

ART D'AUJOURD'HUI PATRIMOINE DE DEMAIN

CONSERVATION ET RESTAURATION DES ŒUVRES CONTEMPORAINES

13^{es} journées d'études de la SFIC

(Section française de l'institut international de conservation)

Paris ☐ Institut national du patrimoine © 24-26 juin 2009



NIKOS'S (KESSANLIS) *EROTICA* PRESERVATION AND CONSERVATION STRATEGIES FOR THE ARTWORKS MADE ON PHOTSENSITIZED CEMENT

*Eugenia STAMATOPOULOU*¹, *Conservator - Art Historian*
The Dakis Joannou Collection Foundation

Maria KAROGLOU, Asterios BAKOLAS, Antonia MOROPOULOU
National Technical University of Athens,
Section of Materials Science and Engineering
ATHENS (GR)

1. Introduction

Contemporary art history is characterized by a riot of changes. For the past century, contemporary artists have noticeably transformed the esthetics and the conceptualization of their creation. This was often expressed through the use of techniques lent from other fields such as construction or industry, and by the combination of unexpected materials. Throughout the materials experimentation, the artists gained intellectual and expressive opportunities while in many cases this became a nightmare for conservation purposes.

The conservation and preservation of these artworks depends very much on their manufacture and the techniques, the type of materials and their natural deterioration as well as the intention of the artist to preserve his artwork to perpetuity.

For conservation purposes it is always very important to have all kind of information about the techniques and materials used for the creation of an artwork so as to evaluate its condition, to predict further deterioration and to use compatible restoration materials and applications.

During the XXth century, Greek artists highly experimented with unconventional materials and non-traditional techniques. This documentation and registration is quite poor. Within this

scope, it was decided to begin an analytical and technical research on a series of artworks by the artist Nikos Kessanlis. Apart from the international recognition of his work, significant criteria for this selection was the specific composition of these series to be studied as well as the overall preference of the artist to work with unconventional materials and techniques. Furthermore, the recent loss of Kessanlis (†2004) and the inexistent bibliography about his techniques as well as the damage which occurred in the artwork to be studied, added further to this decision.

Kessanlis approached the concepts of *art informel* and abstract expressionism by using mortar and cement very often as a basis for his work. He has also experimented with the manipulation of the image structure by using photo-mechanical reproduction. In 1965, Kessanlis participated at the exhibition *Hommage à Nicephore Niepce* at the J gallery marking the beginning of Mec Art (Mechanical Art). The common point of all the artists participating in this group was their profound aspiration and persistency in working only with mechanical media and not manually using several techniques and media such as photography on various supports (paper, canvas, and metal), serigraphy, construction and others. Later on, the artist investigated the possibility in de-structuring the image, that lead in 1996 to the realization of series called "Cements", depicting



Fig. 1. photographs from earlier series developed on photosensitized concrete.

2. The "Cements". Description of the materials and techniques

The "Cements" series was first presented in the Athenian gallery *Alpha Delta*, in 1996. The show reassembled 15 works, all created the same year and having identical dimensions (110 x 150 x 1 cm). The artworks are made on a support made by a first thin layer of cement on top of which a metallic reinforcement is installed. This reinforcement is made by lateral metallic bars jointed to a subjacent surface of metallic undulate leaves (probably made by zinc) with a wire. On the upper surface, an additional thick layer of granulated cement is applied and finally a layer of thin plaster covers partially the front of the work. The artist has printed a blow-up white and black photography on this final layer.

The artist's investigations on developing negatives on various surfaces can be founded in the early 1960's. In the series "*His Phantasmagorias of Identity*", he used either an epidiascope to project the transparent negative of a white and black photography to a canvas, cloth or paper stretched on the wall. This surface was previously prepared in order to be photosensitized and finally to have the image printed.

Photomechanical reproduction technique is the "creation of any picture produced in imitation of another picture through the use of a photographic process to transfer the image to a printing surface".

The photosensitized surface is prepared with a coating that reacts to light exposure. The involvement of a stable inorganic surface such as stone or in our case concrete is also old. The technique is called lithography. In this technique, the image may be produced directly on the stone by coating the surface with a photosensitive material and ink and then exposed it to light under a negative. By washing with water and gentle friction, the soluble parts of the film are removed, and the image is then in printing form. The same result

can be achieved by projecting the image on the sensitized accordantly surface.

In the artwork examined there (figure 1), titled "*Erotica*" (1996), the artist has printed an older photo. The surface of the work is marked by diagonal deep scratches made in purpose, imitating the manner that the walls are prepared to accentuate their adherence. Besides an overall stability and good preservation of the artwork, several mechanical and physico-chemical damages are noted. Mainly cracking and microcracking covers the entire frontal surface, in some parts loss of material is observed, as well as exfoliations and blistering. Finally, on many areas of the frontal surface oxidation of the metallic reinforcement is noted.

It is very important to acquire knowledge about the state of deterioration as well as its causes, both contributing to the understanding of how the decay agents acts and in what way the resistance of materials to those factors is expressed.

The "*Erotica*" (1996) was exhibited for several years in the private house of the collector. To the unstable environmental conditions (temperature, relative humidity) a disaster was added in 2003, when the house suffered a fire. During this incident, the major factors of deterioration affecting the work were excessive heat and combustion materials. This disaster caused to the artwork further cracks and an important loss on the front right corner. In order to restore the artwork, the artist was contacted so as to advise and authorize further actions. After

discussion, he decided to undertake this restoration. After the return of the artwork, it was clear that the selected materials used for this intervention were incompatible. Before having the opportunity to re-discuss this "restoration", unfortunately the artist deceased.

Due to these facts, the emerging problematic can be described as following:

Ethical

What should be done; to leave the work restored as it was decided by the artist, or to undertake a restoration project that converges with the active restoration ethics of work (compatibility, reversibility, etc)?

Technical

Which should be the restoration and preservation approach about this series of artworks, taking into consideration that they combine different materials (photosensitized coating and cement), and which specific information about the materials and the techniques is needed?

In order to answer the abovementioned questions, a preliminary crucial stage was to learn more about the materials and the techniques used by the artist. This stage comprised the following steps:

- *Mapping the composition of the work (mortar, cement and photosensitized surface).*
- *Mapping the damage of the composition using non destructive methods.*
- *Identifying the materials.*
- *Defining the techniques to remove the incompatible cement used by the artist as gap filling.*
- *Defining new compatible materials for re-filling the gap and stabilize the mortar.*

3. Experimental methods

The artwork was examined with the use of non-destructive techniques (optical examination and photographic registration-documentation, digital image processing, fiber optical microscopy, active infrared thermography and colorimetry) in laboratory. This is an integrated methodology for the characterization of materials and the environmental impact evaluation on them, serving to determine the cause of de-

terioration leading to poor durability.

The microscope used for mapping the superficial composition and deterioration of the material was the SCOPEMAN-MORITEX, a Fiber Optic Microscope that was recently developed. The FOB technology has a greatest advantage that no special sample treatment is necessary for the magnified image acquiring. FOM is a light portable microscope unique for *in situ* applications. It helps the classification of the decay patterns providing additionally information about the mineralogical and petrographic characterization of surfaces, so this can be used for the evaluation of the conservation interventions.

Following this, Infrared Thermography was used in order to map the interior composition of the artwork and in particular the way that the metallic reinforcement is used. This is also a non-destructive technique using the infrared region of the electromagnetic spectrum, from 0.75 μ m to 1000 μ m, located between microwaves and visible. In this case, a thermography system it was used operating in a range 7.5-13 μ m of wavelength with a FLIR INFRACAM SD camera.

The procedure consists in energizing the surface under investigation by heating up to 90°C for 15 minutes with an infrared source (type INFRATECH Speedray, model SRV-1624, 1500 Watts, 240 Volts), installed to a distance of 25-30 cm, and in recording the emitted radiation. During the cooling down process thermographs are recorded digitally. This technique provides an image where the thermal emission of the composing materials is depicted with different colors (range blue to red) according their mass.

Further analysis is implemented in order to provide a better understanding of the artwork's condition and composition, such as, digital images processing using the Image Pro Plus 4.5 software, applied for evaluating and visualizing the anaglyph of the frontal surface. Also, colorimetric measures are taken with a DR Lange spectro-colour in order to have references for the tonality of the printed surface and to compare it with other similar artworks in the future.

4. Results & Discussion

The examination of the frontal surface under FOB microscopy showed a material with different pore sizes, having a distribution of cracks and micro-cracks (figure 2). This matrix of deterioration leads in some case to further damages as losses and exfoliations (figure 3). A different type of cracking is observed in the brown areas where blistering and flaking is also registered (figure 4).

It is known that the artist had the habit of burning some parts of the photosensitized surfaces. According to the physical appearance of the material in this specific area compared to the neighboring ones, we assume that excessive heat was applied. Additionally to the type of blistering present in this area, it is strongly possible that the material used for photosensitizing the surface was synthetic. This action created on the material accentuated craters by the environmental fluctuations destabilized and leading to the flaking or total loss of the material (figure 5). Furthermore, in some areas, the metallic reinforcement is corroded and this has caused the ablation of the cement (figure 6). Besides this, in the area where the new material was used by the artist for the restoration, apart from the differences in the texture and tonality, important cracking is observed in the interface with the original material due to the difference in the porosity between the two adjacent surfaces (figure 7).

The active thermography was used to map the internal metallic construction and to visualize its structure and composition (figures 8 & 9). This revealed an uneven internal surface with the presence of instable points (such as the joint points between the wire and the undulate leaf).

Finally, the colorimetry examination (CIE $L^*a^*b^*$) of the artwork registered four main chromatic areas: black, white, brown and grey. This measurement is going to be used in the future for comparisons with other similar artworks from the same series.

5. Conclusions

The investigation on Nikos Kessanlis "Erotica" (1996) artwork, revealed a structure that suf-

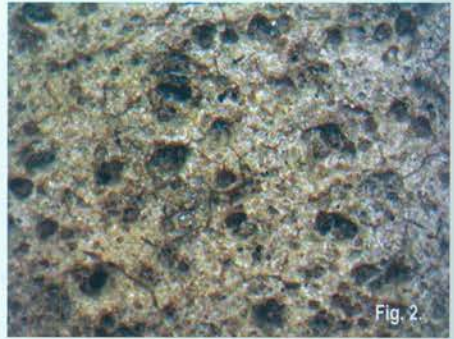


Fig. 2.



Fig. 3.

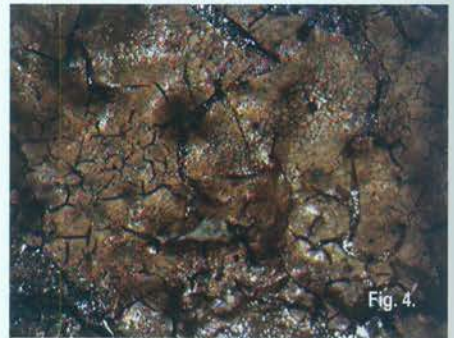


Fig. 4.



Fig. 5.

fers from internal and external damages caused probably by the physical deterioration of the composing materials as well as by the damage caused by the fire.

The use of metallic elements, not previously treated for corrosion, caused internal forces



Fig. 6.

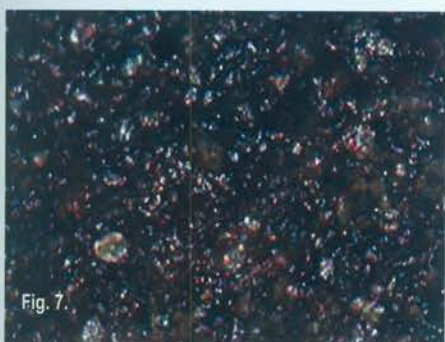


Fig. 7.



Fig. 8.

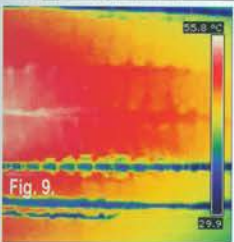


Fig. 9.

and tensions expressed as cracking pattern on the photosensitized surface. Additionally, the act of partially burning the surface caused local oxidation of the synthetic coating and reduced the adhesion between this fragile layer and the inorganic support.

Finally, the extreme environmental conditions (fire, humidity) added further

to the discoloration and fading of the pigments used for the image printing.

The analysis of this work will be accomplished in the future by material characterization (composition of the mortar layers and the photosensitized coating) so as to select compatible materials and applications for further restoration of this unique piece. ♦

REFERENCES

- BOATTO, A. - *Nikos Kessanlis* - (exhibition catalogue), *Il Taccuino delle Arti*, March, 1959.
- POUPIS, G. "Interview with Nikos Kessanlis", *Fotografia*, n°12-13, March, 1979, p.546-550.
- RESTANY, P. - *Les fantasmagories de l'identité Nikos* - Katz (Berlin), Dell'Obelisco (Rome), Lacloche (Paris), July, 1965.
- RESTANY, P. - *Arts+Machina, La création artistique et les nouvelles technologies*, (Exhibition Catalogue), Maison de Rennes, France, 1981, p.58.
- TZIRTZILAKIS, G. - *Nikos Kessanlis* - (exhibition catalogue), Macedonian Museum of Contemporary Art, Thessaloniki, 1997, p.557.
- WHILKINSON, W.T. - *Photomechanical Process* -, Hampton & Co., 3rd edition, London, 1892.

RÉSUMÉ

Cet article présente l'étude des oeuvres d'art de la série Erotica de Nikos Kessanlis. Cette œuvre spécifique est un exemple de photos sensibilisées sur une surface de ciment. Il s'agit d'une application pilote, en vue de développer une méthodologie et une approche de restauration pour un groupe d'œuvres d'art qui combine des matériaux aux caractéristiques controversées, ainsi que d'établir une base de données pour les matériaux et techniques utilisées en Grèce par les artistes contemporains afin de constituer une documentation pour leurs œuvres futures. N. Kessanlis (1930-2004), né en Grèce, est l'un des plus importants artistes de la scène créative de la fin des années 60 et des années 70. Il a travaillé sur de nombreuses questions liées aux médias et à la photographie, notamment dans les recherches sur la possibilité de structurer l'image par diverses méthodes et techniques, pour conduire en 1996 à la réalisation des séries appelées « Wall Erotica » représentant d'anciennes photographies réimprimées à partir d'une série réalisée sur du ciment.

Les problèmes posés présentaient deux aspects principaux : éthique et technique. Pour y répondre et mieux connaître les matériaux et techniques utilisés par l'artiste, on a mis sur pied une collaboration avec le Musée national des techniques de l'université d'Athènes. Les principaux objectifs étaient la cartographie de la composition de l'œuvre, la cartographie des altérations, la caractérisation des matériaux, le choix des techniques pour éliminer les éléments incompatibles, et la définition de nouveaux matériaux compatibles. L'ensemble de ces connaissances est essentiel pour le choix des moyens d'intervention et de maintenance les plus appropriés.