

PEGGY GUGGENHEIM COLLECTION

Luciano Pensabene, "Pollock, inside his colors," *Il Manifesto*, 19 March 2015
<http://ilmanifesto.info/pollock-tra-le-viscere-del-colore/>

Conservation: *Luciano Pensabene - conservator of the Peggy Guggenheim Collection and curator of the exhibition dedicated to the restoration of the work Alchemy - explains the difficulties of intervening on contemporary artworks when materials are so varied. The exhibition also offers a 3D exploration of the 1947 masterpiece.*

'Alchemy' by Jackson Pollock. *Discovering the Artist at Work*, presents the extensive studies, processes and restoration of Pollock's 1947 masterpiece. The show is the culmination of an ambitious research and conservation initiative of one of the most iconic works of the 20th century, for the first time carried out in Italy. The project involved the conservation department of the Peggy Guggenheim Collection as well as prestigious institutes across Italy. Among these, the Opificio delle Pietre Dure of Florence, the Consiglio Nazionale delle Ricerche, the Istituto Nazionale di Ottica, the Cnr-Istm and the Centro di Eccellenza SMAArt of the University of Perugia, the CNR-Ino and the Idfn of the University of Florence, the Visual Computing Lab of the Cnr-Isti of Pisa, and the Department of Chemistry of the University of Turin.

All this has been of historic importance to Italy's world of conservation and to all institutions involved: for the first time we dealt with a revolutionary work considered a breaking point in 20th century art, by one of the key artists of the 1900.

Today more than ever, the safeguard of museum contemporary art collections is a source of preoccupation and live debate among those who seek to ensure their endurance for future generations. Since the beginning of the 1940s, artists have used widely disparate materials, which continue to present challenges for conservators. Research on such materials has started only recently, and further investigation is still required to understand their behavior through time. To intervene on a modern or contemporary work of art means to study its constituent elements, how each one degrades, and the possible alterations that each one may incur over the years.

In the making of *Alchemy* - a revolutionary work for Pollock – the artist abandoned for the first time the easel and the exclusive use of traditional colors, including also industrial colors used on cars, in construction or domestically, together with sand, pebbles, twigs and string. *Alchemy's* extremely rich palette is made up of seventeen colors applied in splashes, with pipettes, dripped from brushes, twigs, directly squeezed out of tubes or with the help of small spatulas. The result is vividly three-dimensional so much so that *Alchemy* can be considered Jackson Pollock's most material work.

The painting hung for over thirty years without any protective glass in Peggy Guggenheim's home in Venice, before Palazzo Venier dei Leoni became a museum. Particles in the air, pollution and dusts permanently deposited on its surface and in the cracks of the material impastos. The chromatic variation faded, erasing the alternation of opaque and bright colors, and ultimately resulting in an overall grey and dim appearance.

The first phase of the project has thus entailed an in depth study of the artwork. We examined it multiple times to assess and understand its various materials, pigments, binders, the laying

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techniques and the order of execution. We used specific procedures for molecular analyses of the pigments and binders (Uv-vis, Raman, FTIR). In addition, we employed imaging technologies (X-ray and Vis-NIR scanning) to chart the pictorial technique. Finally, to deepen our understanding of *Alchemy*, we used a morphological relief with a laser microprofilometry of the rear of the canvas. In terms of conservation, our analyses typified the deposits and the atmospheric dust on the color, the compounds induced by the chemical degradation of some of the original components, and they highlighted the deformations caused by the weight of the pictorial material onto the canvas. The different chemical elements that we identified include artist oil paints in tubes, house paints and alkyd colors. Among the seventeen different pigments, we found ultramarine, blue and green phthalates, cadmium sulfur-selenide, viridian, zinc and titanium white and alkyd black. In addition, we discovered the industrial paint that Pollock first used to achieve the acrobatic layering effects, only permitted by the color's fluidity. In some of these materials, the binder we found presented a portion of non-siccative oil, which does not polymerize entirely. This is why the dust did not just deposit on the surface of the canvas, but it became absorbed in the colors that had not dried completely.

We organized the cleaning operation selectively and in multiple stages, starting with a micro-aspiration of uneven or crumbling sections of the surface, followed by a focused use of solvents, using aqueous methods, where we monitored the pH, the ionic concentration, and the pH of the surface of each particular segment. The cleaning allowed an extraordinary chromatic recuperation, and an aesthetic result aligned with the intentions of the artist. Pollock had deliberately left the painting unvarnished in order to maintain the alternating layers of bright and opaque surfaces. Luckily, *Alchemy* has never been varnished, permitting us to retrieve fully the varied rhythm brought by light's refraction on its many colors. With respect to this aesthetic result, it has been important to choose materials for the restoration that would not cause any alterations.

The exhibition at the Peggy Guggenheim Collection in Venice seeks to sensitize viewers and to bring them closer to the work by exploring this very process of restoration, which not only improved its conservation, but also provided an opportunity to study the work further. The synergy between the many scientific institutions involved and the different departments, has led to important discoveries, presented to the public with interactive and multimedia tools that enable a direct engagement with the work.

Like seeing through a microscope, visitors can study *Alchemy* in full detail, with high res images and 3D video renditions available on a touch screen itinerary. It is a unique opportunity to travel within matter itself.