Studio delle tessere musive vitree provenienti dal sito archeologico di Qusayr' Amra in Giordania (VIII sec. dC)

## Scientific Investigation of Glass Mosaic Tesserae from the 8<sup>th</sup> Century AD Archaeological Site of Qusayr' Amra (Jordan)

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Glass mosaic tesserae found in two areas of the archaeological site of Qusayr' Amra (Jordan) were analysed by scanning electron microscopy (SEM) and energy dispersive X ray microanalysis.

The base glass is of the soda-lime-silica natron type; three different compositional groups and provenances were identified. Lead stannate obtained by firing a batch of lead, tin and silica compounds was used as a yellow pigment. The red colour was obtained with copper introduced as a metallic scrap. The blue colour is given by a cobalt mineral. Bone ash was used as an opacifier.

The metal leaf tesserae were prepared with thin sheets of pure silver or gold-silver alloys.

A particular technique has been identified that combines coloured and uncoloured glass in the support and cartellina in order to widen the range of colours.

La Galleria delle Grottesche di Villa Farnesina-Chigi: architettura, artefici, significati

# "Galleria delle Grottesche" at Villa Farnesina-Chigi: architecture, artifices, meanings

Francesca Romana Liserre

The Istituto Superiore per la Conservazione ed il Restauro (Higher Institute for Conservation and Restoration) restoration worksite for the "Galleria delle Grottesche" at Villa Farnesina-Chigi in Rome provided important information of a historical and artistic nature on an important and little-known aspect of Renaissance architecture and construction – that of vaulted wooden ceilings which have rarely been preserved due to their fragility.

On the basis of the diagnostic surveys conducted by ISCR in its established multidisciplinary manner, the wooden ceiling of the Farnesina villa represented a very early example of work that would spread in the following centuries thanks to treatises by authors ranging from Sebastiano Serlio to Philibert De l'Orme), as a way to obtain impressive architectural results at lower cost and with fewer construction problems compared to masonry work.

Baldassare Peruzzi's personal connections and professional experience established his role in developing this method that was used to produce ephemeral constructions for celebrations and performances, earning him the praise of Giorgio Vasari.

The use of this technique at the Farnesina villa responded to structural constraints within the building, requiring the corridor to run on the false ceiling of the underlying Loggia di Galatea.

For this reason, it is probably the clue that confirms recent ideas about the presence of a preexisting structure which Peruzzi enlarged and adapted substantially with the inclusion of two loggias to create a type of building that had considerable success in subsequent centuries.

La Galleria delle Grottesche di Villa Farnesina-Chigi. Le trasformazioni e i cambiamenti d'uso attraverso i documenti

# "Galleria delle Grottesche" at Villa Farnesina-Chigi: changes in layout and usage as shown in extant documents

Federica Zalabra

The Metropolitan Museum in new York has a drawing which is attributed to an anonymous 16<sup>th</sup> century French artist (dating from 1550 to 1555); thanks to filigree analysis, the back of the drawing revealed the outline of the first floor of villa Farnesina in Rome.

In the mid-16th century, the "Galleria delle Grottesche", originally a corridor with painted ceiling, was



### ABSTRACT

divided into three areas by two partitions.

We do not know the nature of these partitions but they could be the wooden panels shown in a document "Descrizione della Farnesina alla Lungara" dated 1775 held in the State Archives, naples. This document shows how the gallery was divided and how the spaces were used: an entrance area leading to the Hall of Perspectives, an area with stairs to the mezzanine floor, and another area for a chapel.

Furthermore, 19th century documents show that these small areas underwent major changes in usage and decoration. Between the late 18th and early 19th centuries, the chapel was moved to the area leading to the Hall of Perspectives. This is shown by the false ceiling, coffered and painted, that was discovered during the restoration of the wooden vaulting undertaken by the Istituto Superiore per la Conservazione ed il Restauro laboratories (Higher Institute for Conservation and Restoration) in 2014-2015.

Several documents clarify this change in the layout, attributing the false coffered ceiling to the architect Giuseppe Camporese, who worked for the Bourbon family at the villa in 1816.

A schematic plan attributed to Girolamo Toma, which is thought to date from before 1775, shows the gallery during the renovation work undertaken by cardinal Trojano Acquaviva, who held the lease of the villa from 1736 to 1747.

The cardinal wanted to recreate the corridor by removing the wooden partitions and making substantial changes to the "grotesque" works.

The 2014-2015 restoration showed that, after this first intervention, many changes were made and the grotesque features were repainted several times, in particular by the duke of Ripalta in the 19<sup>th</sup> century and by Terenzio in 1930.

Il restauro dell'icona di Santa Maria Nova

#### Restoration of the "Santa Maria Nova" icon

Albertina Soavi, Federica Di Cosimo, Francesca Fumelli, Costanza Longo, Giulia Galotta, Maria Rita Giuliani, Elisabetta Giani

Since the 1950s, the Istituto Superiore per la Conservazione ed il Restauro laboratories (Higher Institute for Conservation and Restoration) has been concerned with the restoration of icons, especially Roman icons of the Virgin Mary from the pre-iconoclast period.

The long series now includes the icon of "Santa Maria Nova", kept in the church of San Francesca Romana located in the Roman Forum.

The ISCR project, conducted between December 2011 and October 2012 as part of teaching activities for students from the advanced training school, involved not only the restoration work but also designing a "clima frame" to hold and protect the icon.

As a work of art, the icon is the result of many interventions over the years.

On this occasion the working techniques were examined and tests were carried out showing that the faces of the Virgin and Child were painted on two pieces of linen cloth with the same technical and material characteristics.

The pieces of cloth were glued to a wooden support made up of three walnut strips with a thinner piece of chestnut on the right-hand edge, all held together by three horizontal crosspieces in elm. Analysis of the wooden support (using the "wiggle-matching" method) established that it was constructed not before the first twenty years of the 15<sup>th</sup> century.

Since the microclimate in the area where the icon is displayed was unsuitable, the decision was taken to design a clima frame not only for display purposes but also for transport to temporary exhibitions, in order to avoid continuous thermo-hydrometric fluctuations.

The new frame is equipped with a miniaturised monitoring system set up so that data can be downloaded without opening the case.

Studio meccanico comparato fra due sistemi di foderatura e tre telai

### Comparative mechanical study of two lining systems and three stretchers

Grazia De Cesare, Mauro Torre, Carla Zaccheo, Valeria Bertolani, Nicoletta Tomassi

This study was carried out at the Istituto Superiore per la Conservazione ed il Restauro laboratories (Higher Institute for Conservation and Restoration) in order to improve the mechanical properties of linings using BEVA®371 film.

For this purpose, some nautical fabrics, stiff and in theory non-hygroscopic, were tested as new supports. Various fixed stretchers were combined with this lining method in order to find the ideal system able to maintain the initial tension despite fluctuations in relative humidity.

Jheronimus Bosch (1450 ca.-1516) a 500 anni dalla morte, studi e ricerche in margine alla mostra

# 500 years after the death of Hieronymus Bosch (1450-1516 circa): studies and research alongside the exhibition

Maria Forcellino

The article examines the initiatives undertaken in Holland during 2016 to celebrate 500 years from the death of the artist Hieronymus van Aken (1450-1516 circa), better known as Hieronymus Bosch. In particular the article looks at the research and conservation project "Bosch Research and Conservation Project" (BRCP) and the exhibition linked to it: "Jheronimus Bosch visioenen van een genie,'s-Hertogenbosch" (Noordbrabants Museum, 13 February-8 May 2016).

The BRCP is the result of collaboration between various institutions (University of Nimega, home of art historians Matthijs Ilsink and Jos Koldeweij (curators); the Rijksmuseum of Amsterdam; Department of Conservation and Restoration of Amsterdam University; the Restoration Foundation Atelier Limburg (SRAL) of Maastricht; the Noordbrabants Museum of Den Bosch; Queen's University of Kingston, Ontario; and the University of Arizona, with the Tucson College of Optical Sciences. From 2010 to 2016, the BRCP undertook to classify and restore all Bosch's works by examining them with the most up-to-date technologies of analysis applied to art (X-ray radiography, infrared reflecto-graphic analysis, infrared photography, macro-photography, dendrochronology analysis of wood, under-drawing studies). All the works involved in the scientific project and the exhibition underwent restoration and conservation.

In Italy, the project concerned Bosch's Venetian paintings in oil on wooden panels, two triptychs from the Academy Gallery, the triptych of Santa Liberata (1495-1505 circa) and the triptych of the Eremites (1495-1505 circa), as well as four panels with the Visions of the Hereafter (1505-15 circa) from Palazzo Grimani. The works were restored between 2013 and 2016 by Italian restorers with the contribution of the Panel Painting Initiative of the Getty Foundation (PPI).

An integral part of the BRCP project is making the research accessible and usable for the international scientific community through an internet website (http://boschproject.org/) using a new system known as synchronized image viewers developed during the restoration of the Venetian works (http://boschproject.org/bosch\_in\_venice.html). This innovation is of great help in the conservation and restoration fields as well as being useful for studying works of art in detail.

**ABSTRACT**