

THE ZEUGMA WALL PAINTINGS
STUDY AND RECOVERY OF THE ROMAN DECORATIONS

Y. Selçuk Şener, Bekir Eskici, and Cengiz Çetin

This article aims to present a study of a number of 3rd century AD wall paintings from the Roman border-town of Zeugma in eastern Turkey. The remains of the city were threatened as a result of the construction of the nearby Birecik Dam. To save the wall decorations from the rising waters, the Gaziantep Museum initiated rescue excavations, which included the lifting of some 91 panels of various dimensions (nearly 150 m² in total) from 14 different rooms in 4 Roman villas in the city of Zeugma (Terrace A). The project was undertaken by a Turkish – French research team in May and early June of 2000, under the aegis of Ankara University and the Başkent Vocational School, and succeeded in transporting the panels to the museum. We gratefully acknowledge the financial support of the Packard Humanities Institute (PHI). The Gaziantep Museum aims to exhibit a number of the Roman wall decorations in their respective original positions (with regard to each other) in the annex of the museum, while for those panels that will not be exhibited, a shelf storage project has been initiated.

Introduction

Zeugma is an ancient settlement in South-East Anatolia, in the present-day province of Gaziantep. It lies 10 km north of Nizip, on the western banks of the Euphrates. The city was founded by one of Alexander the Great's generals, Seleukos I (312-281 BC). Initially, it was named Seleukia Euphrates, but this name was changed in Zeugma (ship-bridge) when the area fell under Roman rule in 64 BC. From that moment on till its destruction, by the Sassanid King Sapur I in the mid 3rd century AD, Zeugma was one of the most important frontier cities of the Roman Empire, as it controlled part of the trade route from Antioch to the East. Its wealth is apparent from the beautiful villas found at the site, while its strategic importance is highlighted by the legionary buildings found there.

As noted, the city was destroyed in the mid 3rd century AD, and this effectively meant the end of Zeugma's prosperity (Abadie-Reynal 2000, 8; Başgelen 2000, 10-19; Thebault 2002; 40). It was, however, precisely because of the Sassanid destruction layer securely sealing the archaeological deposit, that the wall paintings of 3rd century Zeugma, and indeed, the architectural remains of the city, are

as well preserved as they are. Perhaps as a result of that, an investigation of the site was never a matter of urgency, and only now, with the rising waters of the Birecik basin, national and international interest has focused on this lost Roman border town (Önal 2000, 30; Başgelen 2000, 17-18; Barbet 2002, 24-31). Especially the mosaics and frescoes with their high quality workmanship drew attention. The high quality workmanship and mature style of these mosaics and frescoes are second to none and compare, when it comes to lavishness, well to those found at Pompeii (Abadie-Reynal 2000, 8-10; Thebault 2001, 38-46; Zaid 2001, 136-145).

Decoration characteristics

The styles of the wall decorations can be divided into four groups. In the lines below, we will provide a brief overview of the various distinct styles. We focus on their way of execution (i.e. from the simple to the more complex paintings), rather than any chronological order.

(1) Style I: In this style, plain panels between red, white, light red and green bands rest on white marbling orthostats. The most beautiful example of this composition is seen on the first wall painting layer on E and S walls of Room P26. In Room P6 a garland is depicted, while on the E wall of Room P12, there is a depiction of a bird in a bush. The dimensions and positions of these rectangular panels usually do not include figurative elements and seem to be chosen at random (Ling 1991, 186-187), as is normally the case in the polychrome architectural decoration of the Severan Period. One finds similar examples of this composition on the wall paintings of Ephesus House WE5, Room 12a (Krinzinger 2002, Pl. 68 fig. 44; 92 fig. 10, 93).

(2) Style II: Geometric designs figure prominently in this type of composition: lozenge motifs are executed with dark red or claret red lines, around a centre of lozenge shaped green areas. This type of composition is typical for many *opus sectile* decorations (Dunbabin 1999, 258, 260, Fig. 272, 274, 275).

(3) Style III: In this style, a composition formed by imitation or incrustation and *opus sectile* is used. The orthostat of the paintings show (imitation) marble and granite plates cut in large panels. Above the orthostat, yellow or blue marbling panels bordered by (imitation) *opus sectile* rise in high, wide zones. This composition resembles the art of the 3rd century AD. In the Severan Period, objects are modelled in general contours without emphasizing interior details, and this tendency continues throughout the Early Christian period except in the first half of the 4th century. This tendency is widespread in mosaic and *opus sectile* production and imitations of the compositions in *opus sectile* and mosaic are found in wall paintings (Strocka 1977, Pl. 18-25, 37).

(4) Style IV: This style includes two different types of composition. The first one is composed of single, dressed female figures, standing within light red- and yellow-framed fields with a white or purple background bordered by red bands, and resting on white marbling orthostats (Fig. 1). The composition reflects artistic concepts of the 3rd century AD (Clarke 1991, 344-345, Pl. 213-214); however,

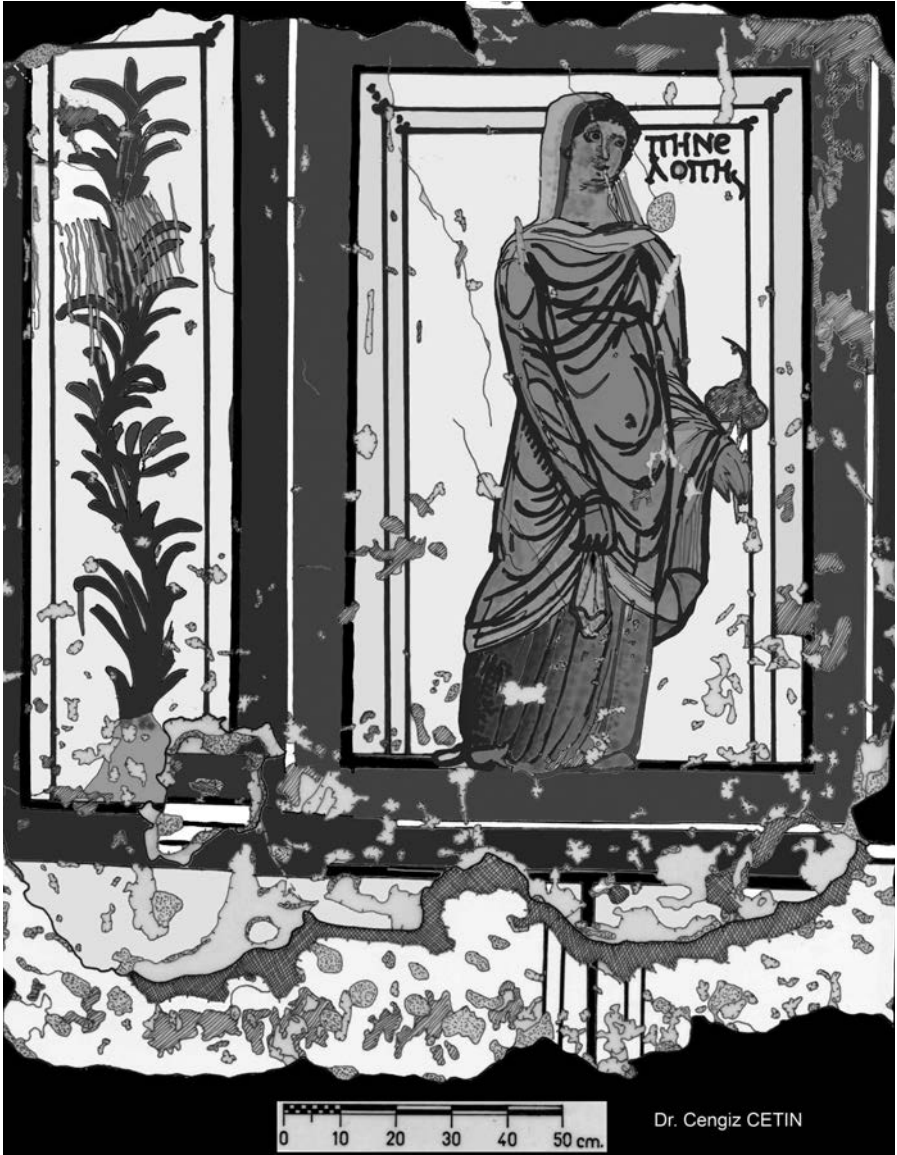


Fig. 1. Room P26, east wall (drawing: C. Çetin).

while the use of a purple background on the paintings of Room P30 gives them a classical aspect (Clarke 1991, 347-348, Pl. 215-216). This composition particularly reminds one of the painting on the north wall of Ephesus WE1 SR6 (Krinzinger 2002, Pl. 96 fig. 28; Strocka 1977, fig. 54,55).

The second composition in Room P11 is also typical of the art of the Severan Period, with plump human figures depicted only with exterior contours and without details between columns. Details are expressed through the contrast of dark and light tones in front of buildings and are pictured with exterior contours only (Fig. 2). This composition is a provincial parallel to the wall painting in the *Domus Praeconum* (Herald's Home: Ling 1991, 187, pl. 203) on the Palatine in Rome, dated to the second half of the 3rd century AD (Dorigo 1966, pl. 87). On the basis of their general features, the compositions of the wall paintings of Zeugma Terrace A seem to date to a time span between the 3rd and the end of the 4th century AD. This date would corroborate the mid 3rd century destruction date of Zeugma.

Graffiti

Two kinds of graffiti are found on our wall paintings. One consists of inscriptions written with brush and pigment while the other was achieved by engraving the pigment on the surface with a pointed tool.

(1) Pigmented Graffiti: These graffiti are the inscriptions next to human figures, written just to the right of the person's head with cream coloured pigment using a brush. The name *Penelope* is found on the east wall of Room P26 (Fig. 1).

(2) Incised Graffiti: These graffiti can be divided into three groups:

a- Inscriptions: These resemble the papyrus inscriptions parallels of which can be found at many ancient sites (Barbet 2000, 178, fig. 12; Veters 1987, fig. 26b). These inscriptions, written on the pigmented surface by a pointed tool, usually consist of illegible names, but they can be read through a detailed epigraphic study. However, a Turkish name, *Akakız*, written with Latin letters is seen in Room P9, demonstrates that these inscriptions can date from Antiquity to the present;

b- Figural Graffiti: These graffiti depict human figures (Fig. 3) and animals. The figures are usually filled with hatching. Except for the feeding bird on a painting on the north wall of Room P12, no animal graffito has a narrative theme. The animals depicted include a horse, a bird, and a fish. The graffiti with human figures do not have a specific theme either. A gladiator game is depicted on the south wall of Room P11. Such gladiators can be seen in many ancient sites (Allag/Barbet 1975, 44-46, pl. 7a-c, fig. 30-32), e.g. on the west wall of Ephesus Room 38d (Krinzinger 2002, pl. 20 fig. 53);

c- Lines: This is the largest group of graffiti. These linear graffiti can be divided into two subgroups:

1st group: This subgroup is composed of parallel short lines in various numbers. A diagonal line longer than the others is drawn over some groups. The parallel lines seem to have been served as a kind of tally sticks (Fig. 1).

2nd group: The graffiti in this subgroup show lines in various length and form. We cannot attribute any specific meaning to these graffiti.

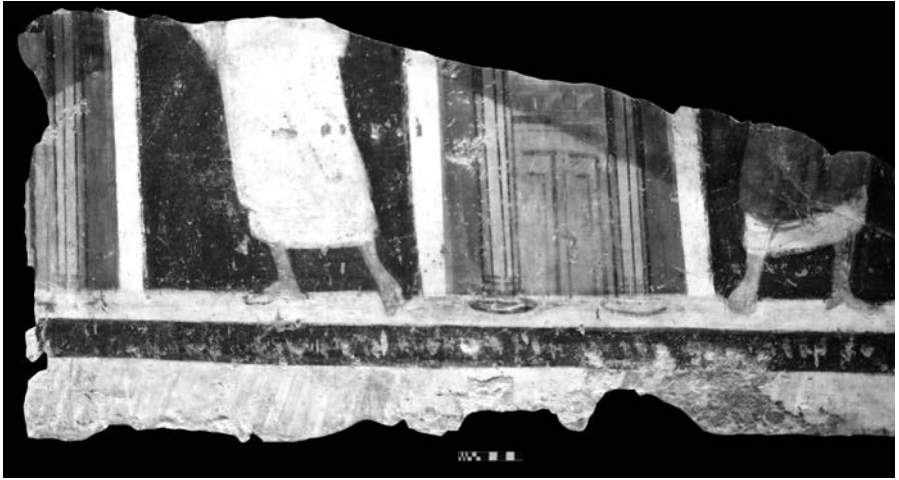


Fig. 2. Room P11, north wall (photo: C. Çetin).

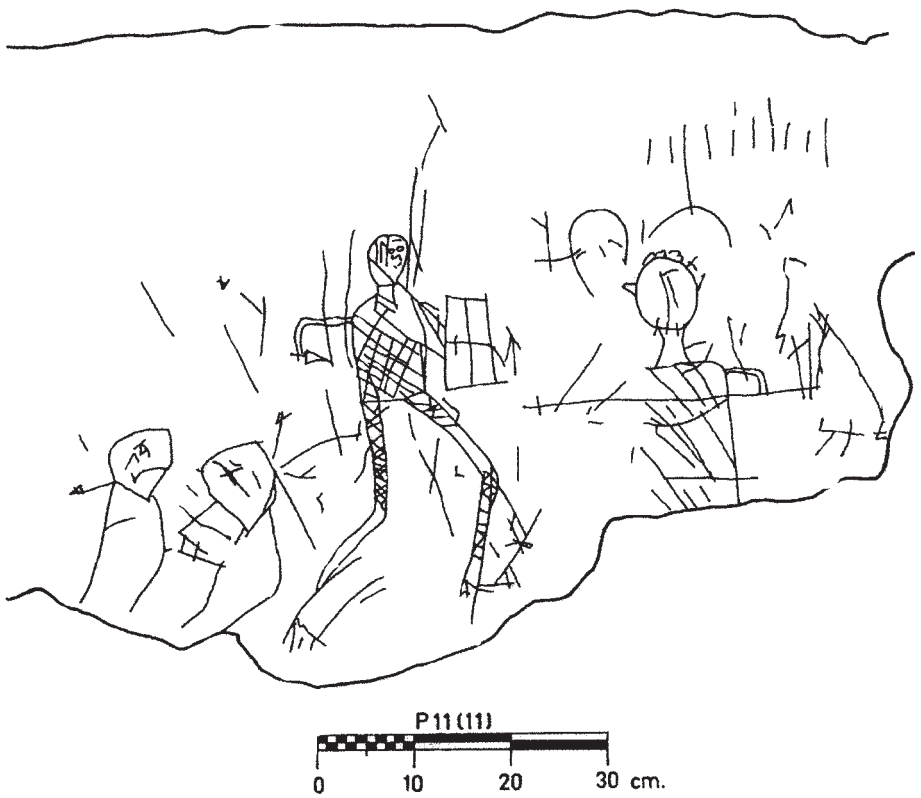


Fig. 3. Room P11, graffiti on the painting on the south wall (drawing: C. Çetin).

Technique

Visual observations of the mortar-plaster layers and manufacture and the technical characteristics of the wall paintings, later confirmed by laboratory analyses,¹ allowed for the following technical features to be noticed.

The first layers are a coarse gravelled and rough textured thick lime mortar (*arriccio*), over which a thin plaster layer (*intonaco*) was applied to smoothen the surface². The walls on which the paintings were applied consist of either rock surfaces of both smoothened blocks of stone and rubblework or mud-brick masonry, or they are cut from the underlying bedrock. Mud-bricks were observed in the higher parts of the walls of most rooms. The mortar layer supporting the paintings on the rubblework walls is thicker and sometimes consists of several layers, depending on the structure of the wall. At the same time, the mortar layer is thinner on those walls that are made of smooth stone blocks. As many of the buildings were in use over a long time, the use and adornment of the buildings changed – sometimes considerably – over the course of time. This, amongst others, resulted in several layers of wall paintings. Typically, successive layers of paintings were made by applying a thin plaster to the underlying painting surface. In some instances, these later paintings were flaking off – possibly as a result of poor plasterwork and negligence immediately after the excavation of the paintings (see below).

The thickness of the mortar ranges from 7 to 30 mm. The thickness of the plaster is 0.4-0.6 mm, depending on the smoothness of the surface of the wall. Where original wall decorations have been painted over, the average thickness of the plaster is noticeable less: some 0.3-0.5 mm. This so-called *intonaco* layer usually has a very smooth and polished surface. It is rich in lime, with a lime and aggregate ratio of 1:2. The proportions of binder and aggregate are nearly the same for *arriccio* layers. The aggregate is composed of various coarse granular rock minerals and contains organic additives such as chaff and plant components.

The data from laboratory analyses confirm that the paintings were executed in *fresco* technique (painting on wet plaster) (Akyol 2005, 93). There is no indication (like pigment binders such as adhesive, glue) that they were applied in *secco*. White, red, pink, yellow, brown, black, and green colours are widely used. Traces of threads (probably used by the artist to separate panels and motives while painting) were found on the plasters and provide technical details on the manufacturing process.³

¹ For the studies on the laboratory analyses, see: Akyol 2005, 91 – 100.

² In Antiquity, the main elements of the preliminary layers for making wall paintings were mortar (*arriccio*) and plaster (*intonaco*) layers. Sometimes a fine finishing plaster (*intonachino*) was added. Cf. Swindler 1929, 417-43; Botticelli 1980, 11-13; Mora/Mora 1984, 10-16; Monnier 1989, 78-79; Schwartzbaum 1995, 192; Baglioni/Dei 1997, 43-44; Barbet/Allag 1997, 12-13; Stefanaggi 2001, 29-45.

³ Traces of wire suggest that basic lines and rosters of the decorations were set out before the actual painting was done. This appears to have been a rather common practice in Antiquity. Cf. Mora/Mora 1984, 15; Barbet/Allag 1997, 35 fig. 33b; Barbet 2000, 171, fig. 2.

Conservation condition

The following conservation problems were observed in the wall decorations in the villas at Zegma Terrace A during the first investigation (19-20 April 2000) and reported immediately (24.04.2000) to the Gaziantep Museum Directorate by the first author. Prior to conservation, the wall paintings were documented on a 1/1 scale at the site.

- (1) The walls of the villas were preserved up to a height of 2-3 m., including the base level. From the existing remains it was understood that all the walls were originally covered with paintings. Although the wall decorations were found to be severely damaged in most cases, in some rooms the walls had survived in a better condition. In these instances, the wall decorations were occasionally found covering the walls up to their preserved height – as was the case with the east wall of Room 26 (C13);
- (2) Traces of fire were observed on the surfaces of the wall paintings, especially on the lower parts of the walls near ground level. It is probable that the heat of the fire caused colour changes on the surface. In addition, dirty layers of black ashy soil were present on the plastered and pigmented surface;
- (3) Lacunae are seen on the surfaces of the wall paintings. Although they occur mostly on the surfaces of pigmented plaster layers (*intonaco*), they sometimes form deep cavities, going down into the underlying mortar layers;
- (4) A layer of materials like soil, mud and plants, covered the surfaces of the wall paintings. Though it may be that precisely this layer had preserved the paintings, it now posed a problem for the conservation of the paintings;
- (5) There were cracks and breaks in the mortar and plaster surfaces, probably as a result of earthquakes and erosion, and the subsequent collapse and disintegration of the walls;
- (6) No conservation measures had been undertaken after the excavation of the wall paintings. This negligence generally caused the loss of cohesion between the mortars and plasters and wall surface. Also, detachment and flaking occurred on the surfaces of the wall paintings as the result of the sudden drying and salt extraction;
- (7) A frame of modern cement mortar was applied during the excavation to protect the wall painting fragments. However, this hard, brittle rim damaged the original mortar and plaster layers. Moreover, it stuck to the pigmented surfaces, that covered the edges of these surfaces;
- (8) Traces of pickaxes and trowels resulting from careless work during the excavations were visible on the surfaces of the wall paintings;
- (9) Mortar and plaster layers of several successive layers were deformed due to movement and deterioration of the wall on which they were applied; the overlapping layers of plaster and mortar started to flake and crack.

Lifting and transport to the Museum

On January 15, 2000, it was decided to remove the wall paintings and to store them in the Museum depot before the inundation of the excavation site began. The lifting of the wall paintings from the walls on which they were painted was

carried out between May 10 and June 5, 2000 by a joint Turkish-French working team⁴ composed of eleven archaeologists, conservators, and conservation students from Ankara University Başkent Vocational School of Turkey and the École Normale Supérieure, the Centre National de la Recherche Scientifique and the Centre d'Étude des Peintures Murales of France (see also Abadie-Reynal/Barbet 2000, 8; Başgelen 2000, 17).

The applied procedure and stages of the study are described in the lines below:

Cleaning

In preparation for the lifting and the subsequent study of the mosaics, the post-depositional layers on the smooth plaster and the pigmented surfaces were removed by either dry (mechanic) or wet cleaning. Prior to this process, shelters were made over the walls to avoid exposure of the surfaces of the wall paintings to the sunlight. The layers of dust and clayey soil were removed from the surfaces of the wall paintings with various spatulas, bamboo sticks, and brushes. Those with mud, burnt soil, and ashy layers were first cleaned mechanically with brushes and the remaining layers of dirt were wiped from the surface with damp sponges soaked in water. On the thinner muddy layers, the surface was cleaned with damp cotton tipped bamboo sticks (Fig. 4). The utmost care was taken to carry out this application without damaging the pigmented surfaces or lifting the pigment. Dry cleaning was limited where the pigments are fragile and flaking was observed.

Consolidation

Consolidation of the mosaics was undertaken prior to the lifting process in order to take both the plaster and pigmented surface layers off the wall. Consolidation included the application and absorption of an acrylic resin solution (Paraloid B-72, 5-10 % in acetone) with brushes on the cleansed surfaces.

Lifting and Carrying Work

The first step to prepare the wall paintings for lifting was to apply a protective cover (a 'facing') to the surface of the paintings, to protect the fragile decorations during transport. This 'facing' consisted of Japanese tissue and gauze of a Paraloid B-72 solution (20-25 % in acetone) (Fig. 5). Japanese tissue was used as an intermediary layer to protect the surface of the pigment layer. It was applied on the surfaces in pieces of 10 x 10 or 15 x 15 cm. The adhesive resin was applied *through* the tissue in order to assure a constant, uninterrupted application. The

⁴ Archaeologists Alix Barbet (ENS-Paris), Florence Monier (CEPMR-Soissons), restorer Franck Blondel (CEPMR-Soissons) of the French team, Art Historian-Conservator Y. Selçuk Şener and Archaeologist Cengiz Çetin and conservation students, all from Ankara University, Emin Özdemir, Kurtuluş Türk, Tolga Obuz, Altan Türkmen, Evren Kivançer, Buket Aladağ, participated in the project.

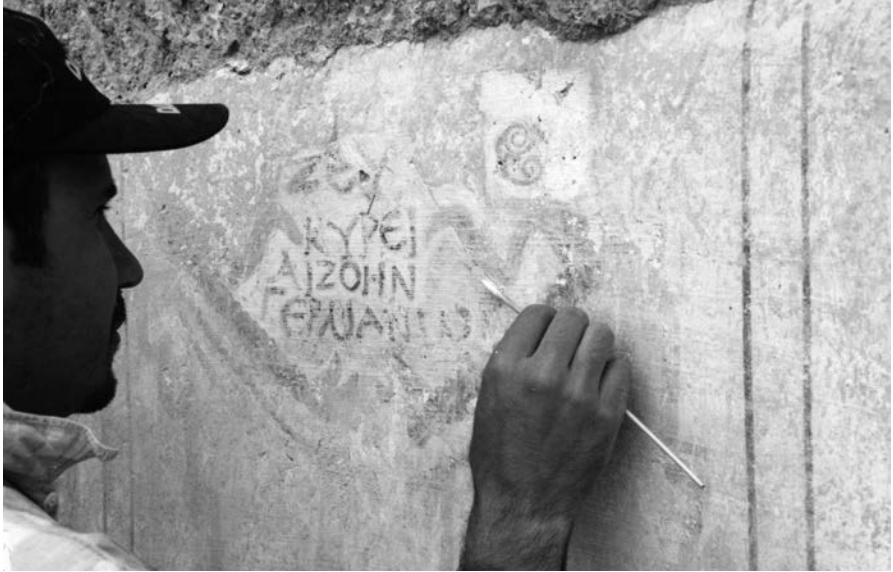


Fig. 4. Surface cleaning before lifting (photo: S. Şener).



Fig. 5. Covering the surface with fabric (facing) (photo: C. Çetin).



Fig. 6. Attachment of the wall painting to the temporary wooden panel (photo: S. Şener).

gauze was applied on the surface in two overlapping layers [because of the large dimensions and weight of the panels and was applied in small portions only to facilitate an easy application and later removal.

The removal was done extremely carefully, using long, thin steel chisels to separate the mortar from the walls, whereas the edges of the paintings (mostly the lower parts of the paintings, since the upper edges ended where the wall had collapsed and thus was easier to remove) were cut loose with fine stone chisels. After removing the paintings from the walls, they were fixed onto wooden transport panels or carriers by means of attaching the edges of the paintings to their wooden transport frames (Fig. 6).

During the lifting process, wall painting panels were principally taken off as a whole, except for those on the east wall of Room 26 and the south wall of Room 6. These were lifted in three pieces. In order to keep the damage to the pigment and decoration to a minimum, the latter procedure was done mostly along the monochrome borders and by using small motor cutting spiral discs, with a 2 mm cutting margin.

Wall painting panels were easily lifted from those walls consisting of smoothed stone. Especially where the wall painting (or the mortar layers on which they were applied) had a consistent thickness, the process of taking them off was easier than elsewhere. However, lifting was much more challenging and partially

destructive where the walls were made of rubblework or stone masonry with uneven, indented surfaces. In some instances, some parts were left within the wall surface during processing – e.g. the west and north wall of Room 13 (B6) and east wall of Room 6 (A11). Difficulties also arose when the panels had very thin mortar and plaster layers, such as the painting with the fountain in Room 9 (A6). Despite the extreme care taken during removal, some of the paintings could unfortunately not be taken off without incurring any damage.

Multilayered wall paintings on the same wall were lifted as if one, including all layers. If the cohesion between the layers was lost, the procedure was repeated for each layer - as was the case with the paintings on the east and south walls of Room 26. Lifting wall paintings from uneven, curved surfaces was accomplished in two concave curved central niches of the fountain building in Room 9 (A6). A curved support frame made of timber and lath was placed in front of the surface of the niche leaving a 1-2 cm space between the support and the faced painting. A polyethylene separating layer was used between the wall's surface and the support. The space was filled with polyurethane foam and the wall painting was slid onto this curved platform. This particular operation was executed without any damage being inflicted on the wall paintings.

Transferring onto new supports

The project of transferring the wall paintings onto the new supports and exhibition in their original positions in the Museum at Gaziantep has been prepared by Y. Selçuk Şener and was carried out by Ankara University, Başkent Vocational School, with permission from the Ministry of Culture and the Gaziantep Museum Directorate. The work was realized in seven months between 23 October 2000 and 23 May 2001 by a team of 13 members⁵ in a nearly 165 m² prefabricated laboratory building, designed by the project management in the garden of Gaziantep Archaeological Museum. The project took into account three basic approaches:

- (1) Conservation of the wall paintings;
- (2) Transfer of the wall paintings from the temporary wooden panels and attachment to new supports;
- (3) Preparation of the wall paintings for exhibition reflecting their original positions.

The restoration and conservation works were undertaken in the following stages:

Thinning the mortar layers

The thick mortar layers of the paintings were thinned to 1 cm by cutting⁶. This

⁵ Team members: Project manager Y. Selçuk Şener, deputy managers Bekir Eskici, Cengiz Çetin, conservators: Didem Taner, Evren Çolak, Emin Murat Özdemir, Kurtuluş Türk, Serap Çelik, Mine Çetinel, Evren Kıvançer, Zeynep Köprülü, Gamze Uçak, Aysu Niksarlı. The project was managed by Bekir Eskici between 2 April 2001 and 23 May 2001 due to the military service of Y. Selçuk Şener.

⁶ The original mortar layer was thinned in order to reduce the weight. See Pedroso 2002, 54 for extensive discussion.

thinning and cutting process was done with a spiral motor without damaging the front surface. The successive painting layers on the wall panels from different periods were conserved as found. However, some panels that have two painting layers were treated to separate and transfer them onto different supports.

Consolidating and Leveling the Rear Surface with Synthetic Mortar

The thinned rear surfaces of the mortars were consolidated with acrylic resin (Primal AC-33, 5-10 % in water) by absorption⁷. The cracks were filled with lime mortar and the lacunae were temporarily covered with a synthetic mortar of Primal and quartz sand⁸.

After the process of lifting, the backs of the pigment layers were stabilized with a new lime mortar (1:3 hydrated lime sand). The surfaces of the backs thus consolidated were covered with glass fibre fabric, adhered with a polyvinyl acetate derivative resin (Mowilith D-50).⁹

Leveling mortar was applied to the rear surfaces, taking into account the predetermined standard mortar thicknesses in the rooms and walls from which the paintings were removed. A synthetic mortar of Mowilith and quartz sand (in 1:3 ratio) was used for leveling (Moreno 1997, 305; Barbet/Allag 2002, 80; Pedroso 2002, 53). In order to acquire a better adherence of the mortar, the surface was first made damp with diluted Mowilith. The mortar was allowed to dry after leveling, which took from several days up to a week depending on the thickness of the mortar and the environmental heat. Apart from the function of leveling, this mortar constitutes a separating layer between the original mortar and the new support, enabling the removal of the applied materials by softening with acetone.

Removing the Facing Layers and Surface Cleaning

With the back surfaces fixed with synthetic mortar, the wall paintings were turned over and the front surfaces were treated. The temporary protective layers (Paraloid, Japanese tissue, gauze) applied during the lifting and carrying process at Zeugma were removed by softening with paper towels and/or cotton padding soaked in acetone. Facing removal took place with no damage to the pigmented surface. Soil, sediment, and contamination layers on painted surfaces were cleansed mechanically and with solvents (water, alcohol, and acetone) (Fig. 7).

⁷ Primal AC-33 is an acrylic emulsion, used in conservation as a consolidant and/or surface coating by diluting with water in various concentrations. Its use is recommended for consolidating mortars and plasters due to its high penetration (deep diffusion) capacity and adhesive ability. See Mora/Mora 1984, 224-236; Dangas 1995, 177; Alberti/Arké 1998, 65; Hemgren 2001, 10-11; Peterson 2001, 25-29.

⁸ This temporary synthetic mortar has been chosen because of its easy removal when softened with alcohol and water. See Moreno 1997, 305; Pedroso 2002, 53.

⁹ Mowilith D-50 is an emulsion of vinyl acetate polymer type. It can be used as adhesive and/or binder by diluting in solvents such as water, acetone, toluene, and iso-propanol. Cf. Clydesdale, 1990, 33.

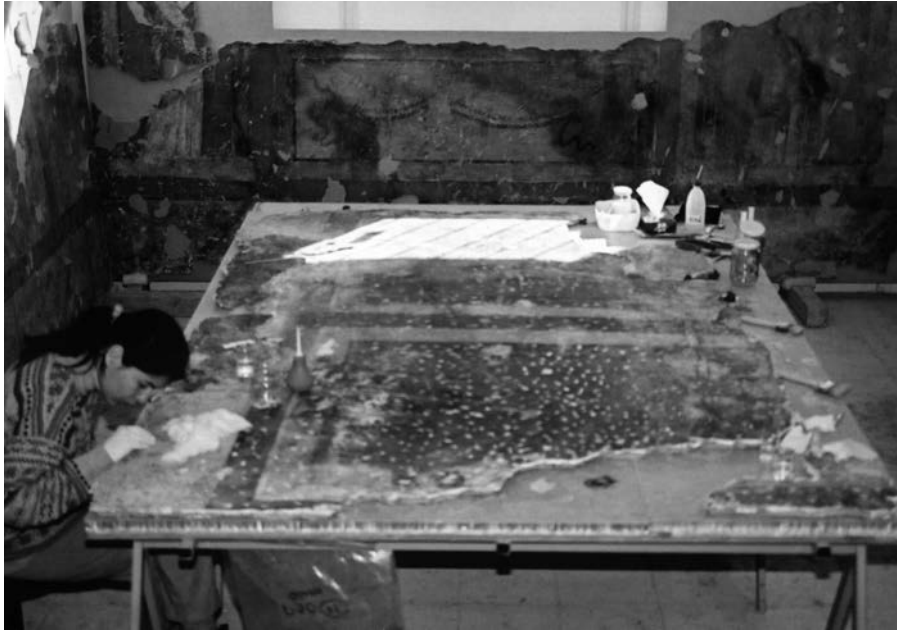


Fig. 7. Cleaning studies on the pigmented (front) surface (photo: B. Eskici).

Adhering the Wall Paintings onto the Supporting Panels

The paintings were fixed on *Aerolam* panels¹⁰ designed to reflect the original position of the paintings (Fig. 8). The panels were prepared with consideration for details such as the dimensions of the paintings, their height from the ground, windows and niche openings, and joining points at the corners. The positions of the wall paintings were indicated with an acetate pen on the new carrying panels prior to the adhesion process by laying the paintings on the panels and making a one to one tracing. The paintings were then removed from the panel and the adhesive was applied within the reference lines. The wall paintings were placed on the panels and the superfluous adhesive was cleaned with cotton soaked in alcohol. Epoxy resin (Araldite M/HY-956 in 5:1 ratio: Moreno 1997, 305; Bingöl/Pracher 1997, 333; Pedroso 2002, 53) was used as the adhesive and quartz sand was added to the compound in order to increase the viscosity of the mixture.

¹⁰ Airolam is an ideal material that is suitable for the aim with high carrying capacity, being hard but light; its use as a new carrier in the area of restoration is becoming increasingly popular. Cf. Moreno 1997, 305; Barbet/Allag 2000, 79; Pedroso 2002, 53.

Consolidation

One of the major conservation problems regarding the paintings is detachment between mortar/plaster and plaster/pigment layers. Initially, the remnants of dust, soil, and mortar, which filled the cracks and gaps, were cleaned thoroughly in order to consolidate these areas. Weakened mortars were consolidated by injecting acrylic resin (Primal AC-33, 20 % in water). The pigment layers detached from the mortar were joined to the mortar again with the help of acrylic resin (Paraloid B-72, 10-30 % in acetone)¹¹. The deep gaps, cracks, and small cavities formed on pigmented surfaces were filled with lime mortar (hydraulic lime + quartz sand, in 1:2 ratio). Paraloid B-72 (4-8 %) was applied on the surfaces of the paintings to consolidate the pigment layers and to protect them from exterior factors.

Sanding

The lacunae in the wall paintings were coated with fine-grained quartz sand. Before that the diluted resin (Mowolith) was laid on the blank surfaces and then the sand grains were scattered over with a sieve. This process was repeated three to four times until a homogenous surface was obtained. The total thickness of the sand grains does not exceed 1-2 mm. This method was chosen as the material is not heavy, practical, and emphasizes the original texture, being different from the traditional method that depends on the filling of the blank spaces with lime mortar¹².

Retouching (Pigmentation of Filling Mortars)

Lime-based mortars were applied in the gaps, cracks, and small cavities for consolidation on the paintings and subsequently pigmented with shades fitting the colour of the surface. On mortar surfaces from which the pigments had been detached, partial pigmentation was done in order to obtain a visual integrity but no intervention was executed on the original pigments. Decorative or figurative completions were avoided. It is very important to give the pigmented areas an impression to be noticed not from a distance but only on close view. Water paint has been used for pigmentation.

Documentation

The work phases have been documented in each stage (photographs, video camera recordings, and graphic documentation). Graphic documentation was made in the form of 1/1 drawings and records the existing decoration, some findings on

¹¹ Paraloid B-72 is a resin of methacrylate polymer type; it is used in the area of conservation as consolidator and surface coating (varnish) by diluting in various concentrations in solvents such as acetone, toluene, thinner, xylene, butanol, and trichloroethylene. It is used for wall paintings especially to consolidate pigment layers, while it is recyclable and resistant to light-heat actions, and has an ideal hardening period and high penetration qualities. *Cf.* Mora/Mora 1984, 232-238; Colalucci 1987, 72; Özil 1990, 506; Clydesdale 1990; Shashoua 1992, 113; Dangas 1995, 177; Alberti/Arké 1998, 60.

¹² *Cf.* Pedroso 2002, 53 for discussion.



Fig. 8. Scene from laboratory studies (photo: B. Eskici).



Fig. 9. Wall painting panels placed on the guide shelves (photo: S. Şener).

manufacture and application techniques, and later changes as a result of restoration/conservation in detail.

Storage and exhibition

The restoration of the wall paintings was completed in May 2001. The paintings are now stored in the laboratory at the rear of the Gaziantep Museum. Preparation for final conservation and exhibition of the wall paintings in a more appropriate context has been ongoing since 2001. The following has been achieved:

(1) Some of the wall paintings (10 panels) have been taken to the existing museum building for temporary exhibition;

(2) A “guide shelf storage project” has been prepared for storing the other 71 panels in a appropriate context, as they cannot be exhibited due to insufficient space. They will be accessible to private teams and researchers. The basement of the Museum’s annex has been arranged as a fresco depot.

The storage installation consists of 22 vertical shelf systems (3 x 5 m each). The shelves can easily move along the guiding wheels on the ground and on the ceiling (Fig. 9). The guides and supports are made of iron whereas the support clasps on which the artefacts rest are in steel. The shelves can carry more than one wall painting in a vertical direction. A photographic inventory system has been installed on each shelf.

The shelf project had been designed by Bekir Eskici and was made by ÇAĞSA Company. The project was financed by French sources, thanks to the initiative of Hamza Güllüce, the director of the Gaziantep Museum, and with help of Prof. Catharine Abadie-Reynal from Nantes University¹³.

Conclusion

The goal of the conservation project was to remove the wall paintings from the excavation site at the Zeugma Terrace, on new supports to the Gaziantep Museum. There are a total of 81 panels (nearly 150 m²) in various dimensions. Thanks to these efforts described above, the paintings could be completely restored, keeping their original position and dimensions, and be prepared for exhibition. In our opinion, it would be ideal if the paintings were exhibited together with the floor mosaics in a museum building designed to reflect their original situation in the Zeugma villas. Therefore, a new project was initiated in 2004 by the Museum directorate. The preparations for an exhibition in the annex adjacent to the Museum are ongoing. At the end of this project, the mosaics and frescoes should welcome visitors in their new exhibition spaces and give testimony to the splendour that once was Zeugma on the Euphrates.

¹³ Storing the wall painting panels on guide shelves - the final stage of the project - has been completed between 28 June and 5 July 2004 by a team supervised by Bekir Eskici and Y. Selçuk Şener with the support of the Museum Directorate.

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