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Project on the Rock Paintings in Cappadocia.
The Church of The Forty Martyrs in Şahinefendi (Report 2008)

Maria ANDALORO

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PROJECT ON THE ROCK PAINTINGS IN CAPPADOCIA. THE CHURCH OF THE FORTY MARTYRS IN ŞAHINEFENDİ (REPORT 2008)

Maria ANDALORO*

The Tuscia University research mission “Rock paintings in Cappadocia. For a project of knowledge, conservation and valorization of the church of the Forty Martyrs at Şahinefendi and its territory” took place between 24 August and 25 September 2008 (Fig.1). This research mission is part of a bigger project called “For a data bank of wall paintings and mosaics of Asia Minor (4th-15th centuries): images, materials, techniques of execution (1996-2010)”, and follows the first phase conducted in Turkey on the island of Küçük Tavşan and on many other sites in the territory of the Gulf of Mandalya.¹

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1 See M. Andalaro, *Küçük Tavşan Adası 1996 the Wall-Paintings: Chronological Sequence, Technique and Materials* in *The XV International Symposium of Excavations, Survey and Archaeometry*, (Ankara, 26-30 May 1997) Ankara 1998, pp. 183-200; Eadem, *Küçük Tavşan Adası: 1997 Report* in *The XVI International Symposium of Excavations, Survey and Archaeometry* (Tarsus, 25-29 May 1998), Ankara 1999, pp. 183-201; Eadem, *Küçük Tavşan Adası: 1998 Report* in *The XVII International Symposium of Excavations, Survey and Archaeometry* (Ankara, 24-28 May 1999), Ankara 2000, pp. 109-122; Eadem, *Küçük Tavşan Adası: 1999 Report* in *The XVIII International Symposium of Excavations, Survey and Archaeometry* (Ankara, 22-26 May 2000), Ankara 2001, pp. 87-102; Eadem, *Küçük Tavşan Adası Fifth Campaign Balance and Perspectives* in *The XIX International Symposium of Excavations, Survey and Archaeometry* (Ankara, 8 May-1 June 2001), Ankara 2002, pp. 125-136; Eadem, *Küçük Tavşan Adası: 2001 Report* in *The XX International Symposium of Excavations, Survey and Archaeometry* (Ankara, 27-31 May 2002), Ankara 2003, pp. 153-168; Eadem, *Küçük Tavşan Adası: 2002 Report* in *The XXI International Symposium of Excavations, Survey and Archaeometry* (Ankara, 26-31 May 2003), Ankara 2004, pp. 211-224; Eadem, *Le pitture della chiesa di Küçük Tavşan Adası in Asia minore*, in *Le vie del Medioevo* a cura di A. Quintavalle (Atti del Convegno Internazionale di Studi, Parma, 28 maggio-1 ottobre 1998), Milano 2000, pp. 73-87; Eadem, *Küçük Tavşan Adası: 2003 Report* in *The XXIII International Symposium of Excavations, Survey and Archaeometry*, Ankara 2006, pp. 41-44; Eadem, *Küçük*

The second phase of the main project (2006-2010)² involved the church of the Forty Martyrs at Şahinefendi³ and a group of pictorial decorations in the region of Ürgüp, Cappadocia, at the sites indicated on the map (Fig.2).

The principal aim of the 2008 campaign was to make a study and analysis of the pictorial complex of the church of the Forty Martyrs in order to draw up the restoration project.

At the same time, the paintings of a group of churches in the region of Nevşehir were analyzed.

The success of the main project and of the 2008 campaign was made possible due to the helpfulness of the General Direction of Monuments and Museums of the Turkish Republic.

For the 2008 survey, in particular, we are greatly indebted to the deputy of the Cultural Ministry, Esengül Yıldız Öztekin of the Archaeological Museum of Marmaris, who has always shown interest in our research.

We should further like to thank Halis Yenipınar, director of the Museum of Nevşehir, and Murat Gülyaz, archaeologist at the same museum, for having supported our activities in the territory.

The research and activities of the 2008 campaign attained the following results:

Tavşan Adası: 2004 Report in The XXIII International Symposium of Excavations, Survey and Archaeometry (Antalya, 30 May-3 June 2005), Ankara 2006, pp. 44-56; Eadem, Küçük Tavşan Adası: final report 1996-2005, (Cannakale, 24 May - 2 June 2006) Ankara 2007, pp. 1-14.

- 2 M. Andaloro, *Rock paintings of Cappadocia: images, materials and state of preservation in The XXV International Symposium of Excavations, Survey and Archaeometry (Kocaeli, 28 May-1 June 2007), Ankara 2008, pp. 163-178; M. Andaloro, Project for the rock paintings in Cappadocia. The church of the Forty Martyrs at Şahinefendi in The XXVI International Symposium of Excavations, Survey and Archaeometry (Ankara, 26-30 May 2008), Ankara 2009, pp. 187-200.*
- 3 G. de Jerphanion, *Une nouvelle province de l'art byzantin. Les église rpestres de Cappadoce*, II, Paris 1932, pp. 156-174; M. Restle, *Byzantine Wall-painting in Asia Minor*, I, Greenwich 1967, pp. 64-65, pp. 158-160; C. Jolivet-Lévy, *Les églises byzantines de Cappadoce: le programme iconographique de l'abside et de ses abords*, Paris 1991, pp. 205-207; C. Jolivet-Lévy, *La Cappadoce médiévale. Images et spiritualité*, St. Léger Vauban 2001 (ed.it. *L'arte della Cappadocia*, Milano 2001), pp. 44-45, p. 85, pp. 127-128, p. 142, pp. 194-195, p. 200, p. 274, pp. 338-339, pp. 341-342, p. 347; N. Thierry, *La Cappadoce de l'antiquité au moyen âge*, Turnhout 2002, p. 110, p. 215, p. 216, f. 49b; Maria Andaloro, edited by, *Terre di roccia e pittura. La Cappadocia e il Mediterraneo*, Acts of Congress (Viterbo, 19 - 21 June 2008), in press.

at Şahinefendi:

- organization and topographical relief of the church of the Forty Martyrs in the monastic complex and of the small double-apse oratory situated in the territory of Şahinefendi northwest of the church;

- completion of the survey and graphic documentation of the state of conservation of the pictorial decoration;

- sampling of materials, technique of execution and forms of deterioration;

at the other sites:

- analyses of the pictorial decoration and photographic documentation;

- sampling of materials, technique of execution and forms of deterioration with the aim of increasing the data bank of the constitutive materials of the mural paintings set up during the missions in Turkey starting in 1997 and integrate the investigations carried out in Cappadocia during the 2006 and 2007 campaigns.

FIRST PATH

a) THE CHURCH OF THE FORTY MARTYRS AT ŞAHİNEFENDİ

The church of the Forty Martyrs is situated on the road between Ürgüp and Soğanlı, in a zone where a large rupestrian settlement exists in the conical tufaceous formations situated along the southern slopes of the *Orta Tepe*, a high ground between the villages of Şahinefendi and Taşkınıpaşa (Fig.3).

The 2008 campaign was devoted to the topographical research of the monastic complex called *Beş Parmak Kilisesi*, situated to the north of the church of the Forty Martyrs, that has been quite unexplored up to now (Fig.4). Of the well-known typology of monasteries in Cappadocia, it consists of a church, rooms and other articulated spaces around a central court, and can be generally dated to the 11th century. The complex occupies a wall of tufa and a group of adjacent cones in an area located about 400m. northeast of the

church of the Forty Martyrs. Dug into the wall are a court, of which part of the north side still remains, and some rooms, amongst which a vestibule, a rectangular room spaced on the sides by semi-columns and semi-pillars, and the monastery kitchen. On the upper level, which is inaccessible, are another four quadrangular rooms that have partially collapsed, two of these have small quadrangular cells on the walls that are identifiable as dovecots.

In the group of cones situated to the east of the above-described complex is a series of rooms arranged on various levels, probably relative to the monastic complex, and the church, which is partially obliterated by debris (Fig.5). This structure, entirely dug into the tufaceous wall, has a Greek cross plan inscribed in a square with a large central dome and four lateral minor ones. There are three apses with three altars attached to the rear wall. The room is preceded by a narthex, flanked by a small quadrangular area identifiable as a sepulchral room due to the presence of a grave, which was brought to light by clandestine excavations.

The architectural study of the monastery called *Beş Parmak Kilisesi* can benefit from a topographical relief of the structures made with a Total Station Leica equipped with a laser distancemeter that has made the registration of a great quantity of cloud points possible so as to reconstruct a sufficiently precise geometry of the subject (Fig.6). Ongoing is an elaboration of a three-dimensional model of the buildings that will be linked to the three-dimensional model made during the 2007 campaign of the church of the Forty Martyrs.

Herewith follow the results of the research and investigations relative to the pictorial decoration of the church of the Forty Martyrs.

The paintings have been analyzed both from a historic-artistic point of view and, in a special manner, from those aspects that concern the state of conservation (Fig.7), the technique and the material.

In line with the most advanced methodologies for surveying the state of conservation of mural paintings, all the data collected regarding the pictorial complex of the church of the Forty Martyrs have been mapped on

a photographic base and registered on computerized thematic tables of the AutoCAD software.

The analytic-scientific plan has made 46 samples of different typologies of materials (pigments and mortars) and various types of deterioration (encrustations, superficial deposits, chromatic alterations), with a dual finality:

-to acquire indispensable data and information for drawing up the restoration project of the paintings and implementing it;

-to increase the data bank of the constitutive materials of mural paintings that was set up during the missions in Turkey starting in 1997.

During the 2008 campaign it was possible, furthermore, to experiment with a pilot system for monitoring at a distance the micro-climatic conditions of the church by means of detectors of the relative humidity and ambient temperature (Fig.8). The system is new inasmuch as the data can be measured continually, and then recorded and transmitted from a distance in order to be used in places that are at a distance from the church of the Forty Martyrs (museum, university, etc.).

b) THE OTHER SITES

During the course of the 2008 campaign, the pictorial complexes of another 10 churches located in the region south of Ürgüp were examined. These are:

- church on the Ali Reis road⁴ and Cambazlı Kilise⁵ at Ortahisar;

4 C. Jolivet-Lévy, *Les églises byzantines*, pp. 198-199; C. Jolivet-Lévy, *La Cappadoce médiévale*, p. 147, p. 173, p. 174.

5 N. Thierry, *Haut Moyen Age en Cappadoce. Les églises de la région de Çavuşin*, I, Paris 1983, p. 52; C. Jolivet-Lévy, *Les églises byzantines*, pp. 195-198; C. Jolivet-Lévy, *La Cappadoce médiévale*, p.127, p. 134, p. 142, p. 173, p. 217, p. 340.

- church of the Most Holy Apostles,⁶ of San Basil⁷ and Tavşanlı Kilise⁸ at Mustafapaşa;
- Ayvalı Kilisesi at Ayvalı⁹;
- Keşişlik Kilisesi at Akköy¹⁰;
- church of St Stephen¹¹ and Monastery of the Archangel¹² at Cemil;
- church of St. Theodore at Yesiloz¹³.

The investigations were carried out with a dual purpose:

- to take note of any significant similarities with the paintings of the church of the Forty Martyrs;
- to acquire an in-depth picture of the development of painting in the region.

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- 6 N. Thierry, *Haut Moyen Age en Cappadoce*, I, p. 51, p. 54, p. 128, p. 132, p. 138, p. 141, p. 144, p. 151, pp. 170-171; C. Jolivet-Lévy, *Les églises byzantines*, pp. 179-182; C. Jolivet-Lévy, *La Cappadoce médiévale*, p. 45, p. 94, p. 142, p. 158, p. 159, p. 191, p. 201, p. 226, p. 258, p. 384, p. 386; N. Thierry, *La Cappadoce de l'antiquité*, p. 110; p. 144; p. 149.
- 7 G. de Jerphanion, *Une nouvelle province*, II, pp.105-111; J. Lafontaine-Dosogne, *Pour une problématique de la peinture d'églises byzantines à l'époque iconoclaste*, in «Dunbarton Oaks Papers», 41, 1987, pp.329-330; C. Jolivet-Lévy, *Les églises byzantines*, pp. 184-186; C. Jolivet-Lévy, *La Cappadoce médiévale*, p. 39, p. 40, p. 56, p.160, p. 339; N. Thierry, *La Cappadoce de l'antiquité*, pp. 136-137, f. 19.
- 8 C. Jolivet-Lévy, *Les églises byzantines*, pp. 182-184 ; Jolivet-Lévy, *La Cappadoce médiévale*, p. 20, p. 160, p. 195, p. 254, p. 334, p. 340.
- 9 C. Jolivet-Lévy, *Les églises byzantines*, pp. 151-154; Jolivet-Lévy, *La Cappadoce médiévale*, p. 45, p. 79, p. 83, p. 126, p. 137, p. 142, p. 143, p. 161.
- 10 C. Jolivet-Lévy, *Les églises byzantines*, pp. 147-148; Jolivet-Lévy, *La Cappadoce médiévale*, p. 131, p. 134.
- 11 G. de Jerphanion, *Une nouvelle province*, II, pp. 146-155; M. Restle, *Byzantine Wall-painting*, I, pp. 16-17, pp. 156-157; N. Thierry, *Haut Moyen Age en Cappadoce*, I, pp. 1-33; C. Jolivet-Lévy, *Les églises byzantines*, pp. 161-163; C. Jolivet-Lévy, *La Cappadoce médiévale*, p. 35, p. 335; N. Thierry, *La Cappadoce de l'antiquité*, pp. 119, 124-125, 126, 130, 131, 133, f.15
- 12 G. de Jerphanion, *Une nouvelle province*, II, pp. 128-145; M. Restle, *Byzantine Wall-painting*, I, p. 155; L. Rodley, *Cave Monasteries of Byzantine Cappadocia*, Cambridge University press 1985, pp. 157-160; C. Jolivet-Lévy, *Les églises byzantines*, pp. 157-160; C. Jolivet-Lévy, *La Cappadoce médiévale*, p. 137, p. 139, p. 143, p. 147, p. 158, pp. 201-202, p. 255, p. 304, p. 339, p. 342; N. Thierry, *La Cappadoce de l'antiquité*, p. 98, p. 187, f. 15.
- 13 M. Restle, *Byzantine Wall-painting*, I, pp. 146-148; C. Jolivet-Lévy, *Les églises byzantines*, pp. 211-215; Jolivet-Lévy, *La Cappadoce médiévale*, p. 21, p. 33, p. 43, p. 127, p. 137, p. 143, p. 194, p. 200, p. 250, p. 342.

Regarding the first objective, significant similarities with the church of the Forty Martyrs were observed only with the paintings of Cambazlı kilise and the church on the Ali Reis road at Ortahisar.

As for the second objective, it was possible to verify how the territory south of Ürgüp presents evidence that is quite varied stylistically and chronologically, and covers a period ranging from the 8th to the 13th centuries.

Of particular interest were the wall paintings of the following churches:

-the church of the Most Holy Apostles at Mustafapaşa, similarities of which were noted with the churches of Saint John at Güllü Dere and with the New Tokali, both dated to the 10th century (Fig.9);

-the Ayvalı Kilisesi at Ayvalı, which, in some figures, shows a surprising affinity with the Roman painting of the 11th and 12th centuries;

-the Tavşanlı Kilise at Mustafapaşa, although unquestionably dated by a 10th-century inscription, recalls in some of its figures examples of Coptic art of the 6th-7th centuries (Fig.10);

-the church of St Theodore at Yeşilöz is particularly interesting from the point of view of its stratigraphic articulation: in the corner between the eastern and the northern arms, the presence of two strata is to be noted and different figures are visible under the present composition in the eastern depression.

The results of the analytic-scientific plan are the subject of a specific report in the archaeometry section of this Symposium by Claudia Pelosi of the Diagnostic Laboratory for Conservation and Restoration "Michele Cordaro" of the University of the Tuscia¹⁴.

One of the objectives of the mission in Cappadocia is to implement systems to valorize the church of the Forty Martyrs of Şahinefendi and its territory.

The preliminary study has taken into consideration the cultural and touristic offerings of the region in order to understand how a tourist might

14 C. Pelosi, U. Santamaria, G. Agresti, F. Castro, D. Lotti, P. Pogliani, *Project on the rock paintings in Cappadocia. Analytical investigations of the church of the Forty Martyrs in Şahinefendi*, in XXXI *International Symposium of Excavations, Survey and Archeometry* (Denizli, 24 - 29 May 2009).

choose which sights to visit.

The church of the Forty Martyrs is situated in a suggestive landscape and in a very complex settlement. An added value of the site might be to create a wide-ranging itinerary starting from the church of the Forty Martyrs and the Monastery and leading to the archaeological area of Sobessos. This itinerary would include the genesis of the anthropization of the surrounding valley so that the visit would encompass a vast chronological period. With this in mind, a project is underway to create an itinerary connecting the sites of Ürgüp, Mustafapaşa, Cemil, Şahinefendi and Mazi.

SECOND PATH: CONSERVATION PLANNING PROJECTS OF THE FORTY MARTYRS CHURCH IN ŞAHİNEFENDİ

The data collected on the basis of the diagnostic plan and the documentation regarding the state of conservation have become the foundation of the restoration project for the wall paintings of the church of the Forty Martyrs.

The restoration of the wall painting of the church of the Forty Martyrs at Şahinefendi, programmed for the coming year, foresees a study of the state of conservation. Thanks to the large one-span wooden scaffold set up inside the church of the Forty Martyrs during the 2008 campaign with the assistance of the Archaeological Museum of Nevşehir, the entire painted surface (circa 72 m²) has been analyzed (Fig.11).

On the basis of the observations that emerged from a close visual and tactile analysis of the painted surfaces, a graphic documentation of their state of conservation was carried out with black and white A3-format photographic prints.

The graphic registration, instead, was made using AutoCAD software whereby thematic tables were mapped out relative to the state of conservation on black and white photographs that were re-elaborated and lowered in tone using Photoshop software.

In all 75 tables were divided into two groups.

The first group refers to the state of conservation of the support and the

preparatory layer of the paintings (Fig.12).

The second, instead, concerns the phenomena of deterioration affecting the pictorial surface (Fig.13).

Following the indications of the *Koruma Kurulu of Nevşehir*, the definitive draft of the restoration project has produced a group of 38 tables pertinent to the programming of future interventions of restoration.

In conclusion, I am pleased to inform that the development of the mission of research and conservation in Cappadocia has been associated with initiatives destined to communicate the experience and results of the mission.

-The first of these initiatives, a congress entitled "Land of rocks and paintings. Cappadocia and the Mediterranean", took place at the Tuscia University at Viterbo from 19 to 21 June 2008 (Fig.14). The proceedings are in the course of being printed.¹⁵

- The second initiative, entitled in translation "Land of rocks and painting. Cappadocia and rupestrian Lazio", took place in Rome from 17 June to 3 July at the Ex Gil space in Trastevere. The aim of this photography exhibition was to present the wonderful land of Cappadocia to a vast public and create a link with the rupestrian environment of Lazio, in particular with the site of Vallerano. The photography exhibition was accompanied by an articulated series of events: a screening of the movie *Medea* directed by Pier Paolo Pasolini, which was partially filmed in Cappadocia, a reading of the poems Pasolini wrote during the weeks he was filming there, and conferences in which specialists will introduce topics relative to the rupestrian civilization in Cappadocia and in Tuscia (Fig.15).

A bilingual catalogue in Italian and Turkish was also published.¹⁶

15 Compare footnote 3.

16 Compare footnote 2.



Fig. 1: 2008 Survey's team

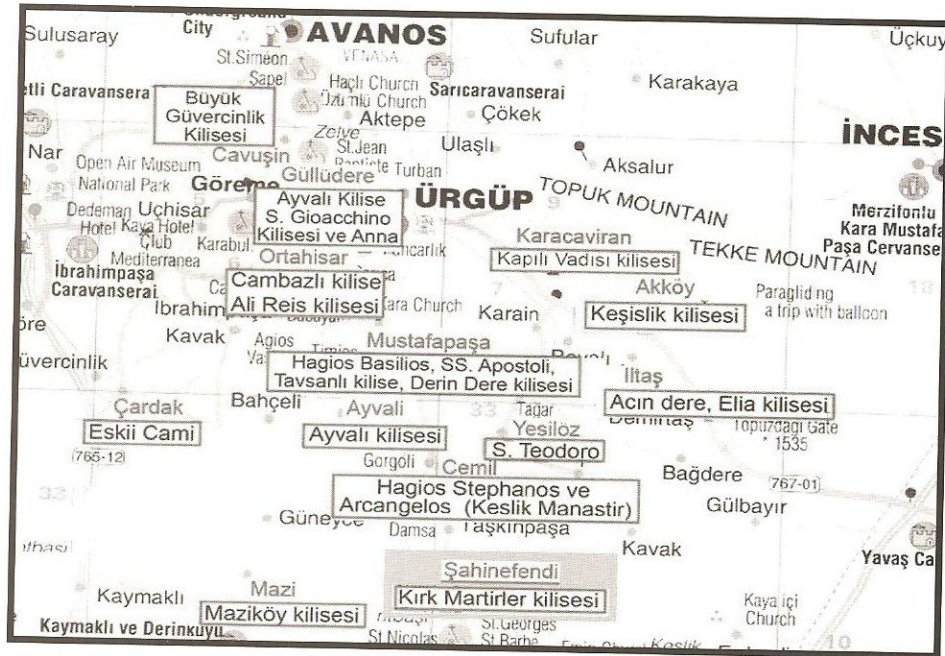


Fig. 2: Map of the sites with pictorial decorations located in the region south of Ürgüp

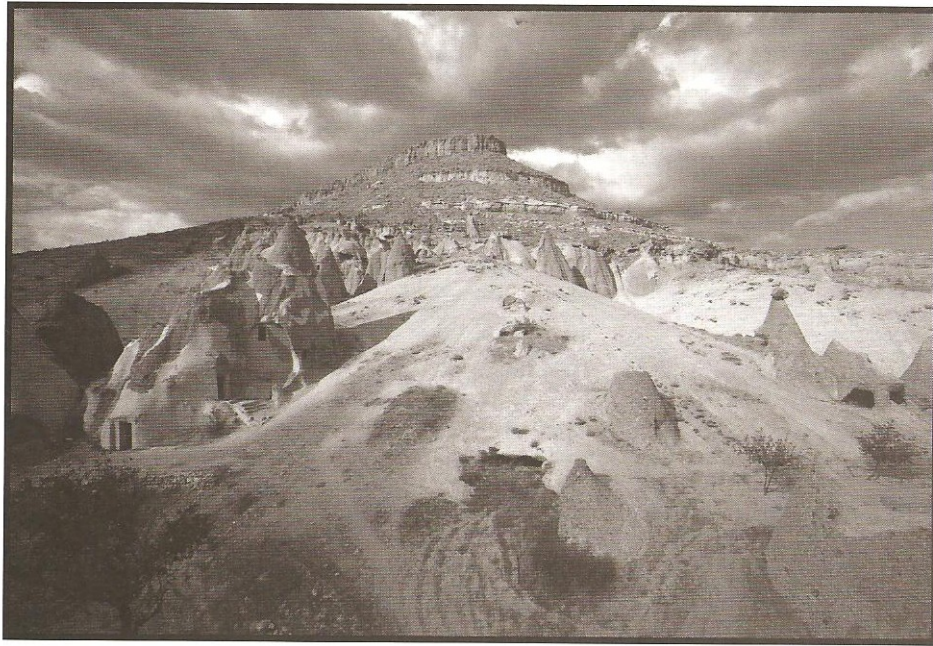


Fig. 3: Şahinefendi, southern slopes of the *Orta Tepe*



Fig. 4: Şahinefendi, *Beş Parmak Kilisesi* monastic complex



Fig. 5: Şahinefendi, *Beş Parmak Kilisesi* monastic complex, internal view of the church

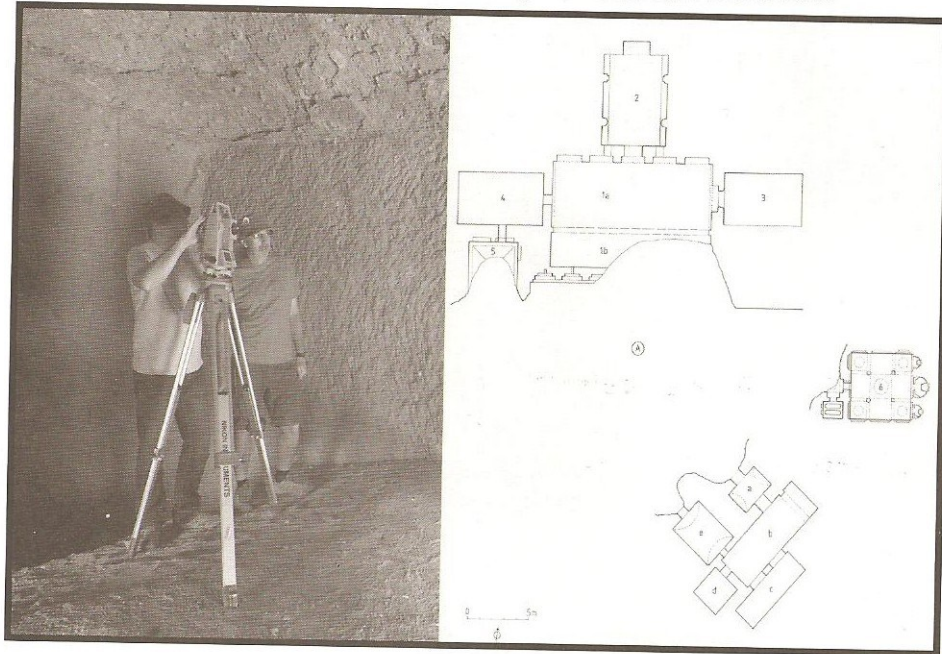


Fig. 6: Şahinefendi, *Beş Parmak Kilisesi* monastic complex, implementation of the 3D digital model



Fig. 7: Şahinefendi, church of the Forty Martyrs, *lacunae* and *graffiti*

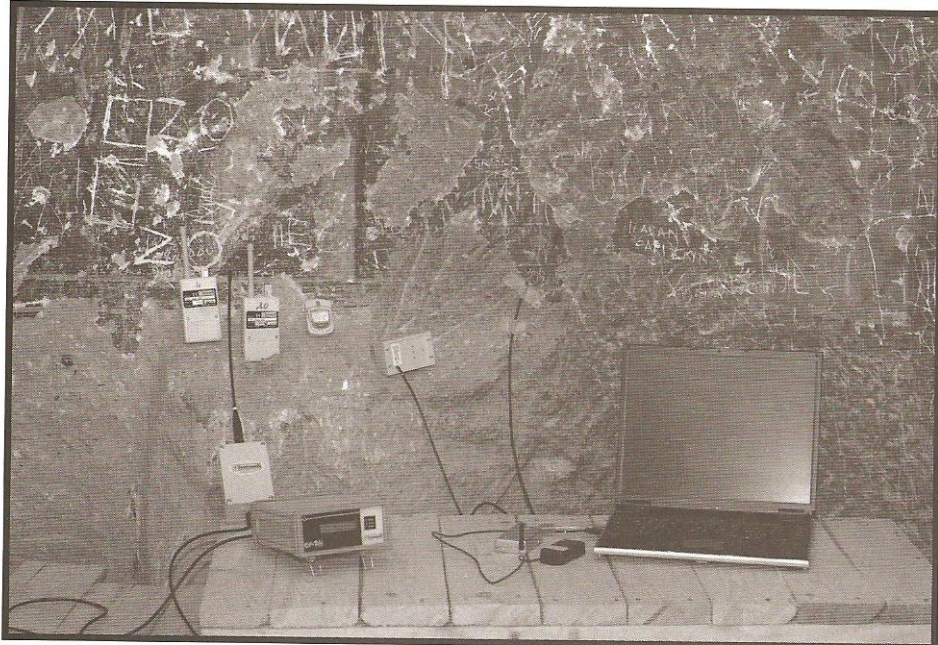


Fig. 8: Şahinefendi, church of the Forty Martyrs, pilot system for monitoring at a distance the micro-climatic conditions



Fig. 9: Mustafapaşa, church of the Most Holy Apostles; Güllü Dere, church of Saint John; Göreme, New Tokali

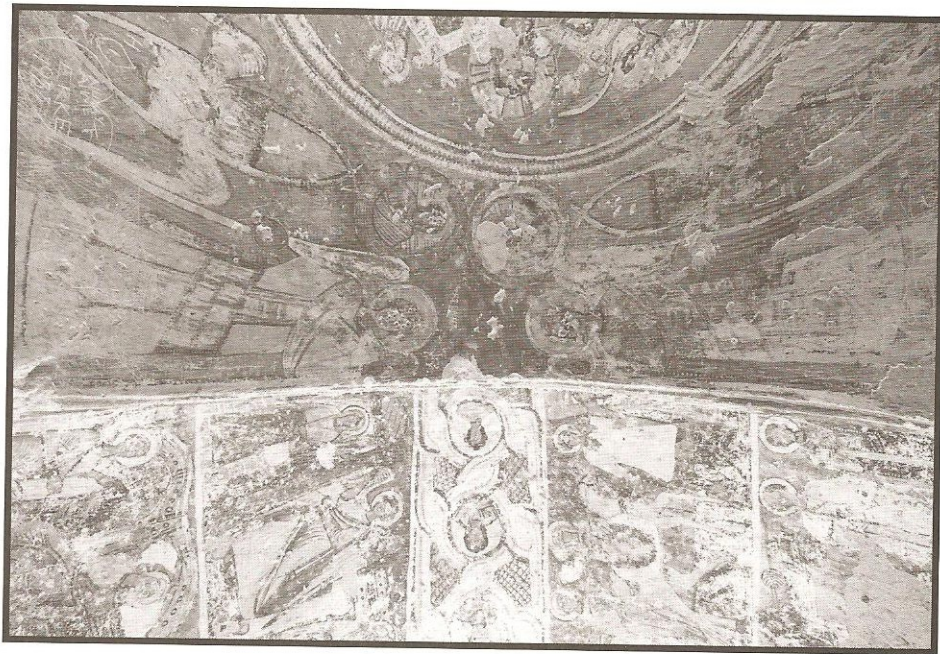


Fig. 10: Mustafapaşa, Tavşanlı Kilise, internal view

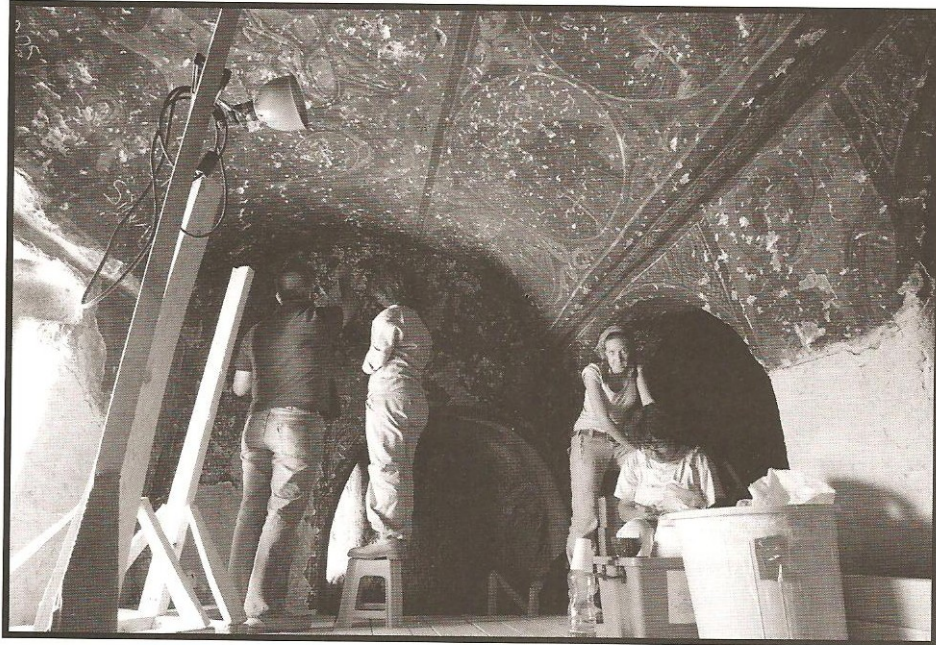


Fig. 11: Şahinefendi, church of the Forty Martyrs, visual and tactile analysis of the painted surfaces

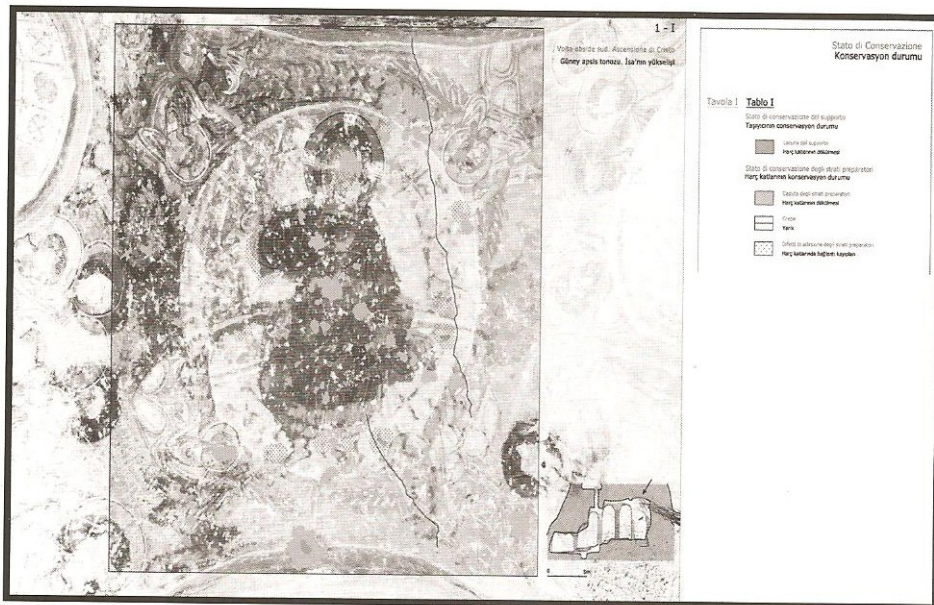


Fig.12: Şahinefendi, church of the Forty Martyrs, mapping of the state of conservation of the support and the preparatory layer

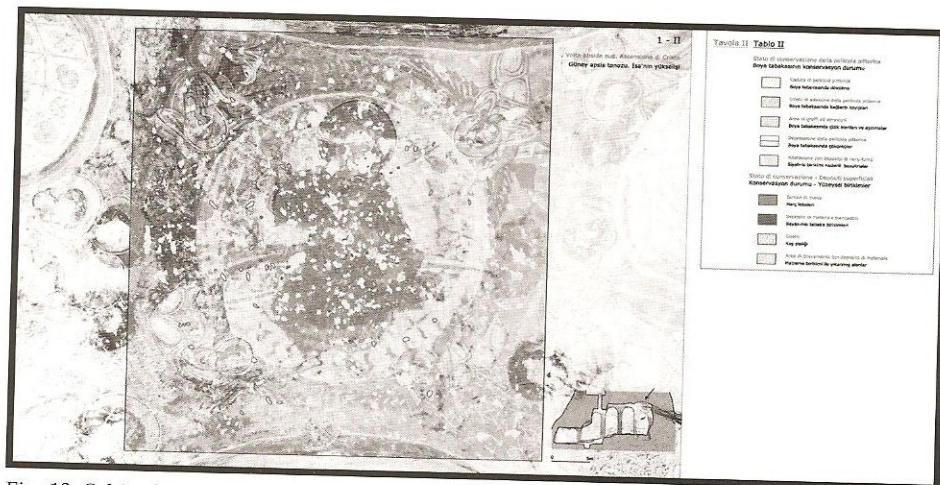


Fig. 13: Şahinefendi, church of the Forty Martyrs, mapping of the phenomena of deterioration affecting the pictorial surface

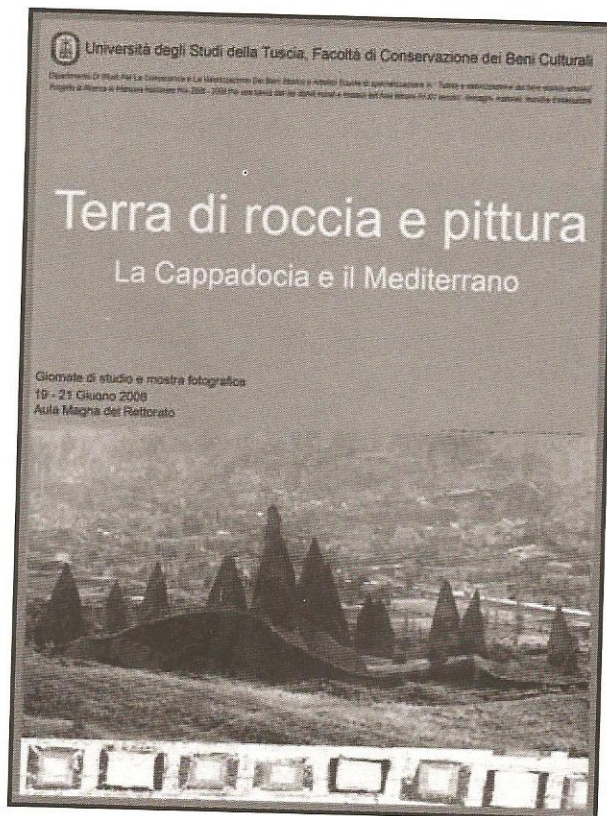


Fig. 14: Poster of the conference "Land of rocks and paintings. Cappadocia and the Mediterranean"

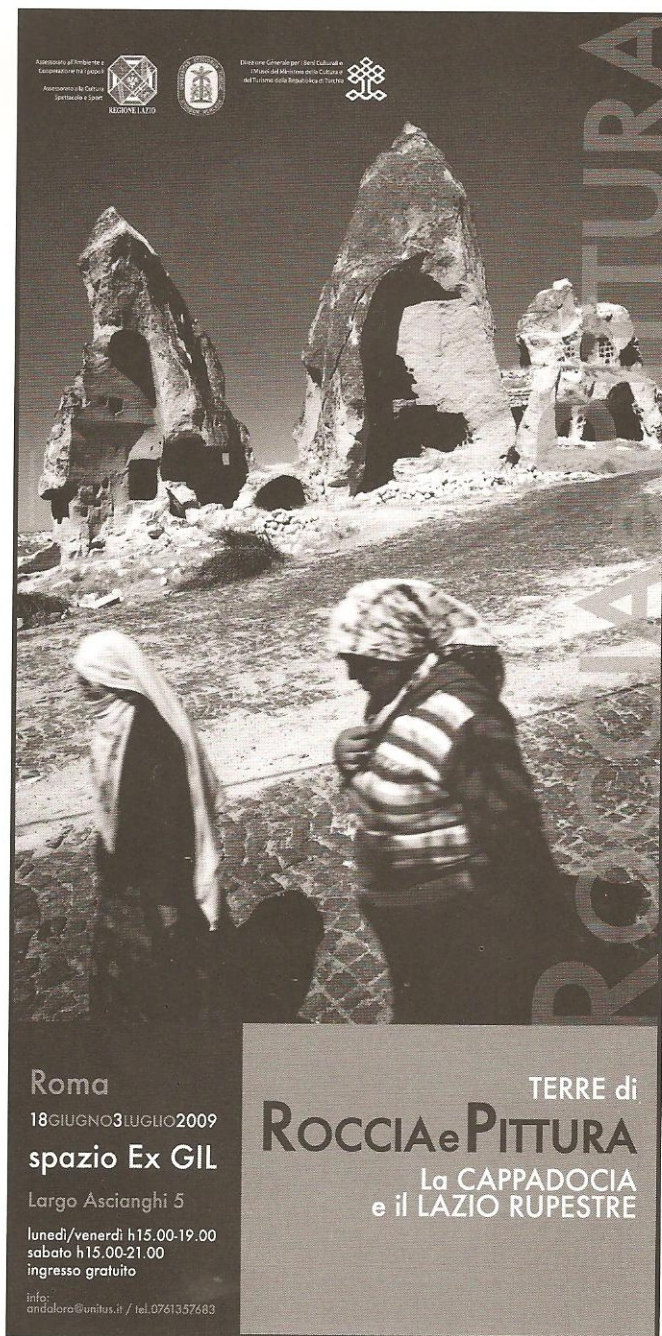


Fig. 15 Poster of the photographic exhibition "Land of rocks and painting. Cappadocia and rupestrian Lazio"