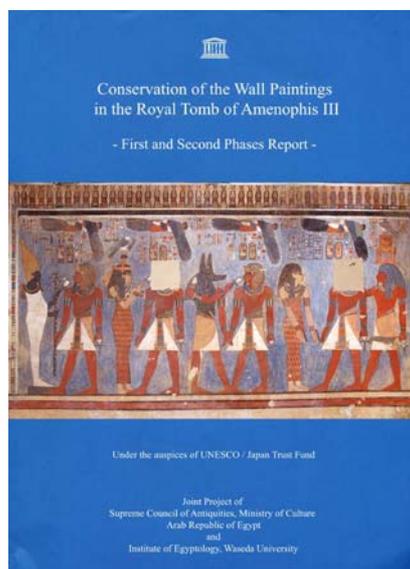


Yoshimura S. & J. Kondo. Eds. 2004. Conservation of the wall paintings in the royal tomb of Amenophis III. First and second phases report. – Paris and Tokyo, UNESCO and Waseda University

Book review by R.H. Wilkinson



This work represents the published report on the first and second phases of an ambitious conservation project conducted by the Institute of Egyptology of Waseda University and the Egyptian Supreme Council of Antiquities (SCA) under the auspices of UNESCO and the Japan Trust Fund. The project goal is the preservation of WV22, the tomb of Amenophis (Amenhotep) III in the Western Valley of the Kings and is ambitious because this important tomb has suffered extensively both from damage to its structural integrity as a result of flooding, rock expansion, and seismic activity, and also from damage to its parietal decoration as a result of flooding and human predation.

The structure of the book is somewhat complex and will be followed in this review for the sake of clarity. It is divided into seven sections with I–III giving introductions and prefatory remarks and section IV–VII which contains the bulk of the text – being divided into two parts corresponding with the two phases of conservation accomplished so far in the tomb. Each of these two parts contains chapters on the same sequence of topics written by the member(s) of the team responsible for that area of the work.

Section IV, Part 1 begins with an introduction by project director Sakuji Yoshimura and field director Nozomu Kawai. This introduction stresses the fact that between 1989 and 2000 Waseda University had already accomplished fifteen seasons of excavation and study in the tomb of Amenhotep and had come to a substantial knowledge of the tomb before it began work on its conservation. This approach is important in itself as the work of tomb clearance, analysis, and conservation has too often been separated in the past among teams with little or no interaction. The principle of excavation and conservation being carried out by the same expeditions is now being stressed by the SCA and represents a valuable advancement of archaeological method well implemented by the Waseda Team. More than a rote preface, the directors' introduction also candidly discusses problematic aspects of their work and discusses ways they might improve their own techniques in future phases of the project.

The introduction shows that before the project was begun in earnest, a season of trial cleaning and consolidation tests was carried out by Giorgio Capriotti, the chief conservator for the project and a member of the team that accomplished the conservation of the tomb of Nefertari. The first phase of the project was then begun in March of 2002 at which time a condition survey of the wall paintings, various technical examinations and photographic recording of the walls were all carried out before actual conservation intervention was affected by Japanese, Egyptian and Italian members in rooms 'I' (the decorated antechamber) and 'J' (the burial chamber) of the tomb.

The illustrations accompanying this introductory chapter, as throughout the book, are a mixture of black and white and colour plates. Some of the black and white illustrations suffer from being overly dark, but the colour images are generally of good quality. Of particular value are the images showing sections of the tomb walls before and after conservation. In these instances the colour temperature of the before and after images is often somewhat different, however, and the two shots are sometimes taken from slightly different positions making exact comparisons difficult. Nevertheless, it is obvious that the conservation work carried out in the first

phase was widely and quite dramatically effective. Rooms I and J were both extensively decorated with scenes of the king before various deities and with texts from the *Amduat*, but the paintings in these areas had been damaged over time and had become so ingrained with dirt that many areas of the representations could hardly be seen before cleaning and conservation were effected.

Chapter 2 begins a sequence of essays on specific aspects of the study of Amenhotep's tomb and its conservation and covers the biological investigations conducted at both the macro and micro biological levels. The only really problematic larger organisms, as in most tombs of the Valley of the Kings, are bats, and the destructive aspects of these creatures are detailed. The microbial fauna and flora of the tomb were also carefully assessed, and airborne micro organisms were sampled before and after conservation sessions in order to consider even the effects of the conservators themselves.

In chapter 3 the micro environmental evaluation of the tomb is briefly covered. Although such aspects as temperature, humidity and wind velocity were measured before and after treatment, relatively few details of these measurements are actually given, and some details such as the times of day of humidity sampling are not provided at all. More information is given for this area later in the report for Phase II but it is unclear why little is reported here. On the other hand, chapter 4, 'Analysis of pigments and plaster', is one of the most detailed and thoroughly documented essays in the book and describes the characterisation of the materials used in the decorated surfaces of the tomb through the use of x-ray diffractometer, fluorescence, spectrometer and optical microscopy. Despite the rather technical nature of this chapter it should be of interest to Egyptologists in terms of the differentiation and analysis of pigments used in the tomb's decoration and the careful analysis of intrusive aspects such as inclusions and scratches in the painted surfaces.

Chapter 5, 'Rock mechanical investigation', gives an assessment of the geological and hydro-geological aspects of the tomb as well as environmental conditions and weathering factors. The sedimentary rock formations known as 'Theban limestone' and 'Esna shale' (and a transitional zone found between the two strata) in which the tombs of the royal valley are cut produce an imbalance of drainage and rock swelling which is a major problem for the stability of many tombs including WV22. A section on tectonics and seismicity looks at the geological fault systems of the area which also affect the structural integrity of the tomb and its decorated surfaces. The investigation of these factors included a geological discontinuity survey, Schmidt hammer tests and elastic wave velocity measurements as well as *in situ* monitoring of rock mass behaviour such as fault widening. Although much of this data may not seem directly relevant to Egyptologists, it is important and worth reading by excavators both in terms of the methodology applied and its conclusions.

Chapter 6 is divided into three separate essays covering Egyptological and art historical studies. The first, by Jiro Kondo, summarises some of the notable observations made in the course of cleaning and conservation of the decorated rooms I and J. Of particular interest is the fact that in room I the Horus name in the *serekh* of the *ka* figure which accompanies the figure of the king in several representations was in all cases (including sections decorated after the death of Amenhotep III) that of the king's father Tuthmose IV. This effectively demonstrates that the inclusion of the person of Amenhotep's father was a conscious one relevant to the nature of the royal *ka* rather than just a tribute to the earlier monarch or an indication that the tomb was begun by him. In room J a number of variations from the published text of the Book of *Amduat*, which was studied in this tomb by Eric Hornung, were found, and the need for further study of these inscriptions is stressed. The pillars in room J were also found to have been decorated in different and discrete stages, including a final stage which includes aspects usually diagnostic of Amarna period representations. The second essay, by Nozomu Kawai, provides a more detailed look at the styles utilised in the decoration of specific walls and sections and the representation of specific figures and some epigraphic observations. This essay also contains particularly interesting comments on the use of various pigments and compounds in the tomb's decoration such as the use of yellow orpiment (arsenic sulphide) as a substitute for gold, and the possible symbolic use of red orpiment in sections of room I decorated after the death of the king. Essay three, by Misao Ohno, takes an even more detailed look, from a technical perspective, at the painting techniques and processes utilised in the tomb. The techniques utilised by the conservators in the reconstruction of some of the damaged or removed representations are also outlined.

Chapter 7 gives a brief overview of social environmental research relating to the area of modern Luxor and is oddly out of place as it interrupts the flow of the essays dealing with conservation. It should have been positioned earlier in the book.

Chapter 8 contains three essays which continue the theme of conservation of the wall paintings. The first, by Giorgio Capriotti, the team's chief conservator, gives a concise yet clear summary of the various problems affecting the condition of the tomb's painted plaster, the typology and consequences of biological attacks (mainly bat guano), and (equally destructive in many cases) previous human interventions aimed at 'conserving' the painted surfaces. The illustrations for this essay are small but aptly chosen and clear. The second essay in the chapter represents a very brief (two page) summary of some of the methods of cleaning and consolidation used by the conservators. The final essay is another brief treatment of the condition of some of the tomb's surfaces prior to conservation and the methods of conservation utilised.

Chapter 9, 'Photographic documentation', is disappointing in giving little information regarding this important aspect of conservation, while chapter 10 represents a brief summary by the project's principal directors of the work accomplished in Phase I.

Part 2, beginning on page 187, covers Phase II of the project's work (further conservation of the walls of the burial chamber J, and the conservation of the so-called 'well' room, E) and repeats the pattern of the above chapters except for the fact that no further biological investigation was carried out so that in the second sequence the chapters are numbered differently. After the introductory essay and a chapter on micro environmental studies, chapter 3 continues the analysis of pigments and plaster. This chapter gives detailed results of the analysis of a number of samples taken from different points throughout the tomb and will be of particular interest to conservators. In a similar manner, chapter 4, 'Rock mechanical investigations', gives the results of the *in situ* measurements taken by the monitoring systems installed in the tomb.

More notable for the Egyptologist are the essays of chapter 5, the Egyptological and art historical studies. The first essay discusses how figures and portraits of Amenhotep III from room I were studied and compared with similar representation from the king's memorial temple at Kom el-Hettan, though conclusions of the comparison are not given. The texts of the *Amduat* from the burial chamber are then briefly considered along with scenes of the king before various deities from the room's six pillars. A second essay does not seem to have any specific focus but gives a few further details regarding the representational and epigraphic material, most notably a brief discussion of different types of drafting employed in the painting of the texts from the *Amduat* and previously unknown inscriptions which were revealed through cleaning.

Once again, a limited survey of social environmental research and present utilisation of the Valley of the Kings disrupts the flow of the Egyptological and conservational essays, but these resume in chapter 7 with several essays giving useful information about techniques employed in the second phase of the tomb's conservation. A conclusion (chapter 9) stresses that the contributions of this project to Egyptology have been immediate and worthwhile. Previously unrecorded representations and inscriptions have been revealed and studied, and often perilously endangered areas of the tomb have been successfully stabilised and restored. Nevertheless, much conservation work remains to be done in the tomb. For example, major cracks in areas of the tomb's ceiling, in pillar 3 of the burial chamber, and in the wall between that chamber and one of its anterooms are just some of the many areas of structural concern. Appropriate systems of ventilation, lighting and wall protection are also needed if the tomb is to be eventually opened to public viewing as planned. But these are all subjects of future phases of the overall conservation project, and for now the Egyptologists, conservators and administrators who have completed the first two phases of the project are to be commended for the excellent work accomplished in the tomb, and for the production of this detailed report.

It must be admitted that there are some problems with the book. The layout is sometimes a little confusing due to the style of numeration of parts, sections and subsections, and there is also some noticeable unevenness in the treatment of certain subjects. For example, while the excellent analysis of pigments and plaster accomplished in Phase I (section IV, part 1, chapter 4) is over 40 pages in length, the equally important micro-environmental survey (chapter 3) is given only 5 pages. Most noticeably, there are many small problems with the use of English throughout the book that seem to result from poor checking of the English manuscript, but these problems, while sometimes distracting, are fortunately almost all of a minor nature and the essential meaning of the text is always clear. Nevertheless, publication of the final phases of this project should involve better correction of the use of English in the text.

On the positive side, this book represents a timely and, in most cases, thorough report of an important conservational project which should be studied by all Egyptologists working in the Theban necropoleis, and by archaeologists involved in similar work elsewhere. The book contains a great deal of useful information and represents a worthwhile contribution to the literature on WV22 and conservational practice alike.

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