating prestigious monuments such as Vatican St. Peters Church, the Dôme of Firenze, the Charterhouse of Pavia, in Italy. Numerous churches, private houses, palaces and castles in Paris, Compiègne, Soissons, Rouen, Senlis, Orléans, Laon in France, the Chapel of Saint Casimir in Vilnius Cathedral, in Lithuania, Maryland Castle in USA, in private houses and museums in England (Groessens, 1992). Nevertheless, in Belgium almost two hundred red marble quarries were exploited and among those, the marble of Rance is certainly the most praised and used for decorating.

## Few historical notes

Until the mid of the 17th century, two quarries provided red marble from Rance, later another quarry was opened to satisfy the numerous orders for Versailles. In the 18th century, the last quarry of the village was exploited. These exploitations were fragile because of the water which filled sporadically the « hole ». The pumping was expensive and was frequently the cause of the abandon of the extraction. We do not have writing documents which detail the implantation of the very first marble workshop in the village, but we have local masterpieces realized certainly in the 17th century. Even if we found the name of the marble masons thanks to old tombstones and parish registers, it was impossible to find out the location of the workshops. From the 18th century thanks to a map describing the layout of a new road, the location of five marble workshops appeared. Favored by the taste for Fine Arts in the 18th century, the marble industry had grown up considerably and Rance was

for good a well-known marble center and it is by thousands that our workshops supplied the churches, abbeys, castles, houses with altars, porticos, columns, pieces of chimney and various decorations in Louis XV style with capricious rockeries and then with the finesse of Louis XVI style. These pieces are still admired by art lovers of the past. Our marble workers, who left beautiful artistic specimens in our regions and even further afield, often worked from plans or plaster models that they created themselves.

In the mid of the 18th century, five active marble workshops were concentrated in only one street. So far, no archive document gave information on the production performed at Rance. For the end of the 18<sup>th</sup> century, we were more fortunate because we were able to obtain a register which allows us to glimpse the production of pieces from 1770 to 1784. The document does not mention the names of the marble workshops but depending on the number of pieces, it must be a grouped production. For example: from 1770 to 1771: 3 altars, 171 pieces of chimney with different designations such as «communes, plates à tête et à raccord, à la grecque, à la flamande, capucines, avec rosaces, milieu guirlandes, motifs», different kind of tables: «à tombeau, pour pieds dorés, écriitoires, mortiers». From 1772 to 1773: 4 altars, 366 pieces of chimney and several tables, decorative coverings for walls, stairs... [Figures 1-2].



**Figures 1 y 2.-** Private house described as marble workshop on a map of 1753. The door lintel mentions the date of 1751.

The marble industry went through a long crisis at the end of the 18th century caused by political upheavals. The French revolution put the main clientele of the marble, the clergy and the nobility in a situation of absolute insecurity and the industry stopped its production. It was under the Empire that the marble industry restarted a relatively important activity. We see the use of rare marbles for inlays and new models Empire style are fashionable. The production is based on pieces of chimney that take names specific to new genres: «cheminées à tête à colonnes, à guennes avec ornements ou figures avec milieu, à tête de Bacchus, Apollon sur les têtes et palmettes sur les consoles». We can also find some: «à colonnes, à carquois, des étoiles dans la frise, à fuseaux sculptés, à aigle au bout en marbre blanc ; d'autres avec griffes, avec cruches, avec milieu arabe, à têtes de Satyres



et aigle, à consoles galbées, à tête de momie avec volutes ioniques et pattes de lion, à gueules de fous, avec tête de médaillers, avec des raies de cœur au cintre rapporté, avec chiffre sculpté, avec branche d'olive et de laurier, avec clous antiques», to sum up, all the attributes of the Empire genre.

At the beginning of the 19<sup>th</sup> century, the marble masons intensified their relations with the countries of the North and England as well as with Holland, Germany and the Scandinavian countries for which they carried out beautiful, refined and neat productions of all kinds and styles. After 1865, the workshops were modernized, and new equipment was put in place to mechanize the production. In 1895, there was only one monumental marble workshop left in Rance

Taken over by the Grimée-Baily family and successors, it remained equipped to continue producing traditional works. We know that this workshop produced many pieces of chimney and remarkable masterpieces of art work and decorations of all kinds (Ducarme 1957). The hinge between the 19<sup>th</sup> and the 20<sup>th</sup> centuries saw a feverish marble activity. The 20<sup>th</sup> century showed the gradual closure of quarries [Figure 3] and most of the workshops. The 1914-18 war, the crisis of 1930 and, a few years later, the Second World War seriously endangered the local industry. The last quarry closed in 1950 and only one workshop survived until 1980. All traces of this activity disappeared, the only witness that allows us not to forget that this small village held a prominent place in the monumental and artistic production of marble objects, is the museum and the many architectural witnesses still visible today in its streets.



Figure 3.- Quarry called «Trou de Versailles».

### Sculpture and plaster model

Sculpture seems to have always accompanied the history of mankind. It is a witness of past civilizations. The practice of sculpture can be developed in different forms. Nowadays, a sculptor can be a craftsman who produces decorative elements, a restorer of heritage or a creator of masterpieces. Stone or marble sculpture is directly related to the carving of the stone because after the roughing, the block can receive an ornament or a sculpture. Several techniques exist: direct carving, the « mise au points » technique or the three-

compass technique (GRPA, 2002).

In sculpture, the practice includes the execution of a model which is generally in plaster and then the realization in marble, stone, alabaster. This work consists of the following:

- The roughing of the block of marble
- The «mise au point» which determines the proportions of the work, its widths and thicknesses in all planes. The details, shapes and hollows of the model to be reproduced.
- The main points set make it possible to remove the excess material from one point to another, first in straight lines, then in concave lines and the «mise au point» is continued.
- When the «mise au point» is finished, the material is removed by shaving the points in the contours according to the model
- This work carried out, then comes the practice of know-how: the sculpture

With the technique called « mise aux points », the marble work is done according to the plaster model. The geometric means being the safest, they are the ones which must be used to obtain the identical copy of the model, either to enlarge or reduce it. The first step is the roughing, then it is the “adjustment” mechanism which is used, its mission is to search on the model for the thicknesses of the hollow or protruding parts (Gozard 2001) [Figure 4].

After having determined exactly the distances existing on the model, they are transferred with a pencil mark on each of the parts where the tips of the instrument are fixed. The machine is transferred to the marble by hollowing it out until the same thicknesses found on the model are obtained. This

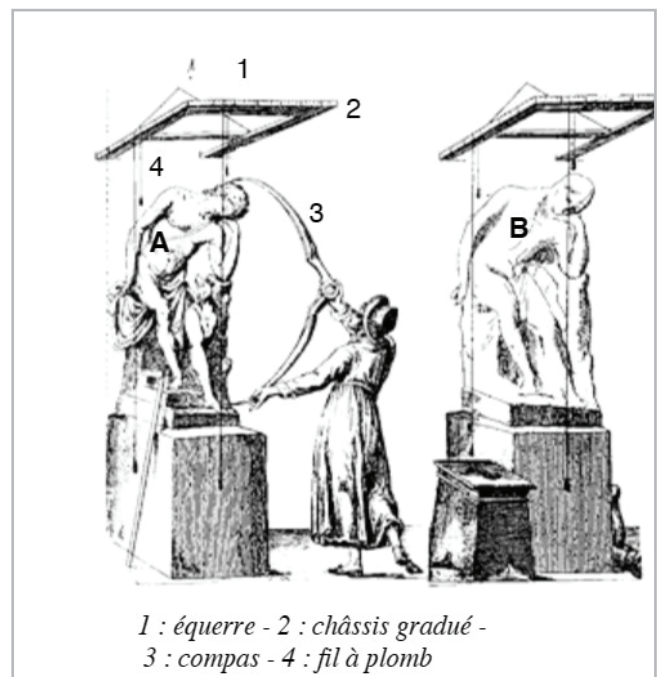


Figure 4.- Technique called: «Mise aux points». A plaster model, B marble. (Goupil1949).

operation is repeated for all the main parts. For the rest the artist uses a compass intended for this work.

The means employed for the work of the «mise aux points» are numerous, they are all based on geometry such as the mallet, the small sledgehammer, the spikes, tooth chisel and hand chisel.

The use of the plaster casts in the industry of marble and precisely in the sculpture is very important. With the particularity of the material, the work of preparation warrants a perfect sculpture. The plaster cast allows, thanks to different techniques, to take measures on the plaster and transfer them on the marble to carve the material with the respect of the decoration, with the greatest precision and above all not to miss the cut with the tool. At the end of the sculpture, the plaster cast stay in the workshop and can be seen as an iconographic document and the witness of the origin of the piece.

### The donation of 700 plasters

Rance has been a well-known marble center for more than three hundred years. During the flourishing period of marble work which extends mainly from the half of the 18th century to the end of the 19<sup>th</sup> century, the trade being flourishing towards foreign countries, a large number of marble achievements (creations and productions of pieces) of all kinds was carried out. The many workshops certainly kept a large part of the plaster models and drawings that were used to fill the orders, but the gradual decline of the local industry has unfortunately seen most of these workshops demolished and their heritage lost. The family from whom we received the donation was active in this field for a long time, it's the Baily family, already mentioned above. After the death of the last marble mason, the former workshop had been restructured in a luxurious house by his great-granddaughter. The property showed a group of different buildings but only the residential part had been transformed by the heiress, the outbuildings had remained in the state of old sheds or barns and the largest one even served as a stable for a long time. Three years ago, after the death of the last member of the family, the whole property was on sale and the future buyer who wanted to modernize all the buildings, got in touch with the curator of the museum (I mean me) before putting all these plaster pieces to the dustbin! What a surprise to discover this heritage of the old local industry of marble. It was incredible because we thought that all these testimonies were lost for years. No one knows that the attic of this old shed harboured several hundred plaster models: columns, pieces of chimney, figurines, portraits, medallions, various decorations, miniatures, cherubs, plaster swags and personal creations were under a thick layer of dust, spider webs, straw and hay. Luckily only few elements had been attacked by humidity and water infiltration. Their state of conservation seemed quite good except for some remains of the passage of small animals. In one week we transferred 700 models from this shed to the museum and that was

the start of a long clean-up and inventory that is still going on today. This collection is a real artistic treasure for us but also a challenge to restore, preserve, identify and value the pieces. If our priority was the removal of plasters, a search for archival documents had to be carried out in parallel. Alas, this one did not give anything, the buildings having been completely emptied before our passage. The challenge was therefore taken up, the starting point was to find out the sculptures linked to plasters, starting with the local and widening the perimeter all around Belgium and abroad because each plaster model has somewhere a « twin » in marble, not only in Belgian marble but also in marble from other countries with a large range of colours. Investigations allowed us to recognize some local realizations, but the most important part of the collection must still be identified.

We know that as early as the 19<sup>th</sup> century, casting workshops were devoted to the reproduction of original works. These casts were exchanged between museums to complete archaeological collections presented to the public and to allow the study and comparison of objects. In Belgium, the plaster casting workshop of the Royal Museums of Art and History is located in Bruxelles. It houses and runs a collection of 4.000 casts of works of art. The casts are made by specialist craftsmen who employ traditional techniques. They propose also the selling of plaster. Even if this aspect of "casting" or "copy" was considered when the many plasters were transferred to the museum, the idea was quickly abandoned because the context of the storage of these plasters shows that it is an own and specific production linked to the creation of marble sculptures. The traces of « mise aux points » left on most plasters allow this conclusion even if some elements could be casts on monuments or various sculptures [Figure 5]. The lack of documents related to this collection suggests that the workshop kept the plaster models in this shelter without listing or inventory. A question also arises on the purpose



Figure 5.- Traces of «mise aux points» let by the pantograph.



of piling up all these elements. Are these pieces unique and considered as the « original » piece by the artist? Or have they been used for several productions? Each artist has his own way of working and tools. As no tool was found with the plasters, the link was established with the instruments of other old local workshops. The importance of plaster as an intermediary in stone or marble sculpture no longer needs to be demonstrated. The use of the pantograph makes it possible to reproduce a model in harder material and leaves traces on corner points as it can be seen on some plasters in our collection.

### Description of the collection

The inventory of this collection requires long-term organizational work. The museum had to quickly free up storage space for all of these items, which caused a real mess in the reserves and all the free spaces were used, with an

environment that was not always suitable. The first job was dusting, sorting, taking the pictures ... and at the same time, it was a real opportunity to create a gallery of plaster casts (a «gypsotheque») in a new space in the museum, with the most beautiful models. The entire collection shows pieces of all sizes and a large range of decors. This set is a fund of great diversity and very rich by their aesthetic and technical qualities. The inventory process put in place is divided into several sections and a working method for researching “twin” works will be organized as soon as the census is completed. Several plasters show traces of rust, they come from reinforcement of iron placed in the structure of the plaster. Others are damaged by accumulation of dust in the interstices of the decorative elements or by sometimes very large breaks. Some elements are also missing due to poor storage ... The aim of the restoration is to treat the many damages while maintaining the aesthetics of the items and this work asks the intervention of a professional as well as the creation, in the museum, of a storage space adapted to the conservation of this heritage.



Figure 6.- The collection.



Figure 7.- The collection.





Figure 8.- The collection.



Figure 9.- The collection.



Figure 10.- The collection. Created by R. Baily (1933).

### Conclusion

This paper is a request for help in setting up and planning a plaster's safeguard operation and restoration. The work of identification and description of the various alterations is also a long process because during their history, these plasters were subjected to an environment which favored their degradation. Handling plasters requires care and rigor because alterations weaken all the items. This is a complicated situation for museum staff who must regularly ensure the movement of pieces from one storage space to another without the appropriate equipment and above all without having the knowledge related to this particular material. Storage space is also a concern that we have to deal with quickly. An adapted room must be created for the

storage but as in all the private infrastructures linked with a state community, it takes time to receive accreditations and eventually funds to create a new section in the institution. Nevertheless, several restoration workshops and professionals of this specific sector of heritage conservation have already been contacted to examine the collection which is appreciated but nothing concrete happened because the importance of the work is so huge that they decline the job! The situation is complicated for the museum because we are the guardian of this heritage, one of our mission is to valorize this collection and it's why, dear colleagues, I launch an appeal by the way of this meeting. Do you have experiences, ideas in this filed ? How do you think this project is possible without financial help from the state community ? Do you think we could have a chance to organize exhibitions or create a deposit of pieces with other institutes, museums, academies in Europe ? Do you have advices and recommendations

The models discovered reaffirm the grandeur and splendor of our ancient marble city and of the past linked to local artistic creation.

It's with high interest that I hope finding collaborations and experts in this field of restoration and conservation of plaster. Plaster is the raw material of the sculptor, it's the memory of the creation, the model is like the prototype before the realization of the masterpiece. The plaster is inexpensive, it is malleable, in a short time a solid mass is created without constraint. It can be carved, turned, engraved without great difficulty and if the result is not satisfactory, it can be recreated. In short, it is also fragile and it is important to treat it with care so that it can last over time and continue to illustrate the preparatory work of our sculptors who worked to create our monumental and decorative heritage.

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