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WHAT DO YOU SEE THERE? DIALOGUE BETWEEN ART HISTORIANS, CONSERVATORS AND SCIENTISTS

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ABSTRACT

With decades of experience in three disciplines which work together in the conservation of cultural heritage, and in the light of their experience in the 'Training the Trainers' course for conservators at the Centro Conservazione e Restauro la Venaria Reale (Turin, Italy), the authors argue for the need for continuing dialogue, and call into question the models underlying the planning, design and implementation of conservation treatments in Italy.

RÉSUMÉ

Fort de plusieurs décennies d'expérience dans trois disciplines qui se complètent pour la conservation-restauration du patrimoine culturel, et à la lumière de leur expérience avec le cours « Former les formateurs » à l'intention des restaurateurs du Centro Conservazione e Restauro la Venaria Reale (Turin, Italie), les auteurs plaident pour la nécessité d'un dialogue continu, et appellent à remettre en question les modèles qui sous-tendent la planification, la conception et la mise en œuvre des traitements de conservation-restauration en Italie.

RESUMEN

Con décadas de experiencia en tres disciplinas que trabajan juntas en la conservación del patrimonio cultural, y en vista de su experiencia en el curso "Formación para formadores" dirigido a conservadores del Centro Conservazione e Restauro la Venaria Reale (Turín, Italia), los autores plantean la necesidad de un diálogo continuo, y ponen en duda los modelos subyacentes a la planificación, diseño e instrumentación de los tratamientos de conservación en Italia.

METHODOLOGY OF STUDY

Firstly, the authors wish to stress the importance of carrying out a careful visual examination of the work and comparing these findings initially with existing archival materials, and later with the results of scientific studies, so as not to start this discourse, as too often happens, once again from scratch. The act of close observation, the ability to search out the telling details that speak of the work and relate its history – these are the seeds from which our understanding grows.

The need for and utility of preliminary investigations and diagnostic testing that accompany both the planning of the project as well as the conservation itself is also acknowledged. Case studies will be used to describe successful examples of interdisciplinary cooperation, while, at the same time, pointing out errors and problems that emerged.

Apart from the now generally accepted principle in favour of non-destructive analyses, the authors also attempt to identify the best moment during a treatment to conduct certain types of widely used analyses, such as infrared (IR) X-ray imaging and X-ray fluorescence (XRF), so as not to find ourselves with analytical data which was already perfectly visible to the naked eye.

Finally, a comparison is proposed between an ideal procedure for conservation treatments and the model currently being implemented by Italian legislation on public contracts.

This paper therefore presents a reflection shared by an art historian, a conservator and an expert in diagnostics. Starting from specific cases, it will attempt to extrapolate more general theoretical and operational models and to assess the importance of the interdisciplinary approach, which is so often cited but so difficult to achieve.

CASE STUDY 1. THE MEDIEVAL WALL PAINTINGS AT GROTTAFERRATA ABBEY

The first case study deals with the detached frescoes of the Moses cycle in the Abbey church of San Nilo in Grottaferrata (Fabjan et al. 2010). This was a complex case, as the 13th century frescoes were repainted a few decades after their creation for stylistic reasons. They were modified again

in the 14th century when new windows were opened, and, finally, most of the paintings were detached in 1969. The *stacco* operation involved two layers of paint and made the paintings very difficult to decipher.

The recent conservation was intended from the beginning as a research based study and included the recovery of existing historical documentation in order to allow the historian and conservator to reconstruct the very complex conservation history. Close examination of the paintings allowed a detailed mapping of the different layers of painting. The maps were re-examined and corrected over time, also thanks to examination of the paintings together with historians who had previously studied the works (Figure 1).

Figure 1
Aronne, Abbazia di San Nilo a Grottaferrata (Rome)

XRF analysis was carried out, as is usual, on all the different colours. However, here the measurements included two points where the mapping indicated an overlap of the two main paint layers and identified a layer of lead white over lime white, a result which overturned previous assessments of the dates of the two layers. Certainly this painting is an extreme case: the same measurements would have clearly given highly confusing results had they not been supported by careful visual examination. Consequently, the authors wondered if the current model of a preliminary campaign of analysis is always correct. This assumes that such analyses have an objectivity, which sets them apart from the critical considerations innate to conservation. Furthermore, it was questioned whether it was possible to identify an ideal moment for each type of analysis in which there is the maximum potential to obtain information from each of the different analytical techniques.

The answer is obviously not always clear and unequivocal and depends on the result one seeks and on what aspects one is focusing on. For example, an IR reflectography exam performed at the end of the cleaning of a painting will be aimed more at the painting techniques than the condition of the object. Therefore, what is studied and at which phase of treatment depends very much on critical choices, which heavily influence the final result itself.

Here it could be added that in the best of all possible worlds, it would be desirable to produce a sort of medical record of an art work, compiled without regard to any conservation needs, and that it would be continuously updated. This document could become the core of a management program that could become the basis for planning a treatment. It is also clear that in some centres of excellence such as the 'Istituto Superiore per la Conservazione e il Restauro (ISCR)' or 'Opificio delle Pietre Dure (OPD)', with specialists on hand, it is possible to imagine each restoration project accompanied by an appropriate diagnostic project. But here the authors wish to approach what would be a plausible question in a part of the market with limited financial resources: the risk that masterpieces get overexposed and over treated, both in terms of restoration and in terms of analyses.

It is not our intention to say that it may not be useful to repeat some analyses over a period of time: on one hand we are getting better and better at understanding the results and on the other there is an undeniable increase in the power and sensitivity of the instruments themselves.

In the case of paintings with very extensive and visible overpainting, it is clear that the optimal time for non-destructive measurements is when each colour has a part which has been cleaned and another part still affected by retouching and overpainting. For this to happen there has to be good will and communication between the conservator and the conservation scientist.

CASE STUDY 2. A PAINTING BY THE MASTER OF THE MANCHESTER MADONNA

The importance of a coordinated program of research, which is accompanied by a careful preliminary examination, can be exemplified by the case of a recently restored *Madonna with Child*. The painting was twice attributed in the 1930s to the young Michelangelo, while in 1953 Federico Zeri proposed that this work be attributed to the Master of the Manchester Madonna. In 1960, Frederick B. Anton, conservator of the Los Angeles County Museum, restored the painting, with accompanying photographic documentation, UV fluorescence imaging and IR reflectography, commenting on the perfect condition of the painting and also re-proposing the attribution to Michelangelo. Yet, the left part of the painting is a complete fake, and the paints used in the reconstruction, applied over two walnut planks, dissolve immediately with simple solvent mixtures, a fact that could hardly escape any conservator (Figure 2).

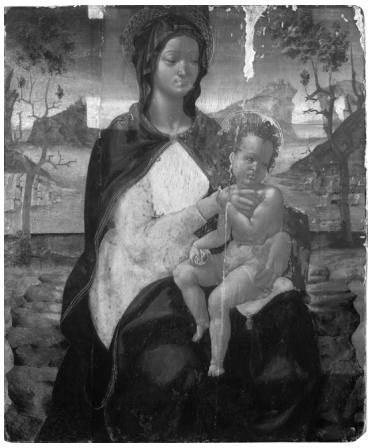

Figure 2
Master of the Manchester Madonna, *Madonna with child*, back of the painting, Collection Unicredit-Banca, Rome

Figure 3
Master of the Manchester Madonna, *Madonna with child*, back of the painting, Collection Unicredit-Banca, Rome, IR reflectography (PanArt)

During the treatment, a series of analyses were programmed immediately after the first cleaning tests: IR reflectography, carried out in an intermediate phase of cleaning, did not add important data to our understanding of the work (Figure 3). In contrast, the X-ray of the painting showed no image on the left side of the panel (Figure 4); and even more significantly, a series of XRF analyses dated the pigments in this part of the painting to the second half of the 19th century: zinc white, Prussian blue and chrome yellow were found.

It is obvious that the intention is not to infer from a case like this that diagnostic imaging is unreliable – but rather to stress that one must be cautious in presenting analyses as exhaustive when they are not, and will never be unless correlated with other tests and then subjected to stringent critical analysis.

On the basis of the experience gained, it would appear that most analysis campaigns give the best results if they come at a time when the close examination of the work and the study of existing historical documentation have already led to the formulation of fairly specific questions.

CASE STUDY 3. THE LOGGIA DI PSICHE

Another type of preliminary research, which is as essential as it is often forgotten, is the well thought-out collection of documents relating to the conservation history of the art work: sources regarding the conservation, dismantling of the art work, graphic and photographic sources and studies and analyses conducted in the past. Using this approach means we are not always starting in a vacuum, as though the work we need to conserve had no past, as if experience had not taught us that its condition is largely the result of human activity.

Historical research of this kind should also be subject to critical evaluation during conservation, using interdisciplinary criteria as much as possible. During the treatment of the *Loggia di Amore e Psiche* wall paintings at the Villa della Farnesina (Varoli Piazza 2002), a critical interdisciplinary approach was obtained by organizing regular meetings between art historians, conservators and conservation scientists to discuss and refine the progress of the treatment. For example, the prominent biographer of artists, Bellori, made an extraordinary defence of the restoration carried out by Maratti and his team: 'all the backgrounds had become so black that you barely realised that they had been made with that good blue, which in some areas, either less exposed or better painted, could still be seen" (Bellori 1695).

Figure 4
Master of the Manchester Madonna, *Madonna with child*, back of the painting, Collection Unicredit-Banca, Rome, Radiography (ENEA)

Figure 5
Raphael, *Loggia di Amore e Psiche* (bay with *Venus and Jupiter*), photograph by Adolph Braun de Dornach (1887)

During the preliminary observations, no one had noticed the blackened azurite cited by Bellori. Furthermore, there was no evidence or scientific study that was able to shed any light on the matter. However, on several occasions, remnants of Raphael's azurite were indeed found.

An unforgettable experience exemplifying the phenomenon of "looking but not seeing" took place during the last two weeks of the treatment. As the time approached to tie up four years of work, what up to then had only been looked at, was finally "seen"; for example: small traces of a dark red-brown pigment on a line to the vegetable festoon parallel to the two central tapestries and ending in nothing. In the photographs taken by Adolph Braun de Dornach in 1887 (Figure 5), these traces were quite clearly part of several cords that held the two tapestries from the borders to the festoons and then hung, billowing in the sky. Here the cord is above Jupiter's forehead. Perfect mimesis… until the 1930 restoration, when the two superintendents Hermanin and Muñoz succeeded in removing Maratti's 'unfortunate' blue [sic] and with it the original blue of Raphael and many other details, such as the ribbons mentioned above.

An analysis of the material available to us, particularly these two major photographic collections, confirmed just how important debate between professionals working in adjoining fields is. Initially, the study of the two sets of photos had led – with some doubts – to the idea of two separate restorations. Once the archives were studied in detail, and restoration as well as the comparison of data had progressed, this hypothesis was refuted. While the very light sky in the Braun images might suggest a further overpainting conforming to the tastes of the time, especially in comparison

to the Alinari photos made a few decades later, it was clearly demonstrated that a light blue background was instead due to 19th-century photographic techniques, which used orthochromatic photographic emulsions with increased blue sensitivity that recorded blue lighter than it really was.

CASE STUDY 4. THE BASILICA OF SAN FRANCESCO

The task of reassembling fragments of paintings from the collapsed vault of the Upper Basilica of San Francesco in Assisi following the earthquake of 1997 was a process of "looking" and trying to "see" that required the combination of many diverse skills, all focused on achieving the same goal: to transform the hundreds of thousands of fragments from floating atoms deprived of their quality as images into entities within a recognisable group.

During recomposition, the key point is the dialectical relationship that has to be created between the single fragment and the original unity: you need to have the fragments in your hands and the image in your head. It is difficult to imagine a better collaboration than that between the art historian and the conservator, the first of whom has been trained to have great sensitivity to the reception of images and the latter who has detailed knowledge of the materials and is able to seize on the slightest variation in the brush strokes and techniques and in the different thickness, colours and types of fragmentation of the layers of the painting support (Figure 6).

Figura 6
Assisi: detail of the painting and construction techniques

Figura 7
Assisi: vault bay of Saint Mathew, identification of the position of the fragments on a life size photograph

It was fundamental to have the participation of highly trained experts who could dialogue while drawing on a wealth of experience, which proved indispensable in resolving a by no means simple series of problems both at an art historical and at a technical level: What to do with the fragments? Should they be restored and put back in place? Or should they be kept as fragments in a museum display?

The problem, discussed at length among the specialists directly concerned and constituting the theme of international seminars open to the public, led to a fruitful exchange of views and broadened the horizons of everyone involved. The decision to relocate in situ was based on the observation that when a fragment is joined to others, together they can again be repositioned at the point of the original painting area fragmented by the earthquake.

To do this, use was made of all the photographic material dating from before the earthquake. Never before has there been an example of just how crucial standardised graphic and photographic technical documentation is. There was, in fact, an endless harvest of photos in the archives, but they had been taken over the years with no precise technical references, mostly belonging to the category of 'pretty pictures' for use in publications. It was, therefore, only partly possible to obtain faithful reproductions of the painted surface at a scale of 1:1 on which the fragments could be positioned as they were identified (Figure 7). The lack of a photogrammetric survey meant the images had to be examined one by one by selecting the ones that had the best focus, perspective and colours and then stitched

all together. Collaboration with computer scientists was invaluable to get flat reproductions of the curved surfaces, using as reference points parts of the original decorations which remained in situ. The images were then inserted on a computerised reconstruction of the vault, thereby obtaining a full size map in which photographic reproductions allowed perfect correspondence with each fragment of the painting.

The partial recovery of this shattered piece of history was the result of close interdisciplinary collaboration between different experts and in particular between conservators and art historians; it was a long but stimulating experience that has been recounted in a bilingual publication with contributions by many different authors (VV.AA. 2001).

TRAINING TOWARDS ESTABLISHING A DIALOGUE BETWEEN DISCIPLINES

The course "Training the Trainers" was held at the Centro di Conservazione e Restauro di Venaria Reale in 2006[1] for experienced conservators who would be teaching at the School of Higher Education and Studies at the Centre. The theoretical basis for the programme was that establishing a dialogue between disciplines is the key to a correct approach.

Indeed, what emerged clearly during the programme was not so much the need to improve technical skills in the course participants, but rather to teach them, through the study of other specializations, the mechanisms for establishing dialogue and setting up interdisciplinary collaboration.

The aim was also to get the students to do a critical evaluation of the course material: at times there was discordance between different presentations, lessons at times were aimed at raising doubts rather than confirming certainties and there were moments for reflection and comparison of different material and how it had been presented.

This emphasis on an interdisciplinary approach was carried out using various different teaching methods (lectures, interactive approaches, other courses oriented towards problem-solving, etc.). The challenge was to get the students to think 'beyond' and 'above' what was presented by the teacher. Moreover, the instruction often broke with the established certainties held by some of the participants (of mixed professional background). This meant that time had to be set aside for participants to recalibrate their views with those proposed (or imposed) by the teacher, leading to the favouring of a balanced critical and clinical blending of views, between technical knowledge and the unknown, and this inevitably provoked uncertainty and apparent confusion.

This demanding year provided stimulating and often challenging technical contributions that brought together many different experts from many different fields - art historians, chemists, physicists, conservators, experts in mass communication - in the aim of teaching a new way of thinking, a way that is interdisciplinary and not merely multi-disciplinary.

Another experience also related to the difficult task of working in small groups, not only to share points of view, but also to defend themselves in exchanges and even in open clashes. The participants not only improved their knowledge of technical and scientific matters, with everything in constant evolution, but also new skills were acquired such as planning, organization and management.

Unfortunately, although the needs of modern conservation call for a highly specialized figure who is expected to respond to imperatives such as *to be present*, *to communicate*, *organize*, *share*, and *train*, the market frequently only offers work that is "deprofessionalising", in which the existence of highly skilled professionals is ignored and the allocation of work is based on purely economic criteria, thus thoroughly undermining professional skills.

CONCLUSIONS

In consequence, it is the authors' belief that the understanding of the object in its context is not irrelevant to a conservation treatment; it is indeed an essential basis for a well carried out restoration. This is what distinguishes it from a simple repair job. This understanding can only come from a multi-faceted knowledge that grows and feeds on the comparison of different points of view. The approach which draws together different experts who all "look together" is therefore considered to be one of the great achievements of Italian restoration, and it is an approach which should be cherished and preserved as much as the Italian historical and artistic heritage.

However, this achievement, this ideal, which has evolved over time and has been incorporated into the heart of training programmes is not being recognised in current practice in Italy. The laws governing public contracts in Italy have resulted instead in the progressive weakening of Superintendencies with their specialised staff and led to the proliferation of treatments commissioned by non-specialist clients and directors. This often means that the art historian is absent, the needs of the project are often poorly understood and consequently analyses are frequently redundant, poorly targeted, and are only conducted at the initial phase of a project. Finally, no need is seen for dialogue between the conservation scientist – whose task is already completed in the initial stage - and the conservator who has been randomly chosen on the basis of lowest price.

NOTES

[1] The "Centro di Conservazione e Restauro" was founded on March 21, 2005 at Venaria as a joint initiative of the Ministry for Arts and Cultural Affairs and the Piemonte Region.

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