A GENERAL STUDY OF MINOAN FRESCOES

with particular reference to

unpublished wall paintings

from Knossos

VOLUME I: PART I

THE TEXT

of

a thesis submitted for the

Degree of Ph.D. from the

University of Newcastle upon Tyne

by

M.A.S. Cameron.

ABSTRACT OF A THESIS FOR THE DEGREE OF PH.D. FROM
THE UNIVERSITY OF NEWCASTLE UPON TYNE

A GENERAL STUDY OF MINOAN FRESCOES
with particular reference to
unpublished wall paintings
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by
M.A.S. Cameron

This four-part dissertation considers Minoan frescoes in their own right for a first time, with reference to unpublished paintings and nearly fifty new restorations, with a view to providing a new basis for historical reconstruction drawn from that source.

Earliest developments begin with Neolithic architectural use of mud plasters, the first painted plasters occurring in EM II settlements and simple decorative schemes in the First Palaces (1900-1700 B.C.). The sudden rise of pictorial naturalism in MM IIIA is explained by native cultural developments of the First Palace Period, not by foreign influences or "eideticism" which is rejected altogether.

A review of the motival repertory leads to consideration of six main "cycles of ideas" whence the painters derived their themes. The most important, confined to Knossos palace, depicts a major festival of grand processions and athletic activities before the chief Minoan goddess, and it illuminates the palatial architectural design. But five different systems of mural decoration characterise Minoan architecture as a whole, with regional and perhaps autonomous variations at Cycladic sites.

Technical considerations confirm "buon fresco" as the normal painting technique and distinguish Knossian town house and palace murals in construction and purpose. Similar distinctions in compositional design are also described.

A revier of eleven "schools" of Knossian painters and of regional artists precedes a detailed reconsideration of the dates of the frescoes on stratigraphical, stylistic and comparative evidence. Sir Arthur Evans's fresco dating should generally be lowered by one Minoan phase. Minoan pictorial painting ceases with the palace destruction at Knossos, c.1375 B.C. Major differences appear between pre- and post-LM IB frescoes, tentatively explained on the evidence of Aegean and Egyptian pictorial representations by the arrival at Knossos of a Mycenaean military dynasty, c.1450 B.C. Minoan wall painting finally disappeared in the LM IIIB period.

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PREFACE

Minoan frescoes from Crete and the Cycladic islands provide a memorably delightful, as well as historically important, testimony to the highest civilisation of the Aegean Bronze Age. This thesis attempts a review of those murals for a first time in their own right and discusses their most significant artistic and historical aspects and development. To that end, much unpublished fresco material is taken into account deriving primarily from the excavations of Sir Arthur Evans at Knossos at the turn of this century, to whose work this writer is first and foremost indebted.

The study of Minoan wall paintings, usually broken or burnt and difficult to date and interpret, is problematical, not least in their organisation for a written presentation. A four-Volume study seemed the simplest arrangement. Volume I, the Text, is in two Parts: Part I includes Chapters I-IX, a detailed Table of Contents to the whole Volume, and lists of Abbreviations and of Figure Illustrations to the Text; and Part II contains Chapters X-XII, two Appendices on the Find-Places and Circumstances of Discovery of the Frescoes and a Glossary of Terms respectively, and a Select Bibliography, thus presenting much of the evidence for the dating of the frescoes and conclusions arising from it. Volume II presents black and white photographic plates, and Volume III a Catalogue to those plates and to sixty colour-slide transparencies in the pocket of the back cover of that Volume. Volume IV contains off-prints of all the writer's previous publications as Supplementary Papers to discussion in Volume I. The Plates of Volume II are arranged for the most part in the order of discussion in Chapters I-IV and are supplemented by many restorations and drawings of motifs, here presented as Slides, or as Figure drawings in Volume I, to which the reader should turn especially for suggestions as to how "ensembles" of the fragments of the paintings may once have appeared in their pristine compositions.

Account is taken of previously published research up to the

year 1970, after which date it has been possible to include only outstanding contributions in fields closely related to the aims of this dissertation. Friends have supplied many of the Plates in Volume II, there acknowledged; but the coloured restorations in the Slides are entirely the original work of this writer. Of these, only one has previously been published (SLIDE 6: Volume IV, J). A few others first appeared in this writer's thesis for the Degree of M.A. (Liverpool 1964) but all of them have since been revised, often in the light of newly recognised additional fragments of the scenes.

The approach to the contents of Volume I is essentially chronological; but following Chapter III, bringing the early development of Minoan wall painting to the eve of pictorial fresco representation, more widely ranging discussions of important aspects of the paintings become possible and desirable. Chapter IV describes the repertory of mural motifs; Chapter V offers interpretations of the uninscribed scenes, while Chapter VI relates them to their architectural contexts and to patterns of mural decoration in different classes of building. Chapters on the frescoes' compositional design and technical construction follow.

A point of departure from any previous study in this field is reached with Chapter IX which for a first time examines the frescoes as works of particular artists or groups of painters here termed "schools". This is a first and essential step to be made in any enquiry into the chronology of an art such as this especially because it is unfortunately the case that the dating evidence of the find-places and circumstances of discovery of the frescoes (Appendix A, Volume I, Part II) is often inconclusive and even unreliable. The chronology of the frescoes is then reviewed in Chapter X (Volume I, Part II) - in some detail and with a view to defining the characteristics of mural painting of a period, not so much to attempt to refute those who have questioned the received chronology of Minoan studies but rather in order to establish Minoan frescoes as a source for reliable historical reconstruction. In the light of new conclusions on

the dating of the frescoes, Chapter XI sets out the evidence from Crete, the Mycenaean mainland and Egypt for interpretation of the LM II-IIIA 1 figured scenes from Knossos and Hagia Triada as depicting primarily Mycenaeans rather than Minoans. This may be a "heretical" view - but then few scholars have seriously posed the question: "Should we not expect this at that time?"

Historical, artistic and sociological conclusions of interest in Chapter XII bring discussion of the paintings to a close.

The reader may wish to refer frequently to present dating of the frescoes and to their find-circumstances: the Tables of Contexts between pp.382 and 451, with references to Appendix A and to attributions to a particular painter or "school", and the Tables of Proposed Dates of Manufacture of the Frescoes between pp.588 and 600, with page references to chronological discussion and comparison and with each item cross-referenced to the Tables of Contexts, may prove helpful. Those Tables, the List of Contents at pp.iiiff and the title pages of each chapter together index much of the content of Volume I.

The organisation of Volume II is explained in that volume. But it may be useful to repeat here that where coloured labels accompany a photograph, their numbers on RED refer to a correspondingly numbered coloured SLIDE; on BLUE to a coloured restoration (since revised) in the writer's thesis for the Degree of M.A. from the University of Liverpool; and on GREEN to a new restoration offered as a Figure in the text of Volume I.

Much of the original material, of which the finest is on public display in Greek museums, is presently housed in the following places:

the Archaeological Museum of Herakleion on Crete;

the Stratigraphical Museum at Knossos, Crete (storage only);

the National Archaeological Museum of Athens;

the Ashmolean Museum at Oxford, England.

To their Directors, Assistant Directors or Departmental Curators and technical assistants the writer is grateful for allowing him access to the fresco material in their care; especially to Dr. Stylianos Alexiou of the Herakleion Museum upon whose good offices and the skill of his workshop technicians the writer has perforce relied heavily, particularly before 1968 when working facilities in Herakleion Museum were considerably more flexible than broader circumstances since then have permitted. Also to the Directors, especially Mr. A.H.S. Megaw with his wife, Mrs. Electra Megaw, and the Management Committee of the British School of Athens from 1962 onwards for permission to make use of the frescoes from Sir Arthur Evans's and more recent British excavations at Knossos.

Special thanks are due to those who as friends and teachers have guided the writer over the years: the foremost among them are Mr. M.R. Popham and Mr. M.S.F. Hood who have given constant encouragement and permission to use the results of their own Minoan researches; also to tutors and supervisors at two British universities: to Professor F.W. Walbank and Mr. J.V.H. Eames of the University of Liverpool who launched the writer on his Minoan research (1961-1966); and, more recently, to Mr. B.B. Shefton of the University of Newcastle upon Tyne with whose encouragement the writer was elected to a Sir James Knott Fellowship for research at that university from 1966-1969 and whose onerous charge it has been to supervise the present thesis.

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Warren. To colleagues in the sphere of Aegean Bronze Age frescoes who have kindly exchanged information and study-visits with the writer: Mrs. K. Coleman, Mr. B. Kaiser, Mrs. M. Shaw, and particularly Dr. Helga Reusch whose painstaking work in rehousing the fresco material from Cretan sites in store in the Herakleion Museum was barbarously checked by the rise of the Berlin Wall. To friends and scholars in other fields: Miss S. Benton, Mr. J. Betts, Dr. K. Branigan, Mr. W.C. Brice, Mrs. H.M.C. Brock, Mrs. A. Brown, Dr. H.W. Catling, Dr. C. Cook, Professor H.W. Fairman, Dr. J.S. Gartlan, Miss M.A.V. Gill, the late Professor E. Grumach, Dr. D. Hardy, Professor E. Harrison, the late P. de Jong, Mr. J.F. Lazenby, the Rev. V.E.G. Kenna, Mr. K.A. Kitchen, Professor C. Nims, Professor D. Page, Mr. J. Tzedakis, and Mr. G. Xylouris. To Professor W.R. Fenwick who suggested improvements to the drawing of hands in the original for SLIDE 54 and to Ollie deKergommeaux who executed the colouring of the restoration at SLIDE 59. And not least to the Secretaries of the London and Athens branches of the British School at Athens, Mrs. M.J. Thornton and Mrs. J. Rabnett.

The typing of this thesis was done by members of the Rutherford College typing pool of the University of Kent at Canterbury (Chapters I-VIII, and Appendix B); by Mrs. J. van Fleet and Mrs. L. Curtis of the University of Western Ontario (Chapters IX-X); by Mrs. P. Sims of London, Ontario (Chapters XI-XII, and pp.iii-xxvi), and the present writer (pp.24-29, Tables of Contexts and Dates of the Frescoes, Appendix A and the Select Bibliography). While every effort has been made to present a uniform typescript, national and international removals, the scarcity of IBM Selectric typewriters in Canada (as first used for Chapters I-VIII) and other pressing considerations have made this a formidable task.

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Newcastle upon Tyne and the University of Western Ontario. Much of the written text was prepared at the University of Newcastle upon Tyne but it was completed in Canada.

It remains to record thanks to many friends, and particularly to the writer's parents, for their special support and encouragement; Professor J.M. Cameron kindly read much of the script noting many improvements.

ABBREVIATIONS

AA:	Archäologischer Anzeiger
AAA:	Ἀρχαιολογικὰ Ἀνάλεκτα ἐξ Ἀθηνῶν
AC:	J.D.S. Pendlebury, The Archaeology of Crete (1939)
AE/NB:	Arthur Evans/Notebooks (Ashmolean Museum)
Aegyptiaca:	J.D.S. Pendlebury, Aegyptiaca (1930)
AJA:	American Journal of Archaeology
AM:	Ashmolean Museum
Analysis:	A. Furumark, The Mycenaean Pottery: Analysis and Classification (1941)
Arch. Delt.:	Ἀρχαιολογικὸν Δελτίον
Ath. Mitt.:	Jahrbuch des deutschen archäologischen Instituts
ASKA:	M.S.F. Hood, Archaeological Survey of the Knossos Area (1967)
BCH:	Bulletin de Correspondence Hellénique
BICS:	Bulletin of the Institute of Classical Studies (London)
Brice:	W.C. Brice, Inscriptions in the Minoan Linear Script of Class A (1961)
BSA:	Annual of the British School at Athens
CAH^2:	The Cambridge Ancient History, Second Edition
Chronology:	A. Furumark, The Chronology of Mycenaean Pottery (1941)
CMS:	Corpus der minoischen und mykenischen Seigel, Band I: Athens (ed. F. Matz, 1964)
Crete:	N. Platon, Crete (1966)
Crete and Mycenae:	S. Marinatos and M. Hirmer, Crete and Mycenae (1960, English edition)
DM/DB:	Duncan Mackenzie/Daybooks (Ashmolean Museum)
Ephimeris:	Ἀρχαιολογικὴ Ἐφημερίς
Europa:	Europa: Studien zur Geschichte und Epigraphik der frühen Aegaeis (Festschrift für Ernst Grumach) (ed. W.C. Brice, 1967)

Festos:	L. Pernier and L. Banti, Il Palazzo Minoico di Festos Volume II (1951)
Frauenfrieses:	H. Reusch, Die zeichnerische Rekonstruktion des Frauenfrieses im Boötischen Theben (1956)
Fyfe:	T. Fyfe, Painted Plaster Decoration at Knossos, in JRIBA X (1903), pp.107-131
Guide:	L.R. Palmer, A New Guide to the Palace at Knossos (1969)
Handbook:	J.D.S. Pendlebury, A Handbook to the Palace of Minos, Knossos (1933. 1954 Fifth impression)
HM:	Herakleion Museum
ILN:	Illustrated London News
Interconnections:	W. Stevenson Smith, Interconnections in the Ancient Near East (1965)
JEA:	Journal of Egyptian Archaeology
JHS:	Journal of Hellenic Studies
JRIBA:	Journal of the Royal Institute of British Architects
KChr.:	Κρητικὰ Χρόνικα
Kenna:	V.E.G. Kenna, Cretan Seals (1960)
KFA:	Sir Arthur Evans's Knossos Fresco Atlas (ed. M.A.S. Cameron and M.S.F. Hood, 1967)
MAM:	A. Parrot, Mission Archéologique de Mari (1956-59)
MC Thesis:	M.A.S. Cameron, Some Unpublished Fresco Fragments from the Minoan Palace at Knossos, Crete (M.A. thesis, University of Liverpool, 1964)
Minoica:	Festschrift zum 80.Geburtstag von Johannes Sundwall (ed. Ernst Grumach, 1958)
MMR:	M.P. Nilsson, The Minoan-Mycenaean Religion (1968, reprinted ed.)
Mochlos:	R.B. Seager, Explorations in the Island of Mochlos (1912)
Mon.Ant.:	Monumenti Antichi (for 1903, 1909 excavation reports from Hagia Triada)

MSV:	P. Warren, Minoan Stone Vases (1969)
OKT,B:	J. Boardman, The Date of the Knossos Tablets, in On the Knossos Tablets (1963)
OKT,P:	L.R. Palmer, The Find Places of the Knossos Tablets, in On the Knossos Tablets (1963)
Opus.Arch.:	Opuscula Archaeologica
PC:	R.W. Hutchinson, Prehistoric Crete (1962)
Penultimate Palace:	L.R. Palmer, The Penultimate Palace of Knossos (Incunabula Graeca XXXIII, 1969)
PM:	Sir Arthur Evans, The Palace of Minos at Knossos Volumes I-IV, and Index Volume (1921, 1928, 1930, 1935, and 1936 - with Dr. J. Evans)
Praktika:	Πρακτικὰ τῆς ἐν Ἀθήναις Ἀρχαιολογικῆς Ἑταιρείας
Pylos II:	M. Lang, The Palace of Nestor at Pylos in Western Messenia, Volume II: The Frescoes (1969)
Schachtgräber or Karo	G. Karo, Die Schachtgräber von Mykenai, Plates Volume (1930)
SM:	A.J. Evans, Scripta Minoa II (1952)
SMA XII:	M.R. Popham, The Destruction of the Palace at Knossos, in Studies in Mediterranean Archaeology Volume XII (1970)
SMK:	The Stratigraphical Museum at Knossos
Thera:	S. Marinatos, Excavations at Thera Volumes I-V (1968, 1969, 1970, 1971, 1972)
Tiryns II:	G. Rodenwaldt, Tiryns II: Die Fresken des Palastes (1912)
Urk:	K. Sethe and W. Helck, Urkunden des ägyptischen Altertums, Volume IV, on Dynasty XVIII inscriptions (1906-1930 with Übersetzung Heft 1-4, 1914, and 1955-1968 with Übersetzung 17-22, 1961)
Vasiliki:	R.B. Seager, Excavations at Vasiliki, in Transactions Pennsylvania I, Part III (1905)

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ADDENDUM AND CORRIGENDA

ADDENDUM:

Excavations at Thera, Volumes IV and V have only recently become available to the present writer. There Professor Marinatos supplies important evidence for a possible LM IA(early) date for the Thera wall paintings, refining their tentative MM IIIB/LM IA (early) dating in this study.

The frieze of monkeys (at (4) on the plan at p.768, Fig.137) and the northern section of the Oryx Beissa frieze (at (8) on the same plan) have each been shown to overlie an earlier painted stucco layer (monkeys: Thera V, p.37; oryx: Thera IV, p.33). Add that these pictures are themselves provincial versions of mural scenes at Knossos in the House of the Frescoes in MM IIIB/LM IA(early) - where the bird and monkey frieze, in turn, similarly overlay an earlier painted plaster layer (PLATE 85B) - and a date early in LM IA for the Theran frescoes becomes most likely. In that case, the chronological relations between frescoes and vase painting, on Thera at least, would seem closer than this study has allowed. Even so, the chronological precedence of the murals is not in doubt, and the present information does not significantly alter chronological or historical conclusions put forward below.

CORRIGENDA:

1. The diameter of the painted fixed hearth from the Royal Road/North site at Knossos may be more accurately estimated (p.215; PLATE 191 A-B; restored at Fig.37B). The best preserved black undulating motif near the surface edge measures 9cm in length and the corresponding segment of the circumference is 9.55cm. If these measurements were regular around the entire hearth, then there were forty such "undulations" in a circumference of 382cm ($360^{\circ} \div 9 = 40$, and 40 x 9.55cm). But $r = \frac{C(=382)}{2\pi}$, therefore r = 60.71cm. That is, the diameter was originally about 121.42cm at the top of the hearth and about 122.40cm at its base. The former measurement agrees exactly with 4 Minoan feet of 30.36cm per unit (121.44cm), as determined by J.W.Graham, and we may conclude the present hearth was made in accordance with the standard Minoan unit of measurement.

2. The pagination "jumps" from p.215 to p.217 but without omitting any part of the text; this was noticed too late to be corrected.

3. Vol.I, Fig.5(1), opp.p.50 (after PM III, p.508, Fig.353) is now unacceptable because the original drawing is both a misleadingly restored and an incorrectly identified version of the subject, probably a bull's leg, of the piece at PLATE 16C (as noted in Vol.III, p.22 here). Its discussion at Vol.I, p.50 should be deleted.

4. A "red stucco" floor from an EM I(?) house at Phaistos may now predate hitherto known red-painted stuccoes from EM II sites elsewhere as the earliest record of Cretan wall or floor painting (K. Branigan, The Foundations of Palatial Crete (1970), p.41).

5. Volume III, p.60, PLATE 56A corrects the provenance stated in Volume I, p.697 under "STONE VESSEL".

6. The following PLATES are now recognised as mounted upside-down: 131; 136A; and 139D.

7. The sea-urchin at SLIDE 36b should be "bistre", not black; and SLIDE 30 should lack the pink trace at the top right of the design. SLIDE 13v mistakenly reproduces a dress pattern for a necklace motif, as noted at Volume III, p.171.

CHAPTER I

INTRODUCTION

Discoveries and Previous Research p.2

Chronology p.5

The Geographical Background p.7

Fig.1

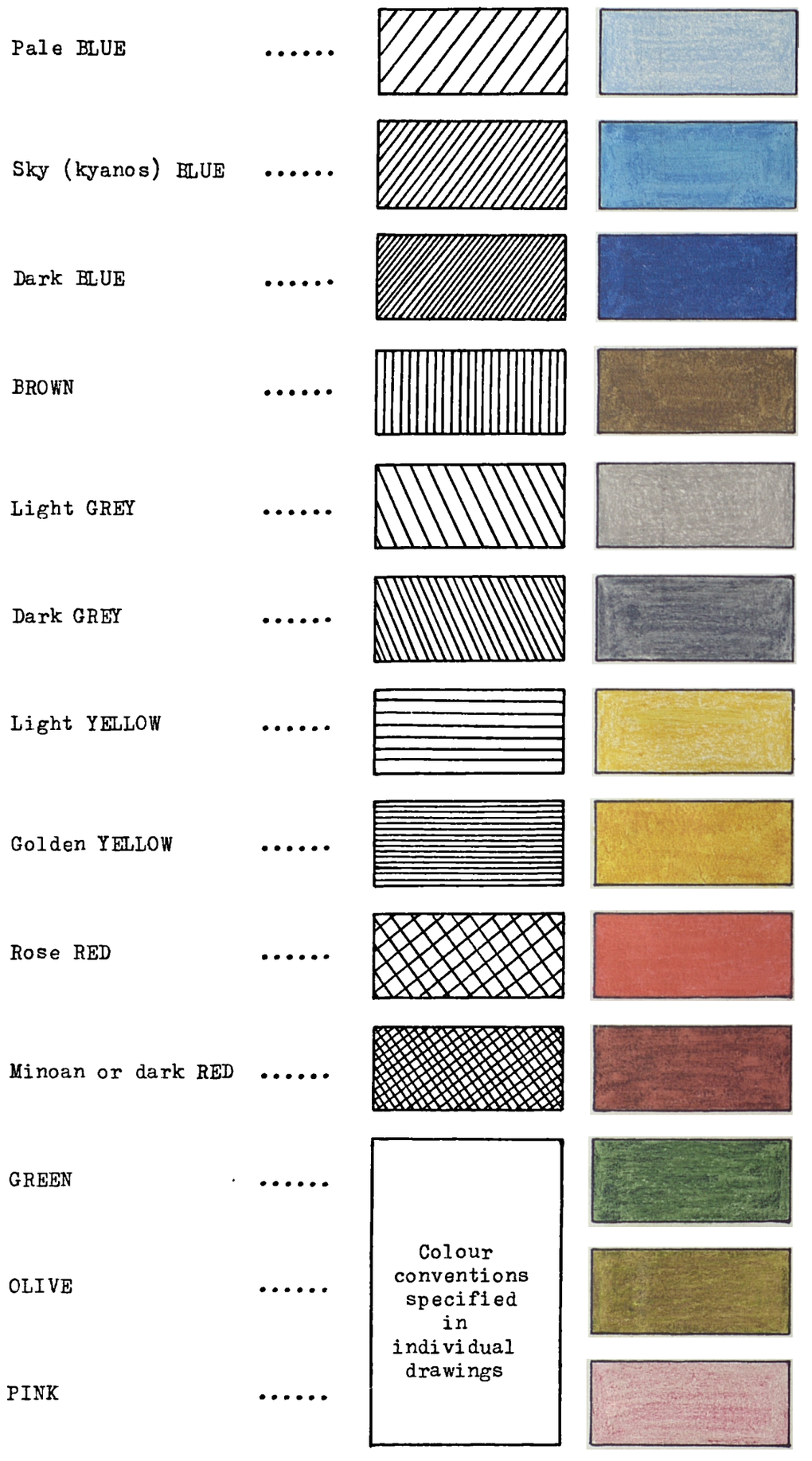


Fig.1: Colour Chart and "key" for Line Drawings

CHAPTER I

The exciting new excavations on the volcanic island of Thera, nearly 70 miles north of Herakleion in Crete, which Professor S. Marinatos is presently conducting, will remind the student of Minoan and Mycenaean archaeology that it was there, in 1870, that the two Frenchmen, Mamet and Gorciex, came across the first known fragments of Aegean Bronze Age wall paintings in a house destroyed by volcanic eruption about 1500 B.C. The style of the paintings (or "frescoes" as they are widely called), representing lilies and striped bands painted in bold colours on a lime plaster, and also that of the pottery found with them, was then unfamiliar to all until later, in the last quarter of the 19th century, Heinrich Schliemann, Christos Tsountas and H. Bulle discovered further examples of this "new" class of ancient wall painting at Mycenae, Tiryns and Orchomenos on the Greek Mainland; and in the closing years of that century, the British archaeologists R. C. Bosanquet, F. B. Welsh and Duncan Mackenzie unearthed the famous frieze of flying fish which had decorated the walls of a house at the site of Phylakopi on the island of Melos. These finds were given the name "Mycenaean" after that of the Mainland site.

Another class of "Mycenaean" artefact, small gems carved with pictorial scenes and signs of a pictographic script, led Sir Arthur Evans in 1893 to make his first visit to Crete where he was particularly impressed by the size and material wealth of an ancient site at Knossos. Walls, pottery, some seal-stones, and fragments of brightly painted stucco appeared at various points over a wide surface area. Good luck enabled Evans to purchase the site some years later and in 1900, with Duncan Mackenzie as his chief assistant, he began to reveal the most important and influential palace of an unknown and amazing civilization.[1] This he called

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[1] Time and Chance (Toronto 1943), a biography of Evans by his half-sister, Dr. Joan Evans, recounts the story.

"Minoan" after Minos, the legendary Cretan king. Evans continued his excavations in the Knossos region into the early 1930's, finding the debris of a mass of frescoes wide-ranging in subject and theme, technically unparalleled among ancient civilisations, astonishingly naturalistic and free in style, and vividly coloured. It is this material which must still be the foundation of any study of Minoan wall painting.

Within a few years of Evans's initial work at Knossos, Italian, American and British archaeologists had uncovered other interesting wall-paintings on the island, at the palace at Phaistos and at Hagia Triada (1900-1909), at Vasiliki (1904-1906) and on the island of Pseira (1909), and on the east coast at Palaikastro (1902-1906). After World War I, new discoveries in this field of art were made by successive officials of the Greek Archaeological Service, notably Dr. J. Hazzidakis, Professor S. Marinatos and Professor N. Platon, at Nirou Chani (1918), Tylissos (1919-21), Amnisos (1932), Prasa (1939-40) and elsewhere. In 1936 the Italians, under G. Monaco, excavated town houses with floral frescoes at Ialysos (Trianda) on Rhodes.

The last decade has seen many new discoveries of Minoan frescoes. In Crete, excavations near the Royal Road at Knossos from 1957-61 carried out by the British School of Archaeology at Athens, under the direction of M. S. F. Hood, brought to light fragments of many floral and geometrical compositions. Platon's discovery of a fourth Minoan palace at Kato Zakro (the third is at Mallia) has produced similar paintings, brought out between 1962 and 1968; other frescoes of a like nature have turned up in smaller excavations elsewhere in Crete in this period, at Katsamba, Knossos, Archanes and Upper Zakro to mention only a few places. In the Cyclades, which in the Middle Bronze Age came partly or wholly under Minoan rule, important deposits of frescoes have been excavated by Professor J. L. Caskey at Hagia Irini on Keos (1961-); and, from 1967 onwards, Marinatos's explorations on Thera have produced substantial evidence for further animal, floral, geometrical and human subjects on frescoes at Akrotiri,

in houses destroyed by the same volcanic eruption that overwhelmed the buildings discovered over a century ago by Fouqué, Mamet and Gorciex.

As a result of these and other investigations in Minoan Crete and in the Cyclades in the last seventy-five years, there is now a body of fresco material sufficiently large to provide a basis for a comprehensive study of the art - if only a provisional one, for we must echo Evans's words of 1900 in another context and say of the frescoes "Still they come !".

Evans outlined the main features of development in Minoan wall painting in his monumental survey of this civilization set out in The Palace of Minos at Knossos (1921-35), and since then various specialist studies of particular frescoes or aspects of the art have followed (v. Snijder, Platon, Reusch, Alexiou, Cameron, Shaw in the BIBLIOGRAPHY); other studies, notably one on three-dimensional relief frescoes by the young German scholar, Bernd Kaiser, are under preparation. But to date a general survey of Minoan wall painting in its own right is still lacking; it is this gap in Minoan studies which the present thesis attempts to narrow. In technical and artistic quality, as well as in quantity, the fresco material is remarkable and it ranges in date (if we may include the first known undecorated wall-plasters) from Middle Neolithic to the close of Late Minoan times (about 4000 to 1200 B.C.). Minoan frescoes evidently played in their time the foremost rôle in public artistic expression and communication through their widespread "permanent" display on house and palace walls. Moreover, in life-sized works in three-dimensional relief they seem to have taken the place of monumental sculpture in stone (almost entirely missing in the Minoan archaeological record).

For us today, the frescoes are a major source of information on the Minoan people and their way of life, on their religious activities and artistic sensibilities. Indeed, no other surviving pictorial art of that civilization approaches the wall paintings in point of intimately drawn and colourful detail. They throw important light on foreign connections in the Aegean Bronze Age; on the flora and

Fig.2

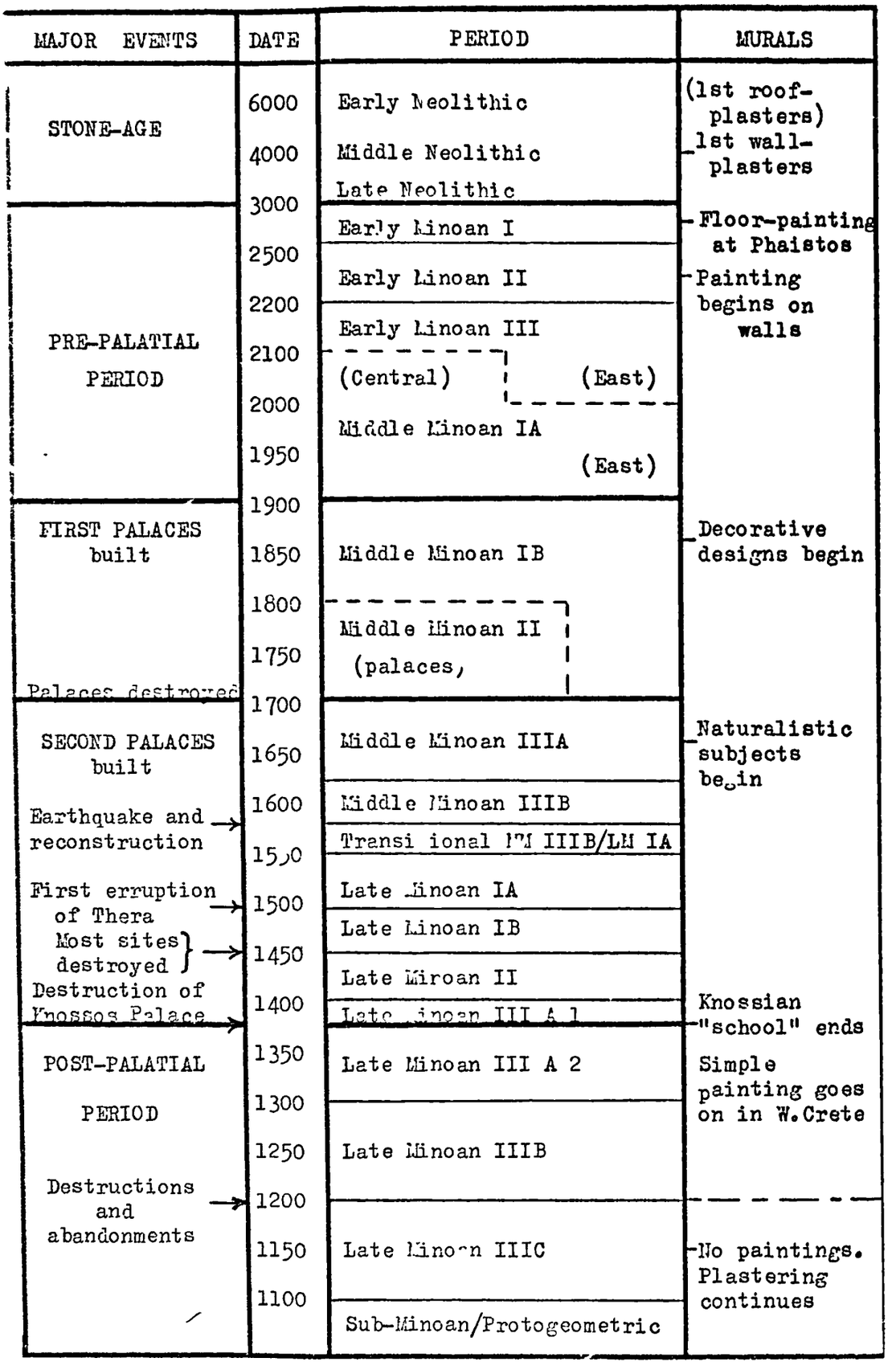


Fig. 1: Table of Chronology

fauna of Crete and elsewhere at that time; and on the history of the island until the last palatial centre, at Knossos, was destroyed at about 1375 B.C. The art apparently died out completely in the 13th century B.C., in West Crete. Such are the affinities with other Minoan arts and the important standing in the culture as a whole of this particular craft that it need surprise no-one that the two greatest scholars of Aegean Bronze Age studies - Sir Arthur Evans and Professor Arne Furumark - have described it without qualms as the "Major Art" of the Minoan civilization.

CHRONOLOGY

The dates and periods used in this study are set out in Fig.2 which is adapted from MSV p.3. The absolute dates are approximations, particularly so for all periods between 6000 and 1550 B.C. Three further points require comment.

(1) The discovery in 1961 of a large destruction deposit of LM I B pottery at Royal Road/North at Knossos has disproved the theory held by several scholars including J. D. S. Pendlebury, L. Banti and the late R. W. Hutchinson (PC p.290) that LM I B in the rest of Crete overlaps with LM II at Knossos.

(2) The second (if there was a second) and major volcanic explosion of Thera of the mid-15th century B.C. cannot be dated precisely and its assignment to c.1450 is an inference from the archaeological evidence for the absolute dating of the LM I B destruction of many Cretan sites. That date, a conventionally useful one, derives from consideration of Minoan-Egyptian correlations of the mid-15th century B.C. The widespread view that the LM I B destructions in Crete were one result of the second volcanic eruption of Thera is disputed by several distinguished scholars, among them M. R. Popham and also J. L. Caskey (v. Proceedings of the American Philological Society, Vol.113, No.6 (1969), p.441f).

(3) Sometime in LM II-III A 1, if not at the time of the LM I B destructions, the Mycenaeans occupied Knossos and administered the island from that palace, as shown by the Linear B archives. The FINAL DESTRUCTION of the palace at Knossos as a palatial centre is now put by most authorities on the border of LM III A 1-late and LM III A 2-early, c.1380/1375 B.C. This dating, and indeed the value of LM II and III A classifications of pottery, sealings, frescoes and other classes of object; have been doubted notably by Professor L. R. Palmer (v. Bibliography) who proposes a date for the final destruction of the palace at Knossos at the end of LM III B (c. 1200 B.C.) or slightly later. But, as others have already remarked, he consistently fails to consider the palace destruction and its different classes of material - for which chronologies have been devised independently of the stratigraphy of the palace at Knossos - as a whole in regard to (a) LM II and III A deposits outside Knossos, and (b) Cretan-Mycenaean-Egyptian correlations of the time. On the other hand, pending amplification of his reasons in a forthcoming book on the Late Minoan pottery, Popham has set out the evidence for associating LM II and III A 1 pottery with the final destruction of the palace in Appendix A to J. Boardman's contribution to the book On the Knossos Tablets (Oxford 1964), and elsewhere (v. Bibliography); and in addition he has emphasised that "a terminus post quem for the related Mainland pottery (Myc.III A 1) is assured by the finding in Egypt of Mycenaean vases of considerably more advanced style at Tell el Amarna, a town with a short life of some 15 years, dated approximately 1365-40" (JHS LXXXV, p.194).

A date for the final destruction of the palace at Knossos c.1380/1375 B.C. is accordingly adopted throughout this thesis.

THE GEOGRAPHICAL BACKGROUND

The first inhabitants of Crete, possibly from Asia Minor, arrived by the end of the 7th or early in the 6th millenium B.C. (6100±180) and they settled on a low hill called Kephala at Knossos. Why the first "Cretans" chose to inhabit Knossos need not concern us. But for the history of Minoan wall-painting it was a happy choice, as much for the geographical location of the site as for the geology of the district.

Communication with the outside world of the East Mediterranean was readily attainable. The Kairetos valley, with Knossos at the head or southern end, links the site to an extensive coastal plain where on the eastern side and at a mid-point along the north coast the ancient harbour town, Katsamba (modern Poros), that served the district was situated. Thence access could be gained via the Cycladic Islands to the Greek Mainland and Asia Minor, whence to the Levant and Egypt. A more direct route to southern Palestine and Egypt lay via the valleys and low hill-passes south of Knossos into the centre and on to the south coast of the island, and to the great plain of the Messara whose early settlements and cemeteries attest contacts and cultural communications with older civilisations across the Libyan Sea.

The Knossos district was well endowed with natural resources favourable to early settlement and to collection of raw materials upon which the "industry" of wall-painting depended. The hills surrounding the site offered large surface areas of soft Tertiary marls or limestone, called locally "kouskouras", a whitish rock easily cut and reduced to a powder by burning; chalk-like deposits occur a little further away, to the east of modern Poros near the air-port of Herakleion. These rocks provided the basic materials for white paints and for the finer plasters on which Minoan frescoes were eventually executed. The same hills also supplied harder limestone and gypsum (a crystalline variant, much used for fine stone-work in the palace) for general building purposes. The fertile

Kairetos valley contains alluvial clay and mud beds from which came the raw materials for pottery, mud-plasters and earth ochres, the stream itself supplying water, and tiny stream-pebbles (breccia, serpentine, quartzite) for admixture in coarse plasters, and reeds for roofing purposes. The ecology of the area - probably well-wooded in prehistoric times - provided yet other materials required in the course of building, wall plastering and decorative painting.

Such materials and ecological conditions evidently prevailed in most parts of Crete where early settlements were founded; indeed we may reasonably assume the sites were chosen with these considerations in mind.

CHAPTER II

ORIGINS AND EARLY DEVELOPMENTS,
to the end of the First Palatial Period
(c.6000-1700 B.C.)

The Material Origins p.10

The Development of Wall Painting as a Craft and Art p.18

The Find-Places and Dating Evidence of Early Neolithic to MM II Plasters p.23

CHAPTER II

Until very recently, the origins and earliest developments of Minoan wall painting were quite unknown. Both Evans and Noel Heaton (who first attempted a technical and scientific account of Minoan wall painting in papers published in 1910 and 1911) began their discussion of this art with the red-painted wall plasters of Early Minoan II settlements at Vasiliki and Knossos. They suspected, however, that the EM II painted plasters marked not only the beginning of a new art in Crete but also the end of an earlier period of evolution - perhaps going well back into Neolithic times - in which use had been made only of unpainted plasters. New excavations at Knossos in recent years, in particular into the Neolithic levels below the Central Court of the palace, have at last confirmed that suspicion, and it is now possible to reconstruct tentatively the probable origins and earliest stages of development which gradually led to the first appearance of painted walls in EM II times. Our starting point can now be transferred to the very dawn of "permanent" human settlement on the island, to the Early Neolithic Ib period at Knossos.

In this period the houses, replacing the apparently temporary "camp-site" of the first-known inhabitants of Crete (EN Ia: 6100±180 B.C.), were built of well-fired mud bricks placed sometimes on stone socles. Clearly the EN Ib people were exploiting the alluvial mud or clay deposits of the vicinity. It is hardly surprising, therefore, that each of the three houses (E, D and C) representing in chronological order three building phases in that period should all attest roofs constructed of layers of mud laid over sticks or reeds supported in turn by transverse beams or branches. Mud roof plasters, then, were the first step towards the emergence of a craft in mural plastering and painting (PLATE 1A). In the last house, C, the mud walls were also given smooth inner faces; and at this stage of architectural refinement it is only a small step to the application of mud for other

constructional or functional purposes, namely, for the provision of smooth flat floors and for facing roughish walls with smooth and "waterproof" coverings.

At Knossos evidence for progress in these directions is supplied by remains of buildings of the final phase of EN I (Stratum V) and by the earliest house of the next period, EN II (Sounding XY), the latter not only with a smooth hard clay floor but also with smooth-faced clay walls recalling those of the earlier House C.

The First Wall-plasters

These occur in the earlier of two building phases of the Middle Neolithic period at Knossos, c.4000 B.C., which is represented by House A. Of this house the excavator reports:

> "The walls (inner faces) appear to have been covered with a smooth clay plaster, which survived at several points, particularly round the buttress (in the south wall.) The plaster met the smooth clay floor at right angles."(1)

This undecorated plaster (PLATE 1B) supplied a protective casing to the softer pisé walls then being errected on the site. No evidence of plaster survived in House B, belonging to the later MN period, and this is true also of houses of the ensuing Late Neolithic period - few of which have been excavated and these in any case have suffered substantial errosion. We next find wall-plasters in the Early Minoan I period - again, to date, only at Knossos.

Of EM I architecture we know very little; but two plaster fragments (possibly house debris) have turned up in a firm EM I context in a well excavated by the British School within the palace. One piece, whose surface is very worn and smudged with a black substance, is a light fawn colour and may be composed of mud mixed with carbonate of lime (PLATE 1 C1); the other fragment is much harder and browner, apparently of mud only and with a greater admixture of chaff (PLATE 1 C2). The depth of the pieces, 1cm. or less, suggests both were wall-plasters, the browner one

perhaps being an undercoat for the finer and lighter-coloured layer.

The First Painted Plasters

In the village communities of Early Minoan II (c.2600-2200 B.C.), we first come across wall plastering at sites other than Knossos and its treatment as a medium for painted decoration, .. invariably with a red pigment. Although Knossos has produced evidence for red-painted walls, and possibly in one case for the use of a black pigment (PLATE 1F), painted decoration is better known from the "House of the Hill-top" at Vasiliki and from the EM II settlement of "Phournou Koriphi" near Myrtos where red-painted plasters were found *in situ* on both inner and outer wall-faces of rooms and passages (PLATE 1E). According to Pendlebury, EM II sites at Hagios Onouphrios in West Crete and on the hill Edhikte near Mokhos in Central Crete were also stuccoed and painted (v. below, p.25).

While wall painting was evidently a new feature at this time, perhaps more in the nature of supplying a good finish than artistically decorative, the primary function of the plasters was essentially the same as in previous periods - to protect and strengthen the walls, even though these were now sometimes carefully built of stone. The plasters at Vasiliki and Knossos, in the proportion of 40% carbonate of lime to 60% silica and alluvia, are harder than those from Myrtos "Phournou Koriphi" where the above figures are reversed.(2) But scientific analyses of plasters from these sites are at least in harmony in showing that the Minoans were now working lime quarries or open lime deposits in widely dispersed parts of the island with wall plastering in mind. How the paints were applied, and at what stage in supplying the finish to the structures, is an open question at present. But there is evidence from Vasiliki and Myrtos that the wall plasters were not infrequently built up in more than one superimposed layer, the uppermost layer being usually a finer plaster than the lower. The layered structure of wall paintings, already a possibility in EM I, continued thereafter until the last days of Aegean Bronze

Age mural plastering.

Occasionally floors were stuccoed, and one at Knossos was apparently painted red (PM I, p.533 and n.3). The method of roof-construction remained the same as in Neolithic times, and is exceptionally well illustrated by fragments of roof-plasters from Myrtos: PLATE 2A seems to show a beam impression, some 3.5cm. in diameter; such beams or branches would have supported layers of reeds, impressions of which appear in PLATE 2 C-D, over which was laid either a single or two thick layers of mud. Ceilings or roofs with two plaster layers may have been strong enough to support heavy commodities stored there or people walking over them; an example is shown at PLATE 2B. This method of roof-construction recurs throughout Minoan history at various sites and may still be found today in rural areas of the island.(3)

The Early Minoan III period, clearly defined in East Crete but in Central Crete difficult to distinguish from MM IA, has produced little in the way of painted plasters, but what has survived is nevertheless interesting and important. More pigments were used; the proportion of lime was, it seems, increased; and to this period perhaps belongs the earliest known piece bearing a decorative pattern. Red paint predominates, but black and brownish-red, as well as plain-coloured plasters, are well attested at Knossos; also a fragment painted a dull slate-blue, but in this case a "? MM IA" date is possible. At Palaikastro in East Crete, a deep red-painted fragment of stucco was found in situ on the wall of an EM III-MM IA house on the hill-top called "Kastri": the colour of the plaster itself is here a light pink, a feature of some plasters which continues into Middle Minoan III or the first major phase of the Second Palatial Period (c.1700-1580 B.C.). The whiter appearance of other EM III plasters, however, as compared with those of EM II date, suggests a higher proportion of lime than previously, and consequently implies greater working of lime quarries in EM III. One fragment of a similarly good

technical character in a fresco-tray from Knossos labelled "E M Plaster" (a dating which there seem no strong grounds to dispute) shows a red linear design on a plain white ground; the surface was once polished, as was the plaster mentioned above from Palaikastro, and the design recalls simple linear patterns painted on pottery of the EM II-III periods (PLATE 1 D). This fragment, if rightly assigned to the EM period, anticipates the appearance of decorative motifs otherwise first attested in MM IB when the First Palaces were set up.

From the intervening years (Middle Minoan IA: c.2100-1900 B.C.), Knossos once more has produced most evidence for the continuation and development of wall painting. Plain white, red, rusty-brown and black painted fragments have been found in the MM IA fills of the deep shafts in the North-West Insula of the palace and in town-houses of the period to the south of the Royal Road. The walls and floors of houses deep below the later West Court of the palace were stuccoed and in some cases painted red. In this period the tone of the red paint is generally dull and surfaces were usually left unpolished. But some exceptional mud-plasters attached to sherds of cooking-pot fabric from Knossos, from MM I A levels south of the Royal Road, show vivid brown-red and highly polished painted surfaces (PLATE 3A), foreshadowing technical features otherwise more characteristic of painted plasters of much later periods. No patterned MM IA fragments are yet known from Knossos. But to the east of House E at Mallia, recent excavations have uncovered part of a building of MM I date with a stuccoed floor. It is painted red and is divided into a series of irregular rectangles by means of white bands of paint - apparently applied on top of the red ground-colour; this design suggests imitation of a floor paved with regular-shaped flagestones, in which case it is the earliest known example of the influence of Minoan architecture on compositional design in painted stucco (PLATE 3B). This composition, not certainly attributable to M. I A rather than to MM I B, may serve to introduce us to the first phase of the First Palatial Period

when decorative motifs unquestionably begin to appear.

Decorative Fresco Motifs of the First Palatial Period

The first Palaces of Crete were set up at the end of MM I A or early in MM I B (c.1900 B.C.) at Knossos, Phaistos and Mallia.(4) These palaces flourished until the end of Middle Minoan II (c.1700 B.C.) when they were violently destroyed, probably by an earthquake. While the ceramic and glyptic arts of these two centuries appear to have rapidly taken on a new lease of life in decorative and representational design, wall-painting lagged behind in these spheres until the last phase, Middle Minoan II B (c.1800-1700 B.C.), when new pigments and technical devices came to be mastered. Their advent changed the whole pace of development in the craft of wall-painting, transforming it, rather, from an unpretentious craft to an ambitious art. But this notion must be emphatically qualified, if only because the quantity of MM IB fresco fragments is slight and possibly unrepresentative of what in fact may have been achieved in that period.

The only new feature at Knossos in MM I B - as yet discerned only in town-house debris from south of the Royal Road - is the appearance of solitary narrow border stripes in red or brownish-red on plain white fragments (PLATE 3C). A more interesting piece from a small house at Phaistos, found in a floor deposit with MM I B polychrome cups, shows white speckles of paint on a black ground - perhaps imitating liparite, as Evans thought (v. p.27 below, for references). On the technical side, the plasters seem to contain an even higher proportion of carbonate of lime than before; they are off-white to light pink in colour, and perhaps softer owing to the diminished proportion of silica. These features imply that the Minoan painters were now seeking consistently finer and whiter surfaces in order to show off their paintings to greater effect.

The decorated example from Mallia apart, MM I floor plasters were left unpainted or treated to a monochrome red or light brown wash

Examples from Knossos show a mixture of lime and hard clay-like lumps in plasters some 4 or 5 cm. in depth (PLATE 3D): these appear to be the immediate technical forerunners of even harder floor plasters composed of almost pure lime and layers of largish stream-gravel which are in evidence in MM II (PLATE 3E).

Middle Minoan II sees the use of plasters of high lime content, finer textures, new paints (yellows, slate-blues, kyanos blue - a single example - which in fact completed the basic "palette" of the Minoan wall decorator), and the first known use in Crete of string-impressed lines. Combination of various primary paints gave rise to new shades of colours, particularly in greys, browns and orange tones, but pinks and greens were evidently still lacking. The use of the string-line marks a most important innovation. By pressing taut lengths of string into the plaster whilst it was still damp and malleable the artist controlled a swift and sure means of ruling straight guiding-lines and of planning particularly the width and number of border stripes of his composition before applying any paint. This new technical device is attested by a fragment depicting slate-blue and grey-black bands from a firm MM II A context at Knossos (PLATE 4A). With such innovations, and perhaps through the stimulus of the highly ornate MM I B - MM II "Kamares" pottery and of MM II gem-carving, Minoan wall-painting passed into a maturer phase of development by MM IIB (if not earlier), one which witnessed an interesting variety of experiments in geometrical patterns and abstract motifs of a quasi-pictorial nature.

A MM II A deposit below the eastern flight of steps of the Theatral Area at Knossos produced fragments of a red spiral design on white, perhaps above a dull grey lower border band found on other fresco pieces from the same deposit.(5) From a MM II B context at the same site come black-painted fragments with yellow blotches, as if applied with a sponge (PLATE 4D). These motifs are spaced out at fairly regular intervals, and they recall similar patterns on MM II A vases - possibly the source of inspiration for this fresco design. Also from a MM II B context are two fragments

perhaps belonging to two different dadoes which had collapsed from an upper storey into the lower part of the Loomweights Basement; one of these is illustrated here at PLATE 4 E1, together with a third fragment of the series, hitherto unpublished (PLATE 4 E2). Dark and lightgrey, red, white and yellow paints appear together on these three fragments, two of which are marked with string-impressed lines as though defining border stripes. The brushwork has been carefully executed, and the use of string-lines here also indicates that the central area of the composition has been deliberately marked out for special decorative treatment - in the one case for vertically aligned wavy bands, in the other for alternating red and white crescents.(6)

A fine MM II floor fresco from Room LIV of the recently excavated First Palace structures at Phaistos shows rows of large quatrefoil designs in dark red on a plain white ground, arranged within frames of red parallel bands (PLATE 4B). Possibly the design reflects the influence of textile patterns, perhaps of rugs or carpets; but use of the technique called "incavo" (v. Chapter VIII), whereby the patterns here were first cut out of the hardened plaster and then filled in with a red paste-like pigment, recalls a similar technique adopted in Egypt in the IIIrd and IVth Dynasties (c.2700-2400 B.C.) for the decoration of stone "mastaba" reliefs with pictorial compositions in various pigments (PLATE 201A). The Minoans may have learnt this technique from Egypt, using it to fashion inlays in stone paving-slabs which the present fresco may be imitating. From the last phase of the First Palace at Phaistos there is also a red meander pattern on the plain white surface of a stucco fragment, recently discovered and recalling similar geometrical patterns carved on early seals (of Annuario della Scuola Archeologica di Atene 45-46 (1967-68) p. 152f and Fig. 108, and Kenna p. 23, Fig. 36).

Another fresco fragment from Knossos, questionably belonging to LM II, is moulded in relief and shows a white-spotted spiraliform pattern on a sky-blue ground. It may have belonged to the left scoulder of a life-sized female figure wearing an open-fronted short-

sleeved jacket, such is the close comparison to a better preserved female figure in relief from Pseira (cf. PLATE 4C and PLATE 25A-B). If so, and if a MM II date is also correct, it means that human figures executed in relief may have adorned the walls of buildings of the First Palace Period (contrary to the suppositions of most authorities today). However, the excavation notebooks record that the accompanying pottery was not purely MM II but included some later (? LM I) elements - a date which on other grounds the present writer regards as more likely for the fragment in question.(7)

Evans attributed two other paintings from Knossos to the First Palatial Period, namely the Saffron Gatherer Fresco (PLATE 84C and PLATE 85A) and the so-called "Barbotine Fragment" (PLATE 183 B7). There are, however, good reasons to believe that both paintings belonged to much later periods, indeed to the Late Minoan age (pp. 538f;460;45f,n.8 and 434f). In that case, we must conclude on present evidence that the First Palaces apparently lacked pictorial or representational frescoes. The geometrical and abstract patterns of MM II date mentioned above must consequently be taken as representative of the general nature of the wall decoration put up towards the close of the First Palatial Period.

A brief summary of interesting historical and artistic points arising from the above account now follows.

The Development of Wall Painting as a Craft and Art

The earliest settled inhabitants on Crete, at Knossos, used mud plasters for waterproofing the roofs of their houses. Their Neolithic successors then used clay for smooth floors and subsequently for smooth casings for their house walls. There is a hiatus in the evidence in the Late Neolithic period - perhaps only because an insufficient number of houses, all poorly preserved, have as yet been excavated. The next period, EM I, sees the use at Knossos of two kinds of plaster, both it seems unpainted.

Monochrome washes of red paint are characteristic of EM II settlements, at least in Central and East Crete and possibly also in the Amari region of West Crete. There are gradual improvements

in the plasters' compositions (these varying from site to site in EM II), in the range of pigments, in surface finish and in decorative treatment between EM III and MM IIA, by which time almost pure lime-plasters had become common-place at the expense of those of clay or mud mixed with lime. Plastered walls evidently presented an increasingly attractive vehicle for artistic decorative treatment which, as progress was made, demanded better surfaces upon which to work. Hence the adoption of pure lime plasters.

At EM II Vasiliki and Kyrtos "Phournou Koriphi" the painting of stuccoed walls, inside and out, was apparently so widespread throughout the settlements that it is tempting to infer the existence of special groups of craftsmen carrying out this work. As the nature of the decoration required no special artistic skills, it may be that the plasterers were the painters - and the plasterers the builders of the houses. The bulk of plaster required to cover the walls also suggests another labour-force whose task it was to collect the raw materials and prepare them for use on the walls. In that case, the EM II sites hint at the beginnings of an organised "industry" in this field. Other evidence from these sites certainly suggests a degree of specialisation of labour in such activities as fulling, dyeing, seal-carving, pot-making and agriculture.

The general pattern of artistic development from EM II to MM II B times is clear enough. The monochrome washes of EM II gave way to simple monochrome border stripes on plain white fields in MM I; these in turn were supplemented by MM II A with combinations of two or more different coloured bands which in MM II B, at the latest, were used to define the borders of compositions whose main features were geometrical or abstract designs. The use of border stripes, under way at Knossos in MM IB, may be said to have become the norm in planning decorative compositions with the arrival by MM II A of string-impressed guide-lines. Hereafter the Minoan painter rarely dared to execute his wall-paintings without first defining at least the upper and lower borders with string-lines.

Since the most natural and easiest way of using string-lines is to stretch them horizontally, the advent of this technical device may help to explain Minoan preference for the continuous or "running" frieze around all walls of a room to other forms of composition, such as individual panels, artistically or architecturally (but not necessarily thematically) separated from each other (v. SLIDE 46).

By the end of the First Palatial Period, the Minoan wall-painters were technically and artistically proficient enough to have depicted scenes of a pictorial kind. On present evidence, however, it seems they avoided such compositions. Decorative taste in wall-painting, to judge by the few surviving pieces, remained remarkably conservative by comparison with other arts of the time. In pot-painting, ivory- and gem-carving a repertoire of naturalistic (even human) subjects and highly elaborate non-representational motifs had already been established. It is of course possible that the surviving fresco material is so deficient as to be unrepresentative of the general character of MM I-II mural decoration; but only future excavations will tell.

Interestingly, floor painting followed the same pattern of development as wall painting. At first there are only red-painted floors (EM II Knossos), if they are painted at all. Then in MM I monochrome washes in other colours appear and at Mallia there is a simple rectilinear design, probably imitating floors paved with "squared" slabs of stone. A more elaborate design then appears in MM II at Phaistos, the arrangement of quatrefoil motifs bearing out the somewhat repetitious treatment of non-pictorial designs in the contemporary wall paintings.

Whilst the painting of stuccoed walls and floors began in MM II town or village houses, its development as a decorative art seems to start in earnest only after the construction of the First Palaces. It is in these buildings that the first adventurous decorative fresco designs yet known have so far been discovered, and the large expanses of walls in important rooms or passages there would have required some form of decoration. Painting on stucco would have presented the most rapid, practical and cheapest

medium for ornate decoration. By both EM II and later analogies, it is likely that the MM I-II painters' workshops were situated within or very near the palaces.

If the palaces encouraged the rise of mural painting as a new art form, one may reasonably ask which palace led the way in this field. To date, Knossos alone presents a good case for that distinction, with its long history of plastering and painting, with a relative abundance of different painted motifs, and with a full basic "palette" and knowledge of the use of string lines in MM IIA. After this period Knossos lacks evidence for decorative floor paintings in the First Palace Period, but this may simply mean that Knossos could afford more rugs, carpets or inlaid stone paving than the smaller palaces at Phaistos and Mallia. But what of the period when wall painting first emerged in Crete? At what site did wall painting first appear?

We do not know the answer, but we may guess that again Knossos led the way in view of its unique early history in undecorated plasters. All we can safely say is that mural painting at Knossos and Vasiliki began at much the same time; but the softer and perhaps generally more poorly finished plasters of Myrtos "Phournou Koriphi" suggest provincial copying of mural painting already carried out at a slightly earlier date at more important and larger settlements elsewhere on the island.

As to the origin of the idea of painting walls in Crete, the writer has argued elsewhere against the view that wall painting was introduced from abroad.(8) Elsewhere in the Aegean, only the Early Helladic II house at Lerna on the Greek Mainland - known as the "House of the Tiles" - has yet produced wall plasters matching in date those from EM II Crete; and there are sufficient technical differences to suggest separate origins - or at least no direct connections - between the two.(9) Wall painting with especially red, but also with black and white, pigments is attested in still earlier times in Anatolia, Iraq and Mesopotamia, Palestine and Egypt. However, the very slow development of the art in Crete argues against the derivation of the craft from outside the island

or from those countries in particular, since most of them by EM II times were already witnessing decorative and even representational polychrome compositions, often in well-developed pictorial styles of execution. Rather, Cretan wall painting seems more likely to have been an off-shoot from another industry of the tightly-knit communities of the EM II villages, an industry which was already making use of the pigments employed in the earliest Minoan wall paintings. The predominant paints on EM II pottery are red and black, and it would seem no coincidence that these were for a long time the first and only colours applied to wall plasters. Heaton acutely observed that burnished or painted pots are more impervious to water than untreated vessels, and for the same reasons he suggested that painted and polished wall plasters would have provided more uniform and therefore more waterproof and durable facings.(10) Red pigment had long been used in Crete for decorative or magical purposes, a point which suggests it was readily available in some quantity and easy to collect and prepare as a paint. It is a world-wide phenomenon that wherever pigments (invariably red and black at first) are available locally, there wall painting will appear autonomously - even in the most primitive of communities. The people of EM II Crete, evidently the first on the island to be sufficiently settled, rich and well organised socially to encourage the rise of various forms of specialised labour, provided the right opportunities for the rise of wall painting. This phenomenon may well have emerged from the interchange of ideas between the Minoan pot painters or dyers of textiles and the plasterer/builders of the EM II sites. In that case, wall painting in Crete may be regarded

as a natural, almost inevitable, result of slow social, economic and technical progress within the island itself. The alternative can only be that wall painting was introduced to Crete from an area where only the most simple form of mural decoration, the monochrome wash of paint, was known.

The Find-Places and Dating Evidence of Early Neolithic to Middle Minoan II Plasters

The following section briefly sets out the find-places and dating evidence of plasters mentioned above in this chapter. Only certainly dateable pieces are included, the dates being normally those of the context in which the fragments have been found. The material is arranged in chronological order according to the major archaeological divisions of the period between c.6000 and 1700 B.C. At the beginning of each sub-section for which there are several entries, a map (after Hutchinson, Prehistoric Crete, p.39, Fig.2) indicates the distribution of the plasters according to chronological period; plans indicating the find-spots of material found below the Central Court and to the south of the Royal Road at Knossos are not yet available for inclusion.

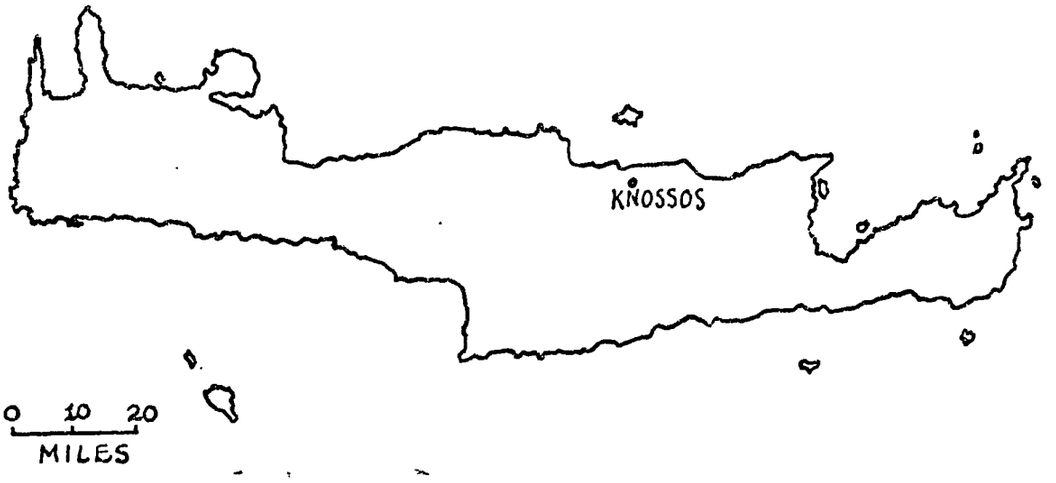
For each individual entry, the information is given in the following order:

(1) PLATE number (Vol.II), if illustrated in the present study;

(2) Brief description with appropriate references;

(3) Site and find place;

(4) Dating evidence, with references.



Early Neolithic IB

(1st phase) PLATE 1A

Mud roof-plaster (BSA 59 (1964),146 and Pl.59(1)).

Knossos, Stratum IX (House E) below Central Court of palace.

Pottery (BSA Ibid, Fig.61 (1) and Pl.31(4)); figurines, bones and stone objects (Ibid, p.146).

(2nd phase)

Mud roof-plaster(Ibid,p.149)

Knossos, Stratum VIII (House D) below Central Court of palace.

Pottery (Ibid, Fig.39(1-6) and Pl.41(1-6); figurines, clay, bone and stone objects (Ibid,p.150).

(3rd phase)

Mud roof-plaster (Ibid,p.153)

Knossos, Stratum VII (House C), below Central Court of palace.

Pottery (Ibid, Fig.39(8) and Pl.42 no.3); other pottery and objects from this level (Ibid, Pl.42 (1-2,4) and pp.153,155).

(4th phase)

Smooth clay floor (Ibid, p.157).

Knossos, Stratum V between two walls to west of centre of Trench AC.

Pottery (Ibid, Fig.41(3) and Pl.43(1); figurines and other objects, including spindle-whorls (Ibid,pp.162,164).

Early Neolithic II

(1st phase)

Smooth hard clay floor (Ibid,p.166)

Knossos, Stratum IVC (Sounding XY) below Central Court of palace.

Pottery (Ibid, Figs.29-32 and 40(6); other objects listed at Ibid, pp.168,170,172.

Middle Neolithic

(1st phase) PLATE 1B

Smooth unpainted wall-plaster found in situ (Ibid.p.174 and Pl.38(1)

Knossos, Stratum IIIB (House A) below Central Court of palace, on interior walls of house.

Pottery (Ibid, Stratum III B, as indicated, Figs.33-35; complete pots and other objects from Stratum III - Figs.41(1-2),42(1-2),43 (1-4), and pp.178, 180, 182).

Early Minoan I (Knossos only)

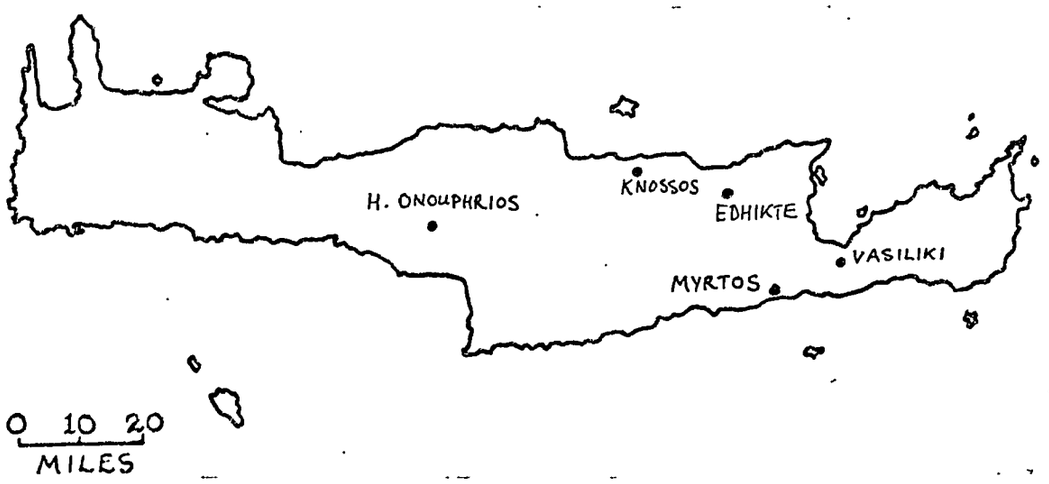
PLATE 1C,1-2

Two kinds of unpainted wall-plaster.

Knossos, in EM I well in palace (PWel, P34, small-find 20, level 18)

Pottery: pure EM I deposit with some Neolithic.

Early Minoan II



(a) Red-painted wall and floor plaster, in situ or in later floors (JRIBA XVIII(1911),p.697f; PM I,p.72; Pendlebury Handbook,p.27).
Knossos, in surrounding town houses.

(b) Red-painted wall and floor plasters (PM I,p.533 n.3).
Knossos, town house near North East Magazines of palace.

(c) PLATE 1F
Possibly black-painted mud plaster (RR/N 1961, small-find 370).
Knossos, on Floor VI of house north of Royal Road (Trench LA,level 113). Pottery: deposit of EM II "Vasiliki" ware.

(d) Red and plain wall and floor plasters;also roof plasters.
Vasiliki (Period III), throughout the "House on the Hill-top" (Vasiliki (1904),p.209f).
Pottery: EM II deposits (Ibid, p.221 and Pls.XXXIV and XXXV). Site temporarily abandoned. Analysis of plaster, JRIBA Ibid,p.698.

(e) PLATE 1E
Red-painted plaster (other examples throughout site).
Myrtos "Phournou Koriphi", in situ on east face of west wall of south entrance, BB/Q. Pottery: classic EM II deposits throughout site.

(f) PLATE 2
Examples of roof plasters (other examples throughout site).
Myrtos "Phournou Koriphi". Pottery as entry (e) above. For mention of painted and roof plasters, and illustrations of pottery, see ILN (17/II/1968),pp.25-27, Figs.5,6,9,11-13 and ILN (8/II/1969), p.26f.

(g) "Hard plaster like that of Vasiliki"(AC,p.76)
Surface find, Hagios Onouphrios (Amari), above Mesonisi. Pottery "indeterminate" but site listed under EM II by Pendlebury.

(h) "Plaster"(AC,p.76), surface find on summit of Edhikte, with EM II sherds.

Early Minoan III



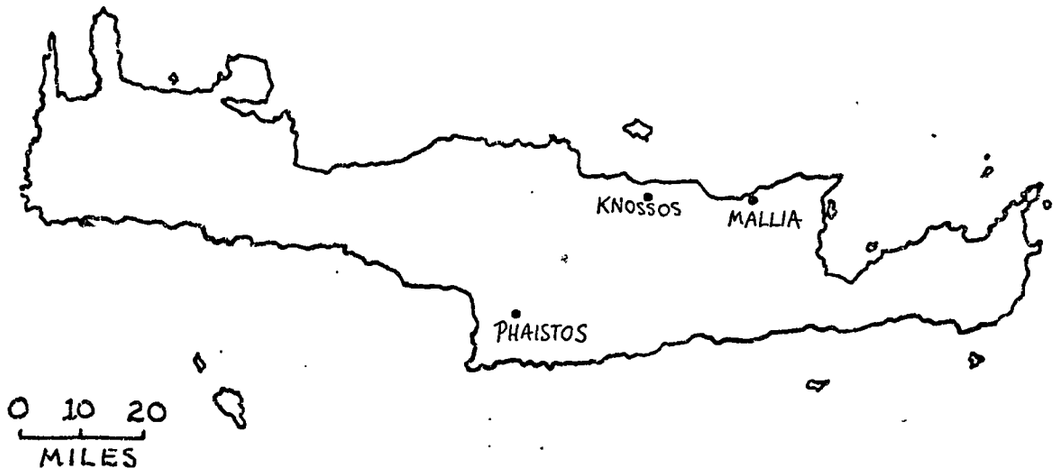
(a) Black, plain, and polished red wall plasters.
Knossos, town house north of Royal Road.
Pottery: pure EM III levels (Trench LA, levels 51 and 52E).

(b) Grey-blue painted wall plaster.
Knossos Palace, Early Minoan sounding (PEM Trench B, level 1; plaster found on 20/VII/1960).
Pottery: " EM ? Possibly EM III " (M.S.F.Hood).

(c) PLATE 1D
Monochromc red; moulded plain white; and 1 red-patterned piece shown here.
Knossos, HM tray 111 Eta VI, " E M Plaster" (viz. EM III or earlier)
No accompanying pottery.
MC Thesis no.38, pp.19, 132 n.4 and Fig.159 (a-b).

(d) White roof plaster
Mochlos, fallen from roof of inner compartment, B, of Tomb IV.
Associated finds: EM III stone vases and clay pot (Mochlos, p.46; pot (No.IV,2, EM III), at Figs.18-19).

Transitional Early Minoan III-Middle Minoan IA
Deep red polished plaster; also ? plain plaster ("yellow-cream")
Palaikastro, in situ on early wall below Rooms 5 and 6 of LM III C house on summit of "Kastri" (BSA 60 (1965), pp.272, 274 n.55 and Pl.70C).
Pottery: associated with EM III-MM I sherds (Ibid, p.250; loc.cit.; and Pl.72 (b-c)).



Distribution of painted plasters in MM I and in MM II

Middle Minoan IA

(a) PLATE 3A

Highly polished red and brown-red painted mud plasters on sherds of "cooking-pot" fabric.

Knossos, town house south of Royal Road.

Pottery: MM I A. Frescoes sorted in 1957-61 excavations according to periods by pottery levels (Period A = MM IA: RR/S (tray 56); some fresco fragments marked MM IA).

(b) PLATE 3D

Floor plaster with light rusty-brown surface, apparently painted.

Knossos: provenance and tray as entry (a) above. Marked "MM IA".

(c) Red and plain stuccoed walls and floors, also roof plaster.

Knossos, in situ in houses below West Court "koulouroi" 2 and 3 built above in MM IB or early MM II: koulouroi filled with MM IB-MM III sherds (BSA XXX (1928-1930), pp.53-58; PM IV, p.66f).

Middle Minoan IB

(a) PLATE 3C

Brown-red border stripe on white.

Knossos, town house south of Royal Road.

Pottery: MM IB (RR/S Trench D, level 16).

(b) Gritty floor plaster (RR/S Trench B, level 35A).

Knossos, town house south of Royal Road.

Pottery: joining sherds (MM I ?B) from RR/S loc.cit. and Trench D, level 19.

(c) White plaster

Knossos, from houses on Gypsadhes Hill to south of palace.

Pottery: MM IB (HH Area, Trench E, level 18 - 18/VI/1958).

(d) White-paint speckles on black ground: wall plaster.

Phaistos, on floor of small house on southern slope.

Pottery: MM IB polychrome cups (Mon.Ant.XII (1903),p.20 and Pl.VIII, 6; Ibid, p.83, Fig.22 (top row, no.1); PM I, p.180; cf. pottery, JHS XXI (1901), Pl.VII a-b.

Middle Minoan I (A or B)

(a) Deep red painted plasters.
Knossos, in fills of "prisons" in North West Insula of palace.
Pottery: "prisons" filled in early in MM II, but plasters probably earlier (BSA IX (1902-3),p.23; Pendlebury Handbook , p.31).

(b) Pale red-painted plaster.
Knossos, inside "prison" walls between nos. III and IV (v. (a)above)
Pottery: MM I (AE/NB 1913, p.106, Test 65 - entry under "MM I").

(c) PLATE 3B
Red-painted floor with white bands imitating stone paving-slabs.
Mallia, in situ in building to east of House E.
Pottery: MM I sherds over floor, the latter illustrated in BCH 89 (1965),p.1000f, Figs.1 and 2 ; Arch.Delt. 20 (1965), B'3, p.571, Pl.722b.

Middle Minoan IIA

(a) Venetian red, dull grey fragments; 1 kyanos blue; red spiral on white ground (possibly Fig.88, p.689 here, with pieces certainly from "N.Tank" - viz. North West Lustral Basin: SMK box 1880).
Knossos, below pavement slab of 10th step of eastern flight of steps of Theatral Area.
Pottery: with MM IIA polychrome cups sealed between upper and lower pavement slabs, respectively with MM III sherds above and MM I sherds below (PM III, pp.248-250, section drawn at Fig.172).

(b) Fragments painted lighter and darker red, yellow, black and some plain.
Knossos, town house south of Royal Road.
Pottery: MM ?I and MM IIA (RR/S Trench B, levels 23 and 24; RR Pottery Notebook I (1957),p.45f).

(c) PLATE 4A
Slate-blue and grey-black bands with string-impressed lines.
Knossos, town house to south of Royal Road.
Pottery and level: as (b) above, in level 24.

(d)PLATE 133 A1
Red bands on white, good polish, no string-lines.
Knossos, town house south of Royal Road.
Pottery: MM IIA (RR/S Baulk C-E, level 19A).

Middle Minoan IIB

(a) PLATE 4D
Yellow "sponge-prints" on black ground.
Knossos, below west threshold and wall of North West Portico in palace
Pottery: MM II or earlier sherds, with MM IIIA above threshold (AE/NB 1929, p.11; PM III, p.361ff; PM IV, p.109 for similar designs on MM IIA pottery - cf PM III, p.364, Fig.240).

(b) PLATE 4 E1

Dado bands with undulating bands at right angles, in grey, red, white and yellow; second piece at PLATE 4 E2, and a third with alternating red and white crescents illustrated by Fyfe p.109, Figs. 1-2 and by Evans.

Knossos, collapsed from upper floor into Loomweights Basement on ea. side of palace.

Pottery: MM IIB polychrome pottery and "miniature" painted clay vessels; also associated with terracotta shrine and over 400 loomweights (DM/DB 5 April 1902 (I) "from Kamares layer"; PM I, p.251f, Fig.188 a-b; for stratification, see DM/DB Ibid, 21 May, and PM I, Fig.187b).

Middle Minoan II

(a) PLATE 3E

Hard pebbly floor plaster.

Knossos, town house south of Royal Road.

Pottery: pure MM II deposit (RR/S Trench B, level 32).

(b) PLATE 4B

Floor fresco with red-filled "incavo" quatrefoil patterns between similarly executed red bands, on plain ground.

Phaistos, in Room LIV of First Palace structures to south-west of main palace.

MM II, if not earlier: Atti VII Congr.Int.Arch. Class., Roma I (1961) p.215, and Pl.VI, Fig.11; F.Schachermeyr, Die minoische Kultur des alten Kreta (Stuttgart 1964), p.182, Fig.105).

Middle Minoan I or II

? Red painted plaster, or possibly earth-stained.

Mallia, in situ on walls of structures of First Palatial Period to north-west of West Court of palace.

Pottery: includes large MM I-II pithoi in situ.

Notes to Chapter II

1. J.D.Evans, BSA 59 (1964), p.174 and Pl.38(1), with plan of House A at p.154, Fig.16. New excavations undertaken in 1969 in the Central Court at Knossos may throw further light on this subject.

2. See Vol.IV, K, pp.305f and 312ff.

3. Ibid, pp.309f with n.2, for a more detailed discussion of EM II roof plasters and a list of Aegean Neolithic and Minoan occurrences, to which may be added the roof plasters of the MM I houses below the West Court at Knossos (references at (c) under MM IA on p.28 above).

4. Certainly so in the case of the palace at Phaistos (Festos I, p.135, Fig.59: see AC, p.97), but those at Knossos and possibly Mallia may have been founded somewhat earlier according to M.S.F.Hood, Home of the Heroes, p.54f and Matz, CAH^2, Ch.IVb, p.7 (1962 fascicule).

5. References at p.28 above under (a) MM IIA; perhaps the piece at Fig.88, p.689.

6. Fyfe, p.109, Figs.1-2 and PM I, p.251, Fig.188 a-b. Other references are given at p.29 above (first entry).

7. From Royal Road/South, Trench E, level 36a (RR/58/219), in an almost pure MM IIB deposit in a drain. But "? LM I" scraps of pottery were also noted and were compared to others from Trench F, level 25A. Hood kindly points out as favouring the earlier date a close comparison of this design on a MM II fruitstand from the First Palace at Phaistos (D.Levi, "The recent excavations at Phaistos", SMA Vol.XI (1964), Fig.25 and especially Fig.19). But the pattern is in greater vogue in LM I or MM IIIB/LM IA fresco decoration at Knossos and elsewhere (cf.PLATES 183 A1 and 25A-B) and on pottery of similar date (cf. JHS Suppl.Paper No.4, Pl.XXXI, 18), to give only a few examples. This piece could be a later intrusion into the MM II drain.

8. Vol.IV, K, pp.310ff.

9. Ibid, p.311 with n.1. That article briefly discusses EM II plasters in the wider context of Anatolian, Near Eastern and Egyptian wall painting over the period 9000-2200 B.C.

10. JRIBA XVIII (1911), p.705.

CHAPTER III

THE RISE OF NATURALISM IN WALL PAINTING

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CHAPTER III

The Problems

With the building of the Second Palaces in MM III A (c.1700 B.C.), Minoan wall-painting suddenly blossoms with human and nature scenes. They are vividly coloured, technically well executed and finished, and neatly drawn in a remarkably flowing and informal style. Life-like, if idealised, pictures of people, animals, fish and a variety of plants (real or imaginary and yet artistically convincing) now occupy the wall-painters' attention. The surprising differences between extant MM II and MM III murals pose a major problem in the artistic and cultural history of the civilisation. If the MM II frescoes provided no significant precedents for the new style and choice of subject and theme in the MM III wall paintings, how, then, did the new features in this art come to appear so suddenly and in so mature a form? And whence the interest in scenes of nature and of human, predominantly religious, activities?

Scholars have offered two radically different approaches to the problem. Some attempt no explanation of the new style: "There it is in all its perfection....." - and, for them, apparently that is as far as one ought to go.(1) Others have assumed substantial foreign influences in MM II and MM III art, although rightly stressing that the Minoans were never slavish copiers of the artistic creations and mannerisms of other civilisations. But there are other considerations to be taken into account which the second approach does not adequately explain. All of course would agree that the erection of the Second Palaces must somehow have stimulated developments in fresco painting; for the unpainted walls of the new structure

would have created exciting opportunities for comprehensive redecoration according to the latest tastes in fashion, in a medium which had only recently come to be mastered with some technical proficiency. But even in the early days of the Second Palaces, Minoan artistic traditions, religious feeling or taboo apparently dictated what types of scenes ought to go up on the walls and also discriminated between what was fitting to house or villa decoration and what to palaces, particularly that at Knossos.

This point anticipates of course some conclusions reached in later chapters dealing with chronological, architectural and distributive aspects of the art. But it also touches upon our present concern which is to consider what primary factors may have helped to bring about the remarkable artistic changes between MM II and MM III frescoes (a period which sets the trend in theme, motifs and style in later periods). Comparison of PLATES 3-4 with PLATES 5-147 (MM III to LM III A paintings) throws the contrasts between First and Second Palace wall decoration into at least clear, if somewhat one-sided, relief.

Foreign Influences

In the First Palace Period, Crete, owing to its geographical position and interest in mercantile enterprises abroad, developed increasingly good relations with the Levant and Egypt. As a result of these foreign connections, whereby the Minoans learnt new technical skills,(2) by the beginning of MM III they had built up a formidable economic and commercial position at home and overseas and had established themselves as probably the foremost naval power in the East Mediterranean.(3) At this time interconnections with the great and older civilisations of Syria, Mesopotamia and Egypt were opened up as never before in Crete's history.

These foreign powers, and especially Egypt, had enjoyed fine mural decoration in advanced pictorial styles long before the rise of the Second Palaces in Crete, and so we may turn to them for evidence of their influence in the "new" Minoan pictorial frescoes. Already in MM II there had been some innovations which point the way, as mentioned in Chapter II. The discovery at MM II Knossos of "kyanos blue" (extracted from silicate of copper) implies importation of the pigment from Syria or Egypt, where it was manufactured, for decorative purposes. The "incavo" technique of the Phaistos floor fresco (PLATE 4B) recalls Syrian metallic inlays and more particularly inlaid pigments in stone reliefs in Egypt of the IVth and perhaps later Dynasties (PLATE 201A). Minoan use of string-impressed lines may have been taken over from the Egyptian practice of dipping twine into red paint to plan the grid-systems of their compositions. Similarly, Minoan interest in brightly coloured and formal geometric patterns on floors and walls brings to mind features of painted decoration in XII Dynasty and earlier Egyptian mortuary chapels. But there was evidently some reaction on the Egyptian side to MM I-II spiraliform and ivy patterns, whilst, conversely Crete may at the same time have adopted patterns represented on imported Egyptian scarabs.(4)

The extent of foreign influence on MM III frescoes is difficult to establish, if only because little material evidence has survived in any country concerned. Moreover, distinction of earlier and later MM III fresco material is problematical (v.Chapters IX and X). For present purposes it is, provisionally, best to treat all pre-seismic MM III frescoes as one group until a closer fresco chronology for the period can be worked out. Tables I and II, opposite pp. 382 and 390 list the material in question, with PLATE references.

Among the subjects of MM III frescoes we find female figures "on the flat" and relief fragments of men, women, bulls and spiral designs. Spirals "on the flat", multi-coloured striped bands, and flowers (lilies, vetch-like plants, myrtles, reeds, grasses, (?), papyrus), foliate bands and chequerboard patterns are common; so too, "lattice" designs at Knossos and Phaistos. On Melos at Phylakopi, in addition to some of the subjects noted above, there are pictures of flying fish; "miniature" winged griffins; rockwork and dress motifs; a spiral with rosette filling-motifs; and a scene of a woman (?) fishing with a (?) net. What such MM III paintings and contemporary or earlier Egyptian and Levantine murals have in common may be listed briefly:

(1) Conventional drawing of people and animals in profile, with the eye seen in full and (in man) the chest too; also distinction of sex by colour - red for men and white for women (v.p.52).
But in two dimensional minor art, the Syrian conventions rest on Egyptian ones;(5)

(2) Life-sized relief figures of men and animals, in Syria and Egypt carved in harder materials than stucco;

(3) Pictures of leopards or leopard-skins, bulls, fish, and flowering plants (Egypt and Crete especially);

(4) The "incavo" technique (v. PLATE 144B and 156, leopard- and ? zebra- skin imitative floor fresco, Knossos): perhaps Egyptian more than Syrian;

(5) Compositional monumentality (in Crete: in life-sized relief-works especially);

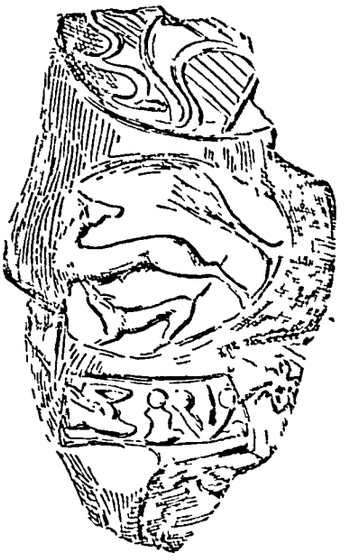
(6) Friezes set over dadoes, usually extending from wall to wall;

(7) Depiction of architectural structures (in Crete: probably PLATE 49A).

Closer enquiry suggests more affinities between Minoan and Egyptian art of the Middle and Old Kingdoms than with that of the Levant whose palaces thought to show the strongest connections with Minoan art - those at Atchana (Level VIII)[6] and at Mari[7] - had been violently destroyed by Hammurabi in 1750/1730 and 1759 B.C. respectively, some time, at least, before the rise of the Second Palace in Crete[8]. As more in Egypt than in Mesopotamia, MM III pictures of human and animal limbs lack strong outlines unless women or light-coloured creatures are portrayed on plain grounds. Minoan and Egyptian paintings also omit delineation of ankle-bones and leg and arm muscles in two-dimensional portraits, unlike their counterparts at Mari. Minoan drawing of plants with flowers alternating with buds is one convention which seems certainly taken over from Egypt, and these countries have in common a love of nature - especially of wild animals and plants - which by comparison seems very small in what survives of wall paintings in Mesopotamia and Syria. Spotted bulls, and fish swimming <u>in</u> water (not on top of it, as at Mari), as well as elaborate geometrical designs, are features common to Minoan and Egyptian murals, less so or not at all to others from the Levant. Traditional Egyptian motifs such as the papyrus and lotus were now assumed into the Minoan artistic repertoire, but griffins and sphinxes (rare in MM III representations in any material) were probably derived from the Near East, not Egypt (v. discussion of motif in Chapter IV). Even so, the dominant foreign influence on Minoan art and wall painting in MM III seems to come from Egypt.

This conclusion is very substantially reinforced if we bring MM IIIB-LM IA frescoes into the argument. A number of African/Egyptian subjects (such as monkeys, lotus and papyrus flowers), Egyptian conventions of representation and colouring and traditional Egyptian themes (notably of animal hunting,

Fig.3



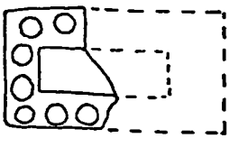
(1) Sealing: $\frac{2}{1}$

(PM I, p.274, Fig.203)



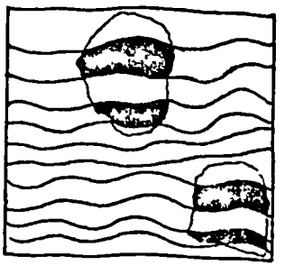
(2) Gem: $\frac{2}{1}$

(PM I, p.275, Fig.204c)



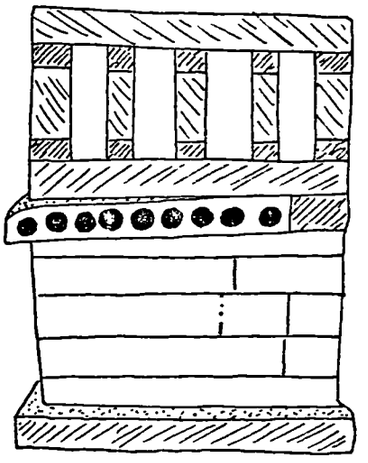
(3) Faience: $\frac{3}{4}$

(after PM I, p.308, Fig.228o)



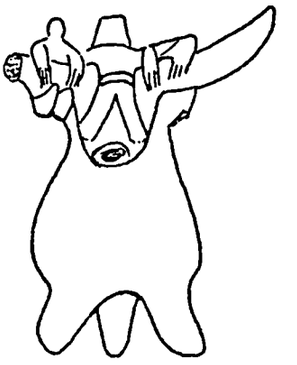
(4) Faience: $\frac{3}{4}$

(after PM I, p.308, Fig.228gg)

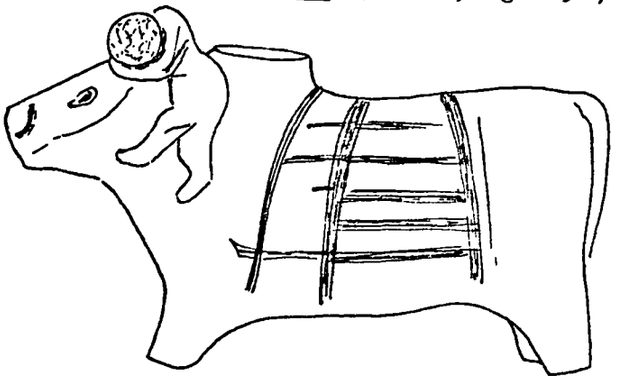


(5) Terracotta Shrine Facade

(after PM I, p.306, Fig.225a)

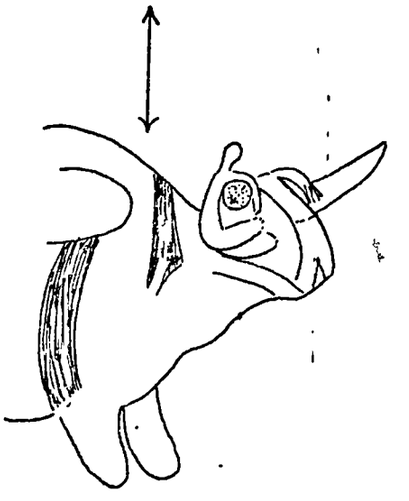


(8) Terracotta



(6) Terracotta model

(nos.6-8 after Matz, Kreta, Mykene, Troja, Pl.21)



(7) Terracotta model

Fig. 3: MM I - IIIA pictorial objects

processional, athletic and festive occasions) are even more boldly taken over and adapted to Minoan taste, while the Levant, for its part, possibly makes only two new artistic contributions of equal importance: arguably, the "flying gallop" convention which shows animals moving at speed with both front and back legs at full stretch (e.g. PLATE 71); and the antithetic or heraldic disposition of figures, usually animals or mythical creatures (e.g. SLIDE 53)(9).

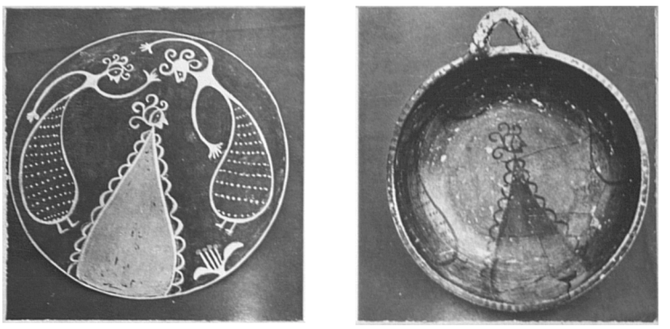
Two important deposits of pictorial objects in other materials, generally attributed to the border of MM IIB and MM IIIA, from the palace at Knossos, include items bearing out the trend in Minoan-Egyptian artistic affinities. The first is the "Hierolglyphic Deposit" of sealings, some of which are marked with Egyptian-looking signs of a script whilst others represent hunting scenes (Fig. 3, 1-2);(10) the second deposit is that of the faience "House Tablets" which, among other interesting fragments, includes one piece thought by some to show part of a flagpole by Egyptian analogy, (Fig. 3, 3);(11) another fragment illustrates the Egyptian convention for water (Fig. 3, 4).(12) Yet another important feature of MM III pictorial representations which could perhaps derive from Egyptian Middle Kingdom wall decoration is the undulating line in background schemae.(13)

If the erection of the Second Palaces with walls requiring redecoration on stucco and foreign artistic influence especially from Egypt are two factors which help to account for the appearance of Naturalism and choice of certain pictorial subjects in MM III fresco, they can hardly be the only ones. For both are essentially concerned with the outward appearances of the paintings, not with their particular symbolic content. Nor do these factors alone account sufficiently for the character of the naturalistic style of MM III fresco representations which largely replaced the geometrical or at least non-pictorial schemes of decoration of the First Palatial Epoch. These aspects of the problem require a glance at other features of the Minoan world.

Cultural and Religious Influences

The contents, particularly the pottery, and distribution of MMI and MM II settlements, shrines and sanctuaries, and the gradual adoption of similar forms of burial everywhere (AC p. 281f.),

Fig.4



(1) Cup with three "dancing" women
(from N.Platon, Crete, Pls.90-91)



(2) Pedestalled vessel with applied lilies
(from S.Marinatos and M.Hirmer,
Crete and Mycenae, Pl.XII).

Fig. 4: MM I - II pottery

suggest that during the First Palatial Period of Minoan society, culture and religious practices were substantially uniform in character throughout the island, evidently because the life and purposes of such places were predominantly geared to the economic, social and religious requirements of the rulers of the great palaces set up in MM I B. The uniformity in design, function and material possessions of these palaces adds considerable weight to this conclusion. In that case, it seems likely that a consensus of widely held religious beliefs was already current in the island early in MM I, and that a kind of "Minoan theology" existed which - naturally with some local variations - was in general known and accepted throughout Crete. But in the period under consideration there was no major medium by which Minoan religious belief or Royal self-esteem could be artistically expressed in a monumental and public fashion. The palace walls, we must presently assume, were then adorned only with non-pictorial compositions. But in the same period, pictorialisation on gems, pottery, faience perhaps, and in metal and clay figurines was coming increasingly into vogue. Indeed by the close of MM II, flourishing schools of potters and gem-carvers were portraying human and Nature motifs in increasingly realistic or naturalistic styles (Fig.4). It was at this point in time that Minoan wall-painting began to catch up with the minor arts.

By and large foreign influences on MM III wall painting only concerned points of artistic convention, techniques and the use of colours for particular motifs new to the wall-painters' repertoire. It would, however, be wrong to suppose that the MM III wall-painters drew most of their subject matter and their themes from foreign sources; and what they did borrow they adapted to their own style of representation and idealisation. MM II pottery and gems in particular appear to have anticipated much of the wall-painters' repertoire, including pictures of people (Fig.4, 1), bulls, cats, goats, fish, birds, and beautifully

drawn plants, trees and foliate bands - not to mention the amazingly complex geometrical, abstract or quasi-pictorial motifs and textile patterns to be found on MM IB-IIIB "Kamares" pottery.(14) Moreover, MM I-II terracotta figurines imitate typical Minoan shrines and building façades (Fig.3, 5), in decoration and style precursors of our earliest examples in fresco;(15) add that bronzes and terracottas of this period also show men and women in characteristic forms of Minoan dress and posture, and that other examples hint at scenes which were to become extremely popular in wall paintings at later dates (as, for example, bull-leaping or bull-catching figurines at Fig.3, 6-8),(16) and there seems little doubt the wall-painters of MM III times drew much of their inspiration from earlier Minoan pictorial traditions. Moreover, widespread conformity of traditional religious beliefs and practices throughout the island would have provided them with a ready-made corpus of acceptable themes for translation to house and palace walls. That these pictures were mainly religious in content conforms with what we know of the Minoans' general attitude to life: to live in the service of a religion primarily devoted to goddess-worship. To transfer religious representations from the restricted and more private surfaces of gems, pottery, figurines and the like to the large expanses of house and palace walls would in the minds of the Minoans, as to people of most religious persuasions today, sanctify their buildings in addition to any ritual of consecration. What forms such redecorations took are the subject of a later chapter. But there remains a further question, whether the particular stylistic character of MM III wall painting may not also have its roots in the arts of the First Palatial Period. Linked with this is yet another problem - who were the MM III fresco-painters?

In MM IB-II "Kamares" pottery-painting and in terracotta works and gem-carving of the same period, there are many pictorial or decorative motifs whose style of execution is markedly naturalistic and typologically antecedent to what we find in MM III or slightly later frescoes.(17) Characteristic mannerisms of Minoan art, such as "tortion" (whereby life or movement is given to static subjects by gently twisting or bending the design out of strict symmetrical or naturalistic shape), free and rhythmic delineation of outline, concentration on overall form rather than anatomical or organic detail, and the immediacy of pictorial representation which captures the fleeting instant - essences of Minoan art in general, and well attested in MM III and later wall-paintings - are features present already in the art of the First Palace Period.(18) The aesthetic harmony which the artists then achieved in combining these various characteristics is what distinguishes Minoan art from the art of contemporary civilisations elsewhere: this unique form of artistic expression in the ancient world is what we find in MM III wall painting and which continues in the better represented frescoes of the ensuing MM IIIB - LMI periods. The essences of style in MM III fresco painting seem predominantly derived from earlier Minoan traditions in other artistic fields. This conclusion may perhaps be reinforced if we consider our second question: who were the masterful but seemingly "untutored" wall-painters of the MM III frescoes? A definite answer is not possible, but there are various factors which are suggestive.

The MM III Wall-Painters

The most impressive feature of extant MM II wall paintings is their technical, not their artistic, accomplishment. By MM IIIB, if not earlier, mural compositions were planned beforehand with the aid of string-lines. They were vividly painted in the primary colours of the full Minoan palette on almost pure lime-plasters (which the mural media of other civilisations of the time barely rivalled), apparently in the "buon fresco" process viz. on plasters drying out for the first time (v. Chapter VIII); and their painted surfaces were often polished, sometimes very highly, to a smooth finish. The technical excellence of some MM III painters went even further, along with enormous advances

in artistic and representational feeling. Only the relief piece at PLATE 4C, perhaps belonging to the shoulder of a female figure, suggests the possible existence in MM II of an artistically advanced "school" of wall-painters with a knowledge of the sculptural effect of bas-relief. If in fact such a "school" then existed, the artistic developments between MM II and MM III frescoes which surprise us today may be explained without further ado as a natural process in a rapidly maturing artistic field. But as the date of the piece in question is not certain, another possibility arises, namely, that the best pot-painters or decorators of furniture of the period turned their hand to wall painting when the MM III A palaces were constructed. True, this suggestion is a guess: but it should not be dismissed out-of-hand, if only because the artisan of antiquity was invariably a "jack-of-all-trades".(19)

That wall and pot-painters may have been one and the same artists in MM II and MM III is possible on several accounts.(20) The MM II pot-painters were familiar with all the colours of the MM II wall-painter, except blue — always a difficult pigment to "fix", especially in the "tempera" (dry-surface) process of pot-painting. The pot-painters were then experimenting on all artistic fronts, including naturalistic pictorial representation "on the flat" and also in relief (see Fig.4,2). The vase there, with lilies beautifully moulded in relief (for all their vulgar arrangement), with a chequer pattern evidently symbolising the façade of a shrine (as the analogy of contemporary terracotta models suggest cf. Fig.3, 5), and with rockwork and "adder-mark" designs, may be regarded as an eloquent reminder in a single vessel that MM IIB vase-painters were approaching a phase in their craft in which representation of <u>scenes</u> of nature and the realm of human activities would seem the next logical step forward. But of its nature the surface of a vessel poses difficulties in portraying pictorial scenes, and the bare walls of the new palaces presented an easy way

out of such an impasse to the artist with pictorial inclinations. It is also remarkable that MM III pottery shows a marked decline in polychromy and imaginative design which, against Pendlebury and others,[21] the MM IIB palace destructions or the creation of vessels in more luxurious materials in MM III do little to explain away. Rather than to believe the MM IIB destructions presented set-backs to pot-painters in particular, it seems simpler to suppose that the best painters of the time were engaged in redecorating palace and house walls, at a time when service to their religion and public expression of their artistic capabilities afforded unprecedented opportunities for exhibition of their skills.

The necessity to paint new subjects in a realistic or naturalistic way would no doubt have created some difficulties for the craftsmen; and the fresco medium itself and other factors would bring about various forms of artistic treatment foreign to Minoan pot-painting traditions. The frescoes, being room-decoration, would avoid the black or very dark background colours of the "Kamares" pottery, for obvious lighting reasons - except for ever popular Venetian red grounds, but even these were normally contrasted with white or lighter coloured bands. Mural surfaces are of course considerably greater than those even of large pots and the fresco painting process required more rapid treatment than that of "tempera". Main motifs could be large but subsidiary detail would tend to be reduced, as MM III geometrical patterns on frescoes indicate if compared to the elaborate designs on MM II pottery. MM III pottery seems to have followed suite, with the result that its designs lost the liveliness and colourful gaiety of MM II pottery.[22] In the case of large-scale fresco pictures, especially of people and perhaps of other living forms which were rare or uhknown to the pictorial and polychrome traditions of MM I - II minor arts, new conventions and colour-schemes were required; here, it seems, the MM III wall-painters were guided by foreign, particularly Egyptian, works of art. How the Minoans became familiar with such works is an open question, but the answer is surely to be

sought in the commercial or embassadorial relationships with the Near East and Egypt in MM II/III times.

Conclusions

The question how the vivacious and naturalistic art of MM III wall-painting suddenly arrived, raises highly complex issues. The following were probably crucial factors:

(1) Advanced technical mastery of the fresco medium by MM II B;

(2) Widespread and increasing naturalism in other Minoan arts of this time;

(3) Awareness of the potential of mural decoration, as known from the achievements of other civilizations;

(4) The existence in MM I-II of widely held religious beliefs which provided a ready-made source for mural themes; and a way of life ostensibly devoted to religion;

(5) The influence of traditional MM I-II subjects, styles and conventions of representation;

(6) The reconstruction early in MM IIIA of the palaces, which required comprehensive redecoration;

(7) pot-painters and perhaps other craftsmen joining the wall-painters (if they were not all one and the same "painters") to execute this work;

(8) The adaptation of foreign conventions, subjects, techniques and colour schemes where the existing Minoan representational or decorative repertoire was found to be lacking;

(9) The influence of foreign artistic goods imported to Crete.

There may well have been other factors, and other solutions of the problem are possible. But there is one explanation which can be ruled out altogether. This is the theory first put forward by G.S.A. Snijder in 1934, one taken up by several others since, which suggests that Minoan artisans and wall-painters in particular acted upon eidetic visions.(23)

This theory maintains that the Minoans were capable of projecting onto a wall an image which they had in mind and so paint round the projected image before it faded. This would account for several peculiarities best seen in the pictorial wall paintings, such as the emphasis on overall shape at the

expense of organic structure, and the seemingly etherial positions of people and animals in many compositions. The eidetic condition or faculty, it is said, makes rational or intellectual effort superfluous and it is found most prominently among certain categories of mentally sub-normal or primitive people whose arts have such features in common with Minoan wall paintings. The agglutinative character of Minoan architecture, with its maze of rooms and passages, is on this theory also diagnostic. Hutchinson, doubting the validity of the general application of this theory to all Minoan art which Snijder proposed, has suggested a modification of it: perhaps the "realism" of Minoan art might be "more explicable if we supposed that a painter capable of seeing eidetic visions had played a leading rôle as a fresco painter and perhaps formed a school of his own (in MM III)...." (24)

Mrs. H.A. Groenewegen-Frankfort has already opposed this theory on aesthetic and artistic grounds, convincingly in the present writer's opinion. (25) Consideration of the means by which the Minoan fresco-painters planned and executed their compositions, with aids such as string-impressed lines, compasses and, above all, preliminary sketches - to mention only a few technical aids which Snijder never took into account (v. Chapter VIII) - makes a detailed review of his theory unnecessary, for observation of those features and their purposes undermines it <u>in toto</u>. Consequently whatever conclusions have been based on the eidetic theory are here ignored.

Notes to Chapter III

1. Tiryns II, p. 198.

2. From Syria came new metallurgical techniques and raw materials (K.Branigan, SMA XIX, 1968, Chs.II-V) and from Egypt various imported objects - scarabs, faience, stone bowls and statuettes, and probably other metal supplies including gold from Nubia; some 11 Egyptian hieroglyphs were incorporated into the Minoan hieroglyphic script (AC, p.141, Fig.24; and PM I, p.282, Fig. 214 for a comprehensive Comparative Table of hieroglyphic signs). Crete apparently exported clay, metal and stone vases in its turn, and wood, too, according to Egypt's earliest reference to the land of "Keftiu" (= Crete). MM IB-II "Kamares" pottery probably with wine, oils or unguents reached Byblos, Ugarit and Qatna in Syria, and Abydos, Harageh and Kahun in Egypt. For discussions or illustrations, see MSV pp.183-185 with n.1 supporting the MM IB-II character of the "Tod Treasure" (Egypt) of nearly 150 silver vessels whose Minoan origin is disputed; on pottery, v. Liverpool Annals (1903), p.107, Pls. XIII-XIV; Englebach, Harageh p.10 (PM II, Fig. 119); Petrie, Kahun, Gurob and Hawara, p.21ff; Petrie, Illahun, Kahun and Gurob, p.5, Pl.I. The Tod Treasure: PM I, p.241; PM II, p.132; Furumark, Opus.Arch. VI (1950), p.216 (contra Minoan derivation). Matz, CAH^2 Ch.IV (1962), pp.23f, for a useful general summary; and Aegyptiaca.

3. So much seems clear from the establishment of Minoan colonies or trading posts on Melos (Phylakopi), Kythera (settled as early as EM II), Keos (Hagia Irini), Samos, perhaps Chios, and at Miletus in Asia Minor (MM II, MM III and later sherds). A Minoan fleet patrolling the seas in MM II/III times is suggested by the fact that the settlements on Crete lack defensive walls, except at Mallia where one may have acted rather as a sea-break (Matz, op.cit., p.21).

4. Maria C. Shaw, AJA 74 (1970), pp.25-30; PM II, pp.199ff, Fig. 110A.

5. K.A. Kitchen, Orientalis Antiqui Collectio, IX (Rome 1969), p.93.

6. Sir Leonard Woolley, A Forgotten Kingdom (London 1953); also Alalakh: Tell Atchana (1955). Against his claims for Asiatic influences on Minoan architecture, see J.W. Graham The Palaces of Crete, pp.230-232. See, too, notes 7 and 8 below.

7. A. Moortgat, The Art of Ancient Mesopotamia (English ed. 1969), pp.79ff, for a general survey. On the paintings from Mari, A. Parrot MAM Vol. 2 "Le Pallais, Peintures Muralles"; Syria 18 (1937), p.353f. Against significant Asiatic artistic influences on MM Crete, v. G. Roux Ancient Iraq, p.205, and Furumark op.cit., p.216.

8. The dates of Hammurabi's reign are disputed. In his chronological survey in KChr IE' (1962), p.138f (notes 12-13, for full references), P. Astrom favours Albright's "lower" dating - 1726-1686. The present writer follows the somewhat higher dating given by Roux for Hammurabi and his destructions of Atchana and Mari (op.cit., pp.175-182). But even if that dating should be lowered and the "orthodox" chronology of MM periods remain in favour (so Brannigan in Studi Micenei ed Egeo-Anatolici 5th fascicle (Rome 1968), pp.12-30 contra Astrom's lowered Minoan chronology), which would result in the destructions of Atchana and Mari and the building of the Second Palaces in Crete as being almost simultaneous events, there is little concrete evidence for Asiatic influences in Minoan wall-painting.

The evidence for the Asiatic influence as claimed by Woolley (Alalakh pp. 228-234) is so general or obscurely illustrated as to be indecisive, if it may not even be turned the other way round; Woolley leaves the early or pre-MM III history of Cretan wall painting and other arts entirely out of account. The paintings from Mari (refs. in n.7 above), so firmly rooted in Mesopotamian artistic traditions, present even fewer Minoan affinities than many scholars have previously supposed. The "Barbotine Fragment" (PLATE 183B), for instance, which has been assigned to MM I-II by Evans on stylistic and aesthetic grounds and for that reason has been frequently compared to similar-looking fragments from Mari (e.g. Interconnections, p.18 and Fig.33a-b-cf. c, the "Barbotine Fragment"), belongs some 150-200 years later as part of an early LM I scene of an early LM I scene of male processional figures (MC Thesis p.32 and restoration, Fig.15; SLIDE 44 here). Even so, Evans plausibly derives the main pattern, a "C-spiral", from XIIth-XIIIth Dynasty Egyptian, not Asiatic nor Syrian, prototypes on scarabs (PM I, p.533 and PM II, p.199f, Fig.110A,k).

9. H. Frankfort, BSA 37 (1936-37), pp.108-122, for the derivation of griffin and sphinx motifs in Crete and Egypt from the Near East. Furumark opposes an Aegean origin for the "flying gallop" convention (op.cit., p.219f); but a MM II example, the earliest yet known, has since turned up in a firm context at Phaistos - a point which favours Minoan invention (Matz, op.cit., p.18). Heraldic antithetic animal groups are widely accepted as Near Eastern in origin (Nilsson, MMR pp.218, 329-332; Analysis p.199f and Opusc. Arch. VI, p.221. A classic instance appears at Moortgat op.cit., p.82, Fig.59, from Mari). The bucranium may be another Near Eastern motif where it was popular from 7th millenium B.C. onwards.

10. PM I, pp.271ff, and refs. in n.2 above, under Hieroglyphics.

11. S. Alexiou, KChr. 17 (1963), pp.339-351; Chrysoula Kardera, Ephimeris (1966), p.175-181, and Fig.26 where the flagpoles are incorrectly restored beyond the upper horizontal border bands: some architectural feature, e.g. a timber beam, would have confined the fresco to the area below it.

12. Cf, for example, C. Aldred, Egypt to the end of the Old Kingdom (1965), p.131, Fig. 135 "rippling shallows carefully simulated".

13. L. Klebs, Die Reliefs und Malereien des mittleren Reiches, p.52, Fig.34, from Meir, and Fig.100, for similar background treatments. This idea should not, however, be pressed too far: relatively few paintings of the period in both countries have yet been found and published, and the undulating ground-line does occur in MM II pot-painting.

14. PM I, Colour Pls. I-III and pp.238ff, Figs. 178-179, 181-186, 190-199; PM II, Colour Pl.IX and p.215, Fig. 121; and Crete and Mycenae Colour Pls. IV-XIII may serve as representative examples of the "Kamares" style and designs.

15. PM I, p.220, Fig. 166A-F and P.306, Fig. 225.

16. Crete and Mycenae nos. 14-17; Xanthoudides, The Vaulted Tombs of the Mesara (Liverpool 1924), Pls. XXVIII no.4126 (PM I, p.190, Fig.137d) and XXXVII no. 5052 (Crete and Mycenae, no. 14 lower).

17. For instance, the plants and undulating ground-line at PM I, p.264, Fig.196, 197, and spiraliform and geometrical filling patterns at Ibid, p.257, Fig. 192 a, d, e: also p.262, Fig. 194g-h. Crete and Mycenae, Colour Pl.VI.

18. AC, p.140; Matz, op.cit., pp.16-20. On the compositional treatment of Second Palace frescoes, see pp. 258-266.

19. The funeral stela of Irtysen (Chronique d'Egypte XXXVI No. 72 1961 pp. 269 ff.) and the legendary skills of the family of Daedalus are pertinent reminders of this fact. The modern mind, however, tends to classify such artisans of distant periods as painters in what are probably too many - and almost certainly too rigidly defined - categories of painter.

20. MM IB-II patterns common to both frescoes and pots are:
(1) white-speckled stone-imitation (MM IB, Phaistos fresco; of PM I, p.238, Fig. 179);
(2) "Sponge-prints" (PLATE 4D: PM III, pp.361-364, Figs. 238-240);
(3) polychrome bands defining decorative registers (of PLATE 4E, 1 and PM I, p.262, Fig. 194g);
(4) crescent designs in white (PM I, Fig. 188b and Ibid. Fig. 192a);
(5) possibly, also, white-dotted spiraliform decoration (cf. PLATE 4C (if MM II !) and D. Levi, "Recent excavations at Phaistos" Studies in Medit. Archaeology XI (Lund 1964), Figs. 19 and, to a lesser extent, 25.
Outstanding examples of MM III pots perhaps painted by fresco decorators are Fig. 68b opp. p. 554 below (cf. PLATE 101C-D) and Fig. 68c opp. p. 554 (PLATES 102 and 103).

21. AC, pp.158 and 283.

22. M.R. Popham, BSA 62 (1967), p.337.

23. Snijder in AA (1934), pp.315-338 and Kretische Kunst (Berlin 1936), passim; Pendlebury in AC, p.275f; and Platon (so Hutchinson, PC, p.131).

24. PC, pp.129-133 (quotation, p.133).

25. Arrest and Movement (1951), pp.197f.

CHAPTER IV

CONVENTIONS OF DRAWING, THE REPERTOIRE OF MOTIFS AND RELIEF FRESCOES

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Part II

The world of Nature .... p. 87

Part III

Borders, geometrical designs, dadoes and woodwork .... p. 109

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Part I

THE WORLD OF MAN

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   - (b) Proportions
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   - (d) Forms of dress and hairstyle
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6. Vessels and food p.77

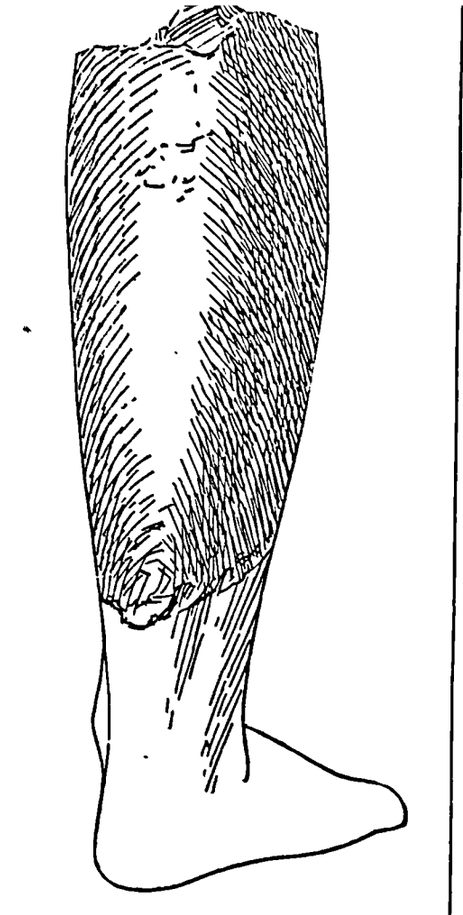
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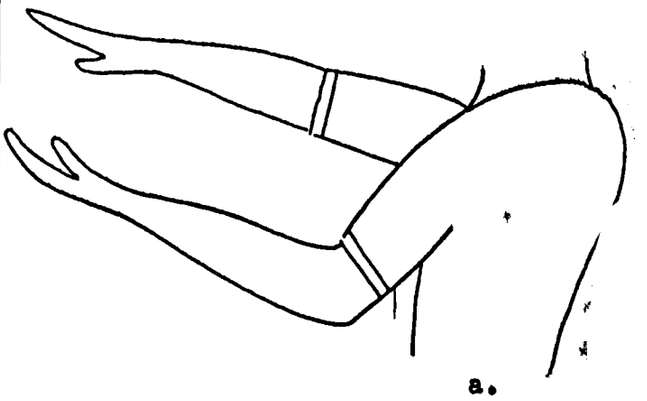
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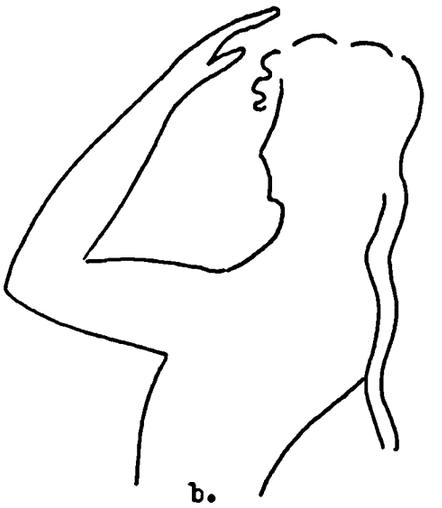
Fig.5



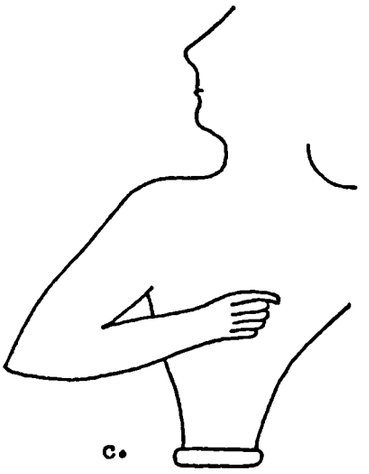
(1) Leg in relief with foot restored (PM III, p.508, Fig.353)



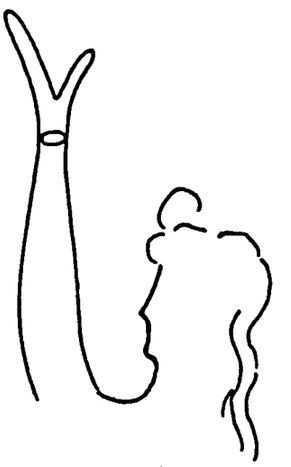
a.



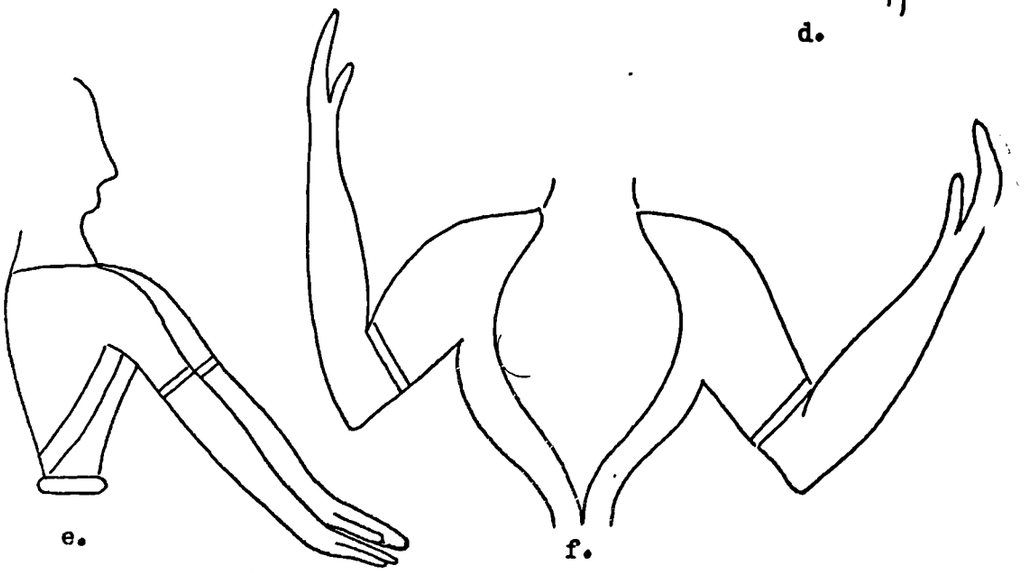
b.



c.



d.



e.

f.

Fig.5: Conventional gestures

1. THE HUMAN FIGURE: PLATES 5-41

(a) Conventions in drawing and gesture

People in Minoan frescoes are conventionally idealised, not portrait, figures. They are always depicted in the prime of youth, black-haired, narrow-waisted, with legs and heads in profile but the chest may be in frontal, three-quarter, or profile view. In LM I B or earlier paintings of women the torso is only rarely seen in profile, the full frontal view otherwise being the norm. Eye, eyebrow, and ear are shown in full, but nostrils are absent (one girl bull-leaper is exceptional: PLATE 38) and lips are generally schematically denoted. The pupil and iris of the eye are always painted deep red, black or brown or in combinations of these colours. The tear-gland is usually absent, but if present is seen in its anatomically correct position in LM I B or earlier paintings; thereafter it is transposed to the wrong side of the eye. Facial expressions are invariably restrained and noncommittal.

Hands and feet may be carefully delineated, even to details of finger- and toe-nails (PLATES 7A, 8, 19 and 36). Another method indicates only the thumb and two or three fingers, as in the famous Knossos "miniature" scenes (e.g. PLATE 27B). Alternatively, hands and feet may lack indication of individual fingers and toes, these being treated as though they were a single anatomical element (PLATES 13D, 15A and E, 29-31A, 34B-C and 38). Naturally, the smaller the overall size of the figure, the fewer the minutiae of detail, although it should be stressed that even in true "miniature" representations (6-8cm high) considerable attention was still paid to portraying the head (e.g. PLATES 26-31 and 46-47). Rear views of people are lacking, but we see backs of hands or fists (PLATES 7A, 8, 17 B1, 17C and 18) and, uniquely, a man's leg in relief turned away from the onlooker (Fig.5, 1).*

Conventional hand-gestures played a most important part in Minoan life and in our frescoes. Typical attitudes are illustrated here at Fig.5, a-f, where a-b are characteristic gestures of votaries

* See Corrigendum no.3, p.xxvii.

beseeching the presence of or adoring deities; gesture c is characteristic of running figures and of processional figures whose posture recalls that of the "official poses" of Egyptian sculptured notables (v. PLATES 12A and 18)[1]; gesture d apparently expresses enthusiasm or excitement, to judge from the last row of figures in the crowd depicted in the Miniature Sacred Dance and Grove Fresco (PLATES 29 and 31A). Conversational gestures are well exemplified by the same series of "miniature" scenes at Knossos (PLATES 26, 46A and 47), while others denoting consecration, prayer or blessing - both arms and palms stretched downwards and open (Fig.5, e) - are best represented by priestesses on the Hagia Triada painted sarcophagus (PLATE 34B-C). Most importantly, the gesture at Fig.5, f, showing the forearms raised upwards away from the head, is particularly characteristic of goddess representations in frescoes, on gems and in terracotta models as a symbol of divine salutation and blessing or greeting (v. PLATE 20).

Standing figures have strongly arched backs, emphasising the fact that movement in this art is expressed more by the free-flowing and sensitively naturalistic outline than by subtle treatment of muscular action. Some critics of Minoan art, notably Snijder, stress the lack of bony structure or muscular interaction and tension and in these respects Minoan art is said to be particularly "primitive". But this "primitavism" is a truism of all art in the Mediterranean area and Near East before the art of 5th century Greece. The view that Minoan fresco figures simply comprise well-modelled anatomical units assembled into poorly conceived doll-like bodies may express a general truth but hardly one distinguishing Minoan from Egyptian painted mural figures.

In the case of relief figures, leg-, arm-, and chest-muscles are often realistically moulded in greater or lesser depths of plaster according to the thematic or topographical importance of the subject. Strenuous action is portrayed in bulging biceps, strained forearm muscles, and hand- and leg-veins swollen to suggest violent effort and movement (PLATES 16-17). Muscular movement and bony structure

Fig.6



Fig.6: Alighting girl "taureador"
(after PM IV, p.22, Fig.11)

are not in fact entirely absent even in figured paintings executed "on the flat" in two dimensions: among paintings of bull-leapers, for example, black lines indicate ribs, the cavity of the stomach and taut leg-muscles (Fig.6). Speedy movement, however, is indicated by convention, by the disposition of arms (PLATE 12A; Fig.5, c), by hair flying in all directions (PLATE 32), or, in animal pictures, by both front and back legs thrust dynamically outwards at the same time in a posture which has come to be known as the "flying gallop" (e.g. SLIDE 46).

A most striking convention is that by which the sexes are distinguished. Men, always beardless in Minoan frescoes, are red-skinned while women are white-skinned, perhaps because this was a convention taken over from Egypt, as Evans and others have supposed. But it seems more likely to reflect social conditions in Crete itself, in which the women remained indoors and therefore relatively fair-skinned by comparison with their sun-tanned men-folk who led more out-of-door lives. This social pattern has remained the same in Greece until most recent times. Alleged exceptions to the universal adoption of this important convention are all doubtful or ill-founded[2], and in this writer's opinion there are no permissible exceptions. The point is stressed because distinction of the sex of figures in the broken compositions which have survived is often of paramount importance to issues of interpretation.

(b) Proportions

Did the Minoan painters know or make use of a "canon of proportion"? Measurement of the better preserved figures suggests the following general ratios of proportion: top of head to base of neck, 1:5; top of head to waist, 2:5[3]. More informative results are forthcoming from the Cupbearer Fresco and related figures from the same great Procession Fresco from Knossos. Fig.7, showing a carefully revised and full length restoration of the Cupbearer, illustrates these results in <u>foot</u> units, thus:

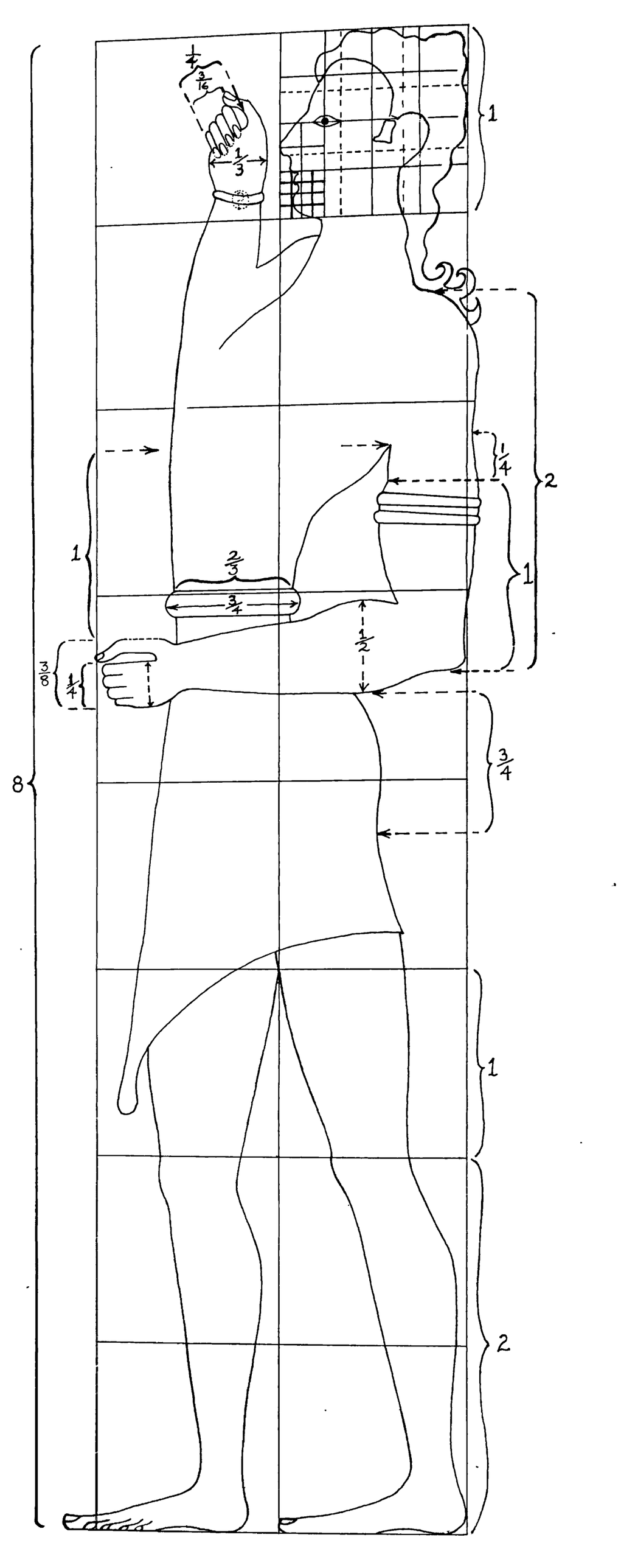
1 Foot = 1 Head or $\frac{1}{8}$ Total Height

Fig.7

Fig. 7

The proportions of the "Cupbearer": SLIDE 9

(Based on P. II, Colour Plate XII; but le s
and left shoulder restored after PLATE 9A
and SLIDE 3


1/4
3/16
1/3
1
1/4
2
1
2/3
3/4
1
1/2
3/8
1/4
3/4
8
1
2

2 Feet = 1 Cubit (elbow to thumb-tip) or $\frac{1}{4}$ Total Height

Top of head to waist, $\frac{3}{8}$ Total Height

Waist = $\frac{2}{3}$ of 1 Foot; right fist = $\frac{1}{3}$ of 1 Foot

Left fist = $\frac{3}{8}$ of 1 Foot; left palm (across knuckles) = $\frac{1}{4}$ of 1 Foot

A difficulty here is that the hands of the Cupbearer are drawn on slightly different scales, with the right fist at $\frac{1}{3}$ and the left fist at $\frac{3}{8}$ of one foot unit. This discrepancy therefore affects calculation of the finger unit, which according to the proportions of the left fist ought to be $\frac{1}{16}$ of one foot or $\frac{1}{128}$ the Total Height: but even in that case, an absolute proportional value cannot be inferred because in fact each finger is deliberately portrayed as slightly thicker or thinner than the next.

At this stage of enquiry it would be unwise to infer that the Minoan painters worked to a "canon of proportion"; but we may reasonably infer that a "canon" was known to them and that their units of measurement were based on the general proportions of the human body: also, that their basic unit of measurement was the foot (or head) as J.W. Graham has already calculated on other evidence[4]. The grid at Fig.7 high-lights other points. The central vertical line aligns nose-tip, intersection of thighs, and right toes; the top point of the knee-cap is 1 Cubit (2 feet) from the base-line; and if we consider the head as a unit of 4^2 (or 16 left palms) intersecting lines occur at the centre of the eye and near the junction of brow with hair and chin with neck-line; and one line almost passes between the lips. The head as a unit of 3^2 (broken lines in Fig.7) also shows lines of intersection at interesting points, notably at the outer corner of the eye.

Further study of proportion in the mural paintings is clearly desirable, for it already seems apparent some features of the Minoan style of figure-drawing (e.g. the arched back of standing or walking figures) may be explained by reference to rules of drawing and distribution of "mass" in a proportional or canonical framework which, however, the Minoan artists did not make explicit like his counterpart

Fig.8

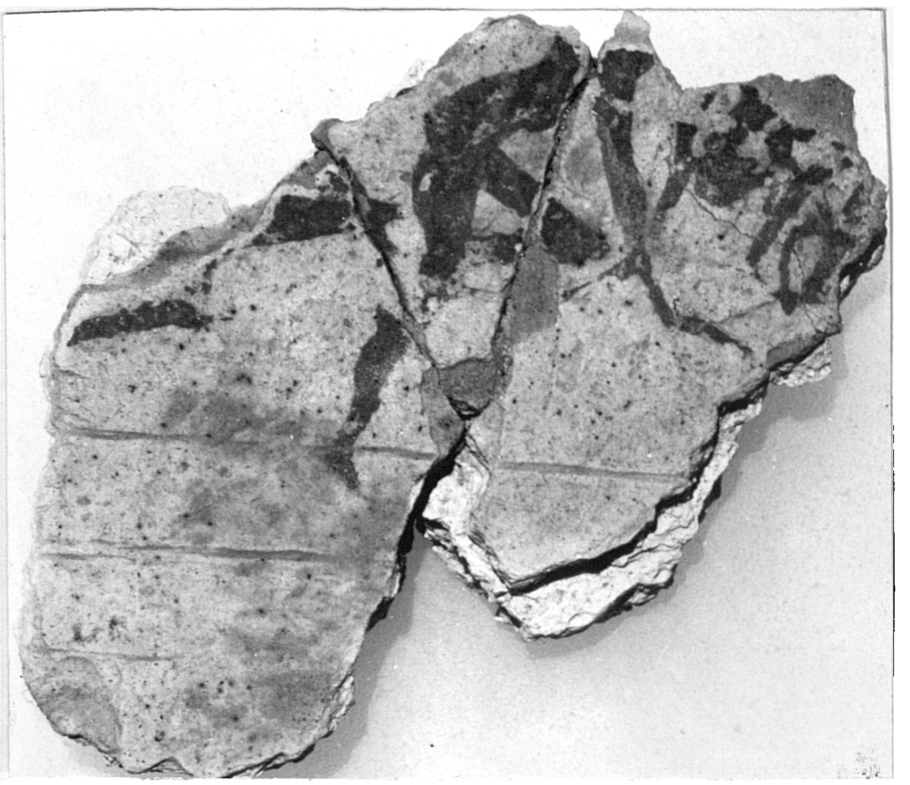


Fig.8: "Miniature Playing Boys", from Knossos palace,
North Threshing Floor Deposit
Scale: $\frac{3}{1}$

(Appendix A, p.690, Fig.89(10))

in Egypt by means of a grid actually traced out on the wall-plaster. If he had a "canon of proportion" in mind, the Minoan artist evidently used it as a vehicle for artistic expression to guide him beyond set formulae and stereotyped designs.

(c) Idealism

The conventional idealisation of the human figure as always youthful, graceful and physically a perfect specimen of the race is a distinctive but puzzling feature. A possible explanation is that many of the activities depicted in the frescoes are such as would best be carried out be people in their prime years. These activities were among the highlights of major public festivals of a religious character which took place in the precincts of the main palaces, in and around which Minoan life revolved. It would seem natural, therefore, that the youths hailed as the chief participants in the great Minoan public festivals should become the models for the idealized human figure which appeared on palace and house walls. Since the Minoans also believed their deities to be anthropomorphic, these too are presented as ever youthful and perfect. This hypothesis accords with the Minoan view of the world of Nature as a kind of perpetual Spring with gushing streams, blossoming flowers and landscapes filled with pairs of birds and animals vivaciously portrayed.

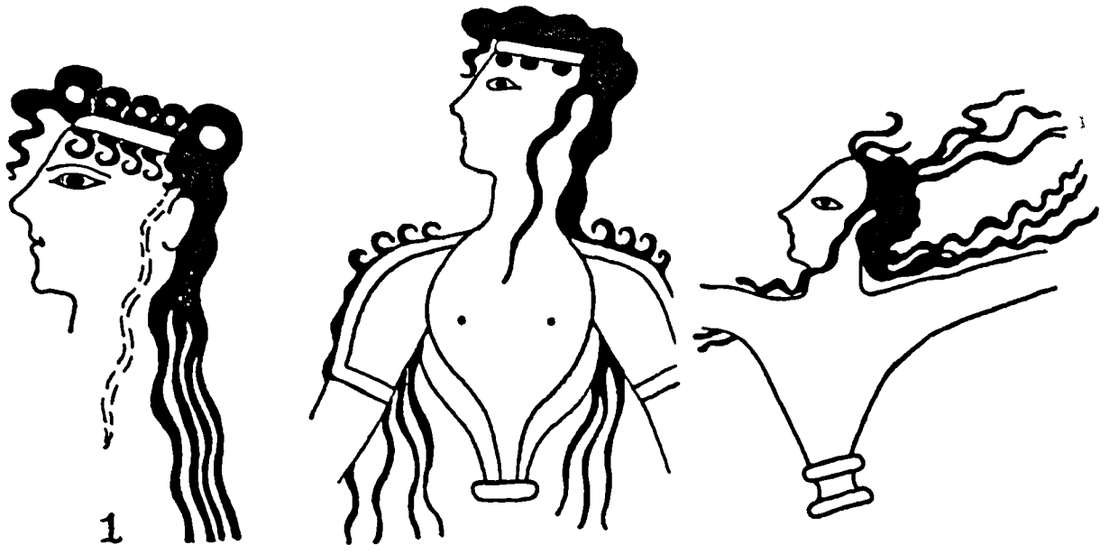
Such, indeed, is the idealisation of youth in this art that we may suspect very powerful underlying reasons for it. What these may be will become clearer later on consideration of the interpretation and significance of the scenes as a whole.

(d) Forms of dress and hairstyle

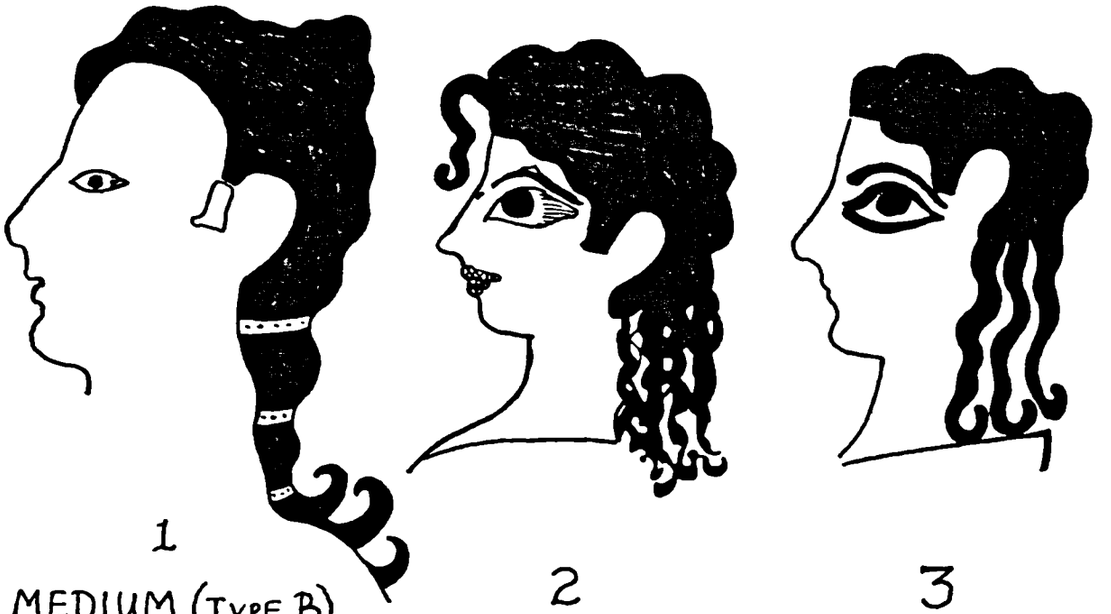
In the wall paintings we find three basic forms of hairstyle, on each of which different artists created their own distinctive variations. These hairstyles, typical examples of which appear in Fig.9, may be classed as LONG (type A), MEDIUM (type B), or SHORT (type C).

Fig.9

Fig. 9 PRINCIPAL HAIRSTYLES



LONG (TYPE A)



MEDIUM (TYPE B)



SHORT (TYPE C)

A

1. Kn: Processional 2
2. Kn: Miniatures after PLATES 26 to 28
3. Kn: Taureador 49

B

1. Kn: Cupbearer 3&9
2. Kn: La Parisienne 4
3. Kn: C mp Stool PLATE 54

C

1. Kn: Palanquin PLATE 51B
2. Kn: Male Head PLATE 15E
3. Kn: Captain/Blacks 10
4. Thera: Libyan's Head PLATE 196 A3

The long type is distinguished by curls at the temple and on the crown of the head, by a forelock and a series of long locks falling in front of the ear onto the chest but more especially over the shoulder to near waist-level (SLIDE 2). A head-band may be worn by either sex. The medium type, generally lacking a forelock and always lacking a head-band at the temples, stops short at the shoulder in a series of tresses or curls (usually three or four in number); and the type is further distinguishable by medium-length "side-burns". It is interesting to note that male figures of the Cupbearer class (Fig.9, Type B1) had short ribbons in gay colours binding the hair at the backs of their necks (SLIDES 3 and 9). An example of this style among women is best seen in "La Parisienne" (SLIDE 4). The short or cropped style (type C) lacks curls of any description, and also forelocks, and is very short at the back of the neck: side-burns, or a suggestion of them, are, however, retained. This style and also the medium type represent "wavy" hairstyles quite distinct in character from the "curly" style of type A.

Curiously, while all three styles are found on the painted sarcophagus from Hagia Triada, their depiction there has become confused by comparison with mural norms (SLIDE 5). Close examination shows that only types B and C were really familiar to the artist; this is clear from the number of occurrences there and from the fact that the basic hairstyles were painted in black as usual, but to them were often added <u>as supplementary decorative ornament</u> waist-length locks in orange-red paint: these invariably lack any articulate connection with the black-painted elements of the hairstyles (especially SLIDE 5, B3 and C2-3). Even the instances classifiable as Type A are peculiar. SLIDE 5, A1 adds long red locks to black curls and forelock which alone seem typical elements of the mural Type A; SLIDE 5, A2 shows the only long black locks on this monument in articulate connection with the main shock of hair, but this was probably drawn (as the restorer rightly shows) more in the "wavy" manner of B and C styles than in the "curly" style of type A. And SLIDE 5 A3 shows absurdly long black locks reaching an all-time low

Fig.10

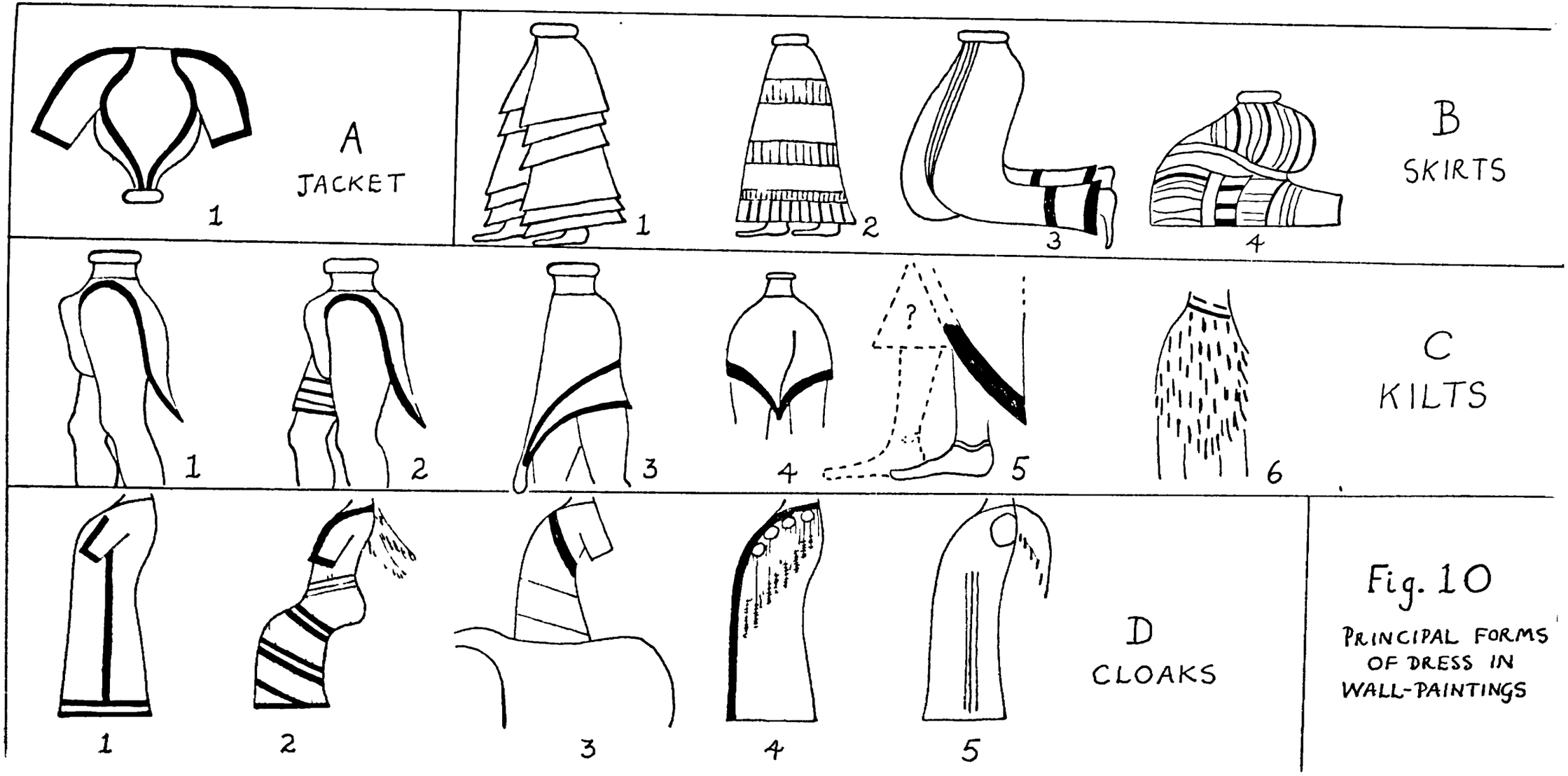


Fig. 10

PRINCIPAL FORMS OF DRESS IN WALL-PAINTINGS

in terminating near knee-level! From this review we may conclude the artist was in fact accustomed to draw only medium or cropped hairstyles. This is important because there is clear evidence from the wall paintings for certain recurring relations between hairstyle and forms of dress; this in turn is emphasised by another point, namely, that, if we except the hairstyles of figures in "crowd-scenes" in the "miniature" frescoes from Knossos (on the grounds not only of their "shorthand" execution but also of their secondary importance and subordinate place on darker backgrounds in the scenes as a whole), we may safely say that in no known painting does one kind of hairstyle (e.g. of type A) occur together with another of B or C type in the one scene or frieze. We may now turn to different types of garment of which the most typical and representative are sketched in Fig.10: here the broader black bands denote hems, often elaborately embroidered.

Jackets and Flounced Skirts

Fig.10 A1 shows the usual upper garment worn by women together with flounced skirts (Fig.10, B1-4). The jacket is short-sleeved, constricted at the waist by a narrow girdle and cut away at the front to expose the breasts (SLIDE 6). The main area of the jacket was invariably covered with ornate dress patterns (see Section 2, below). Beneath the jacket it seems a plain-white diaphanous chemise might also be worn on occasion, to judge by hem-lines at the necks of some figures in this costume (e.g. PLATE 32). The flounced skirts, or rather flounced trousers, as most of these garments appear to be (Fig.10, B1, 3-4), vary according to the cut and number of overlapping lengths of material. This outfit was the traditional one of Minoan women, to judge by MM I-II clay figurines and MM III models in faience, and it is suggested on good authority to be the characteristic dress of priestesses and goddesses in particular, that is, a cult form of dress[5]. Only long hairstyles (type A) are known to accompany this outfit in our wall paintings.

Kilts

The traditional garment of Minoan men, found also in MM I-II terracotta representations, is called the brief or "older" kilt (Fig.10 C1-2). It consists of a short flap round the buttocks, cut away at the sides to expose the thighs and with a codpiece or loin-sheath in front. The waist is again tightly constricted by an embroidered band and belt. The latter may have been of gold, bronze or silver to judge by the yellow, red and light blue colouring of similar belts worn by men in the Procession Fresco from Knossos (PLATES 8-11 and 14, top)[6]: but another fresco example is known which suggests a roll of differently coloured textile materials twisted together. A variant form of the kilt is seen in Fig.10 C2, with a triangular flap over one thigh. As this form appears only in scenes depicting athletes, we may perhaps infer the purpose of the flap was protective, to minimise chaffing between the legs (PLATES 39 B1 and 71). Most interestingly female bull-leapers also wore this male costume (SLIDES 7 and 8), perhaps as Evans wrote because "these sensational feats were at one time exclusively performed by men"[7]. Wearing this garment may have been considered a mark of honour, as Evan thought; but if women were to partake in bull-leaping activities some such "brief" costume would be expedient simply for speed of movement. Even so, the codpiece seems an anomalous item for female athletes. With this garment sandals or puttees with (? leather) straps around the ankles and lower shin were often worn, but sometimes the men went barefoot (PLATES 6B-D, F; 38; 39 B2, 4-5; 42f and 71). Only the long hairstyle (type A) occurs with this form of dress in the Minoan frescoes, and in a later Chapter reasons will be given to suggest this was the only garment worn by men depicted in the wall paintings from Crete of LM I B or earlier date.

A longer form of kilt (Fig.10 C3-4) makes its appearance with hairstyles of medium (B) or cropped (C) styles in the Procession Fresco and in the 'Captain of the Blacks' Fresco from Knossos (PLATES 7-11 and 12A; SLIDES 9 and 10 respectively); also in a

mutilated processional scene on the Hagia Triada painted sarcophagus, but this time with the absurdly long, knee-length hairstyle - evidently a poor recollection of an A type - mentioned earlier (PLATE 12B and SLIDE 5 A3). The belt and waist-band remain the same, but the kilt itself bears a closer resemblance than the first type to the Scottish cut, tapering, however, from behind the legs to a low point at knee-level. From this point may hang an open-meshed net weighed down with metallic or stone pendants in floral or bead forms (PLATE 9A)[8]. In the 'Captain of the Blacks' Fresco the kilt appears, in Egyptian manner, with the lower front edge between the legs in frontal perspective (Fig.10 C4), whereas in the other instances it is always shown in side view: the former picture shows we have here not so much the Scottish kilt but rather somewhat schoolboy-like trousers. This garment also appears in a "miniature" fresco from Hagia Irini on Keos; although the head of the figure concerned is missing, enough survives to show that only a B or C hairstyle could have been depicted.

Fig.10 C5 shows yet another kilt-like garment, reaching nearly to ankle-level, which appears only in the Procession Fresco from Knossos (PLATES 12C-D). It tapers to point between or behind the legs but how the upper part, which lacks dress patterns, should be restored is quite uncertain[9]; in its incomplete form it brings to mind certain Libyan cloaks on pictorial tiles of later date from Medinet Habu in Egypt[10]. As we know the garment only from the Procession Fresco from Knossos, we may reasonably associate it with the medium B1 hairstyle since this is the only certainly attested male hairstyle from that fresco series.

A "miniature" fragment from Hagia Irini shows a woman in a shaggy-looking knee-length kilt, probably made from a sheep's fleece or other animal skin (Fig.10 C6). This unique form of kilt brings us to yet another type depicted on gems and also on the painted sarcophagus from Hagia Triada (SLIDE 5 B3 and C3; and PLATES 13D, 34C and 56B). In the latter cases, the kilt is certainly made from an animal fleece (? sheep), as the dress motifs imitating woolly curls

and the presence of animals' tails show. Both men and women are attired in this kilt; but the women also wear a short-sleeved jacket which is even more cut away at the sides than the type already discussed: it seems fittingly called a "bolero". This outfit is certainly cult dress, as the scenes on the sarcophagus indicate. The hairstyles associated with those figures on that monument are medium (B2) and cropped (C1) types with decorative long red lock additions.

Cloaks

Fig.10 D1 shows a short-sleeved, beltless cloak reaching to the ankles. The main area is left a monochrome colour, decorative detail being confined to hems and long seams up the sides. This form of cloak is worn by men in the Procession Fresco from Knossos (PLATES 13A-B and 14A, restoration) and is therefore, presumably, to be associated with the male hairstyle B1. Women evidently wore a similar cloak or very long beltless skirt over which they put on the "bolero", to judge by figures on the Hagia Triada sarcophagus (SLIDE 5 A1).

A second cut of cloak worn by men appears in the Camp Stool Fresco (PLATES 54-55). New features are white wing-like appendages at the neck (white waterfowls' wings?); several diagonal embroidered bands across the lower half of the garment; and overall simple linear decoration (Fig.10 C2). A similar cloak, but sleeveless, beltless and lacking substantial ornamentation except perhaps on side-seams, is known from "miniature" fragments also depicting men from Hagia Irini (Fig.10 C5: and PLATE 197 A1-2). The "wing" appendages suggest these cloaks are articles of cult attire. Only the medium hairstyle, with or without the forelock, can definitely be associated with the male figures in these cloaks (Fig.9, B2-3).

A male charioteer wears a garment whose lower half is substantially decorated with dotted dress motifs: across his chest is what appears to be a sword-sling (Fig.10 C3 and PLATE 59A: SLIDE 20)[11]. The garment is probably a cloak - a shirt and chiton

(cut short by the chariot box) being less likely because a belt is lacking. To judge by the surviving trace of hair, which is "wavy" and lacking a forelock, and from the hairstyles depicted in the "hands" of painters of the same school, his hairstyle was almost certainly a short-cropped type (pp.341ff).

Finally, both male and female figures may wear a long beltless and sleevless cloak, without openings for the arms. In the one form, worn by two female figures in the Camp Stool Fresco, there is a decorative outer hem and blue and red ribbons attached to loops at shoulder and chest level (Fig.10 C4), and also a wide-flaring appendage at the neck recalling the "wings" mentioned above but whose distinctive shape has earned it the name of a "sacral knot" (PLATES 35 and 54, top right, for second figure; SLIDE 4). This object is a well known Minoan symbol connected with religious worship in particular with that of female deities, and seems to have had attributed to it the power to induce or heal illness; but perhaps more importantly the symbolism of the "knot" plays a significant rôle - as loosed or bound - in ancient beliefs relating to fertility and reproduction[12]. In the other form of the cloak, worn by a male figure interpreted as the dead man to whom belonged the painted sarcophagus from Hagia Triada, the garment is quite clearly made from an animal fleece and lacks a "sacral knot" (SLIDE 5 C1; PLATES 13D and 52B). The accompanying hairstyle is cropped but with a forelock; but that of the two "Parisiennes" of the Camp Stool Fresco belongs to type B2 (Fig.9, opp.p.55).

Nude figures are unknown to Minoan wall painting, with the exception of some questionably interpreted as "boys" playing a pavement game on a "miniature" fragment from Knossos (Fig.8, p.54; and v.(f below). Apart from girl bull-leapers, women nude above the waist appear only in MM III scenes from Phylakopi on Melos (PLATES 36-37B): one of them appears to be wearing a skirt decorated with a Nature scene and "miniature" flying griffins (not swallows: see Section 2, below): PLATE 36.

Some interesting conclusions emerge from the above review. Long

hairstyles of type A go only with the typical and traditional Minoan forms of male and female costume - the brief kilt, and jacket-and-flounced skirt outfit. The medium or shoulder-length hairstyles, and also the short or cropped styles, appear only with other forms of kilt or with cloaks. Moreover, in the wall paintings the former types of dress do not appear in the same scenes as the latter types of garment, with two exceptions. In the Procession Fresco from Knossos, female figures in flounced skirts (interestingly outnumbered by men), occur with men in long kilts (type C3-4) and cloaks (D1): it will be suggested later there are important historical reasons for this (Chapter XI). Our second exception concerns "miniature" frescoes from Hagia Irini on Keos. There we find men in both the brief and the longer (C4) kilts in the same scenes. Chapter XI attempts to account for this phenomenon, too, and we may certainly regard it as "abnormal" from a Cretan mural view-point. As to the dress of figures on the Hagia Triada painted sarcophagus, which alone comprises our non-mural class of objects painted in the fresco manner, only the animal-skin kilt seems a traditional Minoan garment, to judge by its earlier appearance on LM I B gems from Hagia, Triada and Zakro (PM I, p.680, Fig.500). The hairstyles there are predominantly shoulder-length or cropped, and longer (A) types are unconvincingly drawn and belong to figures dressed in cloaks or in the longer (C3-4) type of kilt. Chronological considerations indicate the latter forms of dress all make late appearances in the Cretan frescoes, some time - if not long after - they have first appeared in figured representations on the Greek mainland and in the "miniature" scenes from Keos.

(e) Headwear

Both men and women with long hairstyles may wear head-bands to keep their curls in place (Fig.9 A1 and 2), and in larger pictures these were evidently decorated with simple ornamentation in the form of rosettes (SLIDE 2). Women may also appear in elaborate crowns ringed with lilies, from which hang long ribbon-like plumes (SLIDE 5,

A1 and B2). A similar crown is worn by the so-called "Priest-King" from Knossos, and its appearance there is one reason for believing this figure a woman (see footnote 2): only women or sphinxes (by common definition female-headed) in Minoan or Mycenaean art wear crowns of this type. The "Priest-King's" crown is, however, distinguished from the others by three long peacock's tail-feathers (SLIDE 1) which suggest indirect trading relations reaching as far as the Indian continent where the bird was indigenous[13]. Parts of similar lily crowns and peacock's feathers are represented by other fragments from the palace at Knossos, hitherto unknown (PLATES 169 A1; 175 B21- feather; and an unpublished fragment in HM tray 22 Z VIII 'North Threshing Floor Area').

Two other forms of headwear deserve a mention. In the "miniature" Temple Fresco, men or youths in the back row of the crowd wear feathers or stylised lily-flowers (schematically drawn in artistic "shorthand") in their hair, unless these are locks specially coiffured in this way (PLATES 47B; restored in 46A). Feathers or else small goats' horns, painted black, are worn by the figures in the "Captain of the Blacks" Fresco (SLIDE 10). Among the pictures of Aegean Bronze Age peoples this feature otherwise appears only in the palimpsest scenes in the Tomb of Rekhmirē at Thebes in Egypt, and again in scenes of Ramesses's II battles with horn helmeted "sea-peoples" who perhaps included Aegeans.[14]

(f) Children and old people

Boys are depicted, but not small girls, babes in arms or old people. The boys are simply smaller versions of adult men to judge by the figures to the right of PLATE 6E; in Egypt this was also the convention until the Amarna artists made their realistic pictures of Akhenaten's daughters, in the mid 14th century B.C. Evans claimed more boys, this time naked, playing a pavement game on a fragment from Knossos (Fig.8): but this identification is questionable because the figures are poorly preserved and their "limbs" curiously proportioned. But if Evans is right, these are the only nude figures yet

known from Aegean Bronze Age murals, although naked men appear swimming on famous metal objects from the Greek mainland. Evans's Figure D in the Camp Stool Fresco is also described as a boy (PLATE 55): but the difference in his height and that of others seated on nearby stools is slight (PLATE 54). Better, perhaps, ambiguously to call them "youths".

(g) Different peoples in the frescoes

Four races or peoples seem represented. Those in the brief kilt or the jacket-and-flounced skirt outfit, with long hairstyles, may safely be counted Minoans. Chapter XI sets out reasons for considering those figures with medium or cropped hairstyles in long kilts (C3-4) or cloaks to be Mycenaeans, or Minoans in Mycenaean guise; we shall see that such figures are absent from pre-LM II Cretan murals although they are common in LH I Mycenaean representations. In Crete they first appear in paintings of LM II date. The "Captain of the Blacks" leads Nubian troops (SLIDE 10). Lastly, if Professor Marinatos is right, the yellowish flesh-colour, heavy facial features and the ear-rings of the man at PLATE 196 A3 indicate a Libyan. In this connection, we may mention the similarly painted pendant heads in the "Jewel Fresco" (PLATE 44A and SLIDES 13u and 14). Evans thought they showed Libyan or at least negroid features but he noted the yellow colouring might also indicate goldwork.

2. DRESS DESIGNS

Minoan love of multicoloured decorative ornamentation is most evident in the treatment of dress patterns in the frescoes. Hems as well as main areas came in for elaborate designs until towards the end of the art in Crete when unimaginative and elementary linear dress patterns took over from the more exciting motifs of previous periods. The frescoes throw great light on the Minoan textile industry, of which little evidence has survived except on the economics of the wool industry as recorded in the Linear B tablets.[15] Where garments of fresco figures were to be covered with complicated motifs, the artists usually marked out the area beforehand into a series of squares by pressing taut lengths of string or twine into the soft and as yet unpainted plaster (see, for example, PLATES 8-11, 20 and 21). The designs themselves fall into three groups, namely, geometrical, pictorially derivative, and naturalistic, the last of which seem to have been confined to paintings of MM III and LM I date: this, too, seems indicative of a change in fashions of dress in LM II-III A. Consideration of the chronological and stylistic sequence of dress patterns in Minoan wall painting, in which the treatment of filling motifs plays an important part, and their development in relation to similar designs on pottery, will be looked into in Chapter X.

The foremost geometrical patterns on garments are rows of simple "bars", spirals, chevrons and zig-zags, quatrefoils, and undulating and consecutive straight lines. Spirals, zig-zags and chevrons are sometimes drawn in dotted outline (e.g. PLATE 42B-D). Filling motifs of this class of pattern are generally simple and include small central discs or spots in black, red or white, "dotted rosettes", and more rarely triangular, diamond or pictorially derived motifs (e.g. stylised ivy designs).

Our second group, derived from pictorial objects, include various floral patterns - notably, rosettes, ivy and papyrus or "waz" motifs - too conventionally rendered to bear more than a generalised resemblance to real flowers or plants. Leaf motifs,

in linear or dotted form, highly stylised "iris" patterns (e.g. PLATE 23 D10), various foliate bands (e.g. PLATE 175 A7) and "ivy-chains" also belong here (PLATE 184 B2-3). Chequer patterns perhaps originate from architectural features, such as courses of masonry with the individual stones delineated in some way. Other common patterns derive from the marine world, notably fish-scale, net, and schematic argonaut motifs (PLATE 185 B5). The tricurved arch motif may come from conventionalised rockwork, while the "adder-mark" perhaps copies the markings on vipers' backs, as Evans suggested: this is not only a common dress motif (e.g. on the hems of the 'Lady in Red's' jacket: SLIDE 6) but recurs very frequently on the wings of griffins or sphinxes (PLATE 131). Filling motifs are similar to those of our first class: but one filling motif which belongs here in its own right is the two- or three-pronged design (⩔) representing tufts of woolly hair (v. SLIDE 5 B3 and C1 and 3).

To the "naturalistic" class belong well drawn identifiable pictorial subjects representing ornaments in gold-foil or other non-textile materials which were sewn on to the garments.[16] Most of the known fresco examples are illustrated here at PLATE 43 and in SLIDE 12. Among them we see:

butterflies (SLIDE 12 a i-iv);

doves with pink collars (SLIDE 12 b: cf SLIDE 27 a);

hoopoes, grass/reeds and rockwork (SLIDE 12 C);

double-axes (SLIDE 12 d);

bucrania, whose extra "horns" (also called "frames") may have terminated with rounded red-painted knobs (SLIDE 12 e)[17]

"miniature" flutes (SLIDE 19 d);

winged griffins (SLIDE 12 f-h);

winged sphinx (SLIDE 12 i);

other pictorial, but unidentifiable, objects (SLIDE 12 j).

The motif at SLIDE 12 h, showing flying griffins, with typical wing decoration of "adder-marks", decorates the skirt of a female figure in a fresco from Phylakopi which also features a "landscape" setting for these creatures on the dress (PLATE 36). This confirms not only Evans's view that such motifs tend to embellish the garments

of female figures, but also the present identification of the motif at SLIDE 12c (from Katsamba) as belonging to a dress design: in this case, further confirmation is supplied by a dotted scale pattern below the hoopoes on the original fragment.[18] The butterflies and flutes, however, decorated brief kilts worn by men, to judge from the occurrence of the same hem design (a leaf motif) on another fragment depicting the thigh of a man in this form of kilt (cf PLATES 184 A and 5B). The griffins and sphinxes (female-headed) would probably have decorated the garments of female figures; such creatures were especially associated with female deities in Minoan art,[19] to whose garments these fragments probably belonged.

3. JEWELRY: PLATES 44-45 and SLIDE 13

Precious metals such as gold (yellow), bronze (red) and silver (blue) and semi-precious stones - agates, red carnelian, onyx and turquoise (blue) - were fashioned to make beautiful necklaces, bracelets, seal-stones worn round the wrists, and anklets for both sexes; jewelry in the colours noted here in brackets () appears frequently in the frescoes. Men also wore gold or silver arm-bands over the biceps. The jewelry was made in moulds (some of which have been discovered) or hammered out in gold foil in the repousse technique.

In the frescoes some beads have floral shapes, of lily (SLIDE 1), crocus (SLIDE 13 s-t), or papyrus "waz" form (PLATE 45B; SLIDE 13 o-t) most beads, however, are round or elongated, some of the latter like "tear-drops" (SLIDE 13 n). They may be arranged in from one to five rows. Some items comprise rounded beads on one or both sides of narrow textile or metal bands (SLIDE 13 g-i). On other cases, notably in a relief fresco from Pseira (PLATE 24; SLIDE 13 w), the beads are strung in loops in a "scale" arrangement. Another similar example may be depicted on fragments of a female figure from Knossos probably to be associated with an olive tree.[20]

Such figures as the "Priest-King" (SLIDE 1), the girl bull-leaper at Figure 6, the Pseira relief just mentioned, and the 'Ladies in Blue' (PLATE 19) show women of different stations adorned with jewelry. The most spectacular necklace is that with gold pendants in the form of Libyan or negroid heads which a male relief figure is placing round the neck of a woman or goddess (SLIDES 13 u and 14). These pendants show uniquely in this art the human head en face; moreover, they suggest a necklace perhaps manufactured in Egypt where human- or animal-head pendants were more common than in the Aegean area.[21]

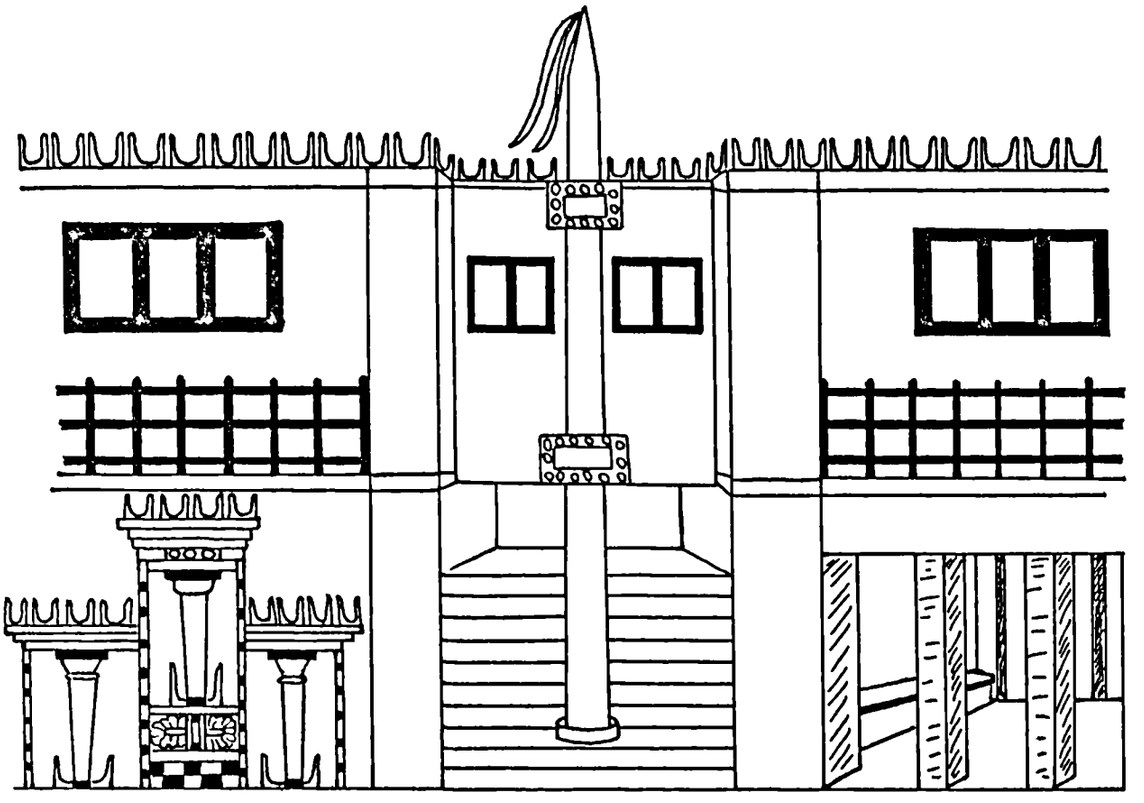
The gold "waz"-shaped jewelry at SLIDE 13 o is painted on a black ground and therefore probably represents hair-ornament. Evans discovered clear evidence of this nature in a fragment from the north of the Palace at Knossos but the original fragment, probably

from a female figure, cannot now be located.[22] Men did not adopt hair-ornaments, head-bands apart, apparently until LM II when it evidently became fashionable for them to deck themselves with silver pendant ear-pieces and decorative bands, clasps or ribbons to bind their locks at the back of the neck (SLIDES 3 and 9). These men, of the "Cupbearer" class, and also women, wore anklets painted blue with black blobs perhaps denoting ornamental metallic studs (PLATES 9A, 34A and 41D): anklets, however, were probably worn in earlier periods than that of the Procession Fresco.

The Cupbearer and two women on the Hagia Triada painted sarcophagus have seal-stones on their wrists (SLIDES 9 and 13y). Such gems, often pictorially carved with "miniature" scenes, were worn for identification, talismanic, or official "goods-stamping" purposes. That of the Cupbearer (SLIDE 13x) is regarded by Kenna as a lentoid agate of a type much in circulation on the borders of LM IB and LM II; indeed, the small round fittings on each side of the stone suggest a metallic threadhole like one in gold found still attached to a red carnelian gem recently unearthed in an undisturbed LM II-IIIA1 "warrior" tomb at Sellopoulo near Knossos.[23] Parts of two very large beads survive on an unpublished fragment from Knossos (PLATE 45F and SLIDE 13z); their scale matches that of the Cupbearer's stone, and they, too, seem to be seal-stones - perhaps worn by a female figure (denoted by the white flesh-coloured background).

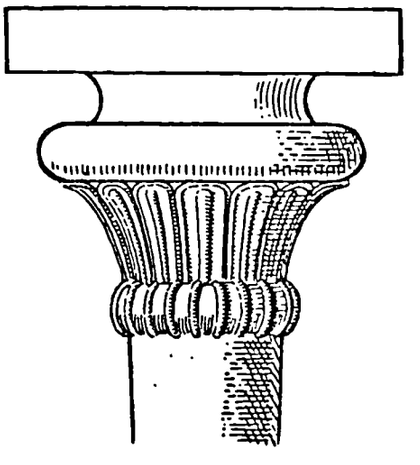
Jewelry was no doubt part of everyday costume among all ranks of Minoan society; so much is suggested by beads found in private dwellings and tombs from EM II-III times onwards throughout Crete.

Fig.11



A.

Hypothetical restoration of the West facade of
the central Court in the palace at Knossos



B.

Capital of Minoan palm column
restored
(PM III, p.513, Fig. 358).

Fig.11

4. ARCHITECTURE:: PLATES 46-52 and SLIDE 15

Theodore Fyfe long ago emphasised the importance of the frescoes for our knowledge of Minoan architecture - in the first paper to be published specifically dealing with the Cretan wall paintings. He drew attention to the "miniature" Temple Fresco as perhaps the best evidence for the "Minoan-Mycenaean" architectural Order (PLATES 26 and 46A; SLIDE 15)[24]. The shapes, proportions, some details of construction and materials, and also colouring of shrines and other architectural structures in the frescoes figured largely in the ideas of Evans and his assistants - first Fyfe and Mackenzie, and then, with the latter, Christian Doll and the late Piet de Jong - for restoration of the palace at Knossos and its surrounding dependant buildings.

The central feature of the "Temple Fresco" is a tripartite shrine with a taller central section than those on the flanks; columns with three different types of capital support the masonry superstructure and roofs of the three chambers. These in turn are surmounted by objects called "horns of consecration" acting like antefixes in classical Greek structures and signifying the sacred character of the place. The columns taper upwards and outwards and their lower ends were sometimes placed on square or rounded bases (PLATE 48A): these have stone counterparts which have survived to the present day. The columns were made of wood and probably painted, although Fyfe thought some painted black in the frescoes may have represented old seasoned wood. Only one small stone capital, resembling that to the right in SLIDE 15, has yet been discovered in excavation, in the LM I palace at Kato Zakro; but part of a column of Egyptian date-palm shape is preserved in a relief fresco from Knossos depicting griffins (Fig. 11B: v. PLATE 132). The timber-framing of the present shrine is shown in the usual yellow-rusty colour employed for wooden features in the paintings, and the black features on the wooden uprights evidently represent the tenon ends of cross-beams in the walls' structure. The rounded ends of tree-trunks used as roofing beams appear above the two central columns, and there, too, short vertical strokes denote individual

stones in the masonry - restored by analogy with the roofing of another shrine (PLATE 46B). Below the same columns is a triglyph and metope frieze, the metopes decorated with half-rosettes in the manner of carved stone fragments found at Knossos and Mycenae which may well have belonged to similar positions in the façades of real shrines.[25] Other fragments of painted shrines show similar features (PLATE 49, triglyph and metope divisions) and Fyfe illustrates fresco examples of beam-ends ornamentally decorated with rosettes.[26] In the fragment at PLATE 49C a "sun-rosette", perhaps an apotropaic symbol of good fortune or blessing, replaces the half-rosette as metope decoration. The shrine in the Temple Fresco stands above a broad white band, perhaps denoting a stone stylobate but it could also merely be an artistic feature.

On each side of our shrine there stand broad "courses of masonry" flanked, in turn, by similar structures although taller and narrower, in the centres of which are red-painted (? wooden) shafts tapering upwards and surmounted by rectangular "capitals" (PLATES 26 and, in detail, 47). Evans thought these structures were bastions; but the absence of vertical strokes to denote the individual stones (as found in pictures of undoubted bastions and façades in other frescoes and on gems, gold rings, sealings, and stone and metal pictorial vases) make their identification as broad staircases preferable.[27] Broad staircases are, indeed, spectacular features of the palaces at Knossos, Phaistos and Mallia, and therefore their appearance in fresco pictures need not seem surprising. The "shafts" with their rectangular "capitals" have been convincingly explained on Egyptian analogy as banner-poles, with "tie-blocks" rather than capitals.[28] This suggestion might seem to invalidate the staircase interpretation put forward here; but were Minoan banner-poles always engaged for their full length?

It is clear from foundation courses of a tripartite shrine discovered in the Central Court of the villa at Vathypetro that such cult rooms existed in important buildings. Indeed, Evans found some evidence for a tripartite shrine on the stylobate in the

centre of the west façade of the Central Court at Knossos which he proposed to identify with the shrine in the fresco.[29] Granted the stylised character and symmetrical and schematic portrayal of the shrine as due to artistic convention or licence, Evans's identification of its location in the palace seems right: two staircases flank that area in reality, the Stepped Portico to the north with a "column" base on the fourth step up and the staircase leading to the Piano Nobile on the south. There seems no compelling reason why the base in the Stepped Portico should not have been provided for a banner-pole, free-standing in the ground storey but engaged in the façade of the upper storey. In that case, the painted shrine may be taken to represent one that really existed on the west side of the Central Court at Knossos. Moreover, the crowds in front of and behind (below and above) the shrine are surely occupying large open spaces (PLATE 26), and the only matching areas would be the Central and West Courts, east and west of that wing of the palace. This location of the shrine in the painting, which we shall find later to be of great importance to discussion of the interpretation and thematic unity of many frescoes from the palace, seems assured by another frieze of the same "miniature" series depicting raised narrow pathways meeting at odd angles such as are a striking feature of the West Court. This is the Sacred Dance and Grove Fresco (PLATE 29), whose diagonal paths of a major court were first recognised as such by N. Platon and, later, J. W. Graham.[30] A possible restoration of that façade of the palace with the shrine is suggested at Fig. 11A: there the shrine is set at ground level but it might even have been situated in an upper storey.[31]

Open-air altars or shrines at peak sanctuaries (set up on Cretan mountain-tops from EM II to LM I times) appear in frescoes from Hagia Triada (PLATE 21 and SLIDE 54) and Thera (SLIDE 55), to judge by approaching wild animals and wild terrain. The Thera cult-place certainly - and perhaps originally also that in the Hagia Triada fresco - is further distinguished by the "horns of consecration".

These symbolic bull's-horns are characteristic of Minoan cult sites and appear on the roof-top (partly in relief) of a two-storey

building in another painting from Hagia Triada, with women walking on the ground floor presumably towards an officiating priestess seated upstairs (PLATE 50A). Another two-storey shrine or cult building is depicted in the so-called "Palanquin Fresco" from Knossos which likewise seats a priestly figure, dressed in a long cloak and with a short sword slung in a scabbard, in the upper storey (PLATE 51 A and C). The upper floor is supported by a narrow column or post with rounded capital (PLATE 51B) and the seated figure is enclosed by a wooden palisade.[32] A similar, but black-painted, palisade protects a standing female figure in yet another upper storey of a building on a fragment of the main "miniature" series from Knossos (PLATE 46C). Behind her there is a net design, evidently denoting some kind of curtain or netting over window or door, to judge by later representations of window-blinds on "miniature" fragments from Mycenae.[33] Window frames were painted rusty-orange or dull red, to denote wooden or stone frames, on fragments from Hagia Irini, Tylissos and Knossos (PLATE 50B).[34] Another cult room on larger "miniature" pieces from Knossos stands above a bastion whose spaces between the timber framework in the wall are in part filled with masonry indicated in a multicoloured chequer pattern and otherwise by white-spotted black areas (PLATE 48B): the latter evidently imitates painted stucco panels with spotted decoration on dark fields (apparently denoting stonework) such as turned up in the excavation of the Northern Lustral Basin at Knossos.[35]

One further notable feature in architectural wall paintings appears on "miniature" fragments from Hagia Irini. White "bee-hive" shaped "crenellations" appear on the roof-tops and these, unique in Aegean Bronze Age murals, most closely resemble features of houses in the Near East.[36]

Four important architectural structures are found in the scenes on the painted sarcophagus from Hagia Triada. Two of these are shown in PLATE 52A. The first is a small waist-high altar at which a priestess officiates. The second is adjacent to the right and is taller and surmounted by "horns of consecration": this evidently signifies a temenos wall surrounding an olive-tree, regarded as

sacred by the Minoans, as Matz has recently suggested.[37] The two remaining structures appear at PLATE 52B. The right-hand one bears a strong resemblance to the structures just mentioned: but there are significant differences. It is higher, more ornate and lacks "horns of consecration" - a point which tells against its interpretation as a sacred place of worship. The horizontal bands in the architrave are cut short by the edge of one leg of the sarcophagus and therefore suggest that only the left side of a larger façade is depicted. In that case, probably both portals were decorated with spiral ornament, like those of the peak sanctuary on the carved rhyton from Kato Zakro (Fig. 29A); but the structure also recalls the portals decorated with spirals of a tholos tomb at Prosymna (PLATE 52C). Its idenficiation as the entrance to a tomb (perhaps of tholos type) seems all the more likely in view of the widely accepted interpretation of the nearby standing figure in a sleeveless cloak as a picture of the dead man to whom the sarcophagus belonged. In front of him is a small three-stepped structure, of uncertain significance unless, as some say, it is a kind of altar. But it is built next to a tree, as if during the cult rites someone was required to approach the forked branches of the tree - perhaps to leave offerings there for the birds represented elsewhere in the scenes on this monument? On the other hand, the steps may simply enable a participant in the rites to shake the tree's branches, a well known act in Minoan sky-god worship.

Various kinds of cult paraphernalia and emblems appear in connection with the structures described in this Section; these are now reviewed in a greater detail.

5. CULT EMBLEMS AND FURNISHINGS: PLATE 53 and SLIDE 16

Buildings or rituals of sacred character are indicated by vario accessory forms of cult paraphernalia. The columns, for example, of the cult buildings at PLATE 48 A-B have white-painted double-axes stuck into their capitals, (SLIDE 16a), recalling gold-leaf replicas of real axes stuck into the crevices of stalagmites and stalactites in the cave at Psychro as cult offerings or fetishes. The double-axe, a common Minoan religious symbol, evidently at one time was the sacred weapon of sacrifice; by MM III-LM I, if not earlier, it had become a popular attribute of a Minoan female deity, and at this time it occurs frequently as a decorative motif on many objects.[38] At two points on the Hagia Triada painted sarcophagus, double-axes, painted yellow to indicate gold, are set at the tops of tall stands tapering outwards towards their bases which are inserted into socketed step-pyramid bases (SLIDE 16b). The latter as their decoration shows are painted in imitation of variegated stone bases, and several original limestone and gypsum bases of the same shape have indeed been found at Cretan sites. The shafts of two of these axe-stands are a greenish-blue colour with short diagonal lines at each edge which suggest foliage wrapped round them. The axes are surmounted by birds (q.v. below), apparently hawks and a raven. These stands are here clearly accessory cult furnishings, placed on one side of more significant objects - a large container in the one case, and an altar in the other (PLATES 150 and 148, respectively) - their disposition bringing to mind the use of large candlesticks in various Christian rites.

"Horns of consecration", so-named from their resemblance to bull's horns and from their architectural place, are, as we have previously seen, commonly depicted on the roof-tops or at the bases of or between columns (SLIDE 16 a) of cult buildings. Their origin may lie in Anatolian prototypes of the 7th and 6th millenia B.C., to judge from bull's horns covered with clay or lime plaster inserted into walls and benches of shrines at, for instance,

Catal Hüyük.[39] In Minoan Crete their function seems purely symbolic of the sacred character of the structure containing them, and there is little reason to think they were objects of worship.

Some objects, depicted in architectural isolation, were evidently understood as "substitutions" for larger entities, by a sort of artistic allusion. Thus, the column in the relief fresco from Knossos depicting griffins tied to it is represented in place of a shrine which those creatures are presumably guarding (PLATE 132). M. P. Nilsson has noted this is not an uncommon artistic device, arguing against Evans's view that the culumn here may be interpreted as a baetyl or or aniconic image of a divinity.[40] This may also be true of a picture of an isolated "sacral knot" on a fresco from Nirou Chani (PLATE 53C and SLIDE 16e): the connection of this symbolic form of dress with a female deity, already mentioned in reference to Minoan religious ideas relating to fertility and reproduction, would here suggest the motif alludes to goddess worship of some kind, if not as an aniconic representation. Scenes of gems show it carried in procession by female figures evidently as a venerated article of ritual paraphernalia, though probably not as an object of worship in itself. Whatever the case, the consistent appearance of this object in association with female figures in scenes of a religious nature is indisputable and we are therefore justified in believing it to have some religious significance.

An "omphalos", comparable to the famous stone example from Delphi denoting the site as the centre or "navel of the Earth",[41] is depicted on the fragment at PLATE 53B (SLIDE 16c). Whether it had a similar significance to that from Delphi, with Knossos as the centre of the Minoan world, or whether it was a baetyl or fetish, is uncertain: its appearance here is unique in Minoan art. We may now turn to more clearly functional cult equipment.

A table for offerings appears on a substantial fresco fragment from Amnisos (PLATE 53A, restored in gypsum; SLIDE 16 d). Papyrus motifs act as spacers between two rows of circles representing cup-like hollows for the offerings, like those in the well known stone table from Mallia.[42] A sacrificial table, with a trussed and dying ox on it, is a central feature of one scene on the painted sarcophagus

from Hagia Triada (PLATE 74B): this may have been made of stone, like one actually found recently at Archanes, south of Knossos. The legs of the table in the fresco-scene are tall and round, and their yellow colouring could indicate wood instead of stone. More generally the legs of such tables were squatter and "anvil-like" in shape, to judge from pictures on gems. Table-legs of this type appear on the dado from the right-hand side of the original throne in the Throne Room at Knossos (PLATE 129 and SLIDE 43e) [43].

Two types of chair occur in our paintings. Folding "camp stools" with black legs tied at their intersections with red ribbons (or leather) and with ? animal fleece cushions appear in the Camp Stool Fresco and "Palanquin" fresco series from Knossos (PLATE 54 and SLIDE 16f; and PLATE 51 A1, respectively) [44]. From the Camp Stool series of fragments there is one, now mislaid, featuring a more solid seat which Evans thought was a throne (SLIDE 16g) [45]: it has a large volute on one side. Its construction, its uniqueness in frescoes generally, and the fact that the only female figure of this fresco series in a flounced trouser-skirt is seated upon it, indeed suggest it was a throne for a goddess or her earthly representative (see restoration: Fig.21, opp.p.145).

6. VESSELS AND FOOD: PLATES 54-57 and SLIDES 17-19

Some eleven types of vessel are depicted which recall clay, leather, metal, stone and possibly wicker originals. Their occurrence is important for several reasons: the scenes show what types were in use on what kinds of occasion, how they were carried or put on display, and occasionally we can make reasonable guesses as to what they contained on those occasions; further, their similarity to closely dateable vessels discovered in excavation provides a welcome objective criterion for dating the compositions in which they occur. Brief descriptions follow in alphabetical order according to shape.

Type 1 (SLIDE 17): Bowls and ? baskets

Eight instances on frescoes are known, two in scenes on the painted sarcophagus from Hagia Triada, the remainder in the Saffron Gatherer Fresco (PLATES 34C and 84C, respectively). A small conical cup with two bands of paint at the rim stands on the altar at which a priestess officiates on the sarcophagus (SLIDE 17, 1a). A larger streaky-blue painted conical vessel, without handles like the cup, appears on fragments of the Saffron Gatherer Fresco recently recognised as belonging there by Platon (SLIDE 17, 1b; PLATE 84C, left), and another example - intermediate in height - also appears on newly recognised pieces of the same fresco series, but this time with vertical linear and spotted decoration (SLIDE 17, 1c; PLATE 179 A2): whether handles were once present one cannot now tell. Similar vertical "ribbing", perhaps in imitation of basketry, decorates a two-handled vessel containing ? bread or cheeses and figs on the sarcophagus (SLIDE 17, 1d; PLATE 34C). Our two last examples of bowls, with or without handles but with flaring mouths, contain flowers and belong to the Saffron Gatherer Fresco: from their shape they would seem to copy clay or metal types (SLIDE 17, 1e-f; PLATE 84C). The reserved bands of these two vessels are thought by some to indicate a date in MM II or MM IIIA: but similar reserved bands are a feature of the vessels on the much later sarcophagus from Hagia Triada (LM II-IIIA) and the

similarity of loop-handles of vases in both scenes bears out this comparison. Moreover, their overall shape recalls Furumark's Myc.III A class of "convex-conical" bowls (type no.290).[46] A LM II-IIIA date for all these vases is probably to be assumed.

Type 2 (SLIDE 17): Bucket jugs

Four appear on the same sarcophagus and two on a wall painting from Hagia Triada: the mural indeed seems to have inspired some major elements of the scenes on the sarcophagus (cf PLATES 14B and 15D). SLIDE 17, 2a shows one vase in the wall painting, bearing decorative patterns of Furumark's LM Myc.III A 2 (early) class[47], and the undulating pattern on a similar bucket-like vessel on the painted sarcophagus is also classifiable as LM Myc.III A 1-2 (SLIDE 17, 2b; PLATE 56B, right)[48]. These vessels, clearly in use in LM III A1-2, were slung by their tall loop-handles on poles carried over the shoulder, as the compositions in which they appear show. The (unseen) contents of one is being emptied into a larger vessel by a priestess at one point on the sarcophagus (PLATE 56B), while the blood of the sacrificed ox is pouring into another (PLATE 74B).

Type 3: (SLIDE 17, 3): Chalice

One appears in the Camp Stool Fresco from Knossos, but only the long stem and parts of the base of the cup and of the base itself have survived (PLATE 54, upper right). Evans suggested the yellow colouring here implies a gold cup of a ritual type, better known in stone from LM I examples from Kato Zakro[49]. The extenuated stem could, however, suggest a later date in LM II or III A to judge from common clay "kylikes". The present cup is one of two passed as "loving-cups" between people seated in pairs in this scene (PLATE 54: restoration revised at Fig.21, opp.p.145).

Type 4 (SLIDE 18): Ewers

One occurs on a fragment from Tylissos, with a white leather bag attached to it (SLIDE 18, 4a). Its red colour and angular shape of the handle with knobbed protrusion strongly suggest imitation of a bronze original of LM I date, of a type more widely attested in clay vessels[50]. The

lower part of another ewer with black lines imitating the fluting of a metallic original appears in the Procession Fresco from Knossos (SLIDE 18, 4B; PLATE 9A). Ewers are common among the vases portrayed as tribute in the "Keftiu" scenes in Egyptian tombs of the mid fifteenth century B.C. (PLATES 202B, 204B, 210B; and 207D and 211A for fluted vases).

Type 5 (SLIDE 18): Flower-stands

In addition to the two plant-pots already mentioned from the Saffron Gatherer Fresco, parts of at least one and probably a second monumental flower-stand make their appearance in frescoes from Amnisos (SLIDE 18, 5 * PLATE 95; and PLATE 53A, vase suggested by the string-impressed lines). They were evidently built in stone and perhaps reached 1½-2 metres in diameter. A most similar flower-stand is depicted in inlay on a LM/Myc. I silver goblet from Shaft Grave IV (Circle A) at Mycenae[51].

Type 6 (SLIDE 18, 6): Jug

A tall-necked one-handled jug is depicted in front of an officiating priestess on the Hagia Triada painted sarcophagus (PLATE 52A). The handle is high and the spout is either much exaggerated in length or else stopped with twigs (to keep flies out): the coarse brushwork permits either interpretation. The vase has a MM II polychrome appearance, but probably the painter has simply attempted, somewhat unsuccessfully, to reproduce the colours of a variegated stone vessel[52].

Type 7 (SLIDE 18, 7): Kylix

A second "loving-cup" is seen in the Camp Stool Fresco from Knossos (PLATE 55). Mackeprang long ago suggested the shape was that of a LM III A vessel, and indeed it most closely resembles Furumark's type nos. 256 and 264 (Myc.III A 2 early). Both Furumark and Evans, however, regarded it as LM I B in date: but the vessel is certainly a kylix (or "champagne cup") and this seems not to have appeared in Crete before LM II[53]. The blue colouring may indicate a silver-wrought cup with fluted rows depicted in black on the body.

Type 8 (SLIDE 18, 8): Pithoid krater

One such vessel rests on a small stand between double-axe stands in one scene on the Hagia Triada painted sarcophagus, and into it some liquid is poured by a priestess (PLATE 56B). No doubt it reflects a large domestic type.

Type 9 (SLIDE 18, 9): Rhyton

A life-sized conical rhyton is carried at chest-height by the Cupbearer from Knossos (PLATE 7A). It evidently represents a stone (serpentine) or silver type with fluting, in red in the fresco. Such vessels, known in clay, stone and silver and chiefly of LM I to LM III A 1/2 early date, had holes at their narrow ends for letting out the liquid contents (wine, water, oil, or perhaps blood of sacrificed animals) and were for ritual use. Similar vessels are common in the early XVIIIth Dynasty "Keftiu" paintings from Egypt (PLATES 206B, 207B, 208B and 209 A and D).

Type 10 (SLIDE 18, 10): Tripod cooking-pot

A large tripod cooking-pot, a common domestic vessel throughout the Minoan Age, appears in a "miniature" fresco from Hagia Irini on Keos (PLATE 197, A3). The high body in relation to the legs could merely be due to the rough brushwork of this provincial artist.

Type 11 (SLIDE 19): Uncertain vessels

Mrs. M. Shaw has recognised what may be the upper part of a two-handled amphora on an unpublished "miniature" fragment from Tylissos (SLIDE 19, 11A). If the restoration and identification are right, the shape fits that of LM I vessels excavated in Crete. Part of a fine multicoloured vessel with an ornamented handle, clearly copying a stone prototype, is depicted on a fragment from the Procession Fresco series from Knossos (SLIDE 19, 11b; PLATE 56A)[54]. On another "miniature" fragment from Keos an object in red outline is carried on a pole on the shoulders of two male figures (PLATE 197, A1): this has been considered a bronze ingot, but the irregular shape and the absence of red paint over the whole area to indicate bronze make its interpretation as another skin-made vessel—

if a vessel at all - preferable.

Food

This alone appears to date in the "basket" with (?) bread, cheese and figs on the Hagia Triada painted sarcophagus, where its depiction as "sitting" on the rim of the vessel strongly suggests an artistic convention learnt from Egypt (cf PLATE 52A and SLIDE 17, 1d with PLATES 203B, central row and 205A, helmets in central row).

7. MUSICAL INSTRUMENTS: PLATE 58 and SLIDE 19c-e

Flutes and lyres alone appear in the frescoes, always played by men. One figure plays a double-pipe behind the slaughtered ox on the painted sarcophagus from Hagia Triada (SLIDE 19c; PLATE 53A). One pipe ends with a remarkable upturned black "bell", perhaps from a bovine horn or from metal. Black notches on the pipes suggest hollowed canes (perhaps Phragmites communis Trin., v.Myrtos, p.304); and three black strings near the mouthpiece could be decorative or functional. If the latter, denoting straps tied round the head to secure the mouthpiece and to prevent leakage of air, it could be argued, further, the instrument belonged not to the flute family but to that of the shawm with single- or double-reed. Present-day horn-belled instruments from Morocco resembling the fresco example would suggest some kind of primitive hornpipe (cf. Anthony Baines, Woodwind Instruments and their History (1957), Pl.XVIII no.1).

Small "flûtes à bec", apparently arranged in pairs, decorated the kilts probably of male figures in one painting from Knossos (SLIDE 19d; PLATE 43D): perhaps those thus dressed were flautists, as the restoration at SLIDE 44 assumes.

A complete lyre, seven-stringed and in a wooden framework with duck- or snake-head terminals, is played by a man on one side of the painted sarcophagus from Hagia Triada (SLIDE 19e; PLATE 56B); and a similar lyre, with floral terminals, is partly preserved in a mural from the same site (PLATE 58B). Held under the left arm they are played by both hands and a black spot at the right-hand finger-tips of the figure on the sarcophagus may be a plectrum (SLIDE 5, C2).

Whether these instruments were ever played in concert, as they were in Egypt, we cannot tell on present evidence. In the frescoes the musicians perform in isolation in processional, sacrificial and funerary scenes. The music played would certainly have been modal, as the limited number of finger-holes in the flûtes à bec would alone suggest.

8. ARMOURY: PLATES 59-63

Chariots, short swords or daggers, and spears (shafts only) occur in scenes depicting processions and religious or funerary activities; great "figure-of-eight" shields are also found, in a frieze of monumental scale. But battle scenes, and some types of military equipment, are noticeably lacking in the Minoan fresco record: in this respect, the Cretan murals present a remarkable point of contrast with scenes in Mycenaean wall painting and with murals from all other comparably advanced ancient civilizations where wars or military operations are a common enough subject for representation. The "Captain of the Blacks" Fresco from Knossos seems the only possible Cretan exception, but here the scene is too incomplete for certainty as to its theme (SLIDE 10).

Five CHARIOT compositions are definitely attested, two on the short ends of the painted sarcophagus from Hagia Triada (PLATES 60D and 149), and the rest from Knossos (PLATES 59, 60A-B and 61A). The two fragments at PLATE 62, with plumes of horses' manes in different colours, suggest pairs of horses and these animals seem only to have been depicted, in Aegean Bronze Age murals, in chariot compositions: this suggests five chariot compositions at Knossos - all from the palace. A possible chariot drawn in "miniature" may be the subject of the fragments from Keos at PLATE 197 A5. The chariots, all apparently of one type widely known as the "dual chariot", are drawn by pairs of horses, winged griffins or goats (described in Part II, below).

The chariots are coloured red (SLIDE 20) or in various "dappled" colours to denote spotted ox-hides (SLIDE 21; and both chariots on the HT sarcophagus), in agreement with their colour descriptions on Linear B tablets.[55] The wheels, four-spoked and possibly metal-bound, and also upper and lower polestays were made of wood to judge by their usual yellow colouring. Attached to the back of the central box are large semicircular extensions, apparently leather coverings stitched onto a metal frame (PLATE 59D): these, the distinctive feature of the "dual" chariot, evidently served as hand-guards against

injury from the large wheels which extended beyond the back of the box. The polestays connected the chariot to the animals drawing it by a simple yoke attached by thongs to their necks.[56] Up to three people might ride in the chariot; but the usual number is two, always of the same sex.

All our examples most probably belong to LM II or III A, and it seems that the "dual" chariot was introduced to Crete by the Mycenaeans when they occupied the island. The origin of this type of chariot is obscure, and some form of chariot was certainly known to the Minoans at an earlier date; but the "dual" chariot is now widely regarded a specifically Mycenaean feature.[57]

Minoan wall paintings of 8-shaped SHIELDS are confined to the palace at Knossos (PLATE 63); but they are found on frescoes from Mycenae, Thebes and Tiryns on the Mainland. Their perimeters are marked with two broad bands denoting seams stitching together two or more layers of ox-hides: these are always dappled in combinations of white with grey, black, red-brown or orange-yellow, as in many bull representations (cf PLATE 73A-C). Long tapering areas, often yellow, in the shields' centres represent the hairless part of the hide running along the animal's backbone (cf SLIDE 47). Around these areas run broken ellipses which again indicate stitching and very likely the extent to which the central boss protruded. The size of the painted shields, up to 1.64 metres high, evidently approached that of the real shields which inlay scenes on a dagger from Mycenae show reaching from neck to ankles just as described in Homer.[58] When not in use, the shields were hung by thongs on pegs in the walls as pottery representations make clear,[59] and this is how we are to understand the shields in the famous fresco from Knossos: these are hung over a spiraliform band at lintel height from the floor (PLATE 63).

Evans thought a row of "miniature" men on fragments from Knossos were carrying SPEARS (PLATE 6A-B); but attribution of these pieces to the Sacred Dance and Grove Fresco with its cult scenes permits us to think they are no more than sticks for beating time or waving about in the course of some dance or parade.[60]

However, the "Captain" and his black troops in the fresco from Knossos are most probably carrying pairs of spears for thrusting or throwing (SLIDE 10).

A SHORT SWORD or DAGGER in a black scabbard slung over the shoulder of a seated cloaked figure in the "Palanquin" Fresco was probably for use as a sacrificial weapon (PLATE 51 A3)[61]; and two other figures in the same fresco, certainly men, may also be wearing red sword-slings, an indication that they are priests or charioteers (PLATE 51 Ba). The charioteer at PLATE 59A wears a yellow sword-sling. This man and a female charioteer on the Hagia Triada painted sarcophagus also carry short black WHIPS in their hands (PLATE 60D).

9. SHIPS: PLATE 13D

A model of a simple high-prowed and perhaps reed-built boat, painted decoratively in black and white, is carried as a funerary gift in one scene on the painted sarcophagus from Hagia Triada, The motif, rare on the whole in Minoan art, may have been borrowed from Egypt where it was common in wall paintings and modelled in various other materials.

10. INSCRIPTIONS: PLATE 64

Only Knossos and Hagia Triada have yet produced frescoes with painted or incised signs. Uncertain "graffiti" apart, the signs belong to the Linear A script, with one alleged but uncertain exception from the Room of the Cists at Knossos which was washed away in a storm[62]. Writing in any form on Minoan wall plasters was rarely attempted and is unknown on Aegean Bronze Age murals outside Crete.

PLATE 64A-C shows three Linear A inscribed fragments found in situ a short distance above floor-level in a small columned portico in the north-west part of the villa at Hagia Triada: fragment B has been interpreted as a "ready reckoner" by Goold and Pope, reading "1: $1\frac{1}{2}$: $2\frac{1}{4}$: $3\frac{3}{8}$ ...." - but how its position a short distance above the floor served any such purpose is left unexplained[63]. Only one fresco fragment exhibits a painted sign, possibly part of an inscription accompanying a pictorial scene: it comes from the area of the "Taureador" frescoes at Knossos and corresponds to G. Caratelli's sign L 64 in his 1945 corpus of Linear A signs or to "pu" as transcribed in Linear B (PLATE 64E). Written in reverse direction to its Linear B occurrences, we may count it as Linear A in which script other signs are also reversed.[64]

Plate 64D shows a "graffito" scratched onto the painted plaster: its meaning or significance are unknown. A heavily incised "star of David" occurs on an unpublished fresco fragment from Knossos: it may have had some apotropaic significance, for similar motifs appear carved on gems of a class commonly considered to have had a talismanic value to their wearer[65].

Part II

THE WORLD OF NATURE

11. Landscape .... p. 88

Countryside; waterside; mountainside; impressionistic scenery; gardens; rockwork; pebbles; mud- or sand-banks; streams, water and waterfalls.

12. Terrestial animals .... p. 90

Bulls; cats; deer; dogs; goats; horses; leopards; mice; monkeys; (? lion).

13. Birds .... p. 94

Doves (pigeons); hoopoes; hawks; partridges; raven; swallows; uncertain.

14. Insects .... p. 97

Butterfly

15. Plants .... p. 97

Crocuses; honeysuckles; ivy; irises; lilies (madonna and pancratium); lotus; papyrus; reeds and grasses; rose; violet; uncertain.

16. Trees and shrubs .... p. 102

Butcher's Broom; 'cactus'; 'common mallow'; Cichorium spinosum; 'dittany'; 'fig-tree'; 'fir'; myrtle; olive-tree; palm-tree; 'vine'; uncertain veined-leaf shrub.

17. Seascapes .... p. 105

Sea and waves; pebbles; rockwork; shell beds; sea-urchin.

18. Fish .... p. 106

Argonauts; dolphins; flying fish; octopus; "small fry".

19. Mythical creatures .... p. 108

Griffin; sphinx.

11. LANDSCAPE: PLATES 65-70

A most important feature of Minoan frescoes is the "Nature setting" in which the activities of Man and animals, birds, fish and insects take place. Landscapes are denoted by variegated rockwork or undulating bands representing "landscape" in the abstract, with trees, wild flowers, pebbles, streams and waterfalls here and there adding to the interest and characterisation of the scenes. Towards the close of Minoan wall painting, the importance of such settings diminished and often enough disappeared with the result that many late paintings lack depth and perspective. Indeed, man and other creatures are deprived of any visual relationship with the worlds they inhabit in the pictures. Why this change came about will be considered later. Here we need only note that detailed rendering of landscape is particularly characteristic of paintings dating to LM I B (c.1450 B.C.) or earlier.

Landscaping in our frescoes is of four kinds. Rocky COUNTRYSIDE reflecting the typical hillside scenery of Crete is represented by irregularly undulating bands of rockwork, multicoloured to imitate variegated and veined stone (PLATES 65 and 84B; SLIDE 56). WATERSIDE settings are indicated by appropriate plant life and blue STREAMS to suggest well watered and lushly green valleys (PLATES 84 A and 198 A1-2): but such settings featuring papyrus thickets are certainly borrowed and adapted from the Egyptian wall painters' traditional repertoire (cf PLATE 201B, Vth Dynasty). Angular rockwork in the "Park" Fresco from Hagia Triada more specifically suggests an inhospitable Cretan MOUNTAINSIDE, not simply "rough country" (PLATE 66)[66]. Landscape depicted in "abstract" is impressionistically denoted by broad undulating and usually horizontally aligned background bands suggesting gentle hills or shallow valleys such as mark the lower-lying regions of Crete: such backgrounds may be filled with flowering plants, as in the Griffin Fresco from Knossos (PLATES 127-128): or they may be left strangely empty, as in the Procession Fresco from Knossos (PLATE 14A, top). Rockwork is indeed seen above the Cupbearer's head in that fresco series, but its function seems more decorative than topographically significant.

In some pictures flower-pots are distributed here and there in the

rockwork and this suggests ornamental GARDENS (PLATES 84C and 85A): the large frescoes from Amnisos featuring monumental flower-stands imply more formally laid out gardens (PLATE 95), possibly enclosed by garden walls(PLATES 102-103). The ROCKWORK in Minoan frescoes takes many forms including careful shading through maroon red and grey to dark blue (PLATE 67A-b) or even to a mustard-colour with black spots (PLATE 67C, left); it appears in linearised form (PLATES 68A-B and 69B), in modelled relief (PLATE 69A) and in impressionistic or "abstracted" form (PLATE 86).

Accessory inanimate landscape features are common but of limited kinds. Foremost come multicoloured PEBBLES, highly stylised in shape and colouring, which signify such stones as breccia (PLATE 70A-B). The pebbles vary in size from under 1cm to over 7cm and may appear together in all sizes, as in the Partridge Fresco from Knossos (PLATE 86): for this reason alone, they are not to be interpreted as birds' eggs, as some would have us believe. MUD- or SAND-BANKS appear in yellow, with red, white and black speckles to suggest a "mica" content, on fragments at PLATES 70A and 111A, and in two cases the sand is bordered with black outlines (PLATES 70C and 198 A5). Streams and WATERFALLS are blue and are usually bordered by rockwork or waterside plants (SLIDE 22; PLATES 160B-C and 198 A1-2). WATER was occasionally denoted in the Egyptian manner by alternating black and blue or white zig-zag bands, to judge from one reproduction of a painted copy of an original fragment from Amnisos (PLATE 96).

Such features as clouds, rain, snow, or celestial bodies never appear, but it seems possible blue or white background areas in the upper parts of the scenes represent the SKY. We may now turn to the wild creatures which populated those landscapes.

12. TERRESTIAL ANIMALS: PLATES 71-85 and SLIDE 23

These appear in Nature, cult and processional scenes chiefly from Knossos and Hagia Triada. All are common land animals, but some, it seems, were brought to Crete from Egypt and perhaps Syria. Domesticated animals such as sheep and pigs are surprisingly absent.

Minoan conventions for drawing animals follow much the same rules as those for the human figure. Shape and, to a lesser extent, colouring are reasonably accurate but not to that astonishing degree which appears in Egyptian animal pictures. While attempts to render fur and feathers are generally lacking or minimal, the Minoan artists improved upon Egyptian artistry by concentrating on characteristic natural poises and postures, capturing imminent action or the very instant of movement in mid-course. Conventionalisation of posture appears when animals are treated heraldically, or when shown moving at speed in the posture known as the "flying gallop" with both back and front legs thrust outwards at the same time (e.g. as in PLATE 71). The origin of this convention, whether Aegean or Syrian, is debated (see p.37, above).

Bulls: SLIDES 23a and 46-52; PLATES 71-80

This, the most common animal depicted, is restricted to scenes from Knossos apart from two appearances on the painted sarcophagus from Hagia Triada (PLATE 74B; and models of calves at PLATE 13D). The massive head and body, and long horns, indicate the wild Cretan species, Bos primigenius creticus. Bulls' hides are painted monochrome red or more commonly dappled with red, black, grey or yellow patches on white (SLIDES 46-52); their horns are white, yellow or very light blue, with occasional red or black markings. Short black or dark grey lines on bodies or heads denote tufts of hair. The popularity of the bull at Knossos is due to its appearance in bull-leaping events, and the animal was evidently regarded a symbol or personification of strength and power. As a common subject for relief moulding the bull surpassed even the human figure, to judge from extant fresco fragments at Knossos (PLATES 76-80A).

Cats: SLIDE 23b; PLATES 66 and 81

Three cats, about life-size, hunt birds in the "Park" Fresco from Hagia Triada. The long ears recall the Egyptian domesticated cat, but our animals seem wild and could be a wild Cretan sub-species introduced originally from Egypt. Certainly, however, the motif of cats hunting birds seems inspired by Egyptian pictures of cats hunting waterfowl in papyrus marshes (v.Fig. 32, opp.p.180).

Deer: SLIDES 23c and 24; PLATES 82A and 197 A4

Frescoes from Hagia Triada and Keos show deer (and another has recently turned up on a fresco from Akroteri on Thera[67]). Their spotted hides suggest Fallow or, less probably, the young of Red deer, both of which species were indigenous to Crete and the Greek mainland in Minoan times: their bones and antlers at several sites suggest these animals were eaten. Fresco fragments with decorative crosses, such as that at PLATE 163 A12, may belong either to deer or bulls which were occasionally distinguished in this way in Mycenaean fresco and pottery representations[68].

? Dog: SLIDE 23d and PLATE 197 A4

A white dog (? leopard) chases a deer on a "miniature" fragment from Keos: the missing forepart of the animal makes identification uncertain.

Goats: SLIDE 23e and PLATES 60D, 61A2 and 82B-C

These turn up in pairs in nature, chariot or sacrificial scenes. The wild species, probably the Cretan "agrimi" (Capra aegagrus), is represented by the black horns with characteristic ribbed protruberances of two animals from Knossos (SLIDE 58) and by the bodies (heads missing) of others from Hagia Triada (PLATE 82C: cf. 82D, in stone). Domesticated goats await sacrfice in a scene on the Hagia Triada painted sarcophagus; their horns are smaller and lack ribs (PLATE 82B). The upturned stumpy tails of goats* drawing a chariot can be made out at PLATE 61 A2, from a scene which recalls the goats on the famous gem from Avdou[69] and others on the HT sarcophagus (PLATE 60D).

* Now identified correctly as griffins (Fig.53, opp.p.459).

Horses: SLIDE 23f; PLATES 59C and 62

This animal is only known from chariot compositions. The mane is gathered into three or four plumes painted red, black or white, in alternation to indicate pairs of harnessed horses. Part of a bridle can be made out on the piece at PLATE 62A, but only the plumes and part of a red ear survive on the fragment at PLATE 62B. The legs of a red horse - the usual body colour - appear on a "miniature" fragment from Keos, probably from the chariot scene at that site (PLATE 197 A5). The further animal of a pair is also conventionally denoted by duplicating in black the outline of the nearer horse, as shown at SLIDE 23f.

Leopard: SLIDES 23f and 25; PLATES 83A

The animal was not native to Crete but was evidently brought in from Egypt or Syria for use in hunting. Its hide was sometimes used for rugs or carpets (see Part III, Section 21 below), and its head modelled in the form of stone or metal rhyta. This animal should not be confused with the cheetah which has solid black or very dark brown spots and a ringed tail.

Monkeys: SLIDES 23h, 55-57 and PLATES 84-85

The monkeys in Minoan wall paintings belong to the cercopithecid family (C. aethiops aethiops from Ethiopia, or C. aethiops tantalus from Chad and Central West Africa)[70]. The Nubians brought them to Egypt, as scenes in the Tomb of Rekhmirē show, whence they were taken to Crete, evidently as domestic or cult pets to judge from their harnesses in the Saffron Gatherer Fresco (PLATE 84C).

Mice: SLIDE 23i (= SLIDE 26) and PLATE 109D

Two harvest mice among flowering grasses or reeds appear on this fragment from Knossos. Their scale and colouring seem true to nature. They may have been shown as looking for food, or even nesting.

Uncertain animals

Evans thought a lion's mane was depicted on the piece at PLATE 78C, but it could equally well be part of a bull's. With the fragment was found another (now mislaid) considered to be the lion's paw, but this could be the paw of a griffin or sphinx (which have lion bodies). A goat, deer or bull could be depicted in "flying gallop" posture on the piece at PLATE 83B: it is certainly an ungulate.

13. BIRDS: SLIDE 27 and PLATES 86-88

Six species can be safely identified but other bird pictures show uncertain types. Even so, all appear to be land-birds and waterfowl are curiously absent, perhaps because much of the Cretan terrain is inhospitable to waterfowl[71]. The scale of rendering of the known birds includes life-sized and "miniature" pictures, but their colouring is primarily decorative. In the Minoan scenes the birds live in their own world- at this period in the history of art, in remarkable independence of Man and in marked contrast to their place in Egyptian scenes. Moreover the Minoan artists avoided unrealistic or incongruous settings, unlike the Egyptian wall painter who, for example, must show us waterfowl nesting on top of papyrus flowers to convince us the birds are nesting in papyrus marshes.

Doves or pigeons: SLIDE 27a and PLATES 87A and 198 A3

These appear in frescoes from Knossos and Keos, fleeing from monkeys or feeding and preening. Their bright blue colour replaces the natural blue-grey for decorative effect; but sufficient markings are shown (pink collar, white spot at back, black-barred tail) to suggest birds akin to the Rock Dove (Columba livia) which is native to Crete[72]. The dove is commonly associated in Minoan art with shrines and goddesses or priestesses.

Hoopoes: SLIDES 27b and 32e; PLATE 86

These birds, whose fawn-pink plumage is ignored by the Minoan painters, appear on frescoes from Knossos and Katsamba (SLIDE 12c). Hoopoes migrate as summer residents to Crete from Egypt and other parts of Africa. The birds from Knossos, one sitting in a "dittany" bush, seem inspired by earlier Egyptian murals such as the famous bird scene from Beni Hasan where the hoopoe's natural colouring is more accurately observed[73].

Rock Partridges: SLIDE 27d and PLATES 86 and 88a

Ten partridges appear in the Caravanserai frieze from Knossos. Black

lores suggest Alectoris graeca as the bird in question, one native to Crete. But the overall reddish-brown colour, replacing the grey tones of this species, matches the French partridge better which, however, belongs to western Europe. Veins of the feathers and their disposition over the body are tentatively indicated. The artist has captured characteristic postures: some birds perch on tip-toe crowing, others are crouching, and yet others look over their shoulders. Those seen against a black background are perhaps to be understood as standing as is their wont near the mouth of a cave.

Raven: SLIDE 27e and PLATE 52A

The black colouring, massive bill and wedge-shaped tail undoubtedly indicate a raven, Corvus corax, which is native to Crete. This bird is a scavenger.

Swallows:

Recent excavations on Thera have produced definite evidence for swallows "kissing in mid-air"[74]. Evans thought a swallow was depicted on a fragment from Knossos (SLIDE 27g and PLATE 88B), but the colouring is unrealistic and suggests, rather, a Golden Oriole (Oriolus oriolus) which now makes only occasional visits to Crete from Europe or Africa. Swallows, too, arrive from the African continent as regular summer inhabitants.

Falcon or Hawk: SLIDE 27c and PLATE 56B

Posture, colouring, legs, hooked beaks and "silhouette" suggest some kind of hawk or falcon as the birds sitting on the double-axes in stands on the Hagia Triada painted sarcophagus. A closer identification is not possible. These are birds of prey which inhabit Crete.

Uncertain birds

The birds hunted by cats in the fresco from Hagia Triada, commonly regarded as pheasants, cannot be so identified: the posture and shape of the tail of the best preserved example rule out the "pheasant"

interpretation (SLIDE 27f and PLATE 87B). So, too, another "pheasant", from Knossos, whose colouring and ill-preservation make any proposed identification hazardous (PLATE 88C). Another bird fragment from Knossos, however, seems to preserve part of the white bib of a partridge and also the wing of a small bird, presumably an inhabitant of similar terrain - perhaps a lark (SLIDE 28 and PLATE 88A).

A fourth bird on the Hagia Triada painted sarcophagus may represent an artistic hybrid based on two sorts of vulture, both visitors to Crete, namely, the Griffon and the Egyptian vulture, "surcharged" with a Minoan crest borrowed from griffin representations: the shaggy legs with large talons, the "silhouette", the length of wings in proportion to the body, and the extraordinary "ruff" at the neck make this interpretation possible (SLIDE 27i and PLATE 149)[75]. Vultures, of course, are scavengers.

SLIDE 27h shows a tentative restoration of a bird from Phylakopi on Melos, perhaps an imaginary bird if not a swallow (cf.Fig.72a, p.567).

Birds' Nests: PLATE 89

Four doves' nests have been identified in paintings from Knossos, in red with orange eggs within or outside the nests (SLIDE 27j)[76]. Other fragments from the same deposit show blue and red eggs in scattered nesting material (PLATE 89B). The colours here are clearly for their decorative effect.

14. INSECTS

The butterfly alone appears, in earlier restorations of the Priest-King Fresco (SLIDE 27k) and as a dress motif (SLIDE 12a; PLATE 184A). A central wing-spot suggests identification with the common "peacock" butterfly, well known in Crete. Evans's idea that Minoan butterflies symbolised "the reawakened soul after the short sleep of death" need not be accepted, if only for the reasons already given by Nilsson[77]. This insect is common on MM III - LM I gems, and the motif was possibly inspired by Egyptian representations in papyrus marsh scenes. The unusual full, instead of profile, view of the butterfly in the Priest-King Fresco seems drawn in an Egyptian manner.

15. PLANTS: SLIDES 29-31 and PLATES 90-111 [78]

Flowering plants, invariably portrayed in profile view, play five main roles in our frescoes:

1. main features (PLATES 95-96 and 102-103);
2. subordinate landscape elements (PLATES 65-66);
3. filling motifs in geometrical, notably spiral, designs (PLATES 63A and 138C);
4. dress and jewelry patterns;
5. main features in elaborate border decoration.

They include real wild species, artistic hybrid forms, and wholly generalised, imaginary or unidentifiable types. Their appearance everywhere in full bloom is a sure indication that the temporal setting of the scenes may be understood as spring- or summertime. Only rarely do we see falling petals (PLATE 105) or berries to suggest late summer or autumn, and even then the artist may be exercising his artistic licence. Identification of the plants, like that of the birds, is hampered by free choice of colours or of colour-conventions probably derived from Egypt. Another Egyptian feature is the alternation of buds with open flowers to form "radiating" clusters, notably in crocus, iris and papyrus representations. Other conventions of drawing seem more peculiarly

Minoan; leaves and plants spring directly out of borders, or the leaves may have alternating colours - blue and green; or blue, blue-green and yellow; or yellow and white. The frescoes supply invaluable evidence for the flora of Crete in Minoan times and throw some light on Egyptian commercial connections.

Crocus: SLIDE 29 ai-iii and PLATES 90-92

This is frequently depicted growing wild or cultivated in plant-pots (PLATE 84C). The flowers may be white, yellow, pink, red or blue with olive-green or red leaves and red, yellow or blue stamens, sometimes bifurcated (SLIDE 29ai, right). A calyx may or may not be present. M. Möbius suggests the identification C. sativus L., a cultivated variety probably derived from the only wild indigenous Cretan species C. Cartwrightiensis Herb. Imaginary artistic hybrids of the crocus with "waz" filling motifs appear in the Saffron Gatherer Fresco (PLATE 92B). The plant in antiquity was valued as a spice, as a source of yellow dye, and possibly as a medicament. It may also have been regarded in Crete as one attribute of female deities[79].

Honeysuckle: SLIDE 29b and PLATE 93

Flowers resembling Lonicera etrusca Santi appear in frescoes from Knossos and Trianda (Ialysos), but this identification is uncertain. The honeysuckle was eaten in antiquity for its sweetness.

Iris: SLIDE 29c and PLATES 94-96

Möbius identifies our fresco irises with I.germanica, one of twelve native Cretan species. The dwarf Cretan variety appears in the large frieze from the House of the Frescoes at Knossos (PLATE 94A-B); large irises were cultivated to judge by pictures from Amnisos (PLATE 95-96). In classical Greece the plant was used for medicinal purposes. Conventionalised irises are associated with the Priest-King Relief Fresco in early restorations[80]; and it appears in a more stylised form as a dress motif on the skirt of a female figure from Knossos (PLATE 23 D10).

Ivy: SLIDE 29d and PLATE 97A-B

This plant, possibly Hedera helix L. or H. Poetarum Bertol., is depicted growing in wild bushes in rocky landscapes (SLIDE 30, and PLATE 66) and as a dress motif (PLATE 184B). The leaves of Knossian "wild" examples are painted in alternating colours with "waz" filling motifs, a feature shared with some ivy bushes in the Hagia Triada fresco at PLATE 97B. Flowers seem indicated by clusters of spots or lines at the ends of some branches (PM II, p.479, Fig.286). Evans thought the ivy was regarded as "sacred" by the Minoans, but this is rejected by Nilsson who emphasises their decorative importance.

Lily: SLIDE 29e-f and PLATES 101-106A

Two varieties are depicted, the Madonna lily (Lilium candidum L.) and the Pancratium lily (Pancratium maritimum), both indigenous to Crete: the latter can be found on the seashore east of Herakleion (PLATE 106A). The Madonna lily is the most popular flower in Minoan frescoes and was evidently a favourite offering to female deities (PLATES 101-105)[81]; paintings from Amnisos show it was cultivated in large flower-stands. A fresco from Phylakopi shows a decorative arrangement of "cut" lily flowers (PLATE 101D).

Lotus: SLIDE 29g and PLATES 98-100

This plant, Nymphaea coerulea Sav. or N.Lotus L., was evidently imported to Crete from Egypt where it was native. In Minoan studies it is often confused with the papyrus which, however, lacks the central leaf or sepal of the present plant. Minoan conventional depiction of both plants seems derived from the Egyptian. Artistic hybrids of the two plants - lotus leaves or sepals containing papyrus filling motifs - are commom, appearing in frescoes from the Throne Room, the House of the Frescoes and the Caravanserai at Knossos (PLATE 99-100) and from Hagia Triada (PLATE 82C, upper right). The lotus flower may also have been combined with spirals in ceiling decorations in stucco, as the stone-carved ceiling from Orchomenos suggests[82]. One such fresco ceiling fragment, in relief, may be the piece at PLATE 98A from Knossos at which site only

are found large-scale representations of the lotus. This point suggests Knossos may have been the chief importer of the plant from Egypt. There it was popular as personal ornamentation at banquets and funerals and for bouquets presented to deities and the Pharaoh. The flower at PLATE 98B seems to have been carried by a male processional figure.

Papyrus: SLIDE 29h and PLATE 107

The papyrus (Cyperus papyrus L.) seems to have been depicted growing wild only in dependant houses at Knossos, if we leave aside its artistic hybridisation with other plants. Like the lotus, it was probably imported to Crete from Egypt where it was common in antiquity. In Crete it appears in scenes showing strong Egyptian influences.

Reeds or grasses: SLIDE 29i and PLATES 108-111

These may be depicted in their own right or imaginatively combined with the flowers of other plants, especially the lotus and papyrus or artistic combinations of these two plants. They fall into two typological groups: those delicately drawn with thin leaves (e.g. PLATES 109D and 200 A6) or much heavier-looking types with broad leaves (e.g. PLATES 108; 109A, B3-5, C; 111 and 198 A6). Most are too generalised to make identification possible, although the reeds of SLIDE 29i are considered by Möbius to represent Arundo phragnites L. or A. Donax L. This plant shares a pinkish inflorescence with vetch-like plants in the same fresco, from the House of the Frescoes at Knossos.

Vetch or sage: SLIDE 29j and PLATE 87A

The shape of the leaves indicates a member, not closely identifiable, of the lupin family, to be seen in several paintings from Knossos and Amnisos (PLATES 87A; 95; 109 B6; 118 D-E, and 192 B4). The motif is also found on a plaster offering table from Knossos (PLATE 118B-C).

Rose: SLIDE 29k and PLATE 106B

The wild dog rose (Rosa canina L.) occurs uniquely, with and without brown-veined leaves, on fragments from the House of the Frescoes at Knossos. For the sake of symmetry, six petals replace the five of the natural species and buds or hips are depicted with the flowers. This plant inspired the "rosette" of dress and spiraliform designs (PLATES 63A; 138C; 140 and 141A).

Violet: SLIDE 29l and PLATE 91

This plant (? Viola oderata L.) occurs only in a painting from Hagia Triada where its flowers, originally white, have been turned blue-grey by fire.

Uncertain flowers

The caper possibly appears in the same fresco from Hagia Triada (SLIDE 29m: cf PLATES 27 B and C), but another plant from there defies identification (PLATE 82C, lower right). Möbius suggests ferns in other paintings, from Knossos and Ialysos (SLIDE 29o and PLATE 104B, lower row). A highly stylised plant appears within the shrine with two rows of female figures on the painting from Hagia Triada (PLATE 50A). Finally, Möbius draws attention to a small and "insignificant" plant on a fresco from Amnisos whose presence there he can only explain as due to its medicinal value (SLIDE 29n)[83].

16. TREES AND SHRUBS: SLIDES 32-35; PLATES 112-117, 119

Of eleven types of tree and shrub depicted in our frescoes only five seem safely identifiable with known species, and of these the myrtle and olive alone are commonly represented. A distinctive convention concerning trees sets their foliage against a light blue ground-colour. Details of leaves and tree-trunks, indicating special characteristics or textures, are ignored by the painters who also take liberties in their use of colour: the leaves of olives, for example, not infrequently are shown in black or sepia. The occurrence of trees in the frescoes is especially important if only because the Minoans practised a tree cult in which the trees were "adored and venerated with ecstatic rites and dances, and their holy branches touched and shaken"[84].

Butcher's Broom: SLIDE 32a and 33; PLATE 112A

The greyish-green leaves and stems, and red berries at the tips of the leaves of this shrub (Ruscus aculeatus) are accurately protrayed on three fragments from Knossos. A similar bush, but painted an overall light brown (? burnt green) and lacking berries, appears on another Knossian fragment (PLATE 112B).

Uncertain shrubs and trees

A highly stylised cactus-like tree appears on the painted sarcophagus from Hagia Triada (SLIDE 32b; PLATES 52B and 13D). What may be the Common Mallow (Malva sylvestris L.) is depicted three times but in different colours in paintings from Knossos, where that shrub grows profusely (SLIDE 32d; PLATE 113). A small bush in the Caravanserai frieze from Knossos, with red thorns extending beyond the outline of the green foliage, seems better identified as Cichorium spinosum L. (Evans) than as Althaea rosea L. (Möbius), although common Thyme is another possibility (SLIDE 32c; PLATE 115E). The latter plant, from which an antiseptic oil can be extracted, is common throughout Crete. Another tree or shrub in the same fresco, seen at SLIDE 32e and PLATE 86, may represent Dittany (Origanum

dictamnus L.); but this picture recalls an Acacia also harbouring a hoopoe in an earlier Egyptian painting at Beni Hasan[85]. Part of a fig-tree is perhaps depicted on the piece at PLATE 110D (SLIDE 32h), but this is most uncertain. A fragment from Prasa shows "miniature" (?) cypress or fir-trees, and here we find the only true "chiaroscuro" in Minoan wall painting (SLIDE 32h; PLATE 119A). A shrub with veined leaves, of an unknown type, is seen at PLATE 119C from Knossos. The remaining trees and shrubs are more readily identifiable.

Myrtles: SLIDES 34-35 and PLATES 114-115A-C, E (from Knossos)
This shrub, Myrtus communis L., occurs in paintings from Knossos, Hagia Triada (PLATE 21), Keos (PLATE 198 A4), Akroteri on Thera (PLATE 115D) and perhaps Phaistos (PLATE 200 A4); the leaves and stems seem conventionally painted olive-green and red. The Egyptians extracted a black dye from the myrtle and in Classical Greece the shrub was sacred to Venus and an emblem of love. Whether the Minoans also held it in such esteem we cannot say, but it is notably found in nature scenes which we shall see later to relate to the worship of certain female deities.

Olive-trees: SLIDE 32g and PLATES 116-117
This tree, Olea europaea sativa, is exceptionally well attested at Knossos, in relief (PLATE 116) and "on the flat" (PLATE 117), and it recurs in paintings from Tylissos (PLATE 6E) and Hagia Triada on the sarcophagus within a sacred enclosure or temenos (PLATE 52A). It is shown in flower in one relief fresco from Knossos (SLIDE 32g), a remarkable detail bearing out the springtime setting of many of the paintings. Cultivated for oil and fruit in Crete from EM II times onwards, the tree was undoubtedly regarded as sacred, as many scenes on gems depicting men and women shaking its branches show.

PLATE 119B perhaps shows another olive-tree in a very stylised form.

Palm-trees: SLIDES 32i and 38

The date-palm (Phoenix dactylifera L.) appears next to the stone throne in the Throne Room at Knossos (PLATE 129) and on a fresco from Thera (SLIDE 32i and PLATE 196 A3). The tree was a popular motif on pottery from at least MM II onwards, but whether it was native to Crete is debatable: Möbius believes the famous palm-trees at Vagi (Phinikodassos) were introduced from outside the island, and Evans suggested from Egypt (PM II, p.496). Its occurrence in the Throne Room at Knossos seems a clear assurance that it was held as sacred in Minoan times.

Vines: SLIDE 32j and PLATE 198 A4, left

A shrub, with clusters of red berries or fruit and serrated-edged leaves, resembling the vine occurs in a fresco from Keos. Impressions of leaves on the bases of clay pots from Myrtos suggest the vine was cultivated in Crete since EM II times.

17. SEASCAPES: PLATES 120-121, 125-126

These are particularly impressionistic. The SEA is seen in plan, as if from the deck of a boat looking straight into the water. It is indicated by short blue dashes or blue net designs of irregular shape (PLATE 121); alternatively, by black dots, signifying bubbles of air from the swimming fish, on a streaky blue ground denoting the water. These conventions of drawing clearly arise from observation of the refraction of light on the surface of the blue Mediterranean seas.

The Flying-fish frescoes from Phylakopi present the most interesting seascapes. Here, ROCKWORK is drawn in black outline with small rocky protuberances here and there. PEBBLES, in conventional style and colours matching those in landscapes, lie about on fawn or yellowish areas denoting the sandy seabed (PLATE 120A-B) or in among rockwork (PLATE 120C, above fish). The series of "tricurved arch" motifs in black on a blue ground at one point in the frieze are surely to be interpreted as a BED OF SHELLFISH, perhaps mussels which festoon the rocky Aegean shores (PLATE 120B, left). At another point in the same frieze, there is a yellow area spotted with black dots which suggests a SPONGE clinging to the adjacent rockwork (SLIDE 36a; PLATE 125B, centre): the implication is that the inhabitants of the Cyclades of Minoan times, as today, went sponge fishing.

In the Dolphin Fresco from Knossos Evans reported SEA-URCHINS painted bistre above a red band (SLIDE 36b): the original piece is now missing unless it is partly preserved in the fragment at PLATE 120D.

The conventions observed in these frescoes recur in marine scenes on pottery, but there we find a variety of underwater vegetation imaginatively treated which is lacking in existing fresco seascapes.

Fig.12

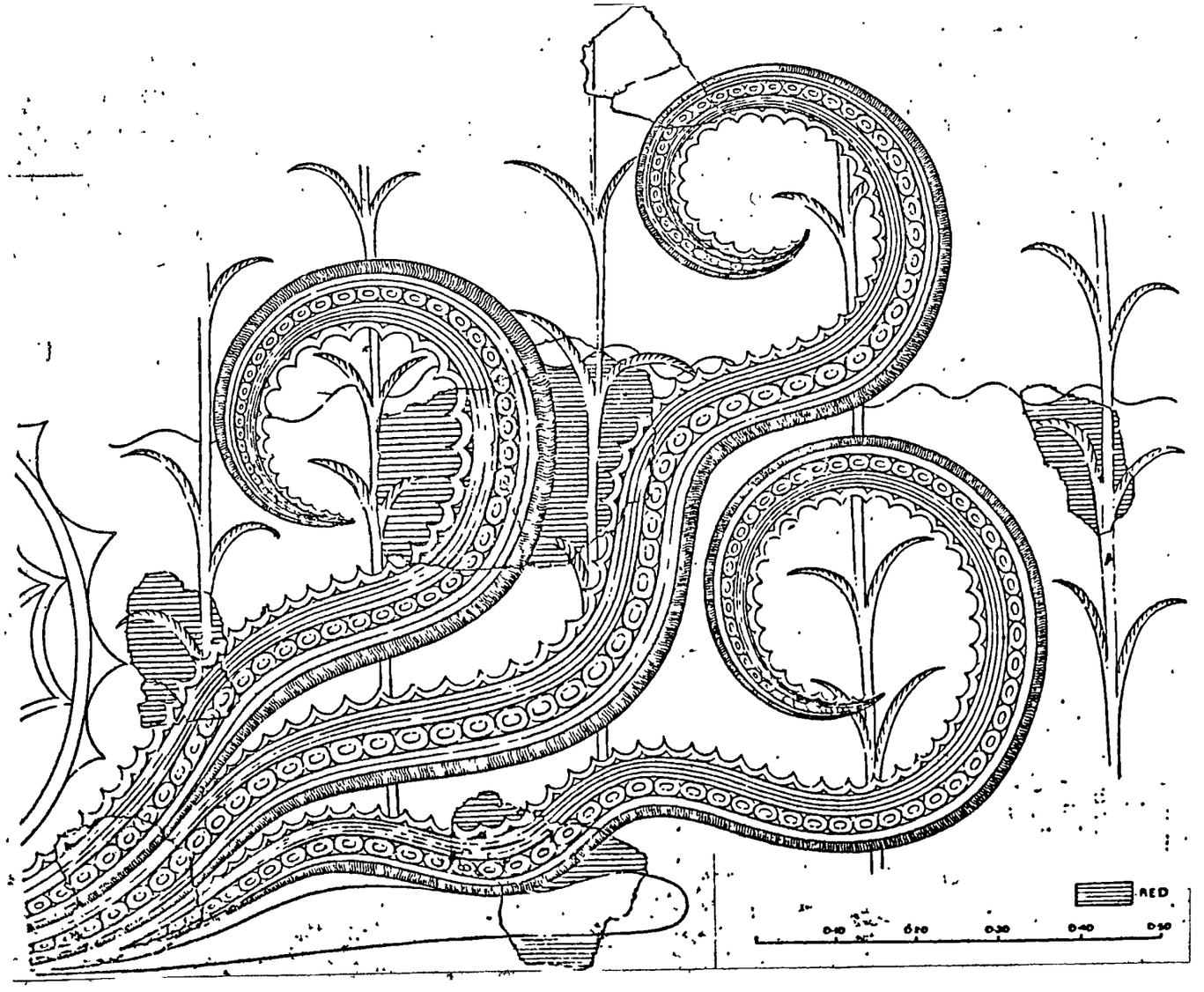


Fig.12
"Argonaut Fresco": Knossos
(after PM IV,p.890, Fig.870)

18. FISH: SLIDES 36-37 and PLATES 120-126

Among fish representations only four species are recognisable, all common in Aegean waters. Like the terrestrial creatures, the fish are drawn in profile, with the amusing exception of an octopus - seen *en face* to exaggerate its grotesque eyes! The scalyness of fish is passed over; but lines in black lengthways along the body are added, especially in order to define changes in colouring. Most if not all the identifiable fish are edible.

Argonauts or "nautiluses":

One seems to be depicted in a large fresco from Knossos, but the restoration is not certain (Fig. 12). Others appear as dress motifs on two fragments from Knossos (PLATES 185 B5 and 188, B11 - upside down). These show the female argonaut: the male is minute, lacks a shell, and is parasitic upon the female. Argonauts appear more frequently on "marine style" pottery.

Common dolphins: SLIDE 63c and PLATES 121-122A and 124

These appear in frescoes from Knossos, Hagia Triada, and perhaps Keos (SLIDE 37). The blue and white colouring corresponds well enough to the blue-grey and white of the real creature; but yellow bands along the flanks and human (Knossos) or exaggerated circular eyes (Hagia Triada) are decorative artistic additions. A dolphin (or porpoise ?), painted an overall brown and with snout abraded, appears on the fragment from Knossos at PLATE 123A.

Flying-fish: SLIDE 36d and PLATES 120C, 125-126

These are depicted naturalistically in a frieze of two paintings from different walls of a house at Phylakopi on Melos. Some details, however, are the artists' own additions, notably, yellow on wings and fins and the blue instead of light blue-grey colour of the back. Fresco pictures such as these evidently inspired pictures of flying fish in other materials - on gems, sealings and as inlays on bronze daggers.

Octopus: SLIDE 36e and PLATE 124B

Only the creature on the floor fresco from Hagia Triada is known, where the disposition of limbs is decorative rather than naturalistic. Octopuses were hunted for food in Minoan and Mycenaean times, as is clear from six-pronged fishing gaffs found in chamber and tholos tombs at Sellopoulo (Tomb 4) near Knossos and Dendra on the Greek mainland.

"Small fry": SLIDE 36f and PLATES 121-122, 123B and 124B, foreground

The fish paintings from Knossos and Hagia Triada show various small fry, not closely identifiable unless those painted pink represent red mullet or "barbouni". Their drawing is stylised, particularly that of their fins, eyes and mouths.

19. MYTHICAL CREATURES: SLIDES 12f-i and 38-40: PLATES 127-132

In Crete griffins and sphinxes on frescoes are found only at Knossos, portrayed in their own right (SLIDES 38, 40 and PLATES 127-132) or as dress motifs (SLIDE 12 f, g, i). But from the Cyclades a wing-fragment is known from Keos (PLATE 197 A6) and a pair of flying griffins appear on the skirt of a female figure from Phylakopi (SLIDE 12h). Griffins, usually with wings, but strangely lacking them in the frescoes from the Throne Room at Knossos (SLIDES 38 and 53; PLATES 127-129), are eagle-headed creatures with a lion's body: sphinxes in Minoan art are similar but with a woman's head (SLIDE 12i). Pendant floral or spiraliform motifs decorate their chests (SLIDES 38, 40 and PLATES 127-128 and 130A); wings are invariably decorated with rows of "adder mark" motifs (PLATE 131; and SLIDE 12f, h); and along the backs of the griffins in the Throne Room at Knossos are elliptical motifs which could be decorative, too, but which could signify leopards' spots (perhaps confused here, as certainly at Pylos, with lions). Small red lines on those creatures' legs, stomachs and tails are considered by Evans to denote shading, but they are better understood as simply representing hair or fur on the body. Winged griffins in relief fresco from Knossos appear at PLATE 132.

Both creatures evidently originated in Syrian art and first came into Crete perhaps as textile motifs in MM III.[86] By the end of that period they had assumed a conventionalised Minoan form, the most characteristic features of which are their wing decoration, crests in raised or lowered positions, collar-pendants, and their "flying gallop" posture (not found in the frescoes). Traditionally, these mythical creatures were the guardians and avengers of deities or kings and, therefore, regarded as beneficial monsters. In Minoan art they play the same role, often in connection with Minoan goddesses around whom they frequently appear on gems and other objects in heraldic antithetic positions; griffins also feature drawing chariots in frescoes and on other objects.[87]

Part III

BORDERS, GEOMETRICAL DESIGNS, DADOES AND WOODWORK

20. Border bands and stripes .... p. 110

21. Geometrical designs .... p. 112

22. Dado designs and imitations of stone- and woodwork .... p. 114

(a) Banded dadoes (p.114)

(b) Geometrical dadoes (p.114)

(c) Dadoes imitating stonework (p.115)

(d) Dadoes imitating woodwork (p.116)

(e) Architectural dadoes (p.116)

(f) Dadoes and linear measurement (p.117)

20. BORDER BANDS AND STRIPES: PLATES 133-136

The borders of Minoan frescoes, which provide a decorative framework for the main picture or frieze, are of three kinds, making their first appearances in the following chronological order: (1) series of monochrome stripes in two or more colours, generally alternating (PLATES 133-135); (2) stripes with "barred" decoration added on top of the basic colours (e.g. PLATE 136A); (3) bands of either type 1 or 2 enclosing a broader band decoratively treated with pictorial or "running" geometrical motifs, such as rosettes or spirals (e.g. PLATE 136B). Stylistic and chronological developments can be traced in types 1 and 2 but type 3 is common only towards the end of Minoan wall painting and further developments of this class are to be sought in wall paintings from the Greek mainland. Occasionally, border stripes may divide a frieze artistically into two or more "panels", as in the "Taureador" frescoes (SLIDE 46) - a treatment as yet unknown in Mycenaean frescoes from the Greek mainland.

Certain proprieties in the colouring of the stripes are noticeable. Monochrome red, blue or black stripes generally alternate with plain white or blue (with black); or these colours may be combined with yellow bands. The "barred" type usually features yellow bands with red bars and blue bands with black bars, often separated from the pictorial zone by white bands; the latter enabled the background of the pictorial zone to be filled in in any colour the artists cared to choose, without diminishing the colourative effect of the border.

Vertical decorative borders are rare until type 3 comes into fashion, at which time pictures begin to be surrounded by a continuous series of stripes or bands (e.g. SLIDE 24). Previously, a stucco dado, often painted in imitation of woodwork, "replaced" lower horizontal border stripes, and vertical borders were left undecorated (to heighten the impression of the frieze's continuity) or treated to a simple undulating band, as on the right of the restored waterfall at SLIDE 22, where the frieze terminated at a doorway or other

major architectural feature. In such paintings, border stripes were confined to the upper horizontal limit of the pictorial zone, as we see, for example, in the large floral pictures from Amnisos (PLATES 95, 102-103). Continuous geometrical designs, however, such as spiraliform friezes, seem to have been bordered by stripes above and below the main design in all periods, but in earlier times with a preference for somewhat sombre colours particularly on the lower side.

The chronological importance of border decoration is considered in greater detail in Chapter X. The statement that "borders" (i.e. stripes or bands) originate in or "are lineally descended from painted representations of moldings" (Pylos II, p.159) is difficult to square with the fact that they were being painted "on the flat" in MM I and II, before the technique of moulding plaster for cornices is known to have begun; moulded cornices in other materials are equally unknown in those periods.

21. GEOMETRICAL DESIGNS: PLATES 137-144 and SLIDES 41-42

Only a few geometrical patterns make up important mural friezes in their own right, if we leave aside designs on dadoes of painted plaster. The foremost of these are SPIRALIFORM patterns, in single or double rows of dotted or linear spirals (PLATES 137-139 and 144A). Treatment of the "spacers", central filling motifs and "terminals" of the spirals vary widely. Central spacers are triangular in shape when between alternating rows of elliptical spirals (PLATE 137A) but they become diamond-shaped in more rounded or "regular" spiral arrangements (PLATE 138A and SLIDE 41). Border spacers may be arched, triangular or undulating (PLATES 63A; 137A and 137B, respectively). Stylised ROSETTES are a favourite central filling motif, and several examples treated in different ways appear at PLATES 138C, 140-141A; but monochrome circles may replace rosettes in that position (PLATES 137B and 144A). Spiral frescoes in relief are known from Knossos where they were common (PLATE 141) and from the palace at Kato Zakro, with a two-branched type of more bulky form and cruder execution than that of the Knossian two-branched relief spiral shown here at PLATE 141B. Three- and four-branched relief spirals, as yet known from the palace at Knossos alone, of their nature are "spreading" designs suitable for covering a large surface although not that of a vertical wallface; that is, they belong to ceiling decoration and indeed they form our only certainly identifiable ceiling ornamentation in painted stucco: once more, rosettes provide the filling motifs (PLATE 141A), but it is possible other flowers such as the lotus were also combined with spirals in ceiling designs (PLATE 98A), as the famous stone-carved ceiling from the tholos tomb at Orchomenos suggests.[82] The two-branched relief spiral could, however, decorate either wall or ceiling; that from Kato Zakro certainly belonged on the walls of the "Banquet Room" just below the ceiling with its wooden cross-beams (v. Chapter VIII, p.278, Fig. 39A). The spiral may have had some religious significance since it is commonly depicted around doorways of peak sanctuaries and tombs (Fig. 29A and PLATE 52B-C) and it also decorates an altar and the olive-tree temenos represented on the

Hagia Triada painted sarcophagus (PLATE 148). If Evans's restoration of the spiral at PLATE 137B is correct (PM I, p.372, Fig.270), the diagonal element in his arrangement may indicate this fresco, too, adorned a door or mural recess.

A comparable arrangement of a "LATTICE" pattern is firmly attested by the decoration of the back walls of three stuccoed and painted recesses at the north end of the Central Court at Phaistos which are thought to have been "sentry-boxes" (PLATE 142). Fragments with the same pattern, hitherto unreported, have been found at three points in the palace at Knossos and also in a private building in the region of Hogarth's Houses (PLATE 143); and the design recurs on the "altar-foot" on the stucco dado below the griffins in the Throne Room at Knossos (SLIDES 43e and 38, in situ). These discoveries are emphasised since much has been made of the Phaistos instances to suggest, in reference to the appearance of the motif in connection with a bull-leaping scene on a gem (?) from Priene (Kenna no. 202), that the ritual of bull-leaping took place in the central courts of the Minoan palaces (v. Chapter V). But the motif was more widely distributed than hitherto has been supposed and its connection with bull-leaping inevitably becomes less telling; it is probably right, however, to think the motif expressed some religious symbolism but certainly not solely relating to the bull-ring.

The piece at PLATE 144B from the Royal Road/North site at Knossos shows black and white stripes enclosing irregular yellow areas painted yellow with red-filled black rings here and there (SLIDE 42). The irregular areas undoubtedly represent leopard-skin patches and the surrounding bands could also depict an animal hide - a zebra's. (cf. Aldred, Akhenaten Colour PC. XVII). This is a floor fresco imitating a carpet made from the pelts of African animals. The painting is firmly dateable to MM III, and is therefore "transitional" between the floor frescoes of MM II and LM II-IIIA dates from Phaistos and Hagia Triada (PLATES 4B and 124).

Somewhat similar patterns, with circular motifs apparently also copying animal hides, occur on the pieces at PLATE 172B: these too may belong to floor decoration.[88]

22. DADO DESIGNS and IMITATIONS OF WOODWORK: PLATES 145-147 and SLIDE 43

A dado, in Minoan architecture of stone, wood or painted stucco, often covered that part of the wall below an important mural frieze - broadly corresponding to a deep wainscot or skirting-board in modern houses. We can distinguish four groups of painted dadoes according to decoration: those with simple bands, others with geometrical designs, and yet others imitating either stone- or woodwork and replacing dadoes in more durable materials. Because painted dadoes have often been found *in situ* on the stumps of basement or ground floor rooms, they form in architectural respects the best known category of mural decoration.

(a) Banded dadoes

In this group we find monochrome bands from 10 to 30 cm. high between floor and picture proper, and examples are known executed in low relief so as to protrude slightly forward from the surface level of the pictorial area: these correspond most closely to present-day skirting-boards. We may also include here stucco painted with simple bands of colours at intervals up the entire wall surface, a form of decoration particularly common in storerooms and less important rooms in all kinds of Minoan domestic architecture. Two examples are illustrated here, the first from the West Magazines of the palace at Knossos (SLIDE 43a), the second (SLIDE 43b) from the "House of the Frescoes": this is more ornamental, with a black baseboard 17 cm. high and at 56 cm. from the floor a band imitating a wooden beam of the usual Minoan timber framework, with another band above painted with a black on plain white "herring-bone" design. The latter may copy a decorative band of veined stone.

(b) Geometrical dadoes

Only a few instances are known, among them two MM II examples, already described, showing crescents and undulating bands in alternating colours (PLATE 4E) and yellow sponge-prints (PLATE 4D). Another probable dado of this type, from Knossos, appears at PLATE 146A-B and SLIDE 43c, with a red meander pattern on reserved white,

another fragment of which appears at PLATE 169 B3. This pattern is found on gems and on the back of a Linear B tablet from Pylos, and may have had some symbolic, perhaps religious, significance as it certainly did later on Classical and Hellenistic coins from Knossos, at which time it denoted the Minotaur's labyrinth of Greek legend.

(c) Dadoes imitating stonework

These copy in painted stucco stone slabs of gypsum, marble or alabaster dadoes set up in more lavish and important rooms of the Minoan palaces and villas. Six characteristic examples are illustrated here, and in three of these the stucco is painted to indicate the individual slabs of the stone types which they are imitating. The most realistic of these is known as the "Marbled Dado", from Knossos, seen at PLATE 146C and restored at SLIDE 43d (after Evans): here the veining of the stone is carefully indicated in red, the individual slabs being marked out by deeper red bands. We find the same "slab" arrangement in a fresco bordering the marine floor scene from Hagia Triada, at PLATE 145A and SLIDE 43g: but here the veining is highly stylised in repeated series of looped and curving red and black lines over broad primary washes of light ochre, pink, yellow, orange, grey-blue and reserved white bands. The "slabs" here measure some 46 cm. wide and 66 cm. high. An intermediate form, perhaps closer to the "Marbled Dado", in which the different "slabs" are denoted by changes of background colours, appears at PLATE 145B and SLIDE 43f. In this case, the veining is shown by stippled lines in darker shades of the same colours as the background washes. A broad white band comes between the imitation stonework and a pictorial field to which belongs the bull's foot at PLATE 80B. A peculiarity of this dado is that the stucco seems to have been laid in sections - each two "slabs" wide - between (?) wooden slats set vertically in the wallface: evidence for the slats remains in the vertical border impressions at the sides of each of the plaster sections (PLATE 145B).

The veining of the remaining dadoes of this class presently illustrated is painted more conventionally, most commonly in diagonally or vertically undulating series of coloured stripes on light-coloured

grounds (SLIDES 38 and 43e, and PLATE 147A). The slides show the dado below the griffins in the Throne Room at Knossos; in the Antechamber next door Evans found *in situ* a fragment of the "vertical" variation with a bull's foot in the field above it (*PM* IV, p. 893, Fig. 872). Fragments of several other dadoes are known, particularly from Knossos, in which red, brown, yellow and white spots of paint cover a black background (PLATE 147C). Referring to the earliest known occurrence of this type of dado, from Phaistos (MM IB), Evans suggested the artists may have been imitating liparite. Interestingly, spaces in the façade of the cult building depicted in the fresco at PLATE 48B show exactly this form of decoration; and similarly painted stucco fragments evidently fell from the spaces between the timber framework within the North West Lustral Basin at Knossos (v.p. 689). It may be that this type of decoration could more accurately be ascribed to panels enclosed by the wooden framework than to dadoes as such.

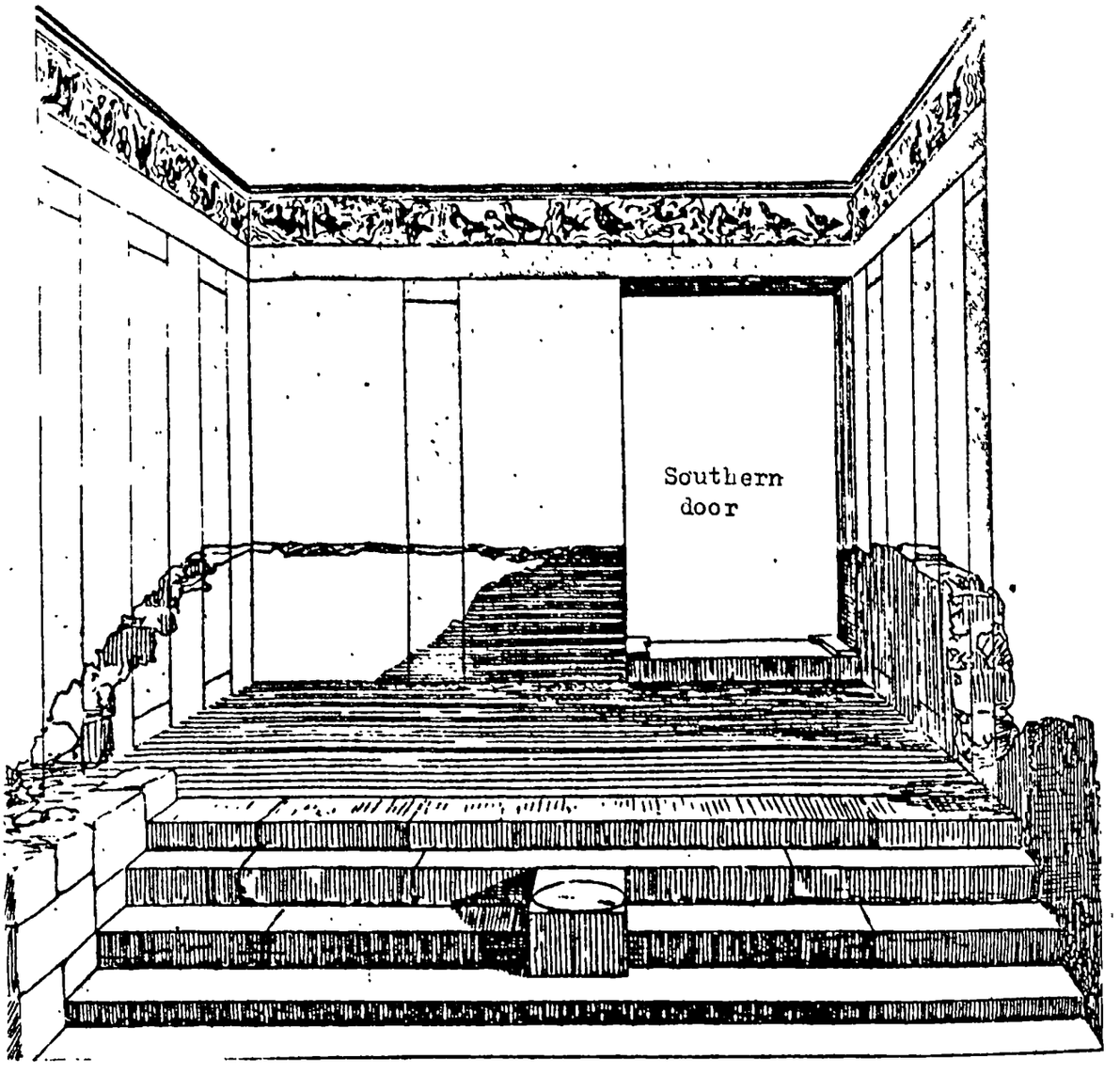
(d) Dadoes imitating woodwork

These occur below pictorial scenes and are painted with faint reddish streaks over a rusty-orange ground (SLIDE 43i). The best examples turn up in friezes from the "House of the Frescoes" (SLIDE 56), from Room 14 of the villa at Hagia Triada (SLIDE 54), and from Room 7 of the villa at Amnisos (SLIDE 59). In the first of these friezes there seems at one point on the dado to have been an undulating black band which apparently served to counterbalance rockwork impinging on and beyond the upper border stripes. Above the stripes in turn there is another area imitating a wooden crossbeam, with a black-painted "eye" or knot of the wood depicted in one place (Vol. IV, F, p. 13f, Fig. 8E and Pl. 8 /4/). The fragment at PLATE 147B, restored at SLIDE 43h, certainly copies woodwork but the red lines at right-angles there to be seen suggest the original stucco was copying square or rectangular wooden plaques set side by side.

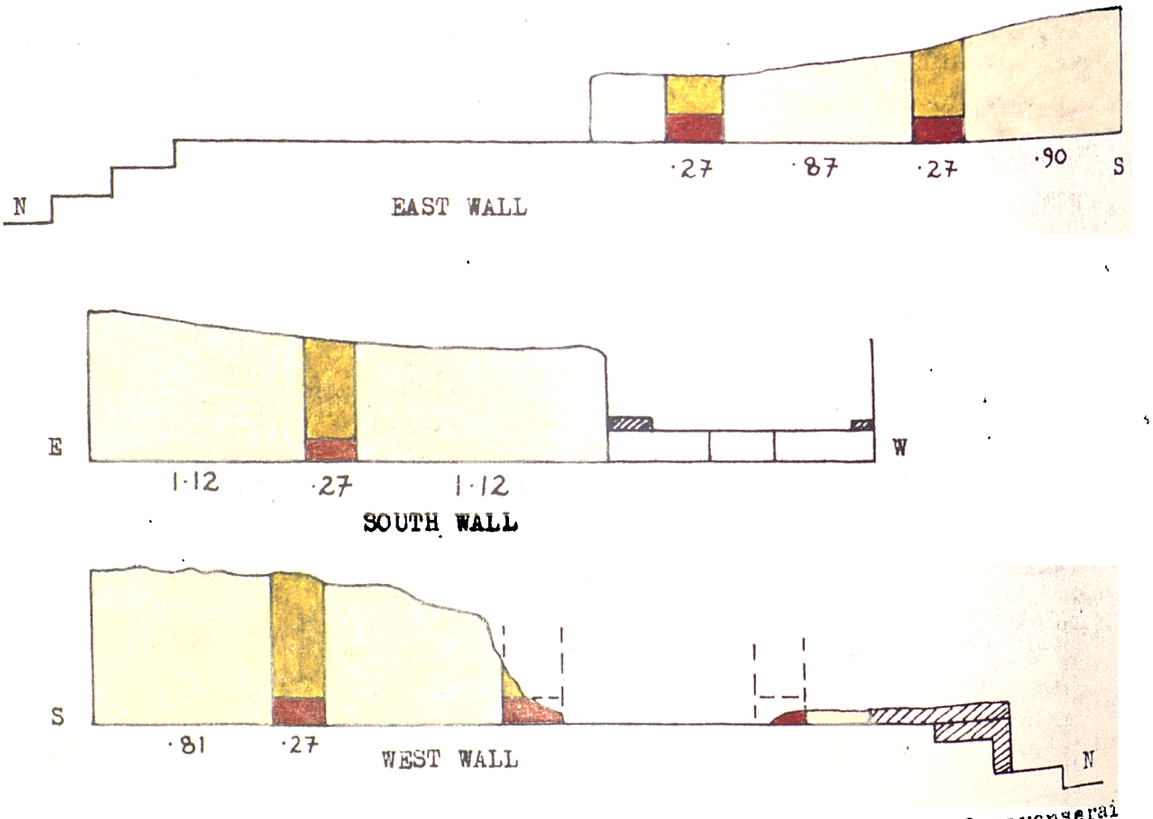
(e) Architectural dadoes

The dadoes copying wooden or stone prototypes are obviously architectural in character as well as decorative. A more

Fig.13



Restoration of the "Partridge Fresco" in its original position
(after PM II, p.108, Fig.49)



Mackenzie's sketches of the wall plaster in situ in the Caravanserai
(after DM/DB 1924 (III), p.61 - sketch 1a)

Fig. 13

astonishing dado still, one which brings architectural significance to the fore, is that which lay below the "Partridge" frieze from the Pavilion of the Caravanserai at Knossos (Fig. 13 and PLATE 86A). Here, on a reserved white ground were painted at intervals "pillars" or "wooden beams" in ochre with red bases and blue tops, as if representing not only vertical beams in the construction of the walls but also free-standing pillars to "support" the frieze. These features evidently reached the height of the doorways, but only the lower parts of the dado survived in situ on the stumps of the walls, as Fig. 13 after Mackenzie's unpublished Day Book sketch shows. This architecural treatment of the dado, which gives so forcibly the illusion of untrammelled space beyond the physical boundaries of the room, is so far unparalleled in Aegean Bronze Age wall painting.

(f) Dadoes and linear measurement

In her study of the frescoes from Pylos, Professor Mabel Lang has pointed out the value of measuring dadoes preserved in situ or capable of reconstruction to some length in regard to determination of the unit of linear measurement in use at Pylos. She concludes that the Pylian unit was a foot of about 31-33 cm.[89] A similar study of the Minoan fresco material has not yet been carried out but would be highly desirable. The Pylian foot-unit comes close to that of 30.36 cm. proposed by Graham for the Minoan foot-unit (references in footnote 4). But the "slabs" of the Hagia Triada dado at PLATE 145A, about 46 by 66 cm. on average, may be written as $1\frac{1}{2}$ by 2 foot-units if we accept 33 cm. as our standard foot. Moreover, the registers of the Camp Stool Fresco from Knossos are either 31 cm. or 32 cm. high. In these cases of late frescoes from Crete (LM II-IIIA), closer agreement is reached with the Pylian foot-length than with that suggested by Graham. Whether or not the LM II-IIIA wall painters of Crete were using Greek mainland units of measurement at the time seems a problem worth further examination.

Part IV

THE SUBJECT MATTER IN RELIEF FRESCO

A Summary

Fig.14

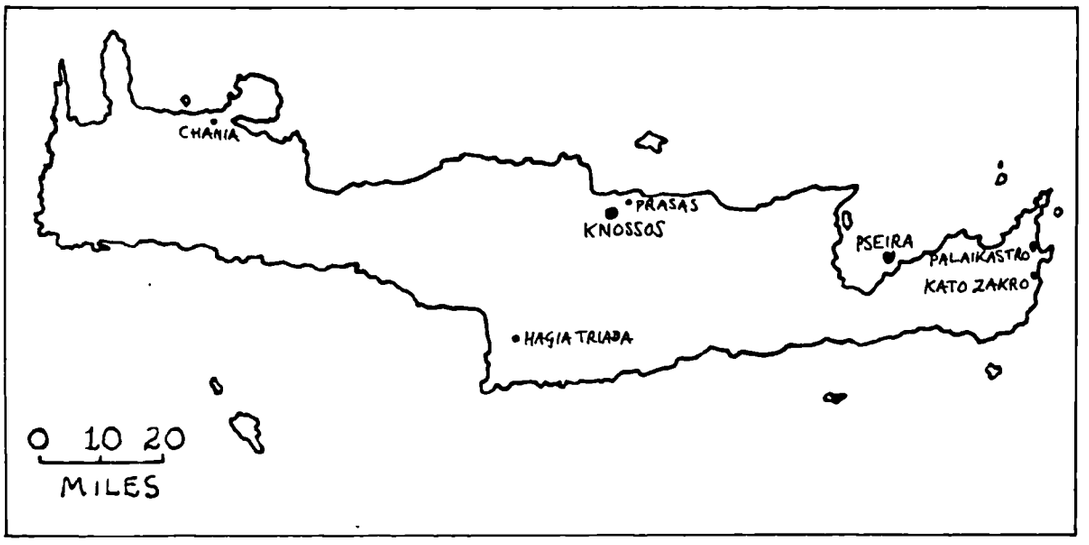


Fig.14A: Distribution Map of Minoan relief frescoes

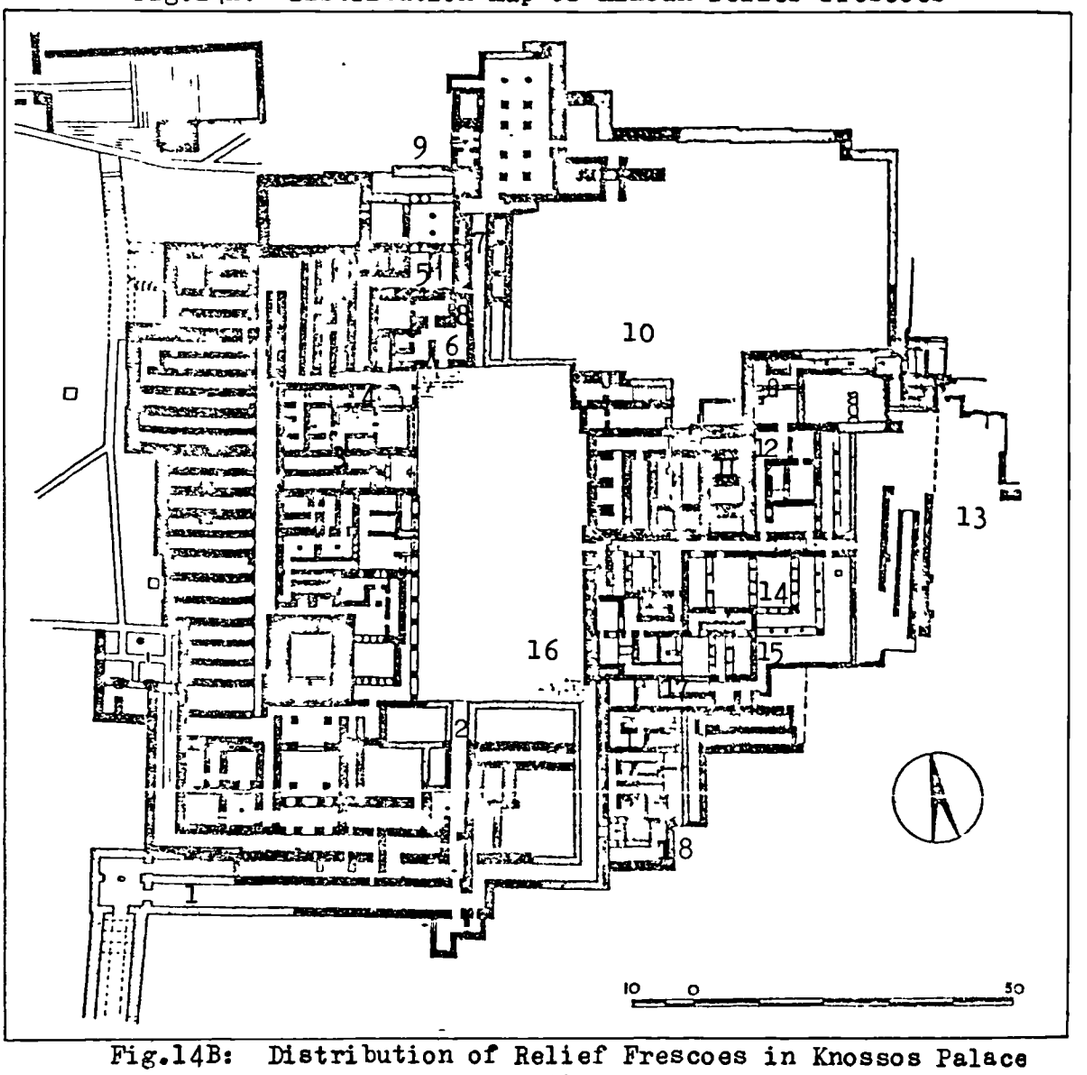


Fig.14B: Distribution of Relief Frescoes in Knossos Palace

Bracketed numbers () refer to PLATE illustrations

1.Girl taureador's arm(41A).2.Priest-King(18).3.Jewel fresco (44A). 4.Unpubl.bull fragment.5.Man's fist (17C);Woman's skirt(41C); Blue codpiece fragments (42B,D); Bull or ?deer fragment (163 A12).6.Spiral ceiling (141A);Olive tree(116A).7.Bull's head (76);Woman's leg (42F); Rockwork (69A);Myrtle tree (116B);unidentified bull pieces.8.Bull's legs,unpublished.9.Spirals reported.10.Man's arm and fist(perhaps 17A). 11.Bull's horn(77A),hoof (79 A4),tail(78A).12.Miniature bull's foot (79 A6).13.Men's arms(16A-B);Bull's legs(16C-D);Men's arm/fists (17B); Woman's breasts (41A-B);Bull's horn(77C); Griffins (132 and 136A); Spiral ceiling (141B); Lily crown (169 A1).14.Hoof(80A).15.Girl taureador's kilt (42E).16.Red codpiece fragment (42C; or at 11).17.Lotus flower(98A).18.Animal's mane (78C and 154A).

Unknown provenances: Woman's ankle (41D; possibly 4); Bulls' hooves(79 A5, B and C; possibly from 11); Bull fragments (154C-D);Stippled fragment (155C); an unpublished scale design in relief.

This summary attempts to pick out some of the more important features of three-dimensional relief-work and to assess the range and distribution of relief motifs. A detailed study of this branch of the art, which represents the Minoan wall painters' highest technical achievement, is being undertaken by Bernd Kaiser of the University of Bonn: he has already discovered further joins to several pieces illustrated here since 1968 when the present writer last visited Crete. Moreover, more relief fragments from new and old excavations (at Chania, Pseira and Palaikastro) have come to light since then. For these reasons, this account should be regarded as provisional and Kaiser's more detailed work will certainly make valuable advances upon it. Some attention is, however, given in later chapters to architectural, technical and chronological aspects of Minoan relief composition in painted stucco.

Seven Minoan sites have so far revealed relief frescoes, all on Crete and primarily at coastal sites on the north and east sides of the island (Fig. 14A). Outside Knossos, at Chania, Prasa, Pseira and Palaikastro, only sparse fragments of human reliefs are known, and all belong to large-scale, perhaps life-sized, female figures who, as we shall see, represent goddesses. At Kato Zakro, a spiral relief composition decorated the Banquet Room (XXIX) in the Palace: it has been reconstructed to a length of some 26-27 metres. Hagia Triada just qualifies for inclusion in this Section, because a late fresco from the villa shows a two-storey shrine with a roof executed in a series of low relief steps (PLATE 50A, top fragment). These sites have turned up only one or two relief compositions each, and the inference is that relief-work was the exception, not the rule, in Minoan wall decoration. Only in the palace at Knossos, in fact, has substantial evidence survived for the widespread relief decoration of a Minoan building (Fig. 14B). It is at Knossos that the technique of mural relief-work began and here there is also much greater variation in subject matter than at all the other sites with relief murals put together. The Knossian reliefs include pictures of men and women - athletes, bull-leapers, goddesses and processional figures - many parts of bulls

Fig.15

SITE	SUBJECT	PLATES	SLIDE
Knossos:Palace	Men's arms and shoulders	16 A-B	
	"Men's" (? bulls') legs	16 C-D	
	Men's hands and arms	17 A-C	
	Priest-King and Lily Crown	18	1
	Woman's breasts	41 A-B	
	Woman's skirt	41C	
	Woman's ankle	41D	
	Girl bull-leapers	42 A-F	7 and 8
	Man's fingers (Jewel Fresco)	44A	14
	Rockwork - associated with the next item	69A	
	Bull's head with horns	76	
	Horns of bulls	77	
	Tails of bulls	78A	
	"Lion's" (probably bull's)mane	78C	
	Hooves of bulls	79 A-C	
	Hoof of "miniature" bull (?calf)	79 A6	
	? Bull's hoof	80A	
	Lotus flower	98A	29g
	Olive and Myrtle trees	116 A-B	32g(det)
	Winged griffins and column	132	
	Border bands and column bases, associated with above item	136A	
	Spirals with rosette bosses	141 A-B	
	Bull (or deer ?) fragment	163 A12	
	Lily crown	169 A1	
Knossos: town			
Royal Road/N	Bull fragments	78B	
	Rockwork of myrtle fresco	67 A-C	34
Royal Road/S	Woman's shoulder	4C	
House of	Bull's dewlap	Unpublished	
Sacrificed Ox.	Rosette boss of spiral fresco	Unpublished	
Rest of Crete:			
Chania	Fragments of female figures	Unpublished	
Hagia Triada	Roof of shrine	50A	
Kato Zakro	Two-branched spiral frieze	Unpublished	
Palaikastro	Woman's arm bent at elbow	Unpublished	
Prasas	Woman's skirt (head "on flat")	33E (33A)	
Pseira	Woman seated	24 A-B	
	Woman seated	25 A-B	
	Feet and skirt fragments	Unpublished	

Fig.15: Table of sites with relief frescoes, noting subjects and present illustration.

including one in relief "miniature", possibly a calf; also winged griffins and a shrine-column; borders; rockwork; spirals of two-, three- or four-branched form; rosette bosses; olive trees; a lotus flower; and fragments of lily crowns like that worn by the Priest-King (PLATE 18; SLIDE 1). Some of the surrounding town houses were also adorned with relief compositions, to judge from fragments of bulls and one (?) of a female figure from sites bordering the Royal Road, and of a bull and a rosette boss of a spiral relief fresco from the "House of the Sacrificed Oxen" (unpublished and unidentified); these last could, however, have been thrown into the house on the collapse of the nearby palace wing during the severe destruction of the site at the end of MM III B. The Table at Fig. 15 lists the relief subject matter according to site, starting with Knossos, with PLATE and SLIDE references where the material is illustrated in the present study.

After the moulding of the wet plaster, generally built up in sections corresponding to individual component parts of the whole figure, the composition was painted in much the same way as a two-dimensional painting "on the flat"; the background in figured and animal scenes was invariably left flat and likewise the faces of human figures which, it seems, were never executed in relief. Moreover figures in relief were combined in the same scenes with others "on the flat" (SLIDE 14), and contrary to received opinion this scheme may have been widespread. Relief frescoes, perhaps inspired by carved stone bas - reliefs in Egypt, evidently took the place of large-scale three-dimensional sculptural works in stone or metals in Minoan Crete, probably because suitable quantities of those materials have always been lacking on the island. However, the stucco reliefs, although allied to "flat" painting from the view-points of perspective and drawing-conventions, were treated more as true works of sculpture, being moulded in some cases in astonishing detail even to showing veins standing out on hands and legs (PLATES 16D and 17B1). The intended sculptural effect of these stucco reliefs anticipates by a millenium the splendours of the more subtly carved bas-reliefs of

classical Greece, such as those which decorated the Parthenon. It is no surprise, therefore, that all the indications are that these relief-works in stucco decorated the most important parts of Minoan buildings. Relief compositions seem to have been confined to upper storeys in palaces and houses, although it is possible some of the more grandiose rooms or passages on the ground floor of the palace at Knossos may have been adorned with relief-work. No doubt considerable care was taken over lighting conditions, to display the reliefs to their greatest effect; but on this point we can only conjecture since no relief composition has yet been found even partly in situ, and the original position of the Zakro spiral relief fresco is alone firmly established. The problem of original location is particularly acute at Knossos. At various points the palace once reached three or four storeys high - and it is at these points that much of the relief work was discovered, collapsed into the basement rooms. Probably the higher the relief moulding the more important the room which contained the compositions: this conclusion is borne out by a tendency towards higher polishing in the highest reliefs.

It will be shown later that the floruit of Minoan stucco relief work was certainly MM III B to LM IB; knowledge of this craft seems to have tapered off sharply after LM I B and no major relief compositior from Crete need necessarily by assigned to a later period. The little shrine with roof in relief, from Hagia Triada (PLATE 50A), would seem to be one of the latest Cretan compositions of this technical class: it belongs to the LM II-III A period.

Until recently it was thought that murals in painted stucco relief were absent from the Greek mainland; but Kaiser has kindly informed the writer that he has identified a relief fragment from Mycenae.

Notes to Chapter IV

1. Cf. C. Aldred Ancient Egyptian Art (1965), nos. 10a, 41; and Egypt to the end of the Old Kingdom (1965), Figs. 61, 68, 102 and 105.

2. Evans's "blue boy" of the Saffron Gatherer Fresco is a blue monkey (cf. PLATES 85A with 84C). The white thigh at PLATE 42E, of a man according to Evans (PM III, p. 329f), is part of a girl "taureador" (SLIDE 7). Figures in the red parts of the crowd scenes in the Knossian "miniatures" which Evans noted were drawn like women (PM III, p. 48, n.2) can safely be considered men because it is clear from the male head at SLIDE 2 that the hair-styles and headwear of both sexes were almost identical in the period (LM I). This leaves only the sex of the "Priest-King" in dispute (PLATE 18 and SLIDE 1).

   Evans supposes that the red colour of the lily necklace is the actual red (male) body colour which has alone survived here because it had been protected by some metallic covering, perhaps gold-foil (PM II, p. 781). But traces of paint have survived only where painted decoration of costume or jewelry could most be expected; that is, neither Evans, nor his assistants, nor anyone since has ever detected a definite "skin" of red paint to indicate the usual body-colour of a male figure. Besides there are blue spacer-beads in the same necklace and these, too, must have been covered on Evans's view - but in that case, why should the painter have bothered to paint them? In fact, there is no trace of any such "covering" on the original fresco (undisturbed since it became stratified). The presumption is that the flesh-colour was always plain (reserved) white, indicating a woman, a "taureador" like the relief figures at SLIDES 7 and 8. The chief objection to this view, however, is: why did the artist omit to indicate developed female breasts in this relief fresco? But there is no compelling reason why he should have indicated them, if the figure is that of a girl of prepubertal or just pubertal age. Bull-leaping would clearly be best attempted by those in their youthful prime. The Greek myths are most emphatic on the youth of those confronting the Minotaur (the bull of the games). Besides, the Minoan artists often omitted to show the breasts of large-scale female figures (v. PLATES 19-20 and the girl "taureador" at Figure 6). Add that the lily crown is otherwise worn only by women or female-headed sphinxes in both Minoan and Mycenaean art, and there seems good reason to dismiss the male interpretation once and for all. The "Priest-King" is a crowned girl athlete, a bull-leaper as shown by her wearing the brief male kilt, walking or parading in some ritual procession probably before participation in the bull sports. Whatever interpretations based on a male identification of the fresco have been put forward in Minoan studies are here left out of account.

   It remains to add that, these instances apart, Evans did not hesitate to identify the sex of relief and "flat" figures according to their red (male) or white (female) skin-colour (PM, passim).

3. Vol. IV, C, p. 47 and n. 31.

4. AJA 64 (1960), pp. 335-341 and "Further Notes on the Minoan Foot" in 2nd International Cretological Conference (1967), pp. 157-165.

5. Frauenfrieses pp. 52ff.

6. So PM II, p. 725f.

7. PM IV, p. 23.

8. PM II, p. 726, Fig. 453a-c.

9. See now Evans's restoration, PM II, Suppl. Pl. XXVI, nos. 17-18.

10. Interconnections Fig. 70, centre (Dynasty XX).

11. Vol. IV, G, p. 340 and Figs. 6B and 11.

12. Alexiou in Europa, pp. 1-6.

13. F. E. Zenner, A History of Domesticated Animals (Hutchinson, London 1963), pp. 456f. The bird (Pavo Cristatus) spread to Mesopotamia but apparently came as tribute to Tiglathpileser IV from Arabia; Diodorus mentions them in Babylon. Also, Birds of the World Part 2, Vol. 3 (London 1969), pp. 718-720.

14. PM II, p. 740, Fig. 473f and Interconnections, upper centre of Fig. 220, respectively.

15. J. T. Killen, BSA 59 (1964), pp.1-15; further discussions by D. Young and Killen in Kadmos 4 (1965) pp. 111ff; Ibid VII (1968) pp. 105-123 (Part I): Ibid VIII (1969) pp. 39-42 (Part II)

16. Cf. Schachtgräber, Plates Vol., Pls. XXVI-XXIX, and Crete and Mycenae, Pls. 202 and 203, owl and frog/toad.

17. Miss M.A.V. Gill has made a special study of the "frame" motif with reference to Egyptian analogies in Kadmos VIII (1969), pp. 85-101. Red-painted knobs (Ibid, p. 88f, n.8) are suggested by a red spot on the right-hand "frame" in the elder Gilliéron's drawing at KFA Pl. IV, Fig. 11; but this is no longer visible nor does a red spot appear in the indifferent colour photograph reproduced at KFA Pl.E, Fig. 3a.

18. Alexiou, Praktika (1959), p. 318, Fig. 2.

19. Reusch, Minoica, pp. 334ff.

20. PLATES 23B-D, with the olive at PLATE 117A-C. Necklace restored at SLIDE 13v, but the red filling motif should be omitted because the fragment from which the drawing is taken is now thought to belong to the skirt of the same or a second female figure from the one composition: the necklace is otherwise as shown (cf. PLATE 23C, with a lock of hair over the bosom).

21. For a human-headed golden ornament from Kythera, see ILN 27 August 1966, p. 29, Fig. 8. C.Aldred, Jewels of the Pharaohs(1971) passim.

22. PM II, p. 681, Fig. 431.

23. For a preliminary report, see Popham AJA 74 (1970) p. 228.

24. JRIBA X (1903), pp. 109f and 113f; also Evans, JRIBA XVIII (1911), pp. 289-295.

25. PM II, pp. 162-166, Figs. 83-84; Ibid., p. 593f, Fig. 370; PM IV, p. 225 and p. 396; on their dating, OKT,B, p. 15 n. 2; Evans, The Shaft Graves and Bee-hive Tombs of Mycenae (1929) pp. 71-77, Figs. 50, 52-53 (from Mycenae).

26. JRIBA X (1903), p. 113, nos. 15, 17-18.

27. Against PM III, pp. 46-64, especially p. 63 n.1, all of whose arguments for "bastions" could be refuted in detail.

28. Alexiou, KChr., 17 (1963), pp. 339-344; J.W. Graham, AJA 74 (1970), pp. 231f.

29. Marinatos, Praktika (1952), pp. 607-610, Fig. 19; Evans, JRIBA XVIII (1911), pp. 289-293, plan Fig. 2. Miss Kardera has recently suggested the banner-poles may be restored high above the architectural façade, which she argues may in any case be that of a peak sanctuary /Ephimeris (1966) pp. 175-181, Fig.26/ But her restoration takes the banner-poles beyond the limits of the original upper border of the frieze (indicated by border impressions in the stucco), and the picture must be viewed in relation to others of the same "miniature" series which support the palace setting interpretation (notably, the Sacred Dance Fresco with its pathways crossing a large court such as is only found at the Minoan palaces). The Central Court interpretation of the Temple Fresco is also fully accepted by Furumark (Opuscula Atheniensia VI (1960) p. 91).

30. KChr. 13 (1959), p. 239, and The Palace of Crete, p. 74, respectively. In 1966 the present writer came to the same conclusion on quite independent grounds and without knowledge of these references.

31. This would be reasonable if the staircases flanking the shrine may be thought to lead up to it (the shrine being set in the painting, however, on a lower level in order to fit it into the height of the frieze.)

32. Cf. PLATE 46C; Vol. IV, G, p. 340 and n.20.

33. Mycenae Tablets II, Fig. 42.

34. Hagia Irini (Hesperia 35 (1966), pl. 9a, lower right); Tylissos (PM III, p. 88, Fig. 49).

35. References at p.689 below.

36. Hesperia 35 (1966), pl. 90a, top right; AJA 72 (1968), p. 163.

37. Göttererscheinung und Kultbild im minoischen Kreta, pp. 390ff.

38. MMR pp. 194-229 for a full discussion.

39. J. Mellaart, Earliest Civilizations in the Near East (1965), Figs. 80, 84-86.

40. Op.cit., p. 255. So, too, Furumark (the principle of 'pars pro toto') Opuscula Atheniensia VI (1960) p. 94

41. PM II, p. 839f Figs. 555-556.

42. The Palaces of Crete Fig. 61.

43. PM II, p. 607f. Fig. 381d.

44. For a new stool in the "Palanquin" fresco series, see Vol. IV, G, Fig. 6C and p. 340.

45. KFA Pl. VI, Fig. 6.

46. Analysis Fig. 15 no. 290 (Myc. IIIA); but the fresco vases have high Myc.IIIA loop handles (v. Ibid no. 240).

47. Ibid, p. 403 Motif 69a, b, 2 (Myc. II-IIIA) and Motif 70, 5 (Myc. III A2).

48. Ibid, Fig. 65 Motif 53, 4-5 (Myc. III A1-2).

49. PM IV, p. 390, Fig. 325; Platon, Crete Pls. 49, 105 and 111.

50. PM II, p. 646, Fig. 411a-b; of Crete Pl. 112 (a sister jug to the 'Marseilles Ewer': v. Lacy, Greek Pottery in the Bronze Age. (1967), p. 102, Fig. 44a-c for further examples illustrated together.

51. Schachtgräber Plates Vol., Pl. CXIII, no. 390 (PM I, Fig. 183b, 2

52. Cf the clay "barbotine" jug (LM II-IIIA) from Katsamba: Alexiou, KChr. 6 (1952), pp. 25ff, Colour Pl.A.

53. Mackeprang, AJA 42 (1938), p. 546; Evans, PM IV, pp. 338f, Figs. 323-324; Furumark, Analysis pp. 58f and 159 n.6 (but cf Ibid, Fig. 16, nos. 256 and 264); on LM II arrival into Crete, Popham, BSA 62 (1967) p. 344 and n.32.

54. Evans gives two different restorations of this vase (PM II, p.723f, Figs. 450 (no.9) and 451 = Suppl.Pl.XXVI (no.9)); but it may have resembled a third type (cf Platon Crete Pl.51: LM I B). These are all LM I or II types.

55. Tablets KN-Sd 0402 and KN-Sd 0404.

56. As Linear B ideograms show (PM IV, p. 788, Fig. 763) and also a fresco from Mycenae (Ath.Mitt. XXXVI, p. 235, Fig. 1)

57. A chariot (or wagon?) is attested by a LM I B sealing from Hagia Triada (D. Levi, Annuario Atene 8-9, p. 101, no. 54; large photograph at Crete and Mycenae Pl.111, bottom row on right). H. L. Lorimer (Homer and the Monuments) first noted the "dual-chariot" as common and confined to the Mycenaean world (v. Palmer Mycenaeans and Minoans p. 173).

58. Schachtgräber Plates Vol., Pl.XCIV no.394 (Crete and Mycenae Colour Pl.XXXVI, lower); Iliad Book 6, lines 117-118.

59. MC Thesis Fig. 125A-D; now published by Popham, BSA 62 (1967), Pl. 81e (eight sherds in lower two rows: LM I B in date).

60. Vol.IV, E, p. 74 Cat. no. 16.

61. Vol.IV, G, p. 337, Fig. 6B and 340.

62. See p. 683(7) below.

63. Vol.IV, A, pp. 7-12 and p. 12 n.10 for discussion and further references.

64. Ibid., pp. 12-14 and Pl.10. Evans also claimed Linear A signs on pieces from the House of the Frescoes: but they seem the painter's preliminary pictorial sketches (Vol.IV, B, pp. 170f and Ibid, H, pp. 45ff, esp. pp. 50-58, for a full discussion).

65. Unpublished photographs in Heaton's red box-file(Inst.Archaeology, London).Find-place and AE/NB record noted at Fig.93(17),p.703ff.

66. Cf the "Peak Sanctuary" stone rhyton from Kato Zakro (Fig. 29A).

67. Now firmly identified as Oryx Beissa (Fig.35A, opp.p.205).

68. Analysis, Fig. 27, 4 and Elgin Slab (bull); for deer, v. Tiryns II Pl. XV (restored in Interconnections Fig. 123) and Pylos II, Plate B no.16 H 43.

69. PM IV, p. 823, Fig. 803 (Kenna Pl.23 no.308).

70. Vol.IV, F, pp. 3-5 and Colour Pl.A, 1-2.

71. Waterfowl on frescoes are known from Mycenaean coastal sites near sea-level plains (Tiryns II, Pl.XVI, no.1 and Pylos II, Colour Pl.E, no.17 C sw). Waterfowl suddenly appear on LM/Myc. II and III A pottery, perhaps like the "dual chariot" as a pôpular Mycenaean motif.

72. Vol.IV, F, p.8 and Colour Pls. A (4-5) and B (1).

73. Beni-hasan Part IV, pl.6 (tomb 3).

74. The Times 29 December 1970, with photograph.

75. Cf Peterson and o thers A Field Guide to the Birds of Britain and Europe (1966), pp. 89-94 and esp. illustrations on p. 91. In the fresco scene, griffins with raised crests are directly below this bird.

76. Vol.IV, F, p.8 and Colour Pl.B (4-5)

77. MMR pp. 45ff. The frescoes depicting butterflies add nothing to support Evans's claims.

78. This Section is based primarily on Evans's work (especially PM II) and that of M. Mobius whose study supplies the Latin names cited here (AA 1933, pp. 1-39).

79. We shall see that crocuses commonly appear in goddess scenes on frescoes and they decorate the skirts of faience goddess or priestess figurines from the MM IIIB Temple Repositories at Knossos (PM I, p. 506, Fig. 364 a, b, d).

80. PM II, p. 787 Fig. 513 and Frontispiece to Part II, in colour; also the elder Gilliéron's painted replica in the Fogg Art Museum, Harvard University.

81. Crete and Mycenae Pls. 111, top left; and 207, lower, from Tiryns. Lilies are carried among other plants and gifts by processional women in Minoan dress in frescoes from Thebes (Frauenfrieses Pls. 1 and 14).

82. Crete and Mycenae Pl. 161.

83. AA 1933, p. 29f (Micromeria or Satureja Juliana Benth.)

84. MMR, pp. 283f.

85. Reference in note 73 above.

86. Frankfort, BSA 37 (1936-37) pp. 106-122 "Notes on the Cretan Griffin".

87. Reusch, Minoica pp. 334ff; Kenna no. 351. Drawing chariots: see PLATE 149 here, and also Kenna p. 64, Fig. 138 (LM IIB).

88. Against Lang, Pylos II, p. 166, who refers to these pieces as dado decoration.

89. Pylos II, p. 225.

CHAPTER V

INTERPRETATION OF THE THEMES OF THE PAINTINGS

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CHAPTER V

Having reviewed in the previous chapters the background leading to the appearance in MMIII of widespread and well developed pictorial representation in wall painting and the extent of the mural decorator's repertory, we now come to the complex and controversial issue of the interpretation of the scenes whose restorations as proposed here we shall assume to be correct in principle. In this chapter we are concerned with the paintings as expressions of ritual activities and religious beliefs or as pictures of wild life viewed through Minoan eyes, rather than with the political, historical and architectural significance of the murals which forms the subject of later chapters.

Some general difficulties arise. Historical "narrative", identifiable historical personages, and above all accompanying explanatory inscriptions, are totally absent; any interpretation of the paintings is therefore tentative, particularly as we must attempt to come to grips with Minoan religious ideas about which we know, in fact, very little that is beyond dispute. We must also guard against two defects in most treatments of Cretan religion as seen in interpretations of the monuments to which Mrs. Groenewegen-Frankfort has already pointed:

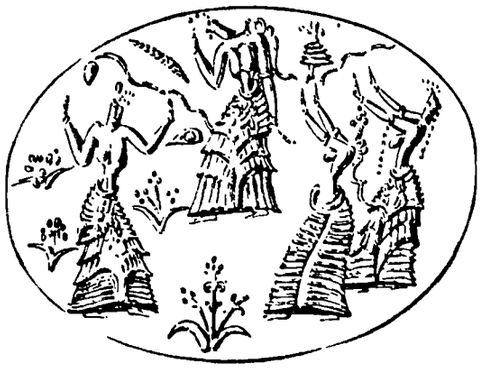
> there is "a tendency to rely on Greek mainland material for interpretation and a reluctance to accept Cretan evidence at its face value. (footnote) Hence the almost ludicrous difference of opinion among scholars in the interpretation of details"
> (Arrest and Movement p. 206 and footnote 1).

The themes of Minoan wall paintings are repetitious and confine themselves to depicting genre elements of festivals with details of processions, libations, robing ceremonies and ritual games; goddess epiphanies; nature scenes; sacrificial and funerary events; and, very rarely, hunting activities. Though there are many frescoes, they relate to a small number of "cycles of ideas", chiefly concerning religious beliefs, and cult practices to bring about the appearance of the gods, which recur over and again in all

classes of Minoan pictorial object. Topographical settings are generally vague, although generalised out-of-door scenes are common. Only the "miniature" frescoes from Knossos present features which it seems possible to tie in with existing architectural remains at a specific site, although we shall find many other scenes which belong to a palatial scheme of mural decoration. In general, the temporal setting is spring or early summer, as shown by the abundance of flowering plants and the appearance of waterfalls, nesting birds and other birds which are spring-summer migrants to Crete.

Minoan wall paintings are unusual in that, unlike their counterparts in Egypt and the Near East, the deeds of the Head of State or of his chief administrators are not reproduced on the walls. The focus of Minoan interest lay in portraying religious scenes in which individual historical figures were of no interest, for it was the appearance of the deity, the collective worship of the entire people, or the act which brought about the epiphany of the god that mattered to them. This, it seems, was the greatest good the Minoan mind could conceive and by comparison the exploits of an individual historical figure were counted as nothing, so far as the pictorial record goes. Thus, typical Egyptian or Near Eastern themes - such as the king's prowess in war or hunting, in overcoming his enemies, his personal association with the deities, his accumulation of goods and riches - make no appearance on Minoan walls; nor do the activities of the bureaucrat, the artisan or the farmer feature in Minoan wall painting. Consequently, we find an entirely different religious, political and social emphasis in Minoan art, an accent upon the mystery of Minoan religion to which, for example, Egyptian concern with upholding the overriding authority of the Head of State and through him the pyramidal structure of a hierarchical and bureaucratic society through which, in turn, came all benefits to the people was entirely foreign. Yet Minoan wall paintings shared a common function with the mural decoration of other ancient civilisations in the Near East as the

Fig.16



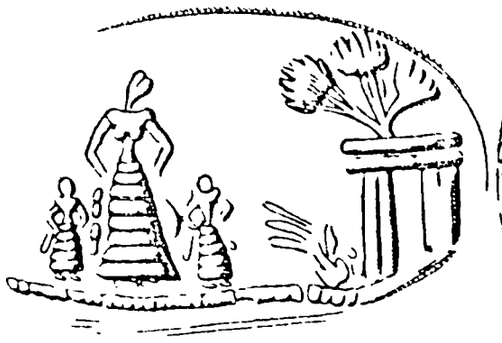
A

Gold ring, Isopata
(PM III, Fig.38)



B

Gold ring, Vapheio
(PM I, Fig.310c)



C

Clay sealing, Hagia Triada
(PM II, Fig.194a)



D

Gold ring, Mycenae
(PM II, Fig.194e)



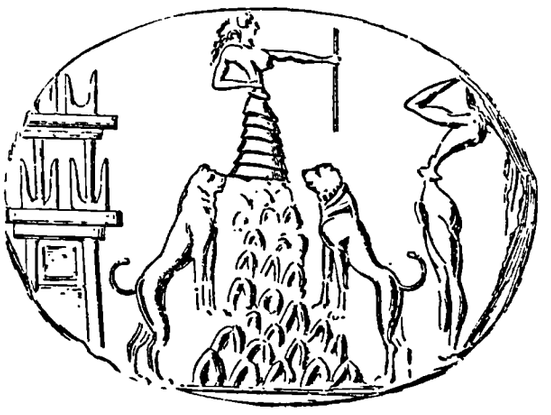
E

Sealstone, Pedeada
(PM II, Fig.194b)



F

Clay matrix impression, Knossos
(PM II, Fig.498)



G

Seal-type, Knossos
(PM III, Fig.528)



H

Sealstone, Psychro cave
(Minoan-Mycenaean Religion, Fig.173

Fig.16. Glyptic scenes with goddesses

most important and most readily perceived means of mass communication and of political and social propaganda, deriving from their public display on the walls of major buildings, most notably in fact in the palace at Knossos. But we can see from what has already been said that their "message" was unique among the various contemporary civilisations: Minoan wall paintings proclaim the service of the entire people of Crete to their religion and despise any preoccupation with the accumulation of worldly goods and titles and everyday affairs whether in the palace, in the home, in the field or the workshop, and above all on the battle-field. The call is to the worship of their gods without any eye for the benefits believed to accrue from it. But here we come across a major difficulty, namely, how to distinguish Minoan deities from one another and especially how to tell goddesses from their female attendants who may appear in identical costume, hair styles and poses ?

The eight glyptic scenes at Fig. 16 suggest some useful criteria. We may accept as goddesses those pictures of female figures in which at least three of the following conditions, including 1 and 2, are fulfilled:

(1) the individual provides a focal point in the scene;

(2) the figure is represented as an "isolated" entity, not as one member of an overlapping group of figures;

(3) the figure is larger in scale than any accompanying figures;

(4) if the arms are upraised in the characteristic gesture of Minoan goddess representations (see p.51 above);

(5) if offerings are made to the figure;

(6) when characteristic attributes such as alters, shrines, sacral knots, trees, mountains, and antithetic guardian creatures (chiefly lions, goats, griffins, birds and sphinxes) are associated with the figure.

It is of course always possible that the Minoan artists are portraying a chief priestess who is understood as acting as the earthly representative of a goddess; but as there is no means of drawing an absolute distinction between a chief priestess and a goddess, we shall hereafter talk of such a figure as representing the goddess herself. Priestesses, it should be noted, are most often portrayed in groups.

Another problem which continues to complicate Minoan studies is the identification and number of Minoan deities. Was there only a Great Mother Goddess, perhaps with a much inferior male consort, who appeared in many guises and with various attributes, as Evans and many other scholars believe ? Or are there many goddesses, distinguishable by their different attributes, as Nilsson, for example, thinks ? He identifies six goddesses and one male deity; a "Mistress of Animals", originally a hunting goddess worshipped at peak sanctuaries who had power over the whole animal kingdom and who was guarded by pairs of antithetically disposed creatures (e.g. Fig. 16, G-H); a "Snake Goddess", first worshipped at peak sanctuaries who later became the Minoan household goddess; a "Tree Goddess" with power over nature and the vegetation cycle, who may appear in the shape of a bird and whose cult "penetrated" all cults everywhere in the Aegean world, particularly that of the "Mistress of Animals"; a "Goddess of Fertility", with a male consort or paramour, who also featured in yearly vegetation cycles and who is not clearly distinguishable from the "Tree Goddess": her paramour could also be a War or Hunting god according to Nilsson; a "Sea Goddess" with power over ships and the marine world; and a "War Goddess", assigned by Nilsson to the Mycenaean pantheon [1]. This approach, however, is rejected by such authorities as Furumark who makes the objection, inter alia, that the attributes by which Nilsson distinguishes his deities are so general as to cease to be individualised characterisations of particular deities [2]. There is in fact only one Minoan deity to whom we may plausibly give a name. This is

the "nature" goddess, Eileithyia, a mistress of animals and goddess of childbirth who was worshipped at several Cretan sites, especially in the cave of her name about a kilometre south of the Minoan villa at Amnisos where her cult seems to have been continuous from perhaps Neolithic to Roman times; she, it appears, was the recipient of a pot of honey recorded on a Linear B tablet from Knossos and she is mentioned in Homer [3].

This summary indicates how precarious is our present knowledge of Minoan religion and its deities, and there is no easy answer to these problems which are so basic to any interpretation of these uninscribed mural scenes. However, in the course of our interpretation of them we shall try to establish to which deity a particular pictorial cycle seems most likely to refer - leaving it an open question whether or not the various deities we distinguish should really be understood as one deity in different guises. In those frescoes or series of related panels in which two or more identical divine personages appear, we shall assume the figures refer to a single being appearing at different stages or to different groups of people in a single event.

I. THE PALATIAL FESTIVAL CYCLE

(a) The evidence of the "miniature" frescoes from Knossos

PLATES 26 - 31B and 46 - 48; Fig.17, p.133; Fig.24, p.150.

The "miniature" Temple, Sacred Dance and related frescoes from Knossos provide in the one series of compositions our most detailed picture of Minoan religious activities on any one occasion. Originally these murals formed a series of thematically related panels or friezes in a single room or suite of rooms of a small house shrine in an upper storey of the palace near the North Entrance into the Central Court (at 15 on the plan at Fig. 28, p.160). In the two best preserved "panels" of the series, large crowds of

Fig.17

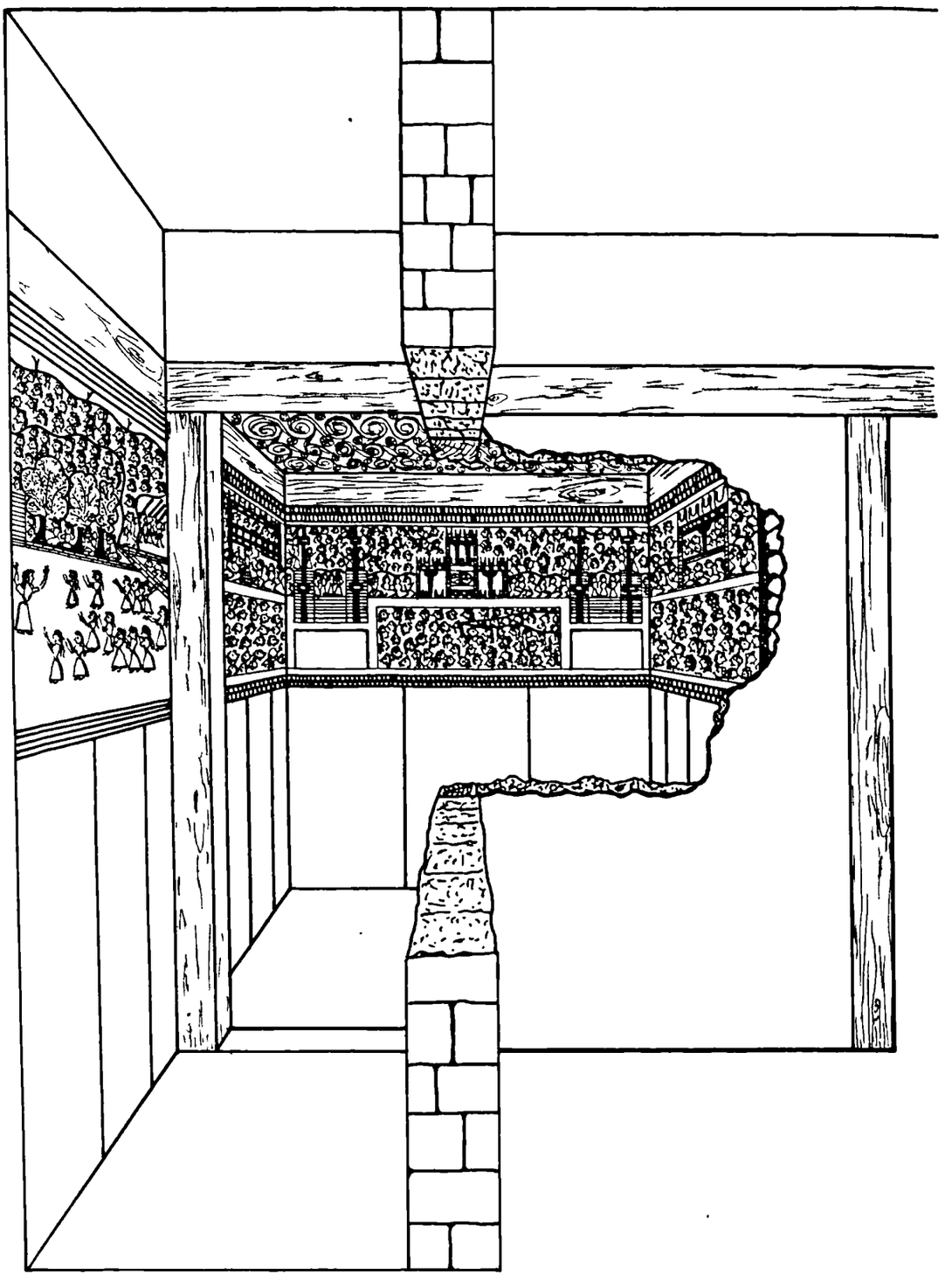


Fig.17

Diagrammatically restored arrangement of "Miniature"

frescoes at Knossos

men and women, evidently representing the common populace, have gathered together to watch various events and spectacles presided over by many priestesses who occupy prominent positions on each side of a small tripartite shrine (PLATE 26) or who are seated to the fore of an olive grove bordering a large open area or court (PLATE 29). The architectural details have already suggested that these scenes take place respectively around a shrine in the west façade of the Central Court of the palace and in its West Court (pp. 69-71 above). The paintings, then, portray a major public festival which took place, probably in spring or early summer, in and around the palace at Knossos for which the entire population of the district appears to have gathered. Thematically these scenes relate to other "miniature" pictures depicting crowds of spectators watching ritual bull-leaping (Fig. 24), a sport which we know in Minoan wall paintings only from the palace at Knossos. This being so, could these "miniatures" be representative of a scheme of palatial wall decoration restricted to Knossos alone ? Existing fresco evidence suggests this was indeed so.

The find-circumstances of the "miniature" paintings have not revealed the order of the scenes and therefore that of the events they depict. But general considerations indicate that the Sacred Dance Fresco (PLATE 29) would have preceded the other "panels", all of which bear closest resemblances to the well known "Temple Fresco" (PLATE 26). Perhaps the most reasonable arrangement of these compositions would be to assign the former painting to a wall of a passage leading into the shrine whose walls, in turn, were decorated with the remaining "panels" which have the character of mirror-images of the Temple Fresco; this scheme is illustrated at Fig. 17. If this arrangement is acceptable, the implication is that the festival began in earnest in the West Court of the palace but continued inside it around the shrine in the west façade of the Central Court.

In similarly large ancient or modern public festivals there is often a common pattern of events, in this order:

(1) the people and officials assemble;

(2) the chief official arrives or the deity is summoned by offerings or ritual incantations and gestures;

(3) there follows a procession into the "holy of holies";

(4) here offerings are made and robing or adornment ceremonies carried out;

(5) the people adore the god or the divine representative;

(6) spectacles and ritual games follow;

(7) finally, thanksgivings and the departure of the people.

It is within a similar framework of events that the wall paintings at Knossos appear to offer a coherent and comprehensive view of the palatial mural scheme as a whole, and we may therefore ask what elements of such a widespread order of festive events are actually represented in our "miniature" scenes, and how far the larger compositions from the same site complement this thematic "cycle" ? We shall then see whether or not the architectural settings and distribution of the paintings in the palace support our interpretation of these pictures as a coherent thematic unity throughout the palace.

In the Sacred Dance Fresco (PLATE 29), a large crowd of men and women stand behind a row of priestesses seated below olive trees bordering the West Court with its raised pathways. In front of them is a group of women, perhaps priestesses, apparently dancing and nearly all facing to our left. Most of the heads in the crowd face in the same direction, looking towards a point somewhere beyond the broken left side of the painting. A new join at this point shows that the scene continued further to the left, and that there was represented there some architectural feature, perhaps a bastion or façade, to which the crowds and "dancers" direct their gaze [4]. Matz has emphasised the similarities of the "dancers" here to those of female votaries greeting the arrival of a nature goddess on the gold ring from Isopata (Fig. 16A), and we may follow him and Furumark in assuming that our "miniature"

fresco actually signifies the summoning of a deity by ritual dancing and gestures to the West Court whose impending or actual arrival near the uncertain architectural feature makes all look to the left; this divine epiphany evidently causes some men or boys at the back of the crowd to wave their hands in excitement [5].

Perhaps the most important point here is that the deity comes from outside the palace which in that case would suggest an identification with a countryside or mountain divinity, one perhaps who on such an occasion might also be accepted as a household god.

Stages 1 and 2 in our generalised scheme of events are certainly implied in this fresco, but the processional stage (into the palace) may also once have found a place here. Study of the "hands" of these "miniature" painters leaves no doubt that the same artist depicted a row of marching or running men led by a "captain", waving yellow spears or staffs above their heads, on the fragments at PLATE 6A which may well have belonged somewhere in the blue field of this composition; did these men perhaps form a guard of honour in a procession which escorted the deity into the palace ? [6]

In the Temple Fresco (PLATE 26) the officiating priestesses are already seated on each side of the tripartite shrine which is identified with that of the west façade of the Central Court. The crowds above and below the shrine, symbolising the populace massed at Knossos for this occasion, should clearly be understood as occupying respectively the West and Central courts which in reality border both sides of the west wing of the palace. A procession into the palace (Stage 3) seems further implied by the rows of priestesses standing on staircases - their different heights denoting different storeys - to the left of the picture. But attention is focused on the assembly of a small group of people immediately in front of the shrine, i.e. in the Central Court. Presumably they are worshipping the deity concealed from view but now believed to occupy the shrine, attended by the priestesses seated on each side of it. The people in the Central Court are

confined within a small area by white, perhaps merely decorative, bands and are carefully distinguished from the "upper" crowd by their smaller number and position, and also by careful delineation of women in their number within a plain white background area (PLATE 46A). The proportion of men to women is about 6:1 here, but in the Sacred Dance Fresco the sexes in the crowd scene seem equally divided. These considerations suggest the crowd in the Central Court in the Temple Fresco are no haphazard group but had, rather, particular reasons at this particular moment in the cycle of events to worship or pray to the divinity in the shrine. Clearly Stage 5 of our generalised scheme of events is portrayed here, but we may perhaps go a step further. Perhaps we have here the men and women who actually participated in the ritual sports and games. This hypothesis would explain the presence and proportion of women in this small crowd; women apparently only participated in the games as bull-leapers, whereas the men leaped bulls, boxed and perhaps wrestled and so would here appear in greater numbers. Salutation of the gods by participants before the commencement of ritual games is of course a widely attested phenomenon in antiquity, to which preliminary chants by present-day sporting teams seem modern counterparts.

The remaining scenes in this fresco series are very fragmentary. Two pieces show a priestess standing or walking on an upper balcony observed by a man in a crowd scene below; possibly she proceeds to her position to watch spectacles taking place in the court below, apparently the Central Court (PLATE 46C). Another fragment shows a seated priestess pointing to something below her, evidently also in the Central Court to judge by similar background details to those in the Temple Fresco (PLATE 28A; restored in PM III, p.57, Fig. 34). These details reinforce the idea that the highlights of the festival took place in the Central Court, that is, the ritual games and perhaps, too, bull-leaping, as the restored "miniature" scene at Fig.24,p.150 might suggest. There a crowd of men watch bull-leaping in the vicinity of another shrine,

though apparently from behind a wall or barricade. In this case, double axes stuck into the column capitals of the shrine suggest a possible link with the deity to whom such caves as that at Psychro (with votive axes stuck into stalagmites and stalactites) were dedicated; and it is interesting to note, too, that the white-spotted black panels within the timber-framework recall real stucco and painted work from similar architectural spaces in the North West Lustral Basin at Knossos (see Appendix A p.689 for details). "Miniature" fragments from the Ramp House at Mycenae, certainly inspired by earlier fresco scenes at Knossos, show priestesses at an upper window watching a bull-game apparently taking place in an area below their viewpoint (BSA XXIV (1919-21), Pl.VII, with PM II, Fig. 373c). A fragment from Knossos, now lost, supplies, indeed, a prototypal scene for such a composition featuring female spectators (KFA Pl. IV, Fig. 15; PM II, p. 602, Fig. 375). It seems likely such windows and balconies on upper storeys (e.g. PLATE 46C) where the priestesses of the palace were wont to appear were characteristic of the architectural façades surrounding the central courts of Minoan palaces, as the sketch at Fig. 11A illustrates. However, the place of the bull-games is a matter of controversy and we shall return to this point in greater detail when we come to consider that sport as seen in the frescoes drawn on larger scales. Yet other Knossian "miniatures" show bull-leaping events but in these cases no architectural setting is indicated (PLATE 39C; cf PM III, Fig. 143; and SLIDE 52).

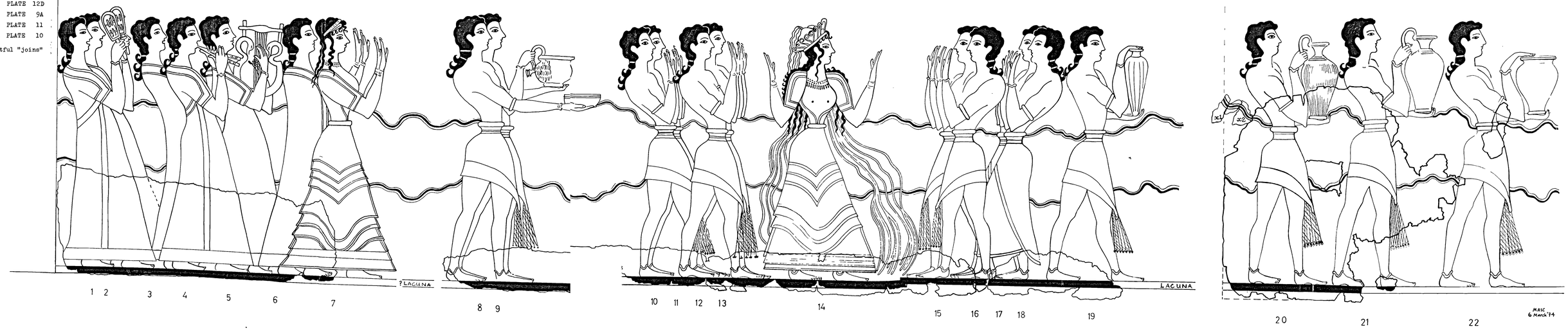
Here we may summarise the evidence of the "miniature" frescoes from Knossos. They depict or imply all the main stages which we have taken to be usual in ancient or modern major public festivals of a clearly religious character, except offerings and adornment ceremonies (Stage 4) and thanksgivings and the departure of the general assembly (Stage 7). This last stage we need not expect to find - for it would come as a thematic anticlimax in the mural scheme as a whole. The cycle of events appears to begin in the West Court with the summoning and ceremonial procession into

Fig.18

The Procession Fresco from Knossos restored.

Nos.1-7	PLATE	13A
Nos.8-16	PLATE	14A
No.9,bowl	PLATE	56A
No.14,foot	PLATE	34A
Nos.17-19	PLATE	12D
Nos.20-22	PLATE	9A
No.20,kilt	PLATE	11
No.21,kilt	PLATE	10

x1-x2:doubtful "joins"



the palace of a deity who comes from without, in whose honour all the subsequent events of the grand occasion are carried out. The "miniature" scenes, taken at face value, strongly suggest that much of the festival and its climax took place in the Central Court in front of the tripartite shrine in the west façade; both the content of the pictures and their assumed arrangement around the walls of the room they once decorated focus attention on an internal court and the events which happened there. The implication, certainly arguable, is that here, too, the bull-leaping spectacles took place. Only Minoans in their typical costumes and hair styles appear in these scenes, and so we may conclude the festival itself is essentially Minoan; but in whose honour it was carried out is an open question since not even the sex of the deity concerned is indicated in these scenes. Priestesses evidently occupy the most important seats and balconies to watch the climatic spectacles, while the populace is for the most part shown merely as surrounding the palace - one small group excepted, perhaps the participants in the games, who are shown in the Central Court worshipping before the shrine. The "miniature" cycle breaks off at the height of the games, at the most dramatic point in the entire sequence of events. As if to perpetuate both the excitement and the significance of that moment, we are not shown - and we cannot expect to find - pictures of the closing stages of the festival.

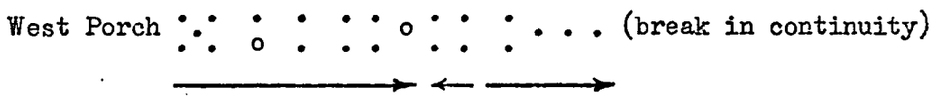
We may now consider how far the larger frescoes from the palace at Knossos corroborate and amplify this palatial scheme of mural decoration as deduced solely from the "miniatures".

(b) The evidence of large scale compositions from Knossos

Processions: Stage 3

Evans's famous Procession Fresco, mostly found in situ on the east wall of the Corridor leading off from the West Porch, depicts a solemn procession of men in Mycenaean dress and hair style, some carrying libation vessels, and also two female figures in the traditional Minoan flounced skirt. Fig. 18 shows their correct order (revising that seen in PLATE 14A, top), and the formal

arrangement of the members of the procession may be schematically reproduced as follows, with the symbol 'o' indicating the positions of female figures and the arrows the direction of corresponding feet:

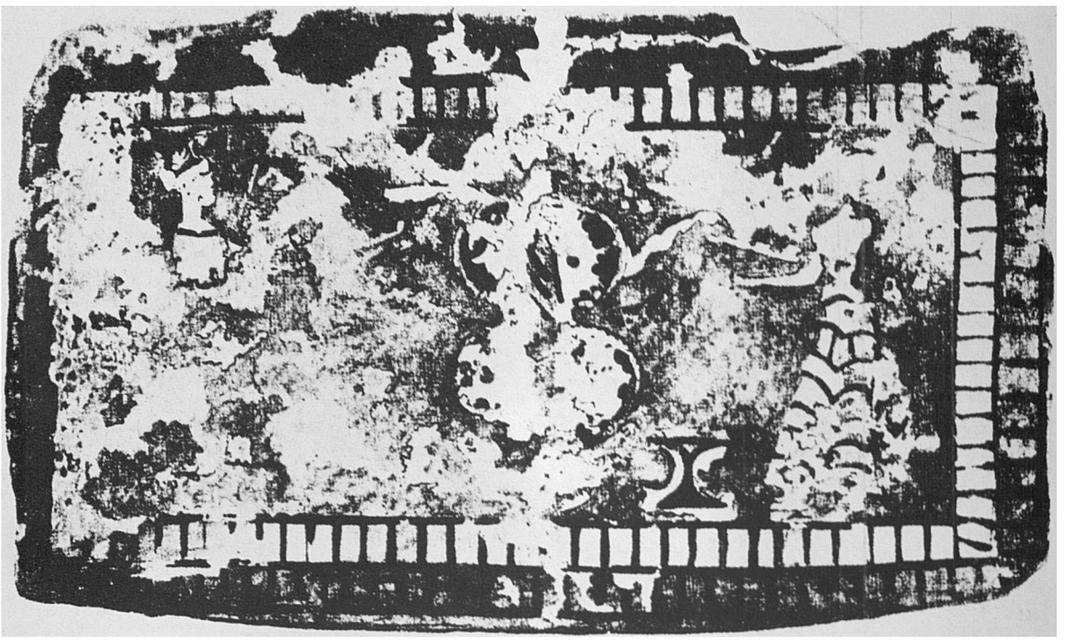


The left hand woman, in a flounced skirt, is one of a band of seven people bringing up the rear of the procession and she may be a priestess and "leader" of that group. Evans plausibly restored them as a band of musicians by analogy with male musicians in similar long cloaks in scenes on the painted sarcophagus from Hagia Triada (cf PLATES 14B; 56B, right and 58A); but there is no certain evidence in the fresco here that this idea is right. The focal point in the scene is the second female figure who represents a goddess or her earthly representative, a chief priestess. This is clear from her position in the procession, from the disposition of the two groups of four male figures round her, and from the unique white "fronds" in front of her skirt which may be either long ribbons from a crown or upper hem or else a kind of nimbus such as surrounds holy personages in, for example, certain Christian pictures. Evans convincingly restores the men around the goddess as votaries with hands upraised in the Minoan attitude of worship; but whether the goddess held double axes (or, indeed, anything) in her hands, as Evans's restoration suggests, is uncertain. All the figures walk to our right, that is, into the palace, except the four men in front of the goddess; they appear to be walking <u>backwards</u> in step with the rest of the procession in a manner which is known from ceremonial processions in other religions (e.g. in some Roman Catholic rites); to walk backwards was a common act of respect to

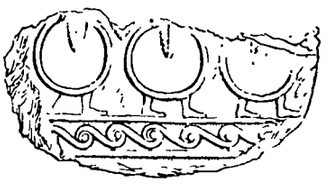
kings and princes in times goneby. The scene continues with three men in single file carrying libation vessels, to a point where the Corridor has fallen away in complete ruin.

The thematic significance of the composition seems to be this. There has been a ceremonial assembly of people in the West Court evidently for the purpose of summoning a goddess to the palace through prayers and libations and perhaps ritual incantations by musicians; the goddess is here seen escorted in formal procession, attended predominantly by male figures in Mycenaean guise, from that Court via a main corridor into the heart of the palace. The vessel-carriers, among whom we include the Cupbearer (PLATE 7A), imply that further libations would probably be made to the goddess on her arrival at the destination of the procession within the palace. Continuity in the mural decoration between that point, wherever it may have been, and the West Porch where the procession started is assured by the very nature of the scene. Processional frescoes are unique in that they serve a definite directive function, like sign-posts, leading the onlooker forwards from one location to another where we may be sure further action is to take place. The implication is that where such processional frescoes left off, there the mural decoration would relate the next major event in the festive cycle - on the present view, libation and robing ceremonies in honour of the goddess. Thus, this fresco thematically complements the Sacred Dance "miniature" painting, by representing the processional stage in the festive cycle between the preliminary events in the West Court and others which took place near the tripartite shrine in the Central Court, as depicted in the "miniature" scenes of the Temple Fresco type. That Mycenaeans, it seems, here replace Minoans in the procession is no obstacle to this interpretation; for we shall see later that a major characteristic of the LM II redecoration of the palace was the substitution of the new lords in the place of the Minoans in such processional scenes as the present one, without, however, radically altering the general character and purpose of the processions.

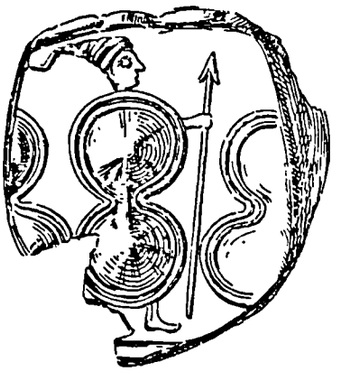
Fig.19



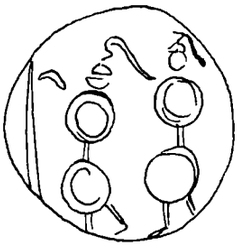
A. LH III painted plaster tablet from Mycenae (PM III, Fig.88)



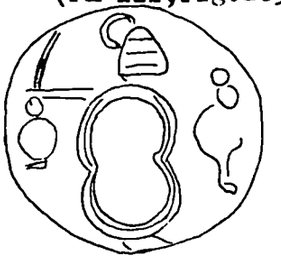
B.
Clay sealing, Knossos
(PM I, Fig.516)



C.
Clay sealing, Knossos
(PM III, Fig.205)



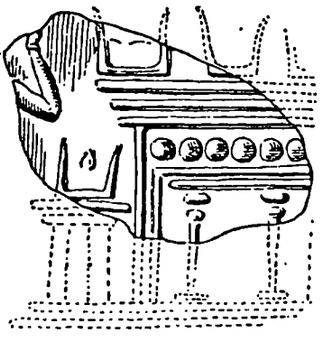
D.
Seal-stone, Mavrospelio
(drawing after original)
HM 1315



E.
Seal, British Museum,
(CMS VII, no.158, p.196)



F.
LM IB motif
on vases



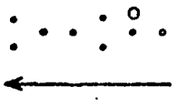
G.
Clay sealing, Knossos
Adorant before shrine
(PM IV, Fig.597 Aj)

Fig.19 Shield Representations

Another procession fresco, painted by the same artists and featuring similarly garbed male figures, adorned the opposite side of the palace; but it is known only from a few scattered fragments (PLATES 7B, 9B, 13B and 171 A1, A3; SLIDE 3). The same artists also painted the Shield Fresco in the same region of the palace (PLATE 63A), a point which suggests these scenes belonged to a single system of decoration put up on the arrival in the palace of the Mycenaeans (v. Chapter IX). Some scholars believe the Shield Fresco to be merely ornamental [7], but designs on sealings indicate a thematic link with the processional frescoes of the class under discussion. Two sealings from Knossos show figures, one apparently wearing a Mycenaean helmet, bearing similar figure-of-eight shields in a ceremonial procession, in one case above a spiral base-line (Fig. 19 B-C) to which we may compare the spiral band behind the Shield Fresco itself. Two further glyptic scenes show men in Mycenaean-looking helmets marching along with shields of this type (Fig. 19 D-E). That some of the processional figures reflected in the present scenes may have entered the palace carrying large figure-of-eight shields and hung them up on the walls of certain rooms seems likely, not only on the evidence of the glyptic scenes referred to but also on that of the Shield Fresco where the shields are superimposed on a spiral band at lintel-level in the wall-scheme and on that of LM I B pottery pictures of such shields which even portray thongs and the nails on which they were hung (Fig. 19F). The spiral design below the processional scene at Fig. 19B now takes on a new significance, as an artistic allusion to the rooms where in the course of processions into the palace some participants hung up their shields over spiral bands at lintel height in the mural decoration [8]. In that case, thematic continuity in the processional character of this system of mural decoration, involving both the processional and the shield frescoes, is to be understood, with the shield frescoes a major symbol of it. Whether the shields also had an apotropaic "protective" value or, since the present account transfers them to the

Mycenaean redecoration of the palace in LM II, whether they imply the worship at Knossos in that period of a Mycenaean War Goddess (whose existence is generally accepted on the evidence of the painted tablet from Mycenae shown at Fig. 19A) are questions which this study must leave open. That the shield frescoes were an integral part of the later processional scheme in the palace wall decoration can, however, hardly be doubted.

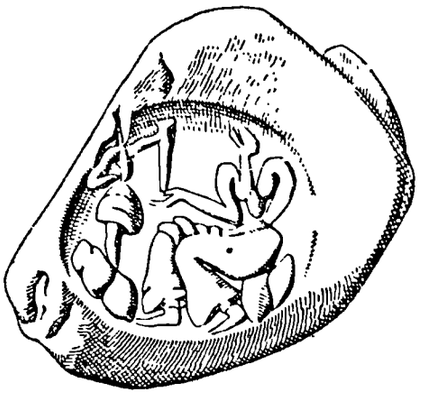
That the real processions continued to rooms on higher floors is implied by the Staircase Fresco seen at SLIDE 44. Here Minoan men walk up a staircase whose treads match those of the steps of the Grand Staircase; their order, given below, is conjectural, and the symbol 'o' denotes a male spectator standing at floor-level on the far side of the staircase which hides the lower part of his body from view [9]:



One man carries lotus flowers, popular gifts in Egyptian festive, banqueting and funerary scenes; but the other objects carried here have been restored mainly by analogy with pictures of Minoan envoys depicted in processions in Egyptian tombs at Thebes (PLATES 203-204). A musician, here surmised to lead the way, is suggested by fragments (?) from the waist-band of one man which depict in miniature small "flûtes à bec" (PLATE 43D and SLIDE 19D). The procession is clearly heading for the most important rooms in the palace which we know occupied the upper storeys. Of its nature, the painting also implies thematic continuity in mural decoration from floor to floor in that part of the palace to which it once belonged. This scene evidently belonged to the right-hand wall of a flight of steps leading upwards, and this again means that the procession seems to start from outside, but then to lead into, the palace. How this scene links up with other figured frescoes from the walls of upper rooms will emerge later.

Another processional fresco is represented by the so-called "Priest-King" relief fresco, traditionally believed to be a male figure; there has also been some speculation as to whether he may not have been leading a griffin by a rope in his left hand (SLIDE 1) [10]. However, detailed reasons have already been given above to suggest the figure is that of a white-skinned girl, in fact a girl bull-leaper as her adoption of the Minoan men's brief kilt indicates (p.122, note 2). If the original location of the fresco as proposed by Evans is correct (Fig. 28 (8), east wall, a storey above the level of basement rooms to the south), our triumphantly crowned girl athlete is heading directly for the Central Court - and if she was leading an animal at all, surely it would be a bull for the arena ? But so little of her left arm survives, and in point of fact nothing at all of her left hand, which is restored, that the notion this figure is leading some creature is itself speculative - let alone that of suggesting the creature can be identified. The early illustrations of this fresco show a floral background and Evans suggested the figure was walking in the Elysian Fields surrounded by flowers and also a butterfly (SLIDE 27k); but this interpretation seems to go well beyond the evidence, and in any case the background details are no longer included in the exhibited fresco - indeed, they cannot now be found (PLATE 18). The pictorial setting of the figure is therefore uncertain, and we now see, in this writer's view, a girl bull-leaper, in a magnificent crown of madonna lilies with a streaming plume of peacock's feathers, her right fist clenched and resting on her chest but her left arm and hand in some unknown position, striding along in some procession which presumably was taking place in honour of the goddess's arrival to attend the ritual games. A procession following the games can here be ruled out since it would represent something of an anticlimax in the scheme as a whole. Possibly the fresco depicts the goddess herself in the role of "Mistress of the Games" but this would be hard to substantiate on present evidence [11].

Fig.20



A

Clay sealing, H.Triada,
(PM II,Fig.500)



B

Clay sealing, Knossos
(PM IV,Fig.322)



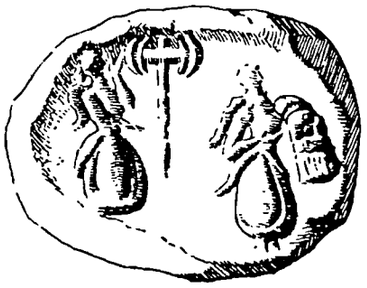
C

Clay sealing,Knossos
(PM IV,Fig.597 Af)



D

Clay sealing, H.Triada
(Annuario(1925-6),Fig.140)



E

Clay sealing, Zakro
(PM I,Fig.312b)



F

Clay sealing, H.Triada
(Annuario(1925-6),Fig.139)



G

Steatite seal,Knossos
(PM I,Fig.312a)

Fig.20: Scenes of Offering to a Goddess

Fragments of other possible procession frescoes are known but these add little to the themes we have already considered. We may now turn to frescoes from the next stage in the festive cycle.

Libation and adornment ceremonies: Stage 4

Libations to the goddess on her arrival inside the palace are, as we have noticed, implied by the vessels carried in the procession frescoes, and this seems corroborated by scenes on gems which show goddesses offered a conical rhyton (cf.Fig.20A with the Cupbearer, PLATE 7A), also jugs and bowls (Figs.16F and 20B), and flowers including madonna lilies (Figs.16D, left, and 20C), "poppies" and lotuses (Fig.16D; cf.SLIDE 44).

The glyptic scenes at Fig.20D-G also show double axes and "sacral knots" as carried in such processions, the latter presumably to be put on the shoulders of a goddess or priestess in a robing ceremony that we may suppose would take place, at least at Knossos, in the important rooms of the palace. The isolated "sacral knot" on the fresco from Nirou Chani perhaps sybolises such a ceremony in a cult room of the villa (PLATE 53C); and this seems likely from the picture of "sacral knots" hanging next to a column flanked by guardian lions on a gold ring from Mycenae (Fig.29H, p.161): we shall see later that such columns symbolise shrines of a readily identifiable goddess. In two frescoes from Knossos, however, we actually find goddesses or priestesses wearing the strange appendages under discussion.

First, the "Jewel Fresco" (PLATE 44A and SLIDE 14). This shows the hand of a life-sized man in painted relief placing a remarkable necklace with Libyan-like heads as pendants (perhaps a copy of a necklace imported from Egypt) around the neck of a female figure. She wears the usual Minoan short-sleeved, open-fronted jacket, but with loops of a blue "sacral knot" visible at the back of her neck. She may be seated or standing - probably the former to judge by

Fig.21

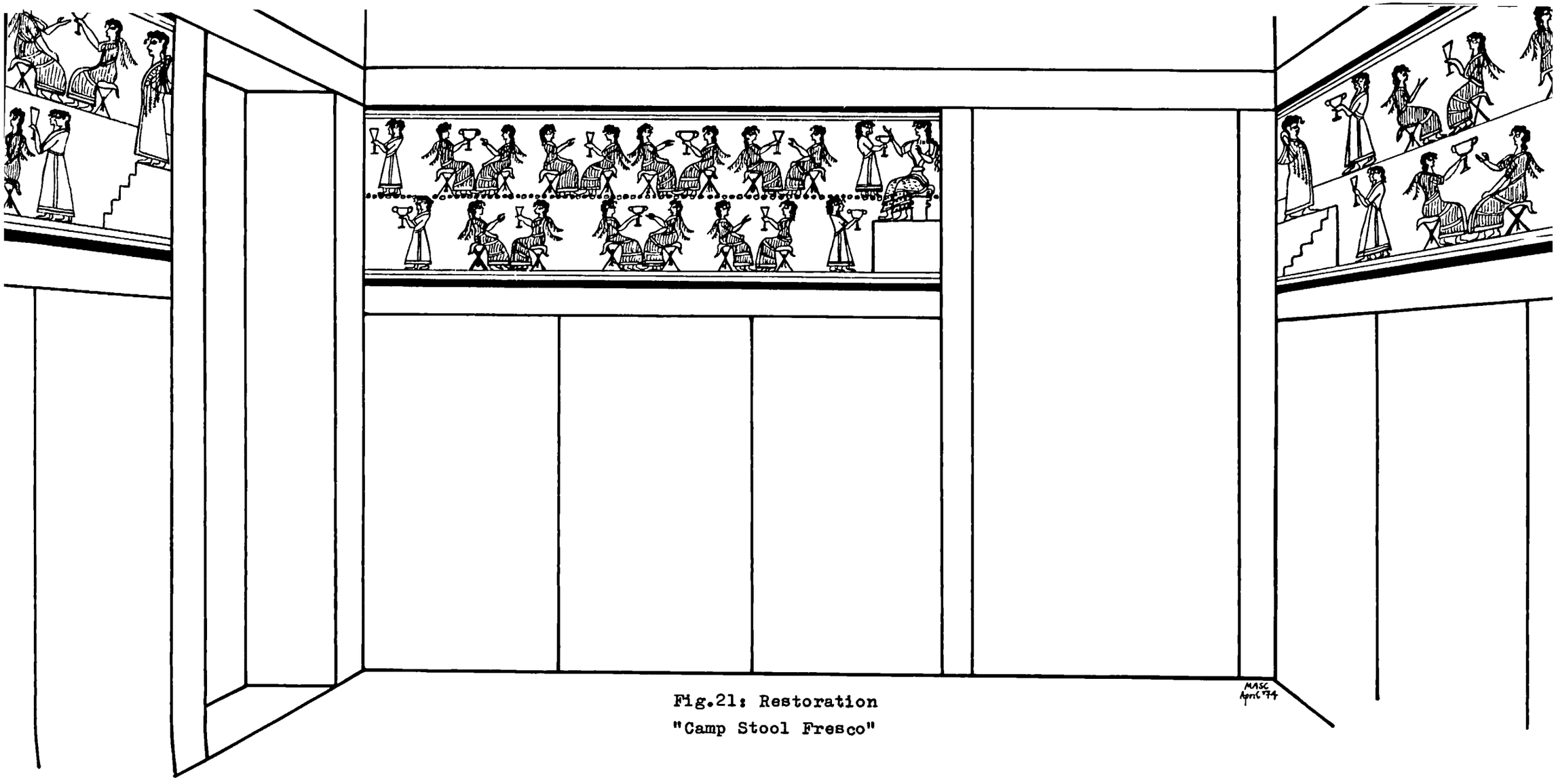


Fig.21: Restoration
"Camp Stool Fresco"

many goddess scenes on gems and rings. The man no doubt would have carried the necklace during the procession into the palace, by Egyptian analogy of the "Keftiu" wall paintings depicting Aegeans with strings of beads or necklaces (PLATES 206B and 208). In that case, it is tempting to assume the female figure is the same goddess as the one depicted in the Procession Fresco from the Corridor next to the West Porch, now portrayed in a robing or adornment ceremony in a room within the palace. The "garlanding" of goddesses or their chief ministers in their holy sanctuaries seems attested by several large clay figures of women in Minoan dress, with large "rolled" garlands (metal or textile ?) round their necks, discovered in the Bronze Age temple at Hagia Irini on Keos [12]. It seems, then, that when the goddess arrived within the palace she was fitted out with fine jewelry, gifts of sweet-smelling flowers, and the special insignia of her rank - the "sacral knot".

In the second fresco example from Knossos, two identical female figures, probably priestesses, appear in long white cloaks with blue and red ribbons hanging from the upper hems, with blue "sacral knots" at their shoulders (SLIDE 4). They are larger in scale than the groups of male figures usually associated with them, and they evidently each provided a focal point in two of three "panels" of a series collectively known as the "Camp Stool Fresco" (Fig.21, revising the restoration at PLATE 54; Vol.III, p.211f). Our priestesses were apparently superintending an exclusively male drinking ceremony which takes place in the presence of an enthroned Minoan goddess, in flounced outfit, here attributed and restored in the third and central "panel" of the series. The main features of the scenes are their division into two zones of men or youths seated knee-to-knee who offer each-other "loving cups"; pairs of standing processional youths in long cloaks evidently once served the seated men and perhaps,too, the goddess and her two attendants. But unfortunately the priestess's positions are most uncertain [13]; and only enough survives of the fresco to show a libation or drinking ritual is carried out in the presence and honour of an enthroned goddess whom we conjecture was assisted in some way by her two

Fig.22



Fig.22: The "Ladies in Blue" restored

priestesses. The men wear long cloaks with wing-like attachments at the shoulders in some cases, and they drink from long-stemmed chalices and a Mycenaean kylix, points which suggest a Mycenaean ritual (see pp.626f and 631). Whether the female figures were also partaking in the drinking ceremony, as Platon's restoration of the fresco and some gems scenes infer, is most uncertain because their arms and hands are lacking in the original fresco. The folding stools, tied at their intersections by red (i.e.leather) thongs (not gloves as is often stated), imply the rite takes place in an inner cult room ; indeed, the same kind of furniture appears in the second storey of a shrine in the "Palanquin Fresco" (PLATE 51 A3) [14].

The origin of the ritual, characterised by pairs of people sitting knee-to-knee (often on folding stools like these), is obscure and may go back to early Sumerian times; in Crete it seems to have first appeared in the present form in LM II-IIIA 1 and it turns up again on later frescoes from Pylos [15].

A thematic link here with the scenes previously discussed, suggesting the same goddess as before, is supplied by the pairs of male processional figures, almost certainly cupbearers, who recall their life-sized counterparts escorting the goddess - likewise in a flounced outfit - into the palace as seen in the famous Procession Fresco.

The grand assembly for the spectacles: Stage 5

Only one reasonably certain picture is known depicting at a large scale the grand assembly within the palace analogous to that in the "miniature" scenes of the Temple Fresco type. This is the "Ladies in Blue", featuring not less than four priestesses - some excitedly fingering their necklaces - who recall the ranks of priestesses flanking the shrine of the Temple Fresco (PLATE 19; cf. PLATE 26). Whether they were standing or seated is unknown. Another priestess (unless she is a goddess) resembling the "Ladies in Blue" appears with arm upraised at SLIDE 6. She,too, perhaps belonged to such "conversational" scenes of heightened expectancy anticipating the

ensuing spectacles. It is surely excitement at these forthcoming events, not gossip about their own affairs as Evans's much quoted appreciation of the Temple Fresco would have us believe (PM III, p. 51f), which enlivens the figures in these scenes; the alternative view, which considers the priestesses as though they were "rococo" mondaines, seems totally incompatible with the seriousness of Minoan religious activities as revealed in the monuments in general [16].

The festive games: Stage 6

Minoan ritual games included boxing, bull-leaping and perhaps wrestling. Although these certainly had the character of a spectacle or show for the people attending major public festivals, their aim was serious; for they were apparently carried out in the presence and honour of the goddess visiting the palace on those occasions, and they were, it seems, a means of bringing about her epiphany and the blessings her appearance was thought to bring with it. What those needs were which the Minoans sought to fulfil in their festive rites it is difficult to say; but a general case could perhaps be made out to suggest the festival, and much else in Minoan religion, was concerned fundamentally with fertility rites to ensure prosperity for themselves, their domestic animals and their agricultural and industrial products [17]. The suggestion is that the goddess of the festival was in fact a "nature goddess" of some kind. But these are points to which we shall return later.

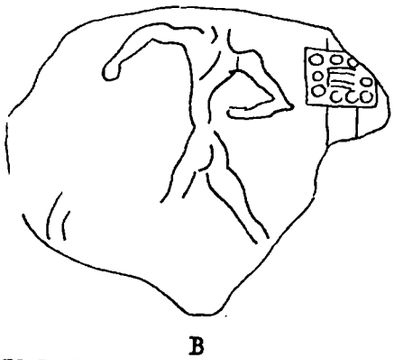
Boxing and possibly wrestling scenes appear to have been the subjects of relief fragments showing bulging male biceps and clenched fists (PLATES 16A-B and 17). Evans thought one piece showed the finger of an opponent grasping the waist of a fellow wrestler (PLATE 16 A1); but the evidence here is slight, and it is strange that wrestling scenes are not clearly represented in athletic scenes on other objects in Minoan art. Boxing, however, is better attested, both on frescoes from Tylissos in the context of a local festival (PLATE 6D) and on another from Akroteri,

Fig.23



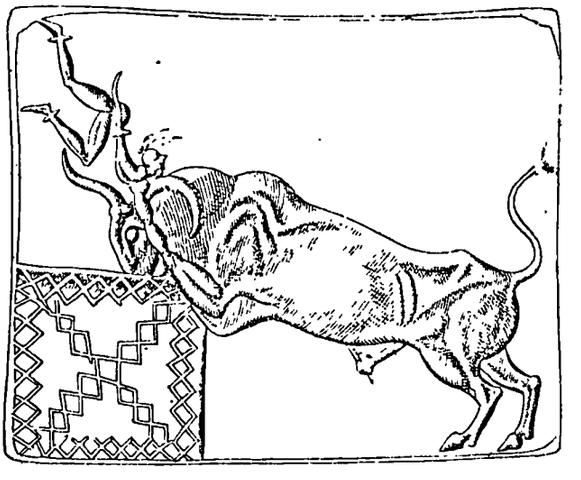
A

The "Boxer Rhyton" from Hagia Triada (after Matz, Kreta, Mykene, Troja, Pl.69)



B

MM IIIB sealing from the Temple Repositories at Knossos (after PM I, p.689, Fig.509).



C

The "Priene intaglio" (after PM I, p.377, Fig.274).

Fig. 23: Athletic scenes

recently brought to light, where two boys appear to be punching each other on the nose - their right fists alone wrapped in black bands or gloves (The Sunday Times, 11 April 1971 and The Times 20 April 1971, p.7); and also on gems, sealings, and the "Boxer Rhyton" from Hagia Triada (Fig. 23A-B). The rhyton shows that some boxers wore protective helmets in the contests which were evidently carried out in architectural surroundings recalling the Central Court of the Temple Fresco, with its pillars or flag-poles and tie-blocks (cf PLATE 26). Is this, then, an indication that the games took place in the Central Courts of the palaces ?

This controversial issue comes to a head with the bull games in which both sexes took part; the aim was to execute a daring but graceful leap over the bull by grasping its horns and being tossed over the charging animal, to land with one's feet on its back in a position ready to jump off it (PLATE 71). So far, the frescoes evidently agree in showing that the events of the festival began in the West Court but then continued inside the palace; if, therefore, the games were the climax of the occasion, the mural decoration at Knossos would seem to imply, a priori, that the climax of the festival was reached in the Central Court with the amazing bull-leaping spectacles. But here various difficulties arise, not least the very reality of the bull-sports which some would dispute.

When scholars confronted American rodeo experts with pictures of the Minoan bull-leaping sport, they advised that the animal's speed, its habit of charging with head lowered and often with eyes open (as photographs show in Ernest Hemingway's book on Spanish bull-fighting - Death in the Afternoon (1932)), would make the feat of catching the bull's horns almost impossible to achieve with the regularity that the Minoan pictures indicate. The rodeo experts were therefore doubtful of the existence of such a sport. But the view that it was a product of artistic imagination of such popularity that it became a standard mural theme seems ruled out by the fact that this sport clearly occupied a central place in

Minoan religious thought and art, and convincingly realistic accidents in the bull-ring are also depicted (e.g. Fig 23A, p.148) Bull-leaping was, it seems, a reality of life in prehistoric Crete, possibly originating from Sumerian bull-sports as recounted in the Gilgamesh epics in which leaping the animal and touching its horns were preliminaries to the creature's slaughter in a ritual relating to a primitive fertility cult [18]. Indeed, the bull in antiquity was widely regarded as a symbol of fertility and also of political and social power; it is perhaps in that connection that we should seek to understand the significance of this Minoan ritual sport. But there are some important points of departure from the Sumerian ritual, and so both the origin and significance of the Minoan version of this sport remain uncertain.

Two locations have been suggested for the games, including bull-leaping. Evans and Pendlebury thought there were temporary arenas enclosed by wooden palisades outside the palaces for the bull sports, rejecting the Central Courts as a possible site on the grounds that the bulls, once inside them, would be liable to cause much damage to the unprotected façades; moreover, the animals would be difficult to get into the courts which in any case were paved with stone slabs making them unsuitable for both man and beast. Further, it seems small altars standing in these courts would present obstacles [19]. But two surveys of this problem have marshalled a formidable case against arenas located outside the palaces.

J. W. Graham has pointed out that the Central Courts of the Minoan palaces are remarkably standardised in measurement (approximately halved in the palace at Zakro), as if they were created for a specific purpose in the sense that football fields are nowadays. Ancient fora were often used for public spectacles, such as gladiatorial combats. Graham also notes architectural evidence for wooden palisades on the east side of the Central Court at Mallia, large enough to confine a bull within and to allow

Fig.24

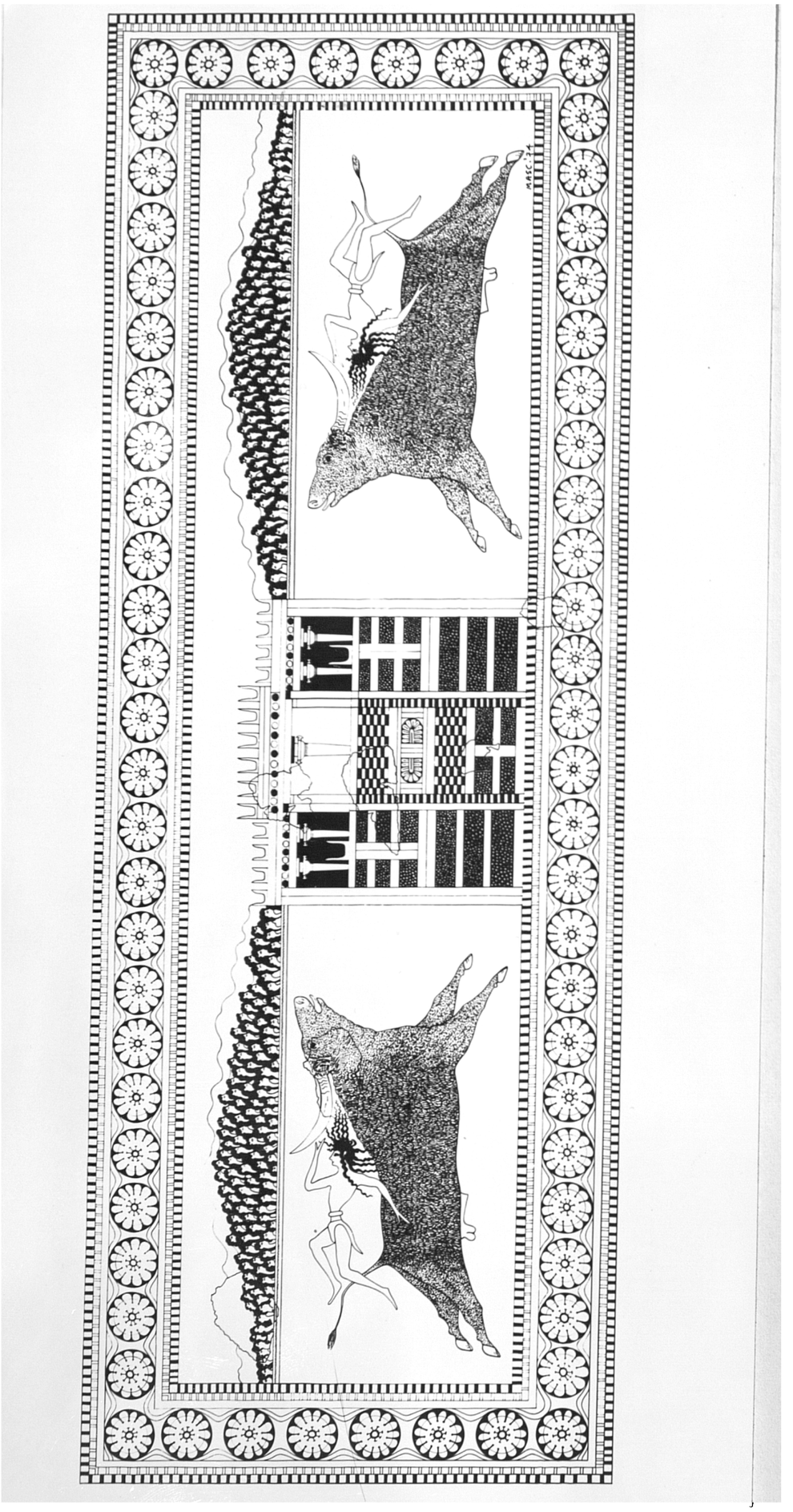


Fig.24: Restoration of the West Magazine XIII "miniatures"

a man to get out. Such palisades may have existed at the other palaces, and at Knossos there is a stone ramp at the north entrance lined by high bastion walls on each side by which the bulls could have been easily introduced to the Central Court. Some rooms near the Central Court in the palace at Phaistos facing Corridor 26 might perhaps have been used as stalls for the animals. Here, too, there are steps in the north-west angle of the Central Court which may have been a platform for the bull-leapers to engage the bull in greater safety, as seen in the bull-leaping scene on a gem thought to come from Priene where the platform bears a "lattice" design whose only counterparts are to be found in painted frescoes in the so-called sentry boxes flanking the northern entrance into the court at Phaistos (cf Fig. 23C and PLATE 142). In addition, Graham presents the evidence from the "miniature" frescoes of Knossos and Mycenae, and that of the "flag-poles" on the Boxer Rhyton, to support his location of the bull arena in the Central Courts of the palaces; and he remarks that, while no arenas have yet been located outside the palaces, the palaces at Knossos and Phaistos have their main axes (north-south) aligned on mountains with sanctuaries dedicated to the Minoan goddess to whom the bull-sports were also sacred [20].

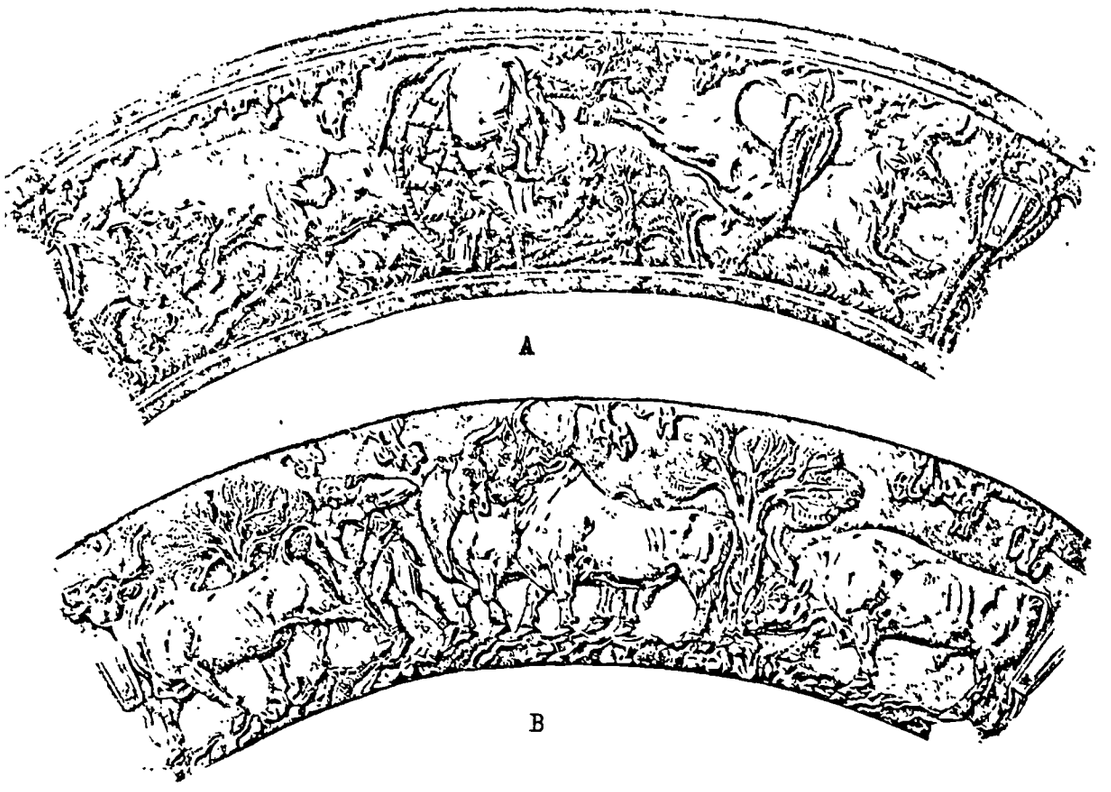
In the second survey in this connection, which brings in many of the above points, Miss Anne Ward suggests the platform on the Priene seal may rather be one of the so-called "altars" which certainly appeared in the Central Courts at Mallia, Kato Zakro and (?) Knossos: but these are misnamed and should be regarded as platforms and places of refuge for the bull-leapers [21].

Both writers place great importance on the coincidence of the lattice design on the "platform" on the Priene seal and on the Phaistos frescoes, arguing that this occurrence definitely associates bull-leaping with the Central Courts (where the frescoes were found). However, other examples of this motif on frescoes are known from different areas in the palace at Knossos and also from one of Hogarth's Houses on Gypsadhes Hill (PLATE 143) !

The connection of this motif with bull-leaping and Central Courts exclusively is now less compelling than Graham and Ward suggest. Even so, it must be admitted the case for the location of the bull games in the Central Courts is certainly stronger than Evans and Pendlebury allowed. But even if the Central Court solution now seems the more likely, there remain some inadequately answered problems, notably that of the stone paving which, however, may have been covered over with earth to lessen the risk of injury to man and animal. Here we must leave the problem, but not without noting the implication that, if the games were enacted in these courts, a major reason for the building of the First Palaces with their courts must have been the sporting activities which represented the highlights of such festivals. This would mean, in turn, that either the palaces were constructed by newcomers to Crete whose religious ideas and rituals had long been established elsewhere, or else Minoan religious beliefs and practices had consolidated at a much earlier date than has generally been supposed hitherto. In either case, MM I terracotta bulls with human figures clinging to them would then be our earliest pictorial evidence for this sport (Fig. 3, nos. 6-8); but our earliest certain evidence comes from the early period of the Second Palaces [22]. Provisionally, then, we shall assume the games took place in the Central Courts, as, indeed, the inward-looking character of the processional and festival frescoes at Knossos symbolically indicate.

It is a remarkable fact that, to date, only this palace has produced certain evidence for bull-leaping scenes on Minoan frescoes. Although some houses surrounding this palace contained pictures of bulls, in no case is it certain they belonged to bull-leaping scenes. Possibly bull-leaping, at least in the period of the Second Palaces, was restricted to the major festivals in the palace at Knossos alone [23]. Bull-leaping or bull-catching scenes on the walls of the West Porch and above the bastions of the North Entrance Passage greeted the ancient visitor to the palace, as though signifying that here was the very heart of the Minoan

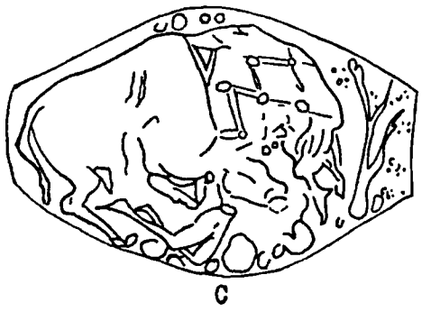
Fig.25



A

B

The scenes on the gold cups from Vapheio (LH I-II)
(after Matz, Kreta, Mykene, Troja, Pl.64).



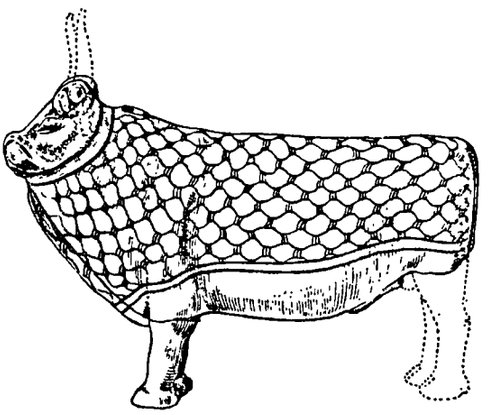
C

Gold ring from Pylos (Rutsi),
after CMS I, p.310 (LH I).



D

Sealing from Hagia Triada
(LM I). Cf. Kenna no.236.



E

Clay model of bull from Pseira (LM I),
after PM II, Fig.154b.

Fig.25:
Bull-catching

religion and empire. A connection between bull-catching and bull-leaping themes is denied by some scholars, notably Mrs. Groenewegen-Frankfort, on the grounds that the former type of scene - best known from the Vapheio cups found on the Greek mainland (Fig. 25A-B) - is "un-Minoan" while bull-leaping activities "are conspicuously absent from the mainland repertoire" [24]. But bull-leaping frescoes from the mainland are in fact known at Mycenae, Pylos, Tiryns and perhaps Orchomenos [25], while bull-netting scenes are common on Minoan gems and sealings (Fig. 25C-D) and a terracotta bull covered with a net design from Pseira seems to symbolise the captured bull (Fig. 25E). Moreover, the Cretan manufacture of the famous Vapheio gold cups (which Groenewegen-Frankfort is prepared to accept) is now put beyond dispute by the recent discovery in the Unexplored Mansion at Knossos of two fragments of a characteristic Minoan stone rhyton featuring a bull-catching scene in which the bull has broken loose from the net, to scatter its hunters somewhat in the manner shown also on one of the Vapheio cups (Fig. 25A). In any case, the hunters on the Vapheio cups have the characteristic appearance of Minoan men, complete with brief kilts, long-hairstyles, puttees and ankle-straps. If, then, bull-catching is a Minoan activity, the best reason for it is that the bulls were intended for the bull-leaping games; it should be noted these wild bulls (Bos primigenius creticus) were captured with nets alone, to which they were evidently lured by amorous cows as Evans brilliantly realised from the scenes on the Vapheio cups (Fig. 25B). As little harm was done to them as possible. The nets are strung between trees, often the olive, and here we find a thematic connection with one of the above mentioned Knossian frescoes.

The relief scenes from the bastions of the North Entrance Passage depict an enormous charging bull, its head lowered and perhaps about to throw a female hunter or acrobat to the ground: a countryside setting seems indicated by rockwork and by one of two olive trees in relief fresco which were found nearby, discoveries

Fig.26

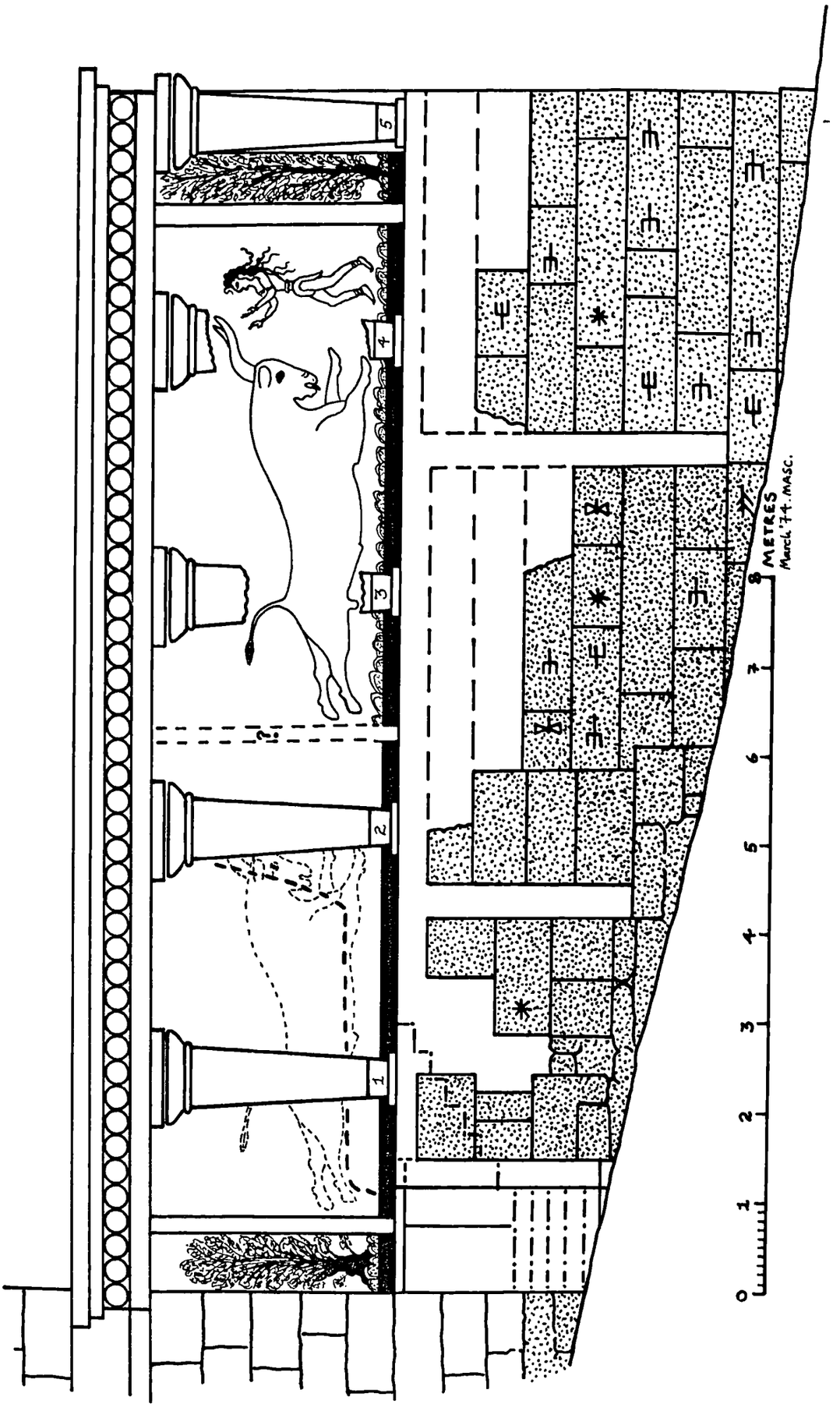
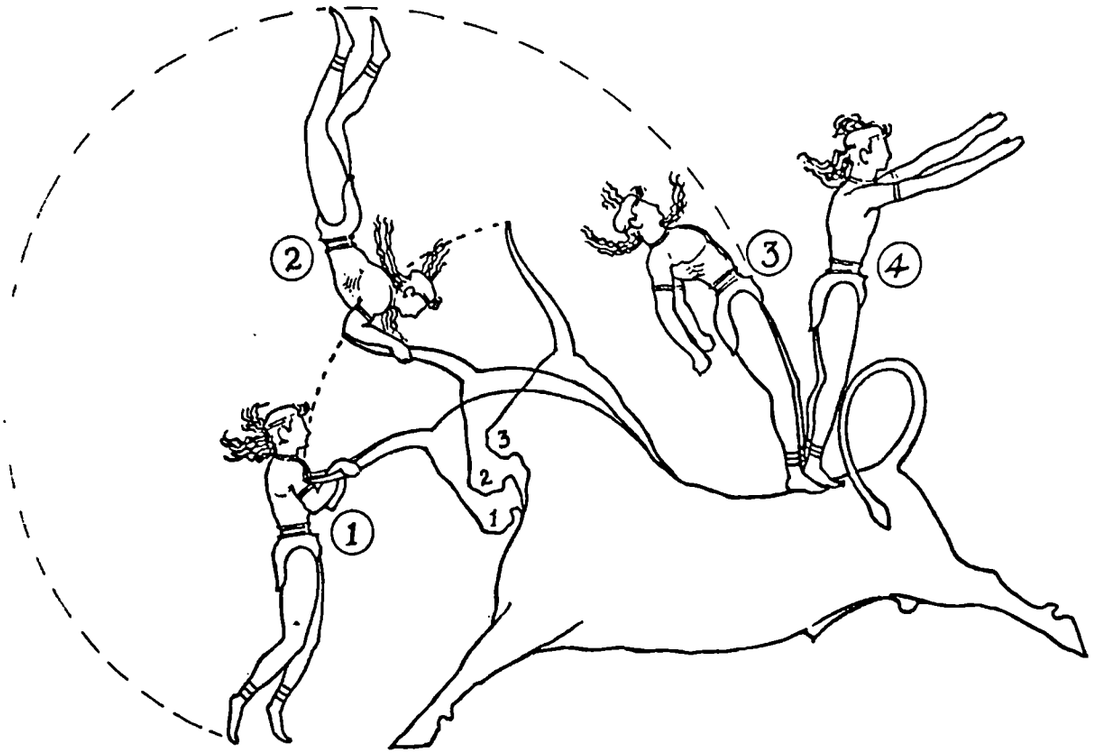


Fig.26: Restoration of the North Entrance Passage bull relief scenes

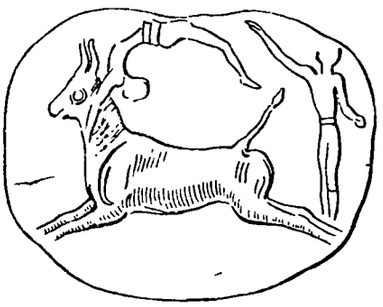
which suggest this was a hunting scene (Fig. 26). If the above discussion is acceptable, it seems unnecessary to examine a further view of Groenewegen-Frankfort, namely, that the conventional depiction of charging bulls with the head lowered in a forward position instead of to one side shows the bulls must have been "comparatively peaceful beasts", perhaps trained for the games in some way; even the domesticated bull is always dangerously temperamental, and any "training" of the wild species would certainly be ineffective when it came to the tantalising bull-leaping sports within some enclosed space.

When all had assembled at the arenas, the bulls would be brought in either via ramps or trussed up if there was a possibility of damage to surrounding structures en route for the arenas. Both men and women bull-leapers wore much the same outfit - the male brief kilt with the codpiece, arm-bands, necklaces, head-bands to keep their long hair out of their eyes, and often, too, boots or puttees, broad wrist-straps and protective ribbons bound round their hands (PLATES 38; 40A and C; 71-72 and SLIDE 46). The wrist-straps and hand-ribbons must surely be functional, and were especially worn by the female acrobats - points which seem a firm indication that the bull-leapers actually grasped the horns of the bulls. Their frequent depiction in the frescoes would also appear to rule out theories advanced by Professor Denys Page that the acrobats merely ran up to the bulls to touch their horns or leaped over them without actually grasping the horns [26]. The bull was evidently allowed to charge at will - hence, presumably, its stereotyped depiction in the "flying gallop" posture - and the horns were left unblunted. Scenes on gems, sealings and the famous bronze statuette in the Fitzwilliam Museum, Cambridge, as well as the pictures in fresco, confirm Evans's diagrammatic sketch of the main stages in leaping the bull (Fig.27A,p.154). Here we see what may be called the "classic" manner of executing this manoeuvre, but other methods are also found in the fresco representations.

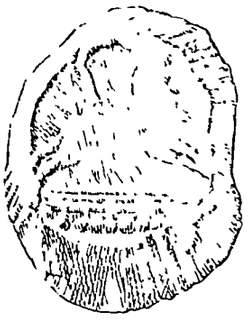
Fig.27



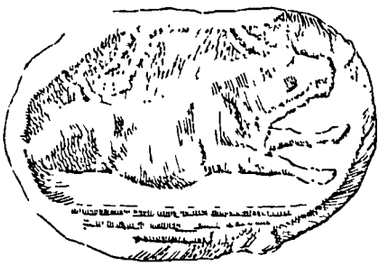
A. Diagrammatic sketch of acrobat's course (from PM III, Fig.156)



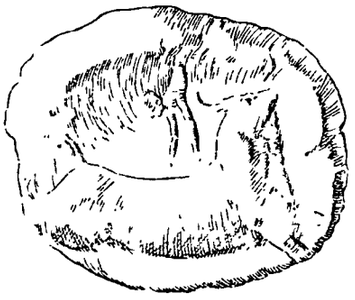
B. MM IIIB sealing from Knossos (after PM I, Fig.514: scale x 3)



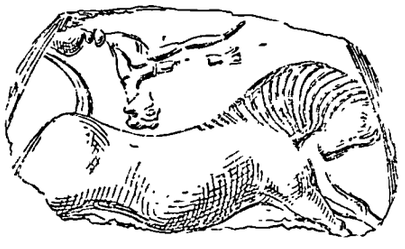
C. LM IB sealing from Zakro (after PM I, Fig.504a)



D. LM IB sealing from Zakro (after PM I, Fig.504b)



E. LM IB sealing from Zakro (after PM I, Fig.504c)



F. MM IIIB sealing from Knossos (after PM I, Fig.504d)



G. Detail from the "Boxer Rhyton" (LM I) from Hagia Triada:after Alexiou et al.Ancient Crete p.133)

Fig.27: Bull-leaping scenes

The left-hand woman in SLIDE 47 holds the left horn under her left arm and therefore seems in no position to execute a "classic" leap; possibly this was not in any case her intention. Another woman in a "miniature" scene has apparently come over the bull's head backwards (PLATE 39C; restored at PM III, Fig. 143), and it is clear that the frescoes depict a variety of ways of tackling the bull and various incidents that could take place (SLIDES 47-51). Moreover, accidents as well as perfect leaps are represented. In addition to that shown on the "Boxer Rhyton" from Hagia Triada (Fig. 27G), we may now add for the first time a fresco example, in a "miniature" painting from Knossos, in which a man lies fallen below the legs of a charging bull (SLIDE 52).

Two fresco scenes indicate beyond dispute (contra Page) that a team of bull-leapers tackled each bull. At PLATE 39C there are two figures, one certainly a woman, going over the arched head of a bull (cf PM III, Fig. 143); and at SLIDE 50 a man and a woman are associated with the one grey bull, the only bull in this colour known from the Taureador series of "panels". Indeed, the compositional balance in these bull-leaping scenes requires three figures for each "panel", one tackling the bull's horns, a second figure going over its back, and a third figure leaping off behind or running up with outstretched arms to catch the second person (SLIDES 47-50). On this evidence it seems clear that the acrobats followed each other over the bull in rapid succession, and this would to some extent check the speed of the charging animal rendering the sport a little less dangerous. Besides, when things went wrong for one acrobat - as they certainly did on occasions - fellow members of the team would be there to distract the beast's attention. Is it possible that this is what is happening in the best known and most complete Taureador fresco (SLIDE 47 and PLATE 71) ?

Unless we suppose that poor artistry has determined the position of the central figure, a man, we must admit there is too little room for his head to pass through the space between his chest and the bull's back if he is to execute a "classic" leap and land with his

feet on the animal's back facing the direction in which he is to jump off. His legs show that his body is already falling through the air and his hands at the bull's flanks find no points of leverage to correct his position. It looks as if he may break his neck at any second: an accident seems imminent. In that case, the positions of the two women in the same scene are more easily explained than otherwise. The right-hand woman is rushing up to catch the man who has bungled his jump, while the woman to the left has seized the bull's left horn only, under her left arm, so as to distract the bull's attention from her endangered companion. The element of suspense which this interpretation implies is quite in character with Minoan art, as the detail of the cat hunting the bird in the "Park Fresco" from Hagia Triada shows (PLATE 81B).

The scenes depicting these ritual games go no further than to show the boxers in mid contest or the acrobats suspended in mid-air or cast down in an accident. The outcome of these contests seems to have been of no consequence to the mural decorator, for it was the act itself that was the significant operative factor from the Minoan religious or ritual point of view. What happened to man and beast in the later stages of the games we are not shown. But, with Groenewegen-Frankfort, we may certainly say that "there is no ground whatever to connect bull sacrifice scenes with the bull sports" [27]. To the contrary, there are good reasons to think bull sacrifices in Minoan frescoes reflect Mycenaean ritual practices (see p.185 and 194 below).

Dramatic action in the scheme of palatial mural decoration breaks off at the height of the festival, with crowds of spectators caught in excited suspense as they watch the fates of the participants in the ritual games, and we are allowed no glimpse of the sequel. But there are other paintings, as yet unmentioned, which also belong thematically to the same system of mural decoration. These portray the shrines and guardian creatures of the goddess in whose honour the festival was evidently celebrated. Those pictures provide a further clue to her identity.

The shrines and guardians of the Festival Goddess

Associated with the high relief fresco fragments depicting boxers, ? wrestlers, bulls and acrobats, derived ex hypothesi by Evans from the Great East Hall of the palace, was found a fresco in low relief depicting winged griffins guarding a pillar which we have already mentioned is a common Minoan artistic abbreviation for a shrine (PLATE 132; and p. 75). In addition, the same deposit brought to light the breasts of a life-sized female figure moulded in the high relief technique who was portrayed in the usual frontal aspect of Minoan pictures of women (PLATE 41A-B). Possibly the latter pieces were part of a picture of a female bull-leaper, but a goddess representation is equally possible. Despite the technical differences in relief work, there seems no compelling reason why all these relief scenes should not have belonged to the one system of mural decoration expressing the overall theme that the ritual games were carried out before the shrine of a goddess, perhaps actually represented in the wall decoration, who was present to watch the spectacles, guarded by her winged griffins. In that case, the goddess, whom the "minature" frescoes suggest is summoned from outside the palace on the occasion of the festival, would seem identifiable with the nature goddess widely known as the "Mistress of Animals" whose normal abode was evidently considered to be peak sanctuaries on the tops of the Cretan mountains, and whose most usual attributes are pairs of animals (notably, lions, griffins, goats, sphinxes and birds) flanking her in antithetic or heraldic positions (Fig. 16G-H). To judge from the spread of fresco fragments depicting griffins' wings throughout the palace (PLATE 131), large areas of it were dedicated to this goddess in particular. Further, Evans found fresco fragments of griffins' wings close to the fragment of the "Jewel Fresco" which is here interpreted as depicting a robing ceremony for the goddess on her arrival within the palace; her cult also seems implied by the dress fragments at PLATE 43E-H portraying "miniature" griffins and sphinxes as ornaments attached to the skirts of priestesses or of the goddess

herself. Indeed, the Throne Room in the palace, with its Griffin Frescoes on the north and west walls, was evidently dedicated to the service of the same goddess; and here, too, we find an important link with the charging bull.

Wingless griffins guard the stone throne in the north wall, the seat of a divinity whose imminent epiphany is indicated by these creatures' upraised crests (SLIDE 53). That the throne was the seat of the "Mistress of Animals" or her earthly representative, a chief priestess, and not that of a "Priest-King" as Evans thought, has already been amply argued by Dr. Helga Reusch [28]. The extra-palatial abode of the goddess is denoted here by the undulating background landscaping and the flowering plants and palm-trees; but her connection with bulls has not been left out of account. On the southern wall of the adjacent Antechamber to the Throne Room, Evans was able to distinguish part of a bull scene; it is still in situ but is poorly preserved (PM IV, p. 893, Fig. 872). Although only a hind hoof of a running animal survives, general considerations deriving from an overall view of the palace wall decoration suggest strongly that a bull-leaping or bull-catching scene once existed here. In either case, the connection of this goddess with the bull games seems certain; for just as the Ante-chamber is an integral architectural part of the Throne Room System as a whole, and must have been constructed to serve purposes connected with whatever rites were carried out in the Throne Room itself, so a thematic and symbolic link between the mural decoration of the two rooms may also be assumed, especially as the same painters clearly decorated both rooms. In this view, the decoration of the Throne Room System proclaims that the room of the throne is the cult place of the "Mistress of Animals" in whose honour and presence the festival with its bull-leaping spectacles was carried out.

A further link between this goddess and this spectacular festival is supplied by the deposit of sealings which Evans discovered at the very site of the remains of the tripartite shrine

in the façade on the west side of the Central Court. The fragmentary sealings had been stamped with the one signet and all depicted parts of the one religious scene, namely, the "Mistress of Animals" standing on her peak sanctuary, flanked by attendant lions. (Fig.16G, p.130) Evans remarked that " . . . the pillar sanctuary behind her possibly represents, in the abbreviated fashion usual with seal-engravers, her actual Palace shrine" [29]. He therefore concluded that the tripartite shrine where the hoard came to light was dedicated to that goddess. In that case, her link with the festival and the ritual games is established, for it is this shrine which appears in the "miniature" Temple Fresco in the context of a major public festival within the palace.

General Conclusions

If the above discussion is on the right track, what significance lies in the relation of this goddess to the festival ?

The palatial fresco scheme commemorates in pictures of a genre kind a festival in honour of a goddess, the "Mistress of Animals", who is understood to descend from her usual mountain-top abode to the palace. Here, after a ceremonial welcome and procession within to an important cult room on an upper floor where, in turn, libations, offerings and robing ceremonies were carried out, she took up her place to preside at the spectacles of the ritual games - perhaps enacted in the Central Court itself. As "Mistress of Animals" and a nature goddess, she may have had a special interest in the bull games if they related to some fertility cult - possibly half forgotten by the Minoans and certainly a major puzzle to us today. The fact that the festival was an occasion for the whole populace of the Knossos region, and perhaps others from much further afield, to assemble at the palace - possibly the only place in the Second Palace Period where the bull games actually took place - suggests this would at most have been an annual occasion that may have taken place in spring. If this is so, the festival may have been an annual celebration of a primitive fertility cult to encourage prosperity in mankind, in agricultural

and industrial spheres, and a guarantee of the continuity of the Minoan empire. Ostensibly, however, the festival is portrayed as having the single aim of goddess-worship through various magical rites and athletic rituals; and this, it seems, is all the Minoan artists were permitted to depict on the walls of the palace, apart from geometrical designs and dado bands, until the Mycenaean period of occupation when a few other types of pictorial composition appeared. But there is perhaps a still deeper significance in the main palatial scheme, for it evidently echoes the transition of a peak sanctuary goddess of the First Palace Period to a palatial setting in the Second Palace Period, when the cult of a "Household" or "Snake Goddess" in Minoan town settlements first becomes apparent in other archaeological material [30] - if, indeed, that goddess is really to be distinguished from the "Mistress of Animals": the fresco remains at Knossos nowhere portray a household goddess clearly recognisable as such.

The thematic unity of the wall decoration in this palace is remarkably consistent in both early and later phases of its occupation. The few pictorial compositions which do not fit in with the main scheme outlined above are all late in date and evidently belonged to minor cult rooms of small dimensions decorated in the Mycenaean period (LM II-III A1). Their existence is of little consequence to the above conclusions regarding the major redecorations in the palace, although they serve to confirm the impression derived from the Greek mainland systems of mural decoration that Mycenaean wall painting was less concerned than the Minoan to preserve a unity in theme throughout a building.

Before we consider other Minoan fresco themes, it will be convenient to see how far the distribution and architectural contexts of the paintings at Knossos confirm our interpretation of the scenes and the thesis that the palace was decorated throughout in a thematically coherent way. The evidence from study of the painters' "hands", and differentiation of the Mycenaean from the Minoan decorative schemes in the palace, are topics considered in

Fig.28: The Provenances of Principal Frescoes at Knossos

1. West Porch
2. Corridor of the Procession
3. South Corridor of the Procession
4. South Fresco Dump
5. South Propylaeum
6. Staircase to the Piano Nobile
7. Central Court, "miniatures" deposit below pavement
8. Corridor of the Priest-King
9. Room of the Forged Clay Matrix
10. West Magazines II and III
11. Stepped Portico
12. The Throne Room
13. West Magazine XIII
14. Cult Room of the Camp Stool Fresco
15. Shrine of the "Miniature" Frescoes
16. North Entrance Passage
17. Room of the Saffron Gatherer
18. North Threshing Floor Fresco Dump
19. North-South Corridor (High Reliefs)
20. The Grand Staircase
21. East Lapidary's Workshop
22. The Queen's Megaron
23. The Queen's Bathroom
24. The Dog's Leg Corridor
25. Lightwell (Court of the Distaffs)
26. "Demon Seals" Staircase to Loggia of the Shield Frescoes
27. Hall of the Double Axes (Upper floor)
28. Hall (28a) and South Lightwell (28b) of the Double Axes
29. "School Room"
30. Court of the Stone Spout
31. Find-place of burnt goddess's head
32. Magazine south of the North East Hall
33. Upper passageway to the Throne Room
34. Antechamber of the Throne Room

KEY

: frescoes found in situ

: conjectural locations



Chapters IX and XI.

(c) The evidence from the distribution and architectural contexts of the paintings in the palace at Knossos.

It has long been clear from the deposits in which the frescoes were found that many of them once belonged to rooms in upper storeys of the palace, which being the most important rooms in the building received the most lavish mural decoration. This is particularly true of the relief and "miniature" frescoes. Many of the upper rooms contained figured scenes, to judge by fragments of such frescoes throughout the trays of stored material from Knossos and by the reports of the excavators. Many of the ground floor and basement rooms were used for storage and perhaps clerical purposes, and some others were certainly artisans' quarters and workshops. In those rooms there was little painted decoration beyond dado bands and perhaps simple spiral friezes at lintel-level or between there and the ceilings. This is most clearly observed in the Long Corridor and West Magazines where the decoration throughout consisted of simple red horizontal bands and lines at intervals up the stuccoed wall-face in a systematically executed scheme (SLIDE 43a; see plan at Appendix A, p. 685). A similar scheme of red and white dado bands decorated the Room of the Cists (at (7) in the plan at p. 679, in Appendix A); and other basement rooms were evidently painted in monochrome red (e.g. the storeroom at (2) in the plan at p. 711 , in Appendix A) or were stuccoed but left unpainted.

But at ground level there were also main entrances and vestibules, special cult rooms, important large halls, main corridors and main staircases leading to the main cult rooms and State or Public Halls on the upper floors, which, too, were given elaborate pictorial, often life-sized, decoration and in them belong nearly all instances of scenes preserved to a greater or lesser extent <u>in situ</u>. The evidence of their architectural contexts therefore supplies particularly important corroborative

Fig.29

information on the issues under discussion.

A major feature of the palatial scheme of painting is that the main entrances and corridors leading to the heart of the palace were decorated with bull and processional scenes. Bull-catching pictures, fittingly executed at life-size and in high relief, apparently adorned the back walls of the elevated balconies of both bastions flanking the North Entrance Passage (Fig. 26; and plan, Fig. 28(16), p.160) while another bull scene, painted at life size and "on the flat", was found partly in situ on the east wall of the West Porch (plan, Fig. 28 (1), and Fig. 29). That painting, superimposed on two earlier bull scenes on the same wall, was too ill preserved to show whether the theme was bull-catching or bull-leaping. Even so, the architectural settings and scale of representation of all these bull compositions seem clearly chosen to impress upon the visitor to the palace in Minoan times that here is the very centre of the Minoan civilisation and religion where, before all other centres, the celebrated Minoan bull games take place. Elsewhere there is no evidence for such scenes, yet here they are prominently displayed at two main entrances to the palace. By portraying these bulls as charging in a direction, as it were, away from the palace, the artists thereby confront all visitors on their arrival at the palace with the Minoan bulls themselves and with the fact that Knossos was chief centre of the ritual games. The setting of such bull scenes above the bastions in the North Entrance Passage is particularly appropriate if, as now seems likely, the Central Court was the arena for those sports.

If, on the other hand, our hypothetical visitor was admitted to the palace via the West Court, he would enter the Corridor of the Procession, both of whose walls were adorned with the famous processional scenes of life-sized men and priestesses escorting a goddess from the West Court into the palace (Fig. 18,p.138, and plan Fig. 28(2)). The best known pieces of this composition were all found in situ or on the stone pavement directly below their original positions on the east wall; but Evans mentions finding the low

black base-band of a similar scene in situ on the west wall (Appendix A, p. 674). The siting and design of these compositions were clearly intended to make the visitor feel, as he proceeded down the Corridor, a part of the great ceremonial procession leading the goddess into the heart of the palace [31]. The fresco evidently continued on the walls of the Corridor, along the south front of the palace, into the South Propylaeum (red dotted lines in plan, Fig. 28(3) and (5)), to judge by a fragment of the fresco showing a man's foot in right profile which turned up a few metres beyond the ruined south-west angle of the Corridor (PLATE 120 and plan, Fig. 28(4)) and the Cupbearer Fresco which had collapsed backwards from the west wall of the South Propylaeum into the narrow corridor immediately to the west (PLATE 7A, and plan, Fig. 28(5)). Indeed, we may follow Evans in believing a continuous frieze of such figures, perhaps over five hundred in number, once extended throughout the Corridor from the West Porch to the South Propylaeum. The procession as a whole moves inwards from the West Porch; but the Cupbearer and a man in front of him appear to walk in the opposite direction. This, however, need not invalidate the conclusion that the procession as a whole moves inwards; for the mighty structure of the South Propylaeum would allow two zones of life-sized figures, one above the other, on its walls and the circumstances of discovery of the Cupbearer Fresco would also allow us to attribute it to the upper zone of figures who, for greater aesthetic effect, might have been portrayed walking in a counter direction to the figures in a lower zone. In that case, as the South Propylaeum leads directly to a broad main stairway reaching the "Piano Nobile" where all authorities agree important State Halls or cult rooms were situated [32], there seems little reason why a lower zone of processional figures in the South Propylaeum should not have continued up that stairway into the important upper rooms of the Piano Nobile. Thus, the inward sweep of the architectural design of this main entrance system would be complemented by the inward-looking character and "directive function" of the procession

fresco itself which aims at leading the goddess and the onlooker (ourselves) into the most important rooms of the west wing of the palace. The Staircase Fresco from the east side of the palace lends considerable support to this view (SLIDE 44).

Although the various pieces of this composition were found in several chambers in the region of the High Relief Deposit (plan, Fig. 28(19)), and yet other pieces turned up in two dumps of fresco material on the outskirts of the palace (at Fig. 28(4) and (18)) and another piece in the light well called the Court of the Distaffs (PLATE 98B; plan, Fig. 28(25)), as though the composition had been stripped from its wall and thrown out haphazardly, restoration of the scene suggests its figures had once belonged to the right-hand wall of a staircase leading upwards, with steps about 12.5 cm on average depth; alone of surviving staircases in that area where the majority of pieces were found, the Grand Staircase fits the bill with steps about 12.75 cm on average depth (plan, Fig. 28(20)). If the fresco therefore belonged there, we have clear evidence that the procession proceded from the less important ground floor rooms to the important State Halls or cult rooms on the upper floors in that part of the palace, too. Moreover, not only does the "sign-post function" of the scene direct us upwards but of its nature the design implies a link in the mural decoration of rooms on different floors here. This, in turn, suggests that the mural decoration in this part of the palace was planned as a thematically continuous and coherent whole. If our interpretation of the sequence of events in the festive scycle is correct in principle, we may now expect to find that the decoration of the upper rooms in this quarter of the palace reflects the post-processional stages in the festival, namely, the assembly of people to watch the games, perhaps ceremonial parades of the participants, and the games themselves. Intervening events, such as robing and libation ceremonies, are not directly represented in the surviving material from this quarter of the palace, but our Staircase Fresco and fragments of another procession fresco certainly executed by

the same artists that depicted the western Procession Fresco strongly imply such activities took place, and might well have been portrayed, in the mural decoration of these upper rooms on the east side of the palace.

Our second procession fresco in the "Cupbearer style" is represented by fragments from the Queen's Megaron (SLIDE 3 and PLATE 171 A1 - an arm-band ?; plan, Fig. 28(22)), from the Court of the Distaffs (PLATE 9B; plan, Fig. 28(25)), and from the "Area of the Cowboy (Taureador) Fresco" (PLATE 13B; plan, Fig. 28(30)). It is reasonable to assume that, like their counterparts in the composition from the Corridor of the Procession, these processional figures would also be carrying libation vessels and offerings for use in the more important rooms on the upper floors. We may note, too, that the Shield Frescoes, already considered a part of this processional scheme of mural decoration, were found fallen in the northern compartment of the staircase at (26) in the plan at Fig. 28, and Evans reasonably assigned them to the walls of the first floor landing of the Grand Staircase (red dotted lines, immediately north of (26) at Fig.28, p.160.

On the South Front of the palace, Evans restored a replica of the "Priest-King Fresco" (PLATE 18 and SLIDE 1) on the east wall of the passageway at (8) in Fig. 28. If this is right, we have here another processional composition in the main corridor leading inwards, this time directly into the Central Court. It is in this connection that our interpretation of the figure as a young girl bull-leaper parading before the commencement of the games takes on a new significance. Pieces from the lily crowns and peacock-feather plumes of other figures evidently resembling the "Priest-King" were also found by Evans fallen from upper rooms in the "Area of the High Relief Deposit" (PLATE 169 A1, and Fig. 28(19)) and in the "Area of the Demon Seals" (PLATE 175 B21; plan, Fig. 28(26)) near the Shield Frescoes. These discoveries seem a firm indication that processional scenes of the "Priest-King" type also decorated main passages or rooms on upper floors of the east wing of the

palace.

We may conclude from this review that in general the main approaches to the important rooms of the palace, on the upper floors of the west and east wings, were decorated with life-sized processional scenes, complementary in theme, and all apparently leading inwards. The scenes repeat themselves from side to side of the building, a point which implies that the palace was decorated according to a comprehensive and coherent scheme which the Staircase Fresco in principle substantiates. Moreover, the architectural settings of these paintings in the two more important wings of the palace imply that the other elements of the festive cycle will be found in the paintings that once adorned the upper rooms. In short, the architectural design and functions of the main rooms in the palace fit in with the sequence of events which the festive cycle of pictures portrays, and an overall unity is observed between them.

So far, discoveries of pictures in situ have permitted us to be fairly specific as to the architectural places of the paintings. This issue is, however, problematic when we come to the frescoes derived from upper rooms, for in very few parts of the palace has the super-structure of upper rooms survived and in only one place has part of an upper room fresco been found in situ. Evans has drawn particular attention to this difficulty at PM IV, p.20.

After the processions into the palace, the next events in the festive cycle are "robing" and libation ceremonies, best represented in the "Jewel" (SLIDE 14) and "Camp Stool" frescoes (Fig.21, p.145). The former painting, partly executed in the relief technique, had fallen into a magazine adjacent to the south of the Stepped Portico (plan, Fig.28(11), opp.p.160). This fresco may have adorned the north wall of a landing of that stairway or perhaps more probably the north wall of a large Hall to the south of the Stepped Portico. From that area, passages and further staircases would lead

to the area of the LM II Throne Room system and its chronological predecessors (Fig.28(34), p.160).

If it is right to consider the goddess in the robing ceremony as the "Mistress of Animals" in whose honour the great festival took place, it is reasonable to suppose that the mural paintings and architectural function of that area of the palace would reflect the actual robing ceremonies of that goddess's earthly representative in the upper cult rooms before she passed to her special seat in the Throne Room nearby to the north where perhaps further libations and offerings would be made to the goddess of the festival, in cult rooms specially decorated to show her connection as "Mistress of Animals" with the bull games.

Libations and drinking ceremonies on the goddess's arrival in the cult rooms of the Piano Nobile are also implied by the Camp Stool series of at least three mural "panels" (Fig.21, opp.p.145). These had collapsed from an upper room above the west ends of Magazines XV and XVI into and outside those storerooms (plan, Fig. 28(14), p.160). A small shrine (Fig.28 (14b)) in the north west corner of the Sanctuary Hall covering the area above West Magazines XI-XVI may have been built at a late date in the palace's history, one which the present composition decorated [33]. Another figure executed by the same wall-painters, as the style of the piece at PLATE 15C indicates, evidently collapsed from another upper room further to the south above West Magazines II or III - if,indeed,it had not been flung there on the collapse of the main series of "panels" (to one of which it could belong) when the palace was destroyed in LM IIIA 1/2(early). Although the architectural settings of these paintings are now conjectural, it is clear that these stages in the festival cycle of events were the subjects of murals belonging to important rooms in the Piano Nobile, approached by the processional scenes of the main western corridor and its continuation through to the South Propylaeum. Fresco fragments depicting griffin wings and an olive tree were also found near the "Jewel Fresco" (see Appendix A, p.683), subject matter which provides links to the "miniature" scenes of the Sacred Dance and Temple Fresco

series (PLATES 26 and 29). These paintings are our chief evidence for the following stages in the festive cycle, namely, the assembly of people and priestesses to watch the spectacles at the climax of the festival. These, too, appear to have decorated only shrines or halls on upper floors of the palace, for the most part overlooking the West and especially the Central Courts.

One "miniature" picture of a crowd intent on watching the bull games near a shrine evidently decorated a room on a floor above the western cists of West Magazine XIII, into which the fragments fell (Fig. 24, and plan, Fig. 28(13))[34]. This location might suggest that the bull games took place in the adjacent West Court or beyond, were it not that the main series of "miniature" scenes decorated a small upper shrine at (15) in the plan at Fig. 28, where the North Entrance Passage meets the Central Court. The ceiling of this shrine was evidently decorated with a relief spiral design which collapsed together with the "miniature" scenes (PLATE 141A). The location of this room for these scenes seems particularly appropriate as all but one panel of the series show stylised and schematic renderings of the façades surrounding the Central Court. A fragment of another "miniature" picture of a shrine façade was found sealed below the stone pavement at (7) in Fig. 28: this, too, may have belonged to a shrine wall on an upper floor overlooking that part of the Central Court (Appendix A, p. 684 for references). The large-scale composition of the "Ladies in Blue", apparently another assembly scene of priestesses of the palace, had, it seems, once decorated the North East Hall or a connected portico, only to collapse at some later date into a ground floor basement (PLATE 19; plan, Fig. 28(32)). The discovery of a "miniature" fragment depicting an architectural façade or a bastion in the "Area of the Hall of the Double Axes" suggests that similar assembly scenes once graced small shrines in the east wing of the palace (PLATE 169 B2; plan, Fig. 28(28a)).

Parades of the participants in the games in frescoes from upper rooms are suggested not only by the "Priest-King" and

similarly crowned figures already mentioned but also by two relief figures of girl bull-leapers in blue and red kilts seen in SLIDES 7 and 8, fragments of which turned up near the south light well of the Hall of the Double Axes, near the Queen's Bathroom, and in the two fresco dumps mentioned earlier (Fig. 28(28b), (23), (18) and (4)). The girls, however, may as well have belonged to bull-leaping scenes - all of which, whatever their scale and technical method of execution, appear from the evidence of their find-circumstances to have decorated only upper rooms and halls, with the exceptions of the possible bull-leaping scenes in the West Porch and in the Antechamber to the Throne Room which are at ground level. Part of one bull scene was actually found in situ on the north wall of the Upper Hall of the Double Axes (Fig. 28(27); see Appendix A, p. 704(3)). The famous series of "Taureador" panels, evidently belonging to two friezes, collapsed from an upper room to the west into the adjacent "Court of the Stone Spout" which is lower by the height of a full storey (SLIDES 46-51; plan, Fig. 28(30), for find-place). These compositions may have decorated the walls of a shrine dedicated to the Festival Goddess in whose honour the games took place. Relief fragments of other bull-leaping scenes, assumed to have decorated the "Great East Hall" (in the area between nos. 32, 19 and 20 in Fig. 28) were found thrown down in a deposit together with relief fragments of boxers and perhaps wrestlers at (19) in Fig. 28. With them, too, was the low relief composition of winged griffins guarding a pillar, symbolising the shrine of the "Mistress of Animals" (PLATE 132). Could it be that the procession frescoes in the eastern wing of the palace led to this Great Hall, where athletic scenes took over from the processional ? Chronological considerations and study of the "hands" of the painters suggest this could indeed be so (see Chapters IX and X). Another link in the evidence is supplied by Evans's discovery of a large burnt wooden mass with bronze locks embedded in it at Fig. 28(31) which he took to have belonged to the head of a wooden statue of a Minoan goddess, some three metres high, once situated

within the Great East Hall itself [35]. In that case, the statue supplies a fitting objective for the processional and ritual athletic scenes depicted on the walls in that part of the palace, and confirms earlier suspicions that the whole cycle of festive pictures comprising the palatial scheme of mural decoration was carried out as a tribute to her.

Enough has now been said to indicate briefly and in general terms how the architectural locations of the paintings, known or reasonably conjectured, confirms the sequence of festive events as deduced from the themes of the paintings. Further evidence could be marshalled from the find-circumstances of pieces listed in Appendix A to support the general conclusion that scenes of the ritual games of the festival, above all of bull-leaping, were confined to upper rooms in the palace as portraying the culminating events of the palatial system of decoration. It is to those rooms that the procession frescoes direct us. It remains to consider the positions of spiral designs which, although playing no pictorial rôle, were part of the palatial mural scheme.

In the Lower Hall of the Double Axes Evans found spiral fragments similar in style to the spiral band in the Shield Fresco (PLATE 63A), which had evidently collapsed from a running frieze at lintel-level in the room and over which Evans thought real shields had once been hung (p.141). Spiral friezes executed by the same group of painters were found <u>in situ</u> at lintel-level above tall gypsum orthostats lining the walls of the Queen's Bathroom (PLATE 55B; plan, Fig. 28(23)); one section has been left in its original position [36]. At the west end of the adjoining "Dog's Leg Corridor" a stylistically similar spiral design was found <u>in situ</u> at a low level on the wall (plan, Fig. 28(24) and Fig.96, p.707), perhaps a dado design below a pictorial scene but this is uncertain. More examples of similar spiral bands (in the style of the pieces shown at PLATE 140) were found in many of the ground floor rooms in this quarter of the palace, a firm indication that spiral decoration was the order of the day in this important suite of rooms between the

Hall of the Double Axes and the Queen's Megaron. Ceiling designs of spirals in relief, with rosette or perhaps lotus "filling motifs" (PLATE 98A,C-D), were found in deposits of frescoes collapsed from upper rooms in the "Room of the Corner Sanctuary and "Miniature" Frescoes" (Fig. 28(15)), with the High Relief Deposit (Fig. 28(19)), in the North Entrance Passage (Fig. 28(16)) and elsewhere in places that went unrecorded.

We may now summarise the general character of the fresco decoration from the view point of its architectural contexts in the palace at Knossos. Basement and storage rooms, workshops and clerical offices, were given simple banded dado decoration, or were painted a monochrome red or left unpainted though stuccoed. More important rooms and corridors at ground floor level were treated to running spiral friezes at lintel-level, and Lustral Basins or similar rooms like the so-called "Queen's Bathroom" only seem to have been decorated in one or other of these ways - and chiefly with dado bands, to judge by the schemes in the lustral basins of the Throne Room and that near the North Portico (see Appendix A,pp.680(2) and 689(3)for details). But the main entrances and main corridors leading via main staircases up to the State Halls or public chambers and important cult rooms on upper floors contained large scale pictures of bull-catching and processional scenes respectively. The procession frescoes show the Festival Goddess ceremoniously escorted by gift-bearers, votaries and perhaps musicians on her arrival from outside the palace up to the most important cult rooms on the upper floors where robing and adornment scenes on the walls reflect such activities took place in the course of the festival before the commencement of the ritual games in her honour. The only important cult rooms on the ground floor known to have been given important pictorial mural decoration are the Throne Room with its Griffin Frescoes and the Antechamber with a bull-scene (? bull-leaping). Apart from this example, and the others from the West Porch and the bastions of the North Entrance Passage (which we may count as an "upper floor" scheme of decoration), bull-leaping

scenes were confined, whatever their scale of representation, to rooms or passages on upper floors. Here, the most important rooms were given relief frescoes chiefly of a processional or athletic character and ceiling decoration of spirals, also frequently executed in the relief technique. Shrines and other cult rooms on upper floors, also dedicated to the Festival Goddess, were adorned with pictures of her shrines and of her guardian animals - notably, griffins - or with "miniature" pictures illustrating various genre episodes of the festival. Many rooms on the upper floors contained figured and other pictorial scenes which seem to bear upon the festive cycle of ideas, and in addition many pictures of winged griffins; but the collapse of almost the entire superstructure of the palace, and the fragmentary and scattered nature of the frescoes themselves, make an accurate estimate of their original positions an impossible feat. Nevertheless, an overall picture emerges reasonably clearly of the careful planning of the mural decoration throughout the palace, with scenes of a similar kind repeating themselves on all sides of the palace in similar architectural settings, coherently following each other in both theme and location according to a single overall scheme relating in genre terms the course of a major public festival at Knossos. The palace architecture and the wall paintings, which were the former's crowning glory, go hand in hand to celebrate and commemorate the cult of the Festival Goddess, apparently the "Mistress of Animals", whose epiphany was conceived as the centre of the Minoan religion and of the official Minoan way of life.

The architectural place and importance of the few scenes from the palace which do not fit into the Grand Scheme as outlined above will be considered when we come to review the themes of those paintings later in this chapter.

Fig.30

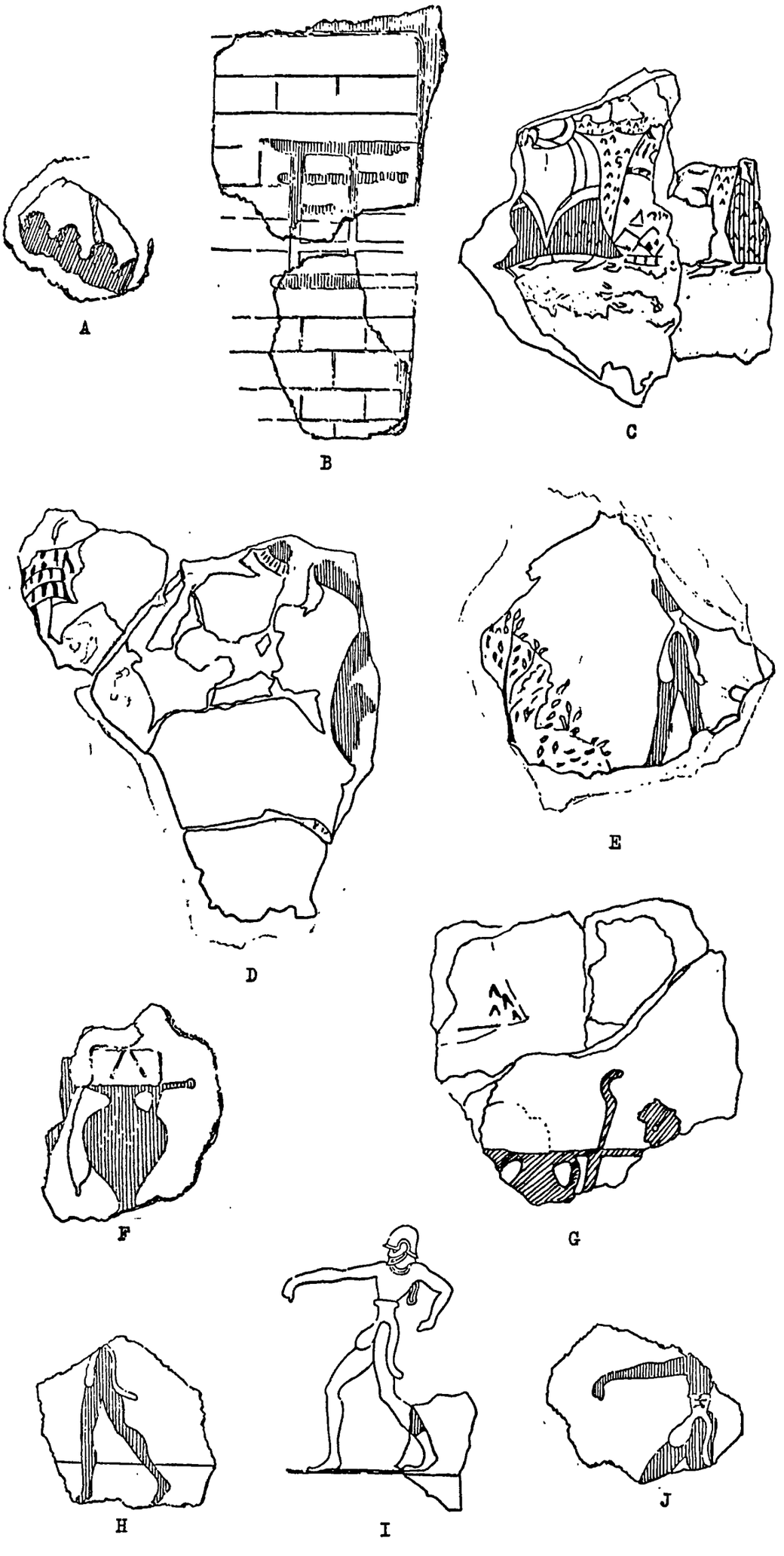


Fig.30: "Miniature" fresco fragments from Tylissos, scale $\frac{1}{1}$
(A-F,H-J after Interconnections, Fig.114; G from a drawing by Mrs.M.Shaw)

II. PROVINCIAL FESTIVALS AND HUNTING SCENES

"Miniature" fragments from Tylissos preserve the main features of another festival, although here there are no pictures of a deity, of guardian griffins or of bull-leaping (Fig. 30). The scene to which they belonged is too broken to establish the order of the events portrayed, but by Knossian analogy we may suppose it went as follows.

Fragment A in Fig. 30 shows a crowd of male spectators already assembled together, possibly near an architectural façade relieved by a window (B): this could perhaps represent a shrine. The two fragments C and D show the arrival on the scene of a procession of female figures, no doubt priestesses, who apparently are seen in an open-air setting as the olive tree on fragment E and the undulating background "landscape" bands on fragment D suggest. On further pieces we find Minoan men in brief kilts attending to libations from a ewer (fragment F) and a two-handled amphora (fragment G). Here a man waves an object like a sickle in the air - a possible clue to the scene taking place in summertime, perhaps in connection with some harvest festival. It could be, however, that the vessels in question were carried in procession by the male kilted figures, two of whom are evidently represented in some open area or court, to judge by the white bands below their feet recalling the bands in the "miniature" Temple Fresco from Knossos (fragments H-I). Finally, the outstretched clenched fist of the man on fragment J suggests the festival concluded with boxing contests and perhaps other athletic games.

If this composition is not simply a pale reflection of the Knossos festival, presumably it depicts a local festival which took place in or near Tylissos. The object of the festival and the deity it no doubt honoured can only be conjectured, although what we know of the general way of life of the Minoans makes it likely that the scene refers to the cult of a female deity - perhaps the same goddess as that portrayed in the palatial scheme at Knossos.

"Miniature" frescoes from Hagia Irini on Keos also depict elements of a similar communal occasion, notably, architectural façades, groups of male figures in Mycenaean dress carrying objects on poles over their shoulders and others in Minoan costume (the brief kilt) stooping over tripod cooking pots (PLATE 197 A1 and 3). These activities, however, seem connected with the hunting of fallow deer, chased by trained dogs or conceivably leopards while the hunters follow in horse-drawn chariots (PLATE 197 A4-5). Whether the hunt and cooking preparations had any religious or cult significance, or whether we have here a purely secular scene, are open questions at present. Certainly the hunting and chariot elements fit in well with contemporary Mycenaean pictures of animal hunts from chariots, a theme which is otherwise absent from the Minoan fresco record. A mixture of outside influences in the Keos paintings, deriving from both Crete and the Greek mainland as the details of dress plainly show, could be expected in view of the island's lively commercial ties with those regions in MM III- LM I. This is the only hunting scene certainly recognisable from Cretan or Cycladic Bronze Age frescoes: conventions of drawing and colouring and the general setting seem Minoan, but the hunting elements seem of Mycenaean derivation.

III. NATURE GODDESSES

The most remarkable frieze of the present pictorial class is undoubtedly that which decorated three walls of a small ground-floor shrine (Room 14) in the Minoan villa at Haia Triada (SLIDE 54). Opposite the entrance, on the central or east wall of the room, a goddess seated next to an outside shrine or altar is portrayed leaning forward to her left and with her arms raised upwards at the elbows. She leans forward to summon various wild or feral creatures depicted in the adjacent scene on the south or right-hand wall in our illustration. A pair of wild Cretan goats, or "agrimi", respond by bounding towards her. But several cats, with long Egyptian-looking ears, seem more engaged in attempting to

Fig.31

Fig.31



A

Peak Sanctuary rhyton, stone,
Zakro. (Ancient Crete, p.192)
MM IIIB/
LM I.



B

Gold ring, Phaestos
(PM II, Fig.492c)
LM I in style.



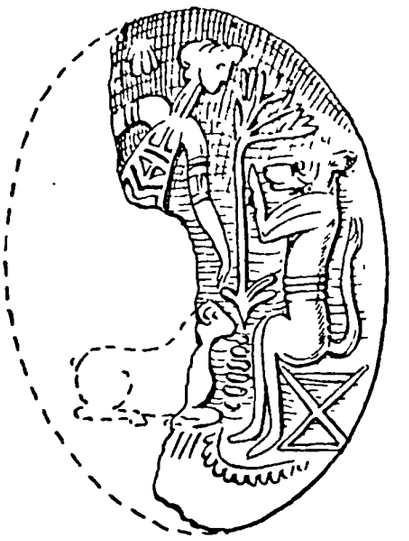
C

Sealing, Zakro
(PM II, Fig.492a)
LM IB



D

Sealing, Hagia Triad
(PM II, Fig.492b)
LM IB



E

Sealing, Knossos
(PM II, Fig.491)
LM II-IIIA



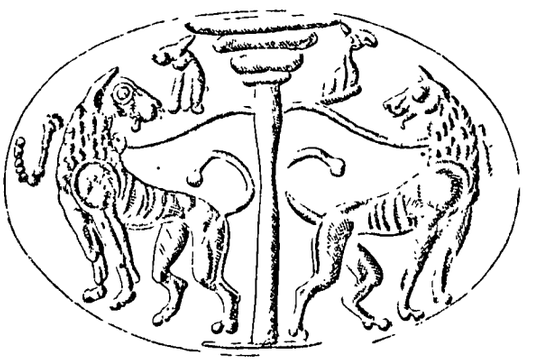
F

Seal, Pylos: Tragana 2,
(CMS I, nc.266, p.301)



G

Sealing, Knossos (PM IV, Fig.597 A1)
LM II-IIIA



H

Gold ring, Mycenae
(PM I, Fig.310b)
LH I-II

Fig. 31. Stone bowl and
glyptic scenes with animals

catch wild birds perched on rocky outcrops of the mountain landscape in which they are portrayed. The birds may yet escape, for the raised head of one, at least, suggests the goddess's summons has not gone unnoticed. Myrtles, bushes of ivy, a few crocus clumps, and various artistic hybrid plants or uncertainly identifiable real flowers spring from the rocky terrain whose colouring - though perhaps a result of the fire which destroyed the room and the villa - now brings to mind the brown and fawn colours of the mountainous Cretan landscape dried out by the heat of the summer sun. These scenes clearly belong to a popular Minoan pictorial cycle featuring the "Mistress of Animals" with attendant creatures at her sanctuary on a mountain peak. A complementary scene is wonderfully preserved on the carved, and once gold-covered, stone "Sanctuary Rhyton" from the palace at Kato Zakro where we see "agrimi", seated above the goddess's shrine on a mountain-top or leaping among the rocks nearby, arranged in antithetic attitudes symbolising her special or "sacral" animal guardians (Fig. 31A). Moreover, birds, possibly symbolising the arrival of the deity in disguised form - a contentious point - fly near the seated goats.

On the northern (left-hand) wall of the shrine under discussion, there was a picture which may or may not have been related in theme to the other two frescoes. It shows a life-sized female figure kneeling to pluck her favourite flowers, crocuses and madonna lilies - the only plants found here, apart from small clumps of violets (SLIDE 54). The background setting is less dramatic than that in either of the other two pictures and evidently denotes pleasantly rolling low-lying flower-strewn hill-slopes. The question arises: is she a priestess gathering flowers to offer to the goddess at her sanctuary, or is she another nature goddess whom we may call by her attributes in this scene the "Goddess of Vegetation" ? In view of the facts that goddesses in Minoan art usually appear singly, rather than collectively, and Minoan preference was for continuous friezes on the walls of a room, the former interpretation seems the more probable. There may have

been some connection between the cult observed in this small chamber and that of the cave of Kamares high up on the southern slope of Mount Ida overlooking the villa in this period (MM III B-LM IB) where only offerings contained in pottery, and grain, seem to have been made [37], a point suggesting only women may have worshipped at the cave. In that case, it would seem appropriate that we find in these fresco scenes a priestess offering flowers to the goddess seated at her peak sanctuary. Whatever the right interpretation of these scenes, it is certain that the "Mistress of Animals" here provides the focus of attention in the paintings as a whole; and the two goddesses mentioned above are the only ones certainly recognisable in surviving Minoan frescoes.

Just as dress fragments from the palace at Knossos, featuring "miniature" griffins, sphinxes and bucrania as embroidered or decorative ornaments, belong to representations either of the "Mistress of Animals" herself or of her earthly representatives (pp. 65-66), so the dress fragment from Katsamba with an "embroidered" scene of hoopoes in a rocky and floral setting is likely to belong to the skirt of another picture of the same goddess (SLIDE 12C). It is commonly thought that two relief frescoes of life-sized women seated on rockwork from the island of Pseira, represent the same "Goddess of Animals and Peak Sanctuaries" (PLATE 24-25); but new discoveries of painted copies of fresco fragments of further female figures from this site could indicate a procession of priestesses to that goddess, not a series of separate goddess representations.

Fragments of the skirts or limbs of large-scale female figures, sometimes executed in relief fresco, have turned up elsewhere but only in association with floral subject-matter. The absence of other pictorial subjects at any one of these sites need not be significant, but when we consider that this is a common circumstance of discovery it seems reasonable to assume - even though other possibilities cannot be ruled out in any particular case - that such figures represent a Minoan "Goddess of Vegetation". At Epano

Zakro, an important farm or villa produced a fragment from the skirt of a life-sized goddess and many frescoes depicting mainly flowers (myrtles, crocuses, lilies, reeds and other plants) but otherwise only spiral designs from running friezes (see Appendix A, p. 766). At Prasa, near Knossos, "miniature" trees on one fragment turned up with fragments of a goddess representation which included her face, depicted "on the flat", and part of her skirt executed in relief (PLATES 33A and E; and 119A). At Palaikastro, one house produced the relief arm of a life-sized goddess, bent upwards at the elbow in the usual gesture of salutation, and a fragment depicting crocuses (crocus: SLIDE 29 aiii) [38]. At Knossos, town houses on both sides of the Royal Road may have contained similar pictures, while another goddess painting - apparently from the palace, but an exact provenance is unknown - originally showed her near an olive tree (PLATE 117 A-C), finely decked out in a necklace of small beads in an arrangement which is matched by a skirt decorated with "scale" motifs (PLATE 23 B-D): these pieces, from the same trays of stored material, certainly belonged to a single composition.

A goddess may be depicted on a painting from Phylakopi, for her dress is decorated with pairs of flying griffins, with raised crests, in a rocky setting (PLATE 36). This suggests she may be the "Mistress of Animals", already noted often to have been attended by griffins with their crests raised. But against this view, the figure holds a length of blue textile material, possibly the end of a fishing net with which we are to understand she is catching flying fish that are seen in two friezes from the same room (PLATES 125-126). Is she, then, a Sea Goddess ? A difficulty here is that there is another womanly figure, bending to her left and naked above the waist like the previous figure, on another fresco piece from the room (PLATE 37A-B); and both figures would seem to be too large to fit into the friezes depicting the coursing flying fish, and may in any case represent priestesses. If there was a thematic link between these various compositions (certainly the works of the same artists), it must have been expressed indirectly,

for example, through the relative positions of the paintings to one another in the wall-scheme.

Another fresco (PLATE 50A), from the later settlement at Hagia Triada - and perhaps Room H (a house sanctuary with a marine floor fresco: PLATE 124) - may relate to goddess-worship. Here we see two rows of priestesses, inside or in front of a two-storey shrine surmounted by "horns of consecration" in low moulded relief, dancing with their right hands resting on the right shoulders of a preceding person; stylised plants, not closely identifiable, appear in the background. The probability is that the scene denotes a ritual dance in honour of the deity of the shrine, but who this would be one cannot say - especially as the provenance of the composition and its possible location in the shrine with the marine floor fresco is uncertain on present information.

This review reveals only two kinds of goddess representation, if we set aside the palatial scenes from Knossos and the doubtful "Sea Goddess" interpretations. But whether the sites with these pictures portray the same goddesses or local ones of two widespread "generic" types are moot points. There may have been other goddess representations in the Minoan wall paintings, but there is no proof at present that this was so. All these scenes, except those in the shrine at Hagia Triada(Room 14), are too fragmentary for a detailed explanation of them; and even the more complete scenes are genre in character and tell us little about the deities and events portrayed. Both our certain goddesses are nature deities whose epiphanies the Minoans may have associated especially with springtime, to judge by the abundance of floral subjects with which they are most commonly surrounded.

Since both deities were evidently thought to have power over the animal and plant kingdoms, the question now arises whether "nature scenes" in Minoan wall painting ever allude to the deities' cults or whether they are purely secular in their significance.

IV. NATURE SCENES

These fall under three headings according to their main content. Man is absent from them all but some paintings in this class certainly conform to artistic formulae with religious overtones relating to Minoan goddess worship. Scenes of that order are, however, less remarkable than those which appear to be entirely "secular" in their significance; for in these we find birds and animals and other creatures rendered in their own worlds, free from anthropocentric formulae, for the sake of nature's own beauty. Such is the spontaneousness and vivacity of these paintings, in which Minoan sympathy for the world of nature is so apparent, that they represent a unique achievement in the field of ancient mural painting with which only the unusual mural scenes at Tell el Amarna (c.1360 B.C.) seem at all comparable until a much later date. They signify, indeed, a new way of looking at life and it is as much its novelty in ancient mural decoration as the gracefulness of the style of painting and choice of subjects that today strikes us as so refreshing.

Faunal scenes

The central African monkey, Cercopithecus aethiops aethiops or C.a. tantalus, features in at least four murals, two from Knossos and the remainder from Akroteri on Thera. Although probably brought to the Aegean world from Egypt as pets, they are not portrayed as such in the Minoan paintings although that was how the same species was frequently shown in Egyptian murals. The Minoan artists preferred to draw them either as sacral animals participating in acts of worship before sanctuaries or goddesses or else as truly mischievous and rapacious feral creatures, in keeping with their character in real life. Thus, from Thera we have on the one hand three monkeys sitting on their haunches with front paws raised in adoration before a peak sanctuary, in a scene which clearly bears upon the Minoan worship of the "Mistress of Animals" at her

mountain shrines (SLIDE 55); while another painting from the same site, as yet unpublished, shows on the other hand a troop of monkeys apparently raiding an orchard but which is caught in the act by (?) dogs which cause the monkeys to flee to the cover of nearby trees and rougher ground: meanwhile, the leader of the troop faces its pursuers to ward them off, baring its teeth in a ferocious grin, as it is wont to do in nature in such circumstances, which the artists - evidently with their tongue in their cheeks - have amusingly depicted en face, thereby breaking the usual convention of depicting all animals in profile [39]. This device, moreover, gives the onlooker the uncomfortable impression that he himself is an unwelcome visitor to the scene, from the monkeys' point of view ! The first of these scenes brings to mind pictures of monkeys on gems portrayed in similar postures as votaries before a goddess (Fig.31B-E,p.174). Possibly the monkeys in pictures of that kind are shown in the role of domestic pets, escorting their owners and mimicking their actions in the course of some ritual in honour of the "Mistress of Animals". Indeed, for that reason, and because monkeys may rightly have been regarded as weirdly unpredictable and somewhat preposterous exotic foreign creatures, with a marked propensity for aping human behaviour, the Minoans may even have regarded them as "holy" animals - rather in the same sense that in some parts of the world today idiots, too, are regarded as divinely inspired and therefore sacred. The second of these paintings, however, seems purely secular in theme and significance, and the animals are wittily rendered for their own sake; and this also seems the case in the two monkey scenes from Knossos.

The earlier and more finely drawn of these comes from the House of the Frescoes and shows a troop of these monkeys scouring the rocky flower-strewn countryside and a valley bordered by reeds and papyrus thickets, fed by streams flowing from waterfalls among the rocks, in the hope of finding food. One creature has indeed ravaged the nest of a colony of rock doves (Columba livia) and is eating the eggs (SLIDE 56) [40]. Here the theme is an old Egyptian one, of a predator robbing birds' nests in or near papyrus thickets, adapted, however,

Fig. 32



Fig.32A . Hunting in a papyrus marsh; Egypt, Thebes, Dyn.XVIII. (fragment in the British Museum). Mural.

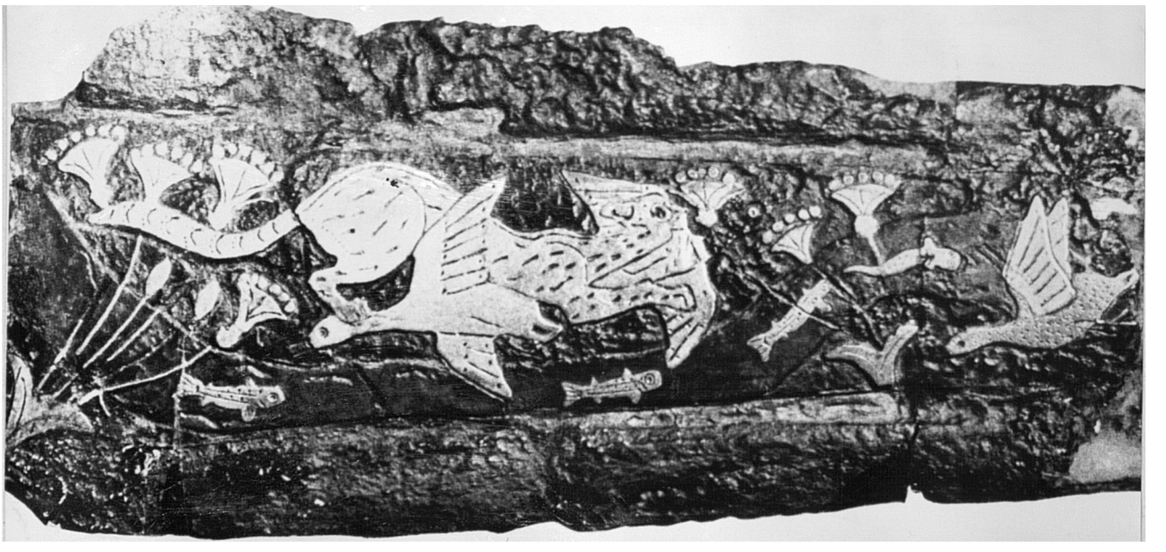


Fig.32B . Feline hunting duck in papyrus marsh, on an inlaid dagger from Mycenae, LH I (from Crete and Mycenae Colour Plate XXXVII, top).

by the Minoan painters to suit their own insular style of mural decoration and expression and also their notion of Cretan landscape, its flora and its fauna. The doves, for example, replace waterfowl in the Egyptian murals of this kind (Fig. 32A), probably because the terrain of Crete is by and large unaccommodating to waterfowl and so these artists were less familiar with such birds. In the second monkey painting from Knossos, discovered in the "Room of the Saffron Gatherer" in the palace (Fig.28(17)) but perhaps once decorating a small room elsewhere (p.693(8)), there were at least three panels, each with one monkey busy pulling out crocuses that had been carefully planted in flower-pots in a rock-garden (SLIDE 57). But these creatures wear red (leather) harnesses which give the game away: they are pets which have escaped their keeper, only to cause havoc in the (? palace) gardens [41]. If this interpretation is right, we may regard this as another secular painting, one which does not fit into the overall palatial scheme of mural decoration - even though it may be true that such monkeys were counted among the faunal protégés of the "Mistress of Animals".

Another painting from the House of the Frescoes, poorly preserved, shows another nature scene tied to anthropocentric ideas. It shows two goats, probably "agrimi", standing one on each side of an olive tree in antithetic and heraldic positions, with a bed of crocus plants formally set out in a yellow field above in which the only other subject is a grey (?) rockwork area or conceivably a flying dove (SLIDE 58). Although in points of detail restoration of the composition is most uncertain, the scene clearly belongs to that class of representation depicting animals flanking a goddess or her shrine or her attributes (Figs.16G-H,p.130 and 31F-H,p.174). Trees depicted in the more closely comparable representations to our fresco, such as that at Fig. 31 F, evidently symbolise a nature goddess, or her abode, who may be either the "Tree Goddess" or the "Mistress of Animals"; and we may note the olive was evidently regarded as especially sacred in Minoan times, for there exist many other scenes, particularly on gems and rings, in which human

figures shake the branches of olives in some ritual relating to a nature cult (cf Fig. 16B). This composition, therefore, has strong religious overtones referring to the cult of a nature goddess. Comparison with the "Sanctuary Rhyton" from Zakro, in which goats are a major feature (Fig. 31A), leads one to think the goddess in question would be the "Mistress of Animals" whose cult, as Nilsson remarked, was widely "penetrated" by that of the "Tree Goddess".

Whether or not the nature scene depicting mice among flowering sprays of reeds, collapsed from an upper room in the South East House at Knossos, had any religious symbolism it is difficult to say, owing to the paucity of the original painting (SLIDE 26). The one surviving fragment gives us no grounds for thinking so.

The goat and cat picture on the southern wall of Room 14 in the villa at Hagia Triada alone seems to bridge the difference between our "religious" and "secular" nature paintings. The goats respond to the call of the goddess on the east wall, but the cats are shrewdly portrayed as taking no notice of her - in true feline style (SLIDE 54). The birds, too, may answer the call of the goddess, for the head of one is certainly raised towards her; they may be sacred to her, for Minoan goddesses evidently were thought to appear in the forms of birds as we know from gem and ring designs. But when we come to other bird scenes in Minoan wall painting there is nothing obviously religious about them.

Thus, the rock partridges in the frieze from the Caravanserai at Knossos are depicted realistically in hunched, resting postures, or flapping their wings, or crowing on tip-toe (PLATE 86). Highly conventionalised bands of rockwork half conceal a pair of birds on the left, perhaps an indication that the artists knew how well these birds tend to camouflage themselves. On the right, the partridges on a black ground are generally understood as sheltering in the mouth of a dark pebble-strewn cave, as is their habit. The presence of two hoopoes, which are migrant birds to Crete, suggest the season is spring or summer; but neither they nor the partridges are shown engaged in appropriate seasonal activities.

The purpose of the frieze seems purely decorative, therefore, and there is nothing here to relate it to religious pictorial formulae. Evans, however, suggested that we have here favourite "table birds" in a frieze to please those who stayed at the Caravanserai, which he considered to be a kind of Minoan hotel; this is an intriguing but unverifiable speculation.

Another "secular" bird scene is found on frescoes from Hagia Irini on Keos, with a flock of preening and feeding doves or pigeons, not less than fifteen in number; PLATE 198 A3 illustrates the heads of two of them. A recently discovered frieze on three walls of what is reported to be a small ground floor shrine at Akroteri on Thera depicts swallows, among them pairs "kissing" (or courtship feeding) in mid-air over clumps of lilies springing from rocky outcrops (AAA, Fasc.1 (1971), Colour Pl.A1 and pp. 66f, Figs. 13-15). Although the room is described as a shrine, there is nothing especially religious about this scene apart from the fact that both birds and madonna lilies are often depicted in Minoan art as the attributes of nature deities. Thus, while the choice of subject is suitable to the decoration of the shrine of a nature goddess, the scene itself evidently is not of a religious character. Birds described by Evans as swallows, although matching golden orioles more closely in silhouette and colouration, seem to have belonged to a nature frieze put up on the walls of an upper room in the South House at Knossos (SLIDE 27g and PLATE 88B). A fragment of another bird scene, from the palace at Knossos, most likely depicts a partridge and some small hill-side bird, perhaps a lark, but is otherwise too fragmentary for us to draw further conclusions from it (SLIDE 28).

Marine scenes

In the absence of any definite links with goddesses, all the marine scenes yet known from Minoan wall painting appear to portray only genre, secular themes, of decorative importance alone. Schools of flying fish and dolphins gambol along realistically in frescoes

from Phylakopi (PLATES 125-126) and Keos (SLIDE 37); two dolphins float placidly in opposite directions among shoals of small fry in another painting, from Knossos (PLATE 121), while dolphins and other, not closely identifiable, fish encircle a large-eyed octopus in their curiosity in the marine floor scene from Room H at Hagia Triada (PLATE 124). These pictures are realistic and naturalistic, and it seems unnecessary to look for a deeper meaning in their interpretation.

Floral scenes

Minoan buildings at Ialysos (Trianda) on Rhodes, Akroteri (Mamet's house), Hagia Irini on Keos, Tylissos and Knossos (Savakis's "bothros"), and the palace at Phaistos have all produced frescoes with flowers only and an occasional spiral design. The flowers in question are most commonly madonna lilies, crocuses, reeds, myrtles, and artistic hybrid forms, which not infrequently appear in Minoan art as attributes of goddesses or as gifts carried by priestesses. There is some reason to think many of these paintings adorned small house-shrines on upper floors, perhaps as background elements in goddess representations of the "Mistress of Animals" or the "Vegetation Goddess (v. Chapter VI). But there is only one group of floral frescoes which bear overt religious overtones: these adorned a house-shrine above Room 7 of the villa at Amnisos (SLIDE 59).

The large lily, iris and vetch or sage plants drawn on an unusually grand scale and formally arranged in huge plantpots make best sense as a floral tribute to some deity. The fresco picture on the south wall of the room depicting an offering table comprising two rows of circles ("cups" for offerings) bound together by papyrus "filling motifs" strongly supports this view. But to whom would such a tribute be offered, and why ?

The types of plants chosen for these scenes and the overall character of the scheme make it reasonable to think the object of this floral tribute would be a goddess, presumably a nature goddess of some kind. One such being at Amnisos readily presents herself,

namely, the goddess "Eileithyia" whose cave only one kilometre south of this villa was evidently used for her cult from Minoan (if not earlier) to Roman times (p.131f). Mentioned even in Homer and on a Linear B tablet from Knossos, she is a goddess of the vegetation cycle and also of childbirth of great popularity in ancient Crete. Could it be that the villa was set up, and decorated almost certainly by Knossian painters in this essentially feminine way, in connection with the cult in the cave of her name, and that the villa might have been used by the pregnant queens or priestesses of Knossos as the place of their confinement ? One small detail adds colour to these conjectures: Möbius has noted the occurrence in these frescoes of the insignificant plant Micromeria (Satureja) Juliana Benth. (SLIDE 29n) which, he surmises, only appears on the strength of its medicinal usefulness. We may add that the size of both the villa and of whatever Minoan settlement there was surrounding it appears to have been so small that it implies a special purpose for the founding of a villa here at all: this the cave of Eileithyia, and the cult of the goddess there, amply supply. The view that Amnisos was one of the two main harbours for the town of Knossos in Minoan times is hardly credible: the settlement seems too small; it lies further away from Knossos than the larger Minoan harbour town of Katsamba, and is divided from Knossos by at least one range of hills that drops steeply into the Kairetos valley. On the other hand, the presence of Minoan harbour installations there is sufficiently explained if the villa and small settlement at Amnisos served such a purpose as that outlined above.

This brief review of nature scenes in Minoan wall painting shows that both religiously symbolic and purely secular decorative themes are represented, the latter being probably the more common. Where the paintings seem to refer to goddess worship, no more than three goddesses seem distinguishable, namely, the "Mistress of Animals", the "Goddess of Vegetation" and possibly a "Tree Goddess". Nature scenes from the palace at Knossos are almost lacking, although the "Saffron Gatherer Fresco" provides one likely exception to the rule.

But they occur regularly in private houses, as we shall see in greater detail in Chapter VI.

V. SACRIFICIAL SCENES

Two paintings, considered to be complementary in theme and to derive from the same suite of rooms in the palace at Knossos, show in the one section a bull following a Mycenaean "dual chariot" led by horses to the right (SLIDE 20) in a ceremonial procession which is leading to a two-storey shrine, represented in the other section, where a priestly figure of indeterminate sex sits in the upper storey on a folding stool, with a dagger or short sword in a scabbard slung over the shoulder, waiting to perform the sacrifice of the approaching bull (PLATE 51; priestly figure, A3) [42]. The type of chariot, the appearance of the charioteer, and the forthcoming bull-sacrifice, which recalls that of a bull in Tholos Tomb A at Archanes [43], strongly suggest this is a Mycenaean ritual. Other male figures were probably represented in the shrine scene, to judge by the fragment at PLATE 51 Ba with two priests or charioteers in front of the capital of a column of the ground floor storey of the shrine. Presumably, as this is a mural composition, the rites relate to the Divine Cult, for funeral cult scenes on the walls of the palace of the living would seem inappropriate. The size of the scenes suggest they may have decorated a small shrine on an upper floor of the palace, but such was the ancient dispersal of these fragments that it is uncertain where the shrine might have been situated. The majority of fragments, however, seem to have been found in the basement area a few metres to the south of the find-place of the Priest-King Relief Fresco (plan, Fig. 28, at 9); the back of the chariot, however, was found in the area of 21 in the same plan, while other pieces turned up in the fresco dump thrown out at a late date into the North Portico area (Fig. 28(18)).

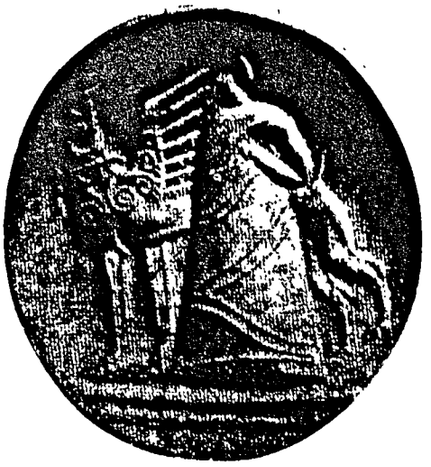
The sacrifice of deer at an open-air altar or shrine may be the subject of the scene at SLIDE 24, from Hagia Triada. The deer are

Fig.33



A

Seal, Knossos
(PM IV, Fig.336)



B

Seal, Vapheio Tholos
(PM IV, Fig.341)



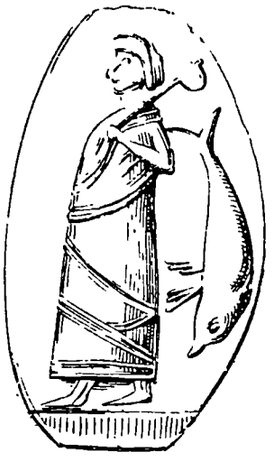
C

Seal, Knossos
(PM IV, Fig.342)



D

Seal, Vatheia
(PM IV, Fig.343a)



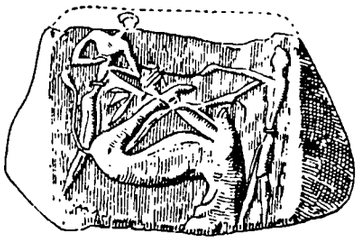
E

Seal, Knossos
(PM IV, Fig.343b)



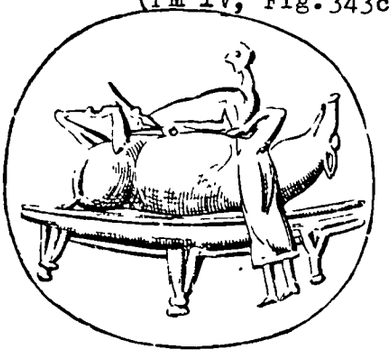
F

Seal, Vapheio Tholos
(PM IV, Fig.343c)



G

Clay sealing, H.Triada (PM IV, Fig.467)



H

Seal, Mycenae (PM IV, Fig.550)



I

Seal, Berlin Museum
(PM IV, Fig.542b)



J

Seal, Nat.Mus.Athens,
(CMS I, no.203,p.233)

Fig.33: Cloaked "priests"(A–F)
Animal sacrifices (G–J)

led on with halters round their necks by both men and women in long "Mycenaean" cloaks, and the altar could represent a country, or even peak, sanctuary of the "Mistress of Animals"; but this is uncertain, and an animal sacrifice may not be intended. All we can safely say is that the animals are "presented" to the divinity of the shrine or altar.

These scenes are not carried out in connection with funeral rites and so must refer to the worship of divinities. Who these were, we are not shown; but nature goddesses of some kind seem most likely. The various elements in these scenes and choice of subjects, with their close thematic connections with sacrificial scenes on late gems (Fig. 33) among which there is one showing an officiating priest likewise dressed in a long cloak (Fig. 33A), seem firm indications that we see here Mycenaeans and Mycenaean rituals. Similar figures also performing an ox-sacrifice appear on the painted sarcophagus from Hagia Triada, a monument we shall consider in section VII below. This, too, belongs to the Mycenaean period of prehistoric Crete (LM II-III A 1), A thematic connection between these pictures and those of the palatial festival cycle is not apparent, despite the processional elements in all of them, and we may suppose the frescoes discussed in this section refer to other cycles of ideas.

VI. FRAGMENTARY MURAL SCENES, NOTABLY OF A "MILITARY" CHARACTER

Here we include those compositions which are especially difficult to interpret because they are extremely fragmentary. The so-called "pavement game" on the "miniature" piece at Fig. 8, p. 54, is a case in point, for the reasons already given above (p. 62). Another problematical scene is represented by the fragment from Akroteri on Thera depicting the head of a Libyan (PLATE 196 A3-4). The palm-tree there could be one of a radiating group of three, but could they also signify a country scene with a shrine or altar to which the Libyan might be drawing near ? Is this a processional

scene, once depicting more Libyans ? At present, the chief importance of this piece lies in supplying further evidence for the multiplicity of races in the Mediterranean area in the Bronze Age.

This is true, too, of the "Captain of the Blacks" fresco fragment which shows a red-skinned "captain" leading a file of black-skinned Nubians armed with spears at a smart trot (SLIDE 10). The hairstyle, the form of kilt and the probable date of the painting (LM III A) suggest the leader represents a Mycenaean soldier who, like his Black troops, apparently has a black feather in his hair. The fact that Blacks are depicted here strongly suggests we have to do with mercinaries, not mere hunters, whom the Mycenaeans may have brought over from Egypt on the occasion of the visit of an envoy there. But why these troops are running, and where to, is not clear. This fresco is important not only because it shows Blacks in the Aegean Bronze Age world, but also because it is the only Minoan fresco yet known that might once have shown a truly military, perhaps a battle, scene and also because it supplies definite evidence for two spears in the hands of the "captain". This detail is important because of the debate on the number of spears carried and their use in hunting or war in Mycenaean times[44]. The fresco comes from Knossos, but it was found out of a Minoan context in a Hellenistic or Roman stratum above the House of the Frescoes(p.720(6)).

Several other fresco fragments, all from the palace at Knossos, show parts of Mycenaean "dual chariots" or pairs of horses which were probably once rendered drawing chariots. The dappled "dual chariot" at SLIDE 21 contains two women or goddesses, in pink and blue cloaks like the pairs of goddesses in dappled chariots on the painted sarcophagus from Hagia Triada (PLATES 149 and 151) and the pairs of female spectators in red chariots attending the boar-hunt in the famous frescoes from Tiryns [45]. Our scene, however, is too fragmentary to show us what the purpose of our figures may have been. Another chariot, attested by four red reins, seems to have been drawn by winged griffins like one of the chariots on the Hagia

Triada sarcophagus (Fig.53,p.459;cf PLATE 149). The two pieces at PLATE 62 show parts of the heads of pairs of horses, animals which in Aegean Bronze Age mural paintings as a whole invariably appear only when drawing chariots.

These fragments are chiefly important because they provide further evidence for the Mycenaean occupation of the palace at Knossos in LM II-IIIA and because they add a certain "military flavour" to the mural decoration at that time; but only one of these pictures seems likely to refer to a "war scene" (the Captain of the Blacks), for the remainder most probably depicted chariot processions in connection with ritual activities, to judge by the appearance of female figures in the chariots or griffins leading them and by available comparative scenes on other Minoan frescoes (e.g. SLIDE 20).

Finally, the many fragments of griffins discovered in the palace at Knossos present a problem (PLATES 130-131). Some indicate that the whole griffin was drawn in the usual profile view (e.g. SLIDE 40 and probably PLATE 130B and PLATE 131A and F4-5); but of the rest, only wing fragments are recognisable and accompanying head or body fragments usually seem to be missing. Whether this is merely an accident of preservation or whether we are to understand that only pairs of griffin wings went up on the walls - like the winged sun-discs above doorways in the Egyptian monuments - it is impossible to say. What is certain is that the griffin (or its wings) was one of the most popular motifs in the mural decoration of the palace, perhaps especially so in the Mycenaean period to judge by the late style of drawing of most examples.

VII. THE HAGIA TRIADA PAINTED SARCOPHAGUS: PLATES 148-151

Some account of this monument is desirable, for it presents a number of similarities to and differences from mural scenes in the houses of the living; moreover, it is our only example of fresco scenes in Minoan funerary art.

The scenes depicted on the sarcophagus are the most controversial of all known Minoan religious representations. Side A shows a group of women behind a priestess who stretches out her hands over a sacrificed bull on a table; behind the bull is a male flute-player, and in front of him another priestess blessing offerings at a low altar which stands before a sacred tree enclosure (PLATE 148). Side B shows two women in a chariot drawn by winged griffins, with a flying bird above (PLATE 149). Side C depicts women accompanied by a male lyre-player making libations between two double-axe stands on which birds are perched. Proceeding in the opposite direction are three men carrying calves and a boat towards another man in a long sleeveless cloak who stands between a tree and the façade of some building; this figure is widely accepted as representing the dead owner of the sarcophagus (PLATE 150). Side D, with two panels, shows a fragmentary procession of men above a goat-drawn chariot containing two women (PLATE 151).

Many interpretations of these pictures have been offered. Most, however, are unacceptable because they are based on analogy with later Greek ideas or rely on mistaken identifications of the birds in these scenes to suggest cults or beliefs otherwise unknown to the Minoan civilisation; and, as Nilsson says, "quot capita, tot sententiae" [46]. But three studies merit close attention as providing the most stimulating, and perhaps the most fruitful, lines of enquiry; these are by Paribeni (1908), Nilsson (1950) and Matz (1958).

Paribeni's primary publication of the sarcophagus emphasised the Egyptian character of many elements in the scenes, notably, how the "dead man" near tree and building (Side C) recalls the

conventionalised portrayal of the ceremony of "opening of the mouth" of the mummy outside the tomb of Osiris; and how the gift-bearers, musicians and slaughtered ox find ready parallels in Egyptian wall paintings. He thought the scenes portrayed episodes of actual funeral ceremony and also religious beliefs aimed at comforting the dead man on his journey to the other world, the various Egyptianising elements implying that the Minoans, too, may have called upon all their gods to aid their dead.

After his review of earlier opinions, including those of Paribeni which are summarised here, Nilsson broaches the basic questions as to whether or not the scenes should be interpreted singly or together as a coherent cycle of ideas; whether they refer to a divine cult, to a cult of the dead, or to both; and if to the latter, what account must be given to explain so unlikely a fusion. He concentrates in fact on the "cult" issue; it is not until Matz's study that a convincing account of the order and the connections of the scenes emerge, to indicate how many picture-cycles we are looking at and which may be the most important.

Nilsson maintains that the scenes relate to both the divine cult and the cult of the dead which are united to indicate the deification of the dead owner of the sarcophagus and his consequent worship in the forms of the divine cult. This conclusion is reached as follows [47].

The pictures decorate a sarcophagus and presumably concern the owner, his cult and his after-life or fate. The cult of the dead is most clearly seen on Side C with the processional figures bearing gifts of calves or models of calves and of a boat to a male figure, closely wrapped about in a long sleeveless cloak, who represents the dead owner of the sarcophagus appearing to the eye of the imagination (PLATE 150). That he is deified, and so appears in imagination, is strongly suggested by the Egyptianising features here, in particular by the fact that the gift-bearers wear garments made from animal-skins, as if corresponding to two Egyptian classes of priest, similarly clad, who officiated in the cult of the dead

and in the procession of the barque which carried the deified king into and through the world of the gods. The divine cult is also indicated by the double-axe stands and birds symbolising divine epiphanies, and as the bull-sacrifice is carried out in a ritual where these features are most prominent we may take it the sacrifice, too, is part of the divine cult (PLATE 148). The scenes therefore do not show funeral ceremonies, as Paribeni thought, but how the deified dead man was worshipped afterwards. Thus, Nilsson believes, the idea of deifying the dead, somewhat poorly understood, has been borrowed from Egypt and this "has caused a superimposition of the divine cult upon the cult of the dead with some Egyptianising details". The pictures on the short sides of the sarcophagus refer to the apotheosis of the dead man who in one picture, grey-faced and tightly wrapped about in his "stole", is carried in the company of a goddess in a griffin-drawn chariot to the upper world of the deities (PLATE 149); here a bird, symbolising a divine being, accompanies the chariot on its journey. On the other side we see two goddesses in a "horse"-drawn chariot representing part of the stately cortège escorting the new god (PLATE 151). At this point, Nilsson goes a crucial stage further (op. cit., pp. 440-443).

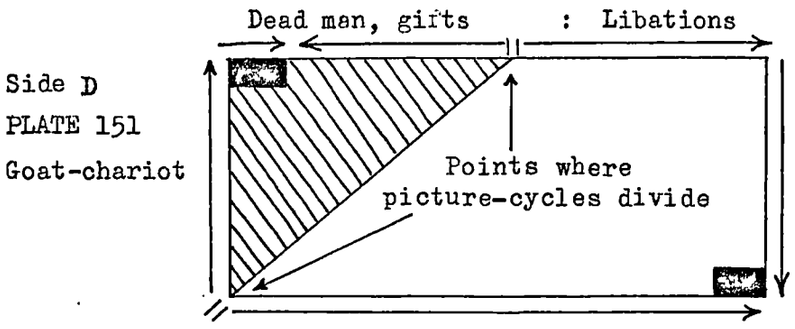
He remarks that the Minoans even at the height of their civilisation cared little for their dead, whereas by contrast the Mycenaeans provided rich gifts and elaborate tombs. The sarcophagus was painted in LM II/IIIA at the time when Mycenaeans were in control of Knossos and the island. The fusion of the cults in these scenes and misunderstandings of Egyptianising details may be explained if we suppose Minoan artists on the orders of a Mycenaean prince at Hagia Triada or his retinue were required to depict Egyptianising Mycenaean funeral customs and beliefs relating to the cult of the dead; but the Minoan artists, lacking precedents for funeral paintings, resorted to forms they knew, namely, those of the Minoan divine cult and thereby put a Minoan guise on the Mycenaean cult of the dead. In that case, all the

fundamental difficulties of these scenes can be coherently explained, although it must be noted that the idea of man's deification, whatever its origin, is contrary to the ideas of the historical Greeks.

Matz agrees with Nilsson insofar as the scenes appear to relate to both the divine cult and the cult of the dead; but he puts forward a different interpretation, based on his determination of the order and extent of two scene-cycles which comprise the pictures on this monument, and offers some important criticisms of Nilsson's views [48]. Because Nilsson has not recognised the arrangement of the scene-cycles, his interpretation of the pictures on the short ends of the sarcophagus breaks down; and in any case his view that the pictures express the apotheosis of the dead man is invalidated by his assumption that the dead man was a Mycenaean which, in turn, is founded on an idea of the Mycenaean cult of the dead that is no longer accepted. Moreover, fresh cleaning of the painted scenes by Professor Doro Levi in the 1950s [49] shows that the "grey-faced" man at PLATE 149 is certainly a female figure with a white skin-colour, and that above the chariot scene on the opposite end of the sarcophagus there was also a procession of male figures which it is most important to take into account (PLATE 151).

Matz suggests there are two scene-cycles here, each pivoting on an architectural focal centre (a shrine in the one case and a "tomb" in the other) and each continuing on at least two faces of the sarcophagus. The longer series includes the whole of the sacrifice side, A, the short Side B, and the first part on the white ground of the opposite long Side C; the direction of the figures in this group of pictures makes the temenos with the sacred olive-tree and adjoining double-axe stand the pivotal point in the ensemble. The rest of Side C and the short Side D, whose various figures proceed towards the "dead man" and his tomb, make up the second pictorial cycle. The following sketch, after Matz, op. cit., p. 401(21), illustrates this arrangement of the scenes, the arrows showing the direction of movement of the figures:

Side C: PLATE 150



Side D
PLATE 151
Goat-chariot

Side B
PLATE 149
Griffin-chariot

Side A: PLATE 148

Bull-sacrifice

The symmetrical arrangement of buildings in diagonally opposite corners and of chariots on both short sides strongly points to careful planning, with the longer picture-cycle decorating the front Side (A) and head-end of the sarcophagus (Side B). The diagram also emphasises Matz's contention that the scenes on the short sides should be brought into closer connection with those on the long sides than Nilsson thought.

In the first scene-cycle (sides A, B and part of C), Matz notes for good reasons that the olive tree in its temenos on Side A and the nearby double-axe surmounted by a bird symbolising the epiphany of an attendant deity imply a divine cult, the actions of the priestesses at the small altar and bull-sacrifice being to summon the two goddesses in the griffin-led chariot on Side B to appear. The goddesses come in answer to the ritual bloody sacrifice, whereas the bird above that chariot answers to the more symbolic, unbloody rite enacted by the priestess at the small altar. The bull's life-blood pours out into a small pail - a detail which suggests a link with the left half of Side C. There two priestesses make libations using the same type of pail (carried in pairs slung on a pole over the shoulder), pouring the contents - perhaps the bull's blood - into a large krater standing between two double-axe stands surmounted again by birds. All these features are common to the divine cult (cf PLATE 14B) and so confirm that the scene on Side A refers to the divine cult also.

In the second picture-cycle, on the rest of Side C and Side D, we see two men carrying calves which Matz maintains are not models

(like the boat) but sacrificial animals whose slaughter in the cult of the dead will summon the goddesses in the goat-drawn chariot on Side D, the foot end of the sarcophagus (PLATE 151). Thus there is a thematic link with the first pictorial cycle, for both series of pictures clearly refer to Minoan belief in the epiphany of deities and show how it was ritually achieved. The dead man, standing outside his tomb, is to be understood as being with the gods who allow him to return to the world of the living; indeed, the gods even come to see things for themselves. Matz concludes that the scenes depict the ritual summoning of the dead who appears under the protection of the gods; the cults appear to be purely Minoan in form; and it is possible that the Temple Tomb at Knossos, for example, with its two-floor construction, signifies a real link in Minoan practice between the cult of the dead (carried out on the ground floor and inside the tomb) and the divine cult (carried out in the open-air upper storey). It would also seem no coincidence that on the sarcophagus the dead man's tomb should correspond to the tree-enclosure on the opposite side.

Crucial to either Nilsson's or Matz's interpretations, however, is the question of the identification of the figures participating in the scenes and of the birds, and possibly also that of the responsible artists.

To judge by hairstyles ("medium" and "cropped") and garments including the long forms of kilt and cloak, the majority of the people represented here are Mycenaeans (v. Chapter XI), although the figures in animal-skin kilts wear a Minoan garment but have "Mycenaean" hairstyles - and so may be counted Minoans or Mycenaeans; but they are in a minority (five out of fifteen) and most are brought into one scene only, on Side C. For those reasons alone we may suppose the rituals to reflect Mycenaean taste or custom, even though some outward forms may look Minoan. Consideration of the birds brings this point home, for they are not the dove-like birds we are accustomed to associate with the Minoan

divine cult and double-axes. The most important criteria, posture and silhouette, unquestionably indicate a raven on Side A, two hawks of some indeterminate kind on Side C, and a composite bird on Side B possibly inspired by real birds of the vulture family "surcharged" with the crest of the mythical Minoan griffin (p. 96). These birds are scavengers or predators and therefore, against Matz, one could expect these birds, not the goddesses, to answer to the bloody sacrifices and libations depicted on the sarcophagus. In other words, there is something un-Minoan about the <u>forms</u> ostensibly relating here to the Minoan divine cult.

The issue concerning the artists who painted the sarcophagus is equally confusing. They are truly familiar only with "Mycenaean" forms of hairstyle, depicting the Minoan forms either as absurdly long or as anatomically unconnected red decorative additions - thereby breaking a traditional Minoan colour-convention in the process (p.55); either the artists are Mycenaeans or they are confused Minoans who, for reasons no longer clear, were no longer able to drawn Minoans accurately. In either case, the implication is that the scenes may be thematically more unreliable than has hitherto been supposed. For these and other reasons, however, the way is open for a new interpretation of the scenes under discussion, one which combines a number of features of the interpretations of both Nilsson and Matz.

Matz's views on the number and extent of the picture-cycles on this monument are accepted as our starting point. Now whether or not the scenes relate to a divine and also to a funerary cult, there are good reasons to believe the activities depicted on both long sides refer to Mycenaean rituals (PLATES 148 and 150). Bull sacrifices first appear in Minoan art in LM II-IIIA when the Mycenaeans were already in control of the island, and at the same time they are commonly portrayed on gems on the Greek mainland. Those officiating at such sacrifices always appear in non-Minoan, presumably Mycenaean, forms of dress (v. Chapter XI). Moreover, the only certain bull sacrifice yet know in the Minoan archaeological

record is that of an animal, apparently decapitated in the course of a ritual to block the entrance to an undisturbed LM III A side chamber in a Mycenaean type of tomb (Tholos Tomb A) at Archanes [50]. In view of this discovery, if Matz is right to interpret the calves on Side C as sacrificial animals rather than as carved models (like the boat nearby), then a fortiori the dead man's "tomb" would seem to be the entrance to a Mycenaean tholos tomb, as indeed comparison of the spiral decoration at the entrance of the tholos tomb at Prosymna might further suggest (p.73). But models of calves, not live animals, are surely depicted here, to judge from the way they are held. In that case, we have another Mycenaean trait as Nilsson observed, namely, the placing of rich gifts in the tomb. Thus, however we consider these details (with due allowance for their Egyptianising character), a connection here with Mycenaean ritual and custom, in particular at tholos tombs, seems apparent.

If this is so, the scenes presumably refer to actual funeral ceremonies and religious beliefs, to fortify the dead person on his transition to the other world, engaged in at the time of burial; for only then were such activities as we see on the sarcophagus carried out at tholos tombs. In this view, the scenes cannot tell us whether or not the dead man was deified or was the object of a hero cult or was commemorated in any other such way. Certainly he appears to the eye of the imagination, but this may only be because it was believed he would watch the ceremonial deposit of gifts in his tomb. The boat seems clearly intended to transport him in the other world, and the only valid conclusion we may draw from this is that the dead man was thought to live beyond the grave: it tells us nothing of his relationship with the gods portrayed in the adjacent scenes. Why, then, should they appear ?

It may be that they come in answer to other funerary gifts and to the sacrifice and unbloody offerings, and libations, too, which we see in other scenes on this monument, arriving perhaps in a processional cortège which includes a file of men in Mycenaean kilts (PLATE 151). Their purpose evidently is to partake of these

offerings and no doubt to escort the dead man to the other world. The birds perched on double axes may represent the goddesses at the bloody offerings, since they are all birds of prey or scavengers, while the deities are shown in human form in the chariots because they answer to the unbloody offerings of goods in the tomb, in the one case, and of baskets and bowls of food and drink at the altar near the olive-tree temenos in the other.

This interpretation supports the widespread view that both a funeral cult and a cult of the gods are represented in these scenes, but it is possibly unnecessary to believe they represent unconnected cycles of ideas - even among Mycenaeans. An important feature of the shaft grave burials at Mycenae was that funerary meals and libations took place in the course of filling in the shafts after the internment of the bodies [51]; and we now have the evidence from Archanes for an ox-sacrifice carried out at the burial of a princely person in a Mycenaean tholos tomb. The difficulty, in the present view, comes not with a general "Mycenaean" interpretation of the events as such, but with the presence of some figures in Minoan forms of dress, one of whom, a priestess, is depicted in a scene with all the outward forms of the Minoan divine tree cult (PLATE 148, right side). But one explanation for this fusion of forms may be historical, insofar as a strong Minoan influence on the religion of the Mycenaeans in the period of their occupation of Crete could reasonably be expected, for even at an early date the Mycenaean religion owed much to the Minoan.

In conclusion, the present interpretation accepts Matz's analysis of the order and arrangement of the scenes, but comes closer to Nilsson's understanding of the themes as reflecting Mycenaean rituals with both a Minoan and an Egyptian veneer. The latter characteristic receives further corroboration if our identification of the composite bird above the griffin-drawn chariot as a vulture with a Minoan griffin's crest is correct. The rituals, however, take place at the time of burial of the dead man but do not serve to prove that the dead man was deified or was the object of a hero-cult. One further point deserves noting: only two

anthropomorphic deities, both goddesses, seem identifiable in these scenes, a circumstance we have already noted in the case of Minoan mural paintings.

We shall now consider how various types of Minoan building were decorated and with what kinds of scene.

Notes to Chapter V.

1. MMR pp.396-412 (pp. 389-396, for general discussion and references).

2. Opuscula Atheniensia VI (1960), pp.91-97 (especially pp. 94-96). Furumark proceeds to identify the names of Minoan deities which he asserts are listed in Linear A documents: but it is arguable that this script has yet been deciphered accurately enough for that purpose.

3. Documents in Mycenaean Greek (1959) pp.127 and 310f (tablet KN 206=Gg 705). Eileithyia is also mentioned on "wool" tablets (Od 714-716). Odyssey Bk. XIX v. 188. For further discussion of this goddess and her cave, see Marinatos Praktika (1929), pp. 94f and Ibid (1930), p. 91; BCH LIII (1929), p. 520; AA (1930), p. 156, and also Nilsson MMR pp. 58f, 73, 518-523 and 624n.18.

4. Vol.IV, E, pp. 65-67 and Fig. 8.

5. Matz Göttererscheinung und Kultbild im minoischen Kreta p. 388f, and Furumark Opusc. Ath.VI (1960), p. 91f.

6. It is unnecessary to follow Evans's siege interpretation (PM III, p. 81f). The similarity of the "hand" that painted these pieces and also the Sacred Dance Fresco is briefly noted at Vol. IV, E, p. 76 no.16 (see, too, Chapter IX below).

7. Notably, Nilsson (MMR p. 410).

8. As Evans first noted (PM III, pp. 307 and 313); for a good photograph of replica shields over the spiral band, see Crete and Mycenae Pl. 39 (lower).

9. Cf. the bodies of two partridges "cut off" by rockwork bands (PLATE 86B); also the position of a harvester on the stone bowl from Hagia Triada who, instead of stumbling, may simply be on a lower level (Mon.Ant. XIII (1903), Pls. 1-3 and Crete and Mycenae Pl. 105, in centre of lower photograph.).

10. PM II, p. 783; S. Alexiou AAA B' (1969), pp. 429-435.

11. So, too, Evans in his discussion of the chryselaphantine "Boston Goddess", a crowned girl bull-leaper (PM IV, p. 38ff); the fact that this object is a suspected forgery need not invalidate the idea.

12. J. L. Caskey Archaeology 15(4) (1962), pp. 223-226; Hesperia XXXIII (1964), pp. 328-331 and Pls. 55c, 57-61; Ibid XXXV (1966), pp. 369-371 and Pls. 87-89.

13. Vol. IV, C, pp. 49-51. The surviving pieces hardly allow restoration of a satisfactory order of the figures and at least six different arrangements of them could be put forward.

14. See Vol. IV, G, pp. 338-340 and Figs. 6 B-C and 11.

15. Pylos II, Pls. 125-126 (nos.44 a and b H 6). The Cretan gems depicting similar scenes all appear LM II-III A in style (e.g. Fig. 20B and Fig. 31E).

16. One reason for this misguided view may be the artist's adherence to the convention of drawing heads in profile, which must make all look in one direction or appear to be in conversation - which is the case here; but this is no reason

for putting the interpretation in question on these figures.

17. See, for example, A. J. Evans "The Mycenaean Tree and Pillar Cult" (JHS (1901)) and A. W. Persson's The Religion of Greece in Prehistoric Times (Sather Lecture 1942). But there is no general agreement on details in this connection.

18. See, in this connection, PM II, pp. 28,260 and PM III, pp.205, 450; on a western Asian origin for bull-grappling, see PM IV, p. 23.

19. Hood (review of The Palaces of Crete by J. W. Graham) in AJA 68 (1964), p. 309. For a possible site, v.Warren in The Times 8 February 1974: location claimed at S-W end of Royal Road.

20. The Palaces of Crete, Chapter IV, pp. 74ff.

21. Antiquity XLII (1968), pp. 117-122.

22. So, too, Branigan (The Foundation of Palatial Crete (1970) p. 110).

23. A conclusion reached independantly by Professor Denys Page, as he kindly informs this writer.

24. Arrest and Movement pp. 208-209.

25. BSA XXIV (1919-1921), Pl. VII nos. 4-6 (Mycenae); Pylos II, Pl. 124 and Colour Pl. C (no. 36 H 105); Schliemann Tiryns, Colour Pl. XIII (Rodenwaldt Tiryns II, Pl. XVIII); and Bulle Orchomenos I, Colour Pl. XXVIII no. 8.

26. Page's view have been put forward in two lectures, as yet unpublished, in Cambridge and London.

27. Op. Cit. p. 209f. Against Evans, Graham and Ward.

28. Minoica p. 334ff.

29. PM II, p. 808; see, too, JRIBA XVIII (1911), pp. 289-293.

30. Branigan in Studi Micenei ed Egeo-Anatolici VIII (1969), pp. 28-38 (summary on p. 38).

31. Evans found fresco fragments of life-sized female figures(? from a processional scene), some perhaps holding madonna lilies in their hands, in a firm MM III context below the stone paving of the Corridor of the Procession (see Appendix A, p.674 for details).

32. PM II, plan of upper floor (AC p. 185, Fig. 31); Graham The Palaces of Crete pp. 180-189 for a useful summary.

33. Next to or even inside the "North West Corner Entrance" (PM III, Plan C; AC p. 185, Fig. 31). Some doubt a stairway at this point, notably Graham. There was, it seems, a collapse of the upper storey over the magazines early in LM III A 1 which was made good, and redecoration followed, shortly before the final destruction in LM III A 1/2 (early). On worked stone and other material from that collapse, see Warren in BSA 62 (1967), pp. 195-201.

34. Ibid. p. 197f.

35. PM III, pp. 522ff and Fig. 366 (a conjectural drawing of the goddess's head).

36. J. Raison Le Grand Palais de Knossos, Pl.CLXXV (top). This photograph suggests Fyfe's intervention of a wooden beam between the fresco and the gypsum slabs below, in his sketch in JRIBA X (1903), p.111, Fig. 7, could be mistaken, if, indeed, the reconstructed original fresco section was put back on its wall in the exact position where it was found.

37. Marinatos, Praktika (1932), p.92; Nilsson MMR pp.65f, 73, 395, 458.

38. The unpublished relief fragment, mentioned in BSA Suppl. Paper No.1, p.148, has recently been rediscovered in HM by Bernd Kaiser, to whom the present writer owes his information.

39. As yet unpublished, but reported by Marinatos in public lectures and newspaper interviews; the fresco is currently being put on exhibition in the National Museum, Athens. (Thera IV,Pl.114)

40. Vol.IV,F, pp.19-22 and Figs. 10 and 13.

41. N. Platon, KChr. A (1947), pp. 505-524 and Colour Pl. KΘ opp. p.512, conclusively disproving Evans's restoration of the "Saffron Gatherer" as a blue-skinned boy (PLATE 85A); but many scholars had previously doubted the "boy" interpretation, and Piet de Jong had made an earlier restoration of the figure as a monkey which was not published, however, until 1965 (Interconnections Fig. 103).

42. Vol.IV, G, pp. 330-343, especially pp. 338-341.

43. Sakellarakis Kadmos 4 (1965), p.178f.

44. Two spear-shafts are certainly seen here, against A. M. Snodgrass Early Greek Armour and Weapons, p.115 and R. Hope Simpson and J. Lazenby The Catalogue of the Ships in Homer's Illiad (Oxford 1970), p.2f and n.29. On the present subject, see, too, G. S. Kirk The Songs of Homer (Cambridge 1962), pp. 183-188.

45. Tiryns II, Pl.XII; a second chariot with similarly dressed and coloured women inside is exhibited in the National Museum, Athens.

46. MMR pp. 337ff and 428-433.

47. Ibid. pp. 433-440.

48. Göttererscheinung und Kultbild im minoischen Kreta pp. 398-405.

49. Archaeology Vol. 9, No. 3 Autumn (1956), "The Sarcophagus of Hagia Triada Restored", pp. 192-199.

50. Kadmos 4 (1965), p.178f.

51. For a recent popular account, G. E. Mylonas Mycenae: A Guide To Its Ruins And Its History (Athens 1970), p. 20.

CHAPTER VI

ARCHITECTURAL ASPECTS AND SCHEMES OF DECORATION

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CHAPTER VI

The Problems

The representational and aesthetic appeal of the frescoes has tended, not surprisingly, to overshadow consideration of the influence of architecture on the positions, extent, themes and distribution of the paintings. The mural decoration, for all its brilliance, was only the finishing touch to Minoan architectural achievement; the functional and religious purposes of the architecture were merely brought alive and made immediately apparent by the nature of the decoration on its walls. Thus, although the two disciplines go hand in hand, it is right that the study of Minoan architecture should have been given pride of place. Yet existing accounts of the relationship between the architecture and its mural decoration are few and summary; indeed, the fragmentary condition of the fresco material, rarely found *in situ*, its only partial publication, and the erosion or collapse of architectural superstructures at almost every site, have presented substantial obstacles to deeper enquiry. But many questions on the present topic arise, as Graham has already made clear in his section on mural painting in his book, *The Palaces of Crete* (p.200):

> "What rooms in the palaces and houses were adorned with figure scenes, and was there any appropriateness of scene to room? How were the paintings fitted into the scheme of the wall as a whole? What sort of wall decoration was used in rooms of lesser importance?

And furthermore, which was the more characteristic physical form of Minoan wall painting, the frieze or "panels"? Were the palaces, villas and houses painted in a thematically systematic way, or did different rooms or floors have unrelated themes or types of decoration? What similarities and differences are there between the frescoes of town houses, villas and palaces ? And how do the palaces of Phaistos, Mallia and Kato Zakro compare in this respect with the palace at Knossos? Were tombs ever stuccoed and painted, and with what sort of decoration?

Fig.34

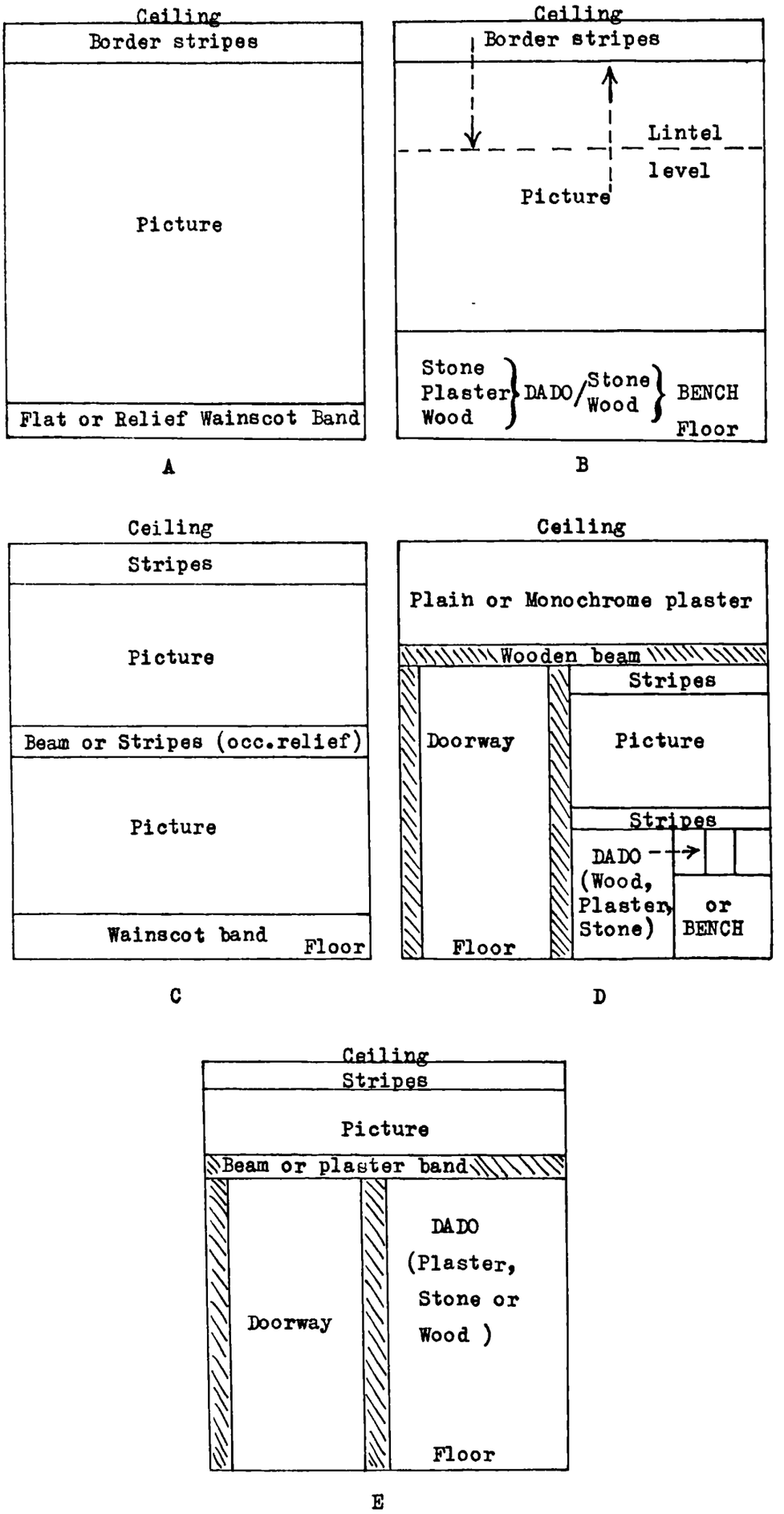


Fig.34: The positions of frescoes in the wall-scheme

A first consideration, since it arises whatever the architectural class of building, is that of the immediate influence of architecture on the location of the paintings in the wall-scheme, on their extent as friezes or panels, and then the treatment of ceilings and floors.

Positions in the Wall-Scheme: the Vertical Dimension

Minoan architecture uses only vertical and horizontal planes, as many surviving structural features show.(1) Domed roofs and ceilings, arched doorways and curved apses are absent throughout Minoan architectural history, with a few rare exceptions such as the curved north east corner of the Throne Room System at Knossos. Consequently the painted friezes and panels are always rectangular, for their positions in the wall-scheme were governed by two main factors only: (1) horizontal constructional features in the wall-face between floor and ceiling, and (2) the scale of representation required. The latter depended in turn on whether the artist wished to take such features as cross-beams in the timber framework into account: sometimes he covered these over with plaster, especially if a grand scale of drawing was wanted. The purpose of rooms and their size might also influence what scale of drawing was chosen, as well as what was actually depicted; but a small room (e.g. Room 14, Hagia Triada: SLIDE 54) did not always mean a small scale of representation. As a general rule, however, the larger the room and the more significant its function, the larger and more significant the painting - and the more carefully it was carried out. It is a general truth that the more important Minoan frescoes belonged to upper storeys (although there are notable exceptions), for the basement rooms were mostly stores, magazines, minor offices or workshops. In this respect, the palace at Knossos, with its large-scale figured frescoes in rooms and passages on the ground floor, is exceptional.

Fig.35

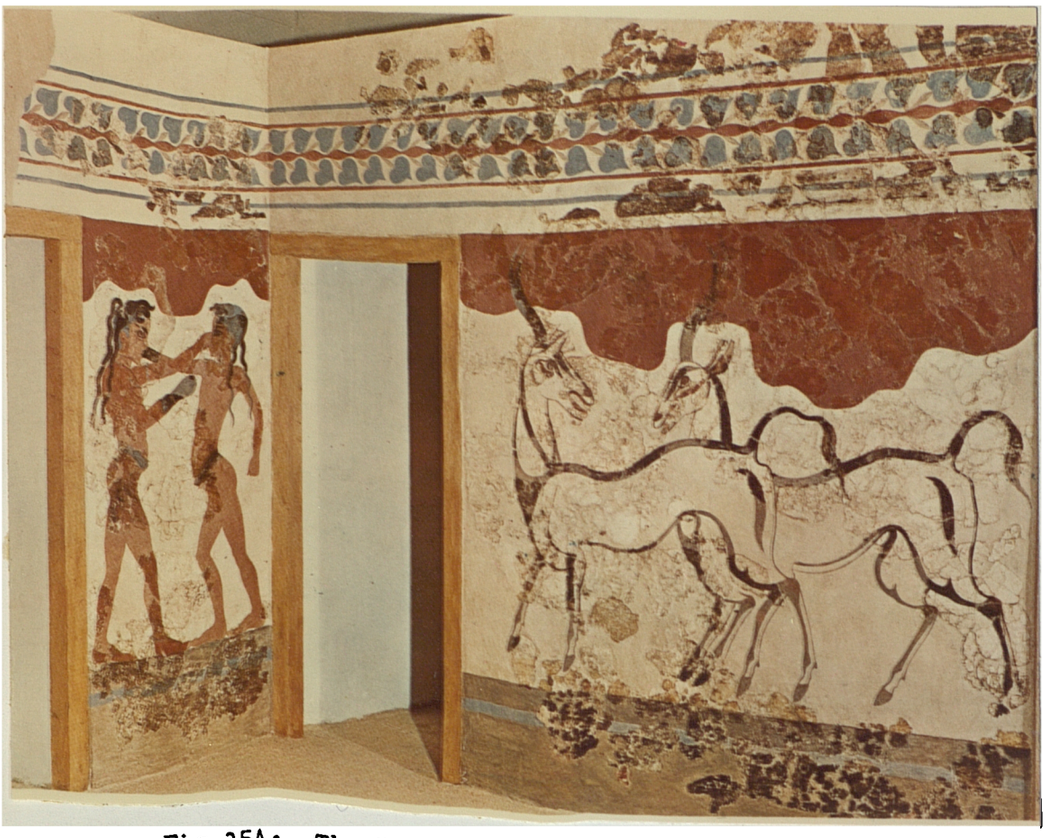


Fig.35A: The "Boxing Youths" and "Oryx Beissa" frescoes from Thera (from Thera IV,(1971),Col.Pl.D)

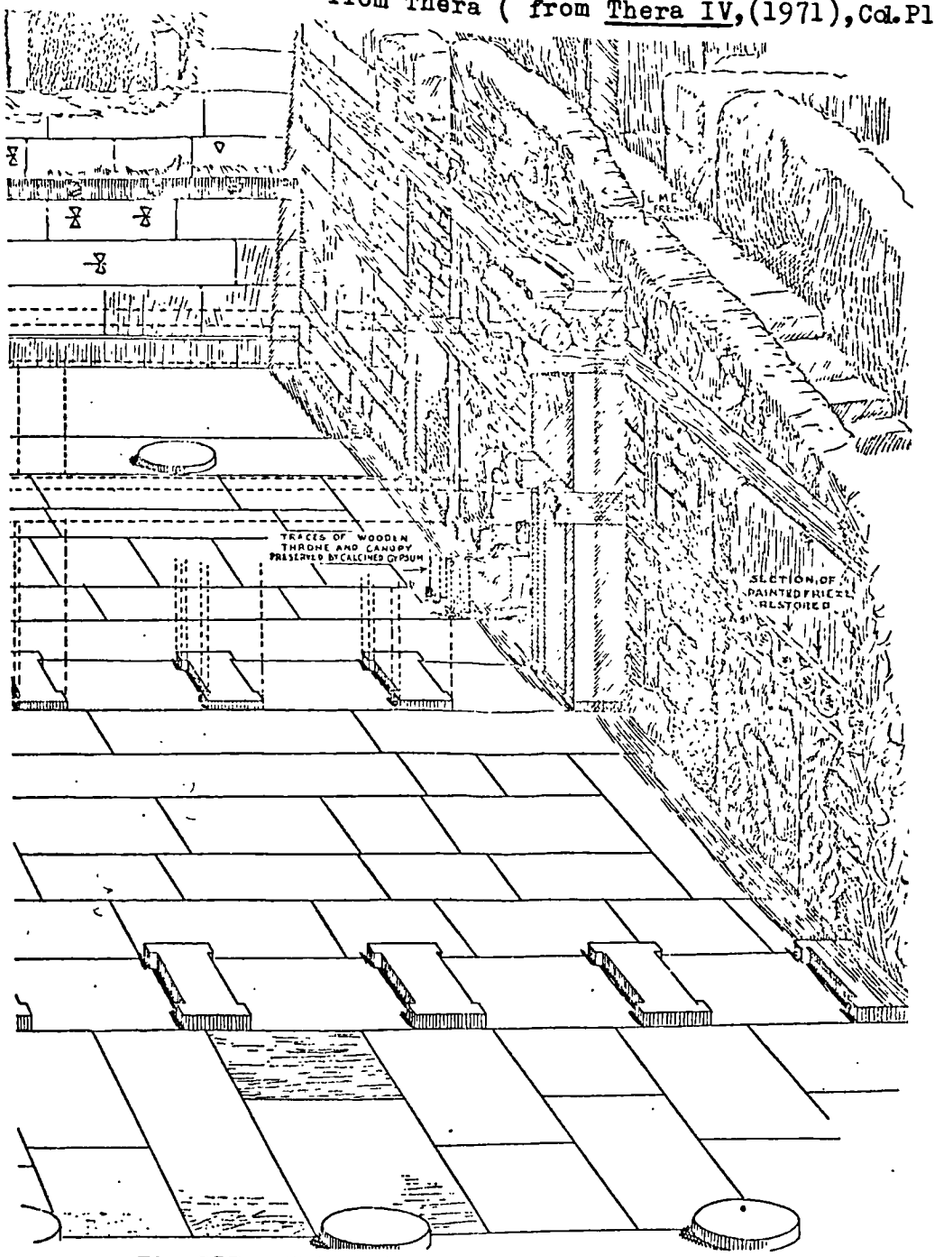


Fig.35B: Hall of the Double Axes at Knossos (after PM III, p.339, Fig.225)

A survey of the better preserved murals reveals five main positions in the wall-scheme, diagrammatically illustrated at Fig. 34. In position (A), the painters use the entire wall-face for very large, "monumental" compositions. The pictorial zone of the fresco generally lies between a low painted plaster wainscot (10-20 cm deep), sometimes executed in low relief, and a series of upper border stripes such as are invariably present at the top edge of all types of mural. On present evidence paintings of this class are known from the palaces at Knossos and, in a single instance, at Phaistos.(2) In position (B) we also find large-scale compositions, but they are distinguishable as a group from those in position (A) by a notably deeper dado area. This is designed to raise the scene above the level of low stone or wooden benches or dadoes built into the wall structure- and also above painted dadoes imitating others in stone or wood. Paintings of this class are more widely distributed and probably included large-scale relief or "flat" figures in frescoes adorning the sanctuaries of private town houses, for there are reasons to think such rooms would have been lined along at least one wall with benches for votaries to sit on.(3) Exciting new frescoes from a town house at Akroteri on Thera illustrate this arrangement admirably (Fig. 35A).

The arrangement of paintings in position (C) is not definitely attested in the archaeological record, but at least three compositions from the palace at Knossos suggest a large wall-face would be divided into two registers by painted or moulded bands or by a horizontal beam of the timber framework half-way up the wall, the lower register with or without a low wainscot band. Human figures in each register would be drawn on any scale between two-thirds and life size. Evans thought this arrangement was adopted in the South Propylaeum at Knossos into which the procession scene from the Corridor of the Procession evidently continued:

certainly the walls of the South Propylaem were high enough to take two registers of life-sized figures of the "Cupbearer" class, to judge from the size of the massive bases there for columns supporting the ceiling or roof.(4) The restoration of a processional scene on the Grand Staircase comfortably fits figures two-thirds life size into the lower register which may have been divided by painted bands from an upper register at a point where a wooden beam once existed half-way up the wall; figures of the same scale would fit equally well in the upper register (SLIDE 44). A similar arrangement seems likely in the case of the relief griffins at PLATE 132, to which painting also belongs the fragment at PLATE 136A with bases and capitals for columns or pillars below and above the central bands - a firm indication of two registers. If both were much the same height, then the overall height of the composition including border bands and a low dado or wainscot would come to at least 2.6 metres, the average height of a Minoan room. Since two of these paintings show processions, this treatment of the painted wall-face may have come to Crete from Egypt where processional scenes in several registers up the wall-face were common from the earliest times (e.g. PLATE 201A).

Position (D) was adopted for paintings of a more intimate scale of drawing than those already considered, which were designed to fit between a tall dado and the line of lintels at doorways, and to be viewed for their fine detail at convenient eye-level by the standing onlooker. The overall height of such paintings mainly ranges between 60cm. and 1 metre; and human figures for example, are drawn on any scale between true "miniature" (6cm high) and one-quarter life size (about 45 cm high) in paintings about 75cm high. The horizontal border impressions of such paintings suggest most of them were set between a stone or wooden dado and a horizontal beam continuing the line of the lintel; this was certainly the position of the important pictorial zones but some scenes were evidently set above a tall painted stucco area which continued to floor-level (e.g. the myrtle composition

at SLIDE 34). A great many Minoan frescoes belonged to this position in the wall, to judge from the scale of representation and border impressions (v. Chapter VIII); and among them it is probably right to include all true "miniatures". If set above the line of the lintel, the details would become barely visible. Spiral friezes might also occupy this position, as the fresco found in situ in the Queen's Bathroom at Knossos (Fig.36B,p.208) and the band in the Shield Fresco (PLATE 63A) suggest very clearly(5).

Lastly, some paintings were set above the line of the lintel, in position (E) at Fig. 34. Certainly placed in that position were the Partridge Fresco from the Caravanserai at Knossos (Fig. 13; PLATE 86), the spiral relief frieze from Room XXIX of the palace at Kato Zakro which retained the rectangular impressions of ceiling beams along its upper border (v.Chapter VIII and Fig. 39A), and also the fine ivy band in a room with differing main scenes in a house at Akroteri on Thera (Fig. 35A). A height of about 60 cm was probably near the limit for a painting in this position, between lintel-level and ceiling, for the interval seems rarely to have exceeded this distance except in the largest rooms of villas and palaces(6). But the height could perhaps be less, to judge by the two Flying Fish friezes from Phylakopi, measuring 31 and 22 cm. high respectively, which might also have belonged there. So, too, with a spiral band which Evans attributed to the Upper Hall of the Double Axes in the palace at Knossos, for it has an overall height of only about 22cm (PM III, p.295, Fig.193).

We have little information on painted stucco decoration of minor features in the wall-face. Artists' impressions of rooms at Knossos suggest rows of large rosettes were often painted on the upright posts and on the lintels of doorways - but in fact no fresco evidence from Crete yet attests this (7).

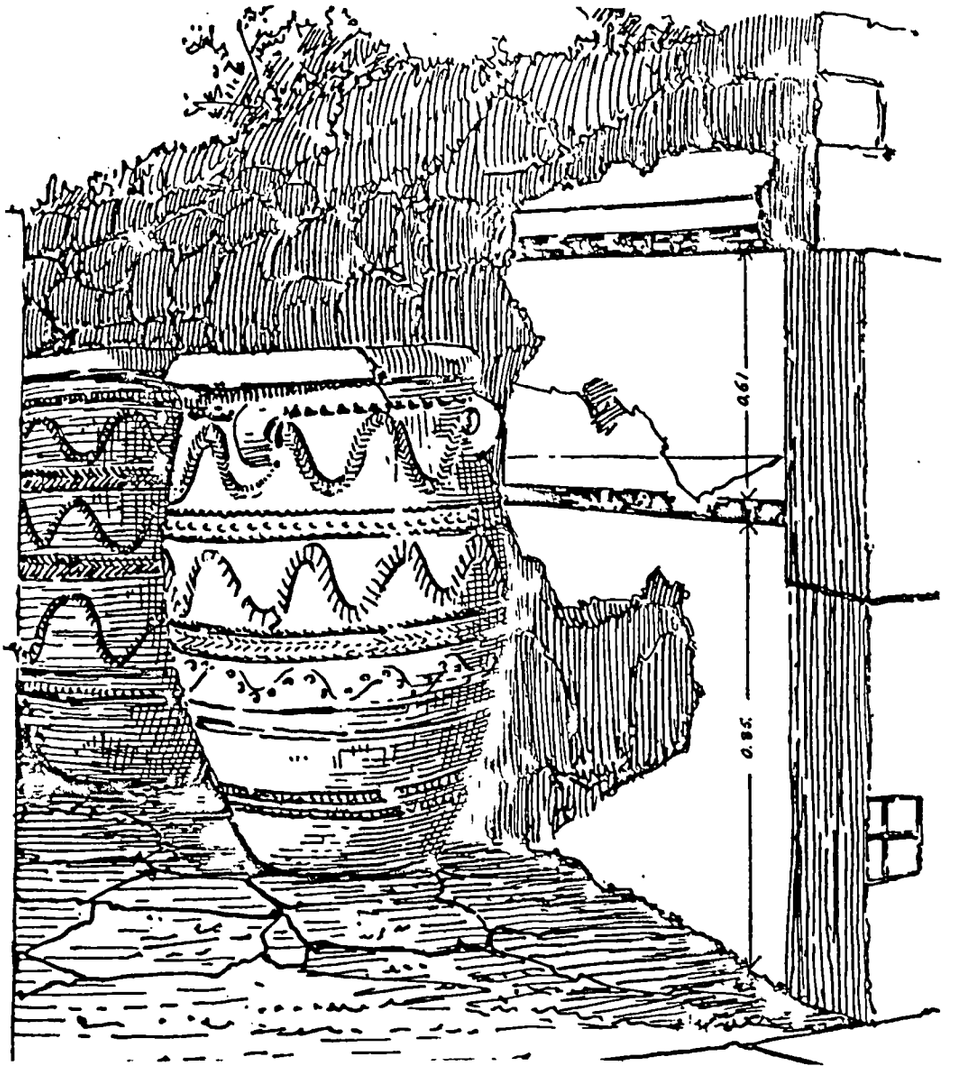


Fig.36A The plaster dado in situ in West Magazine XII
(from PM IV,p.649, Fig.634)

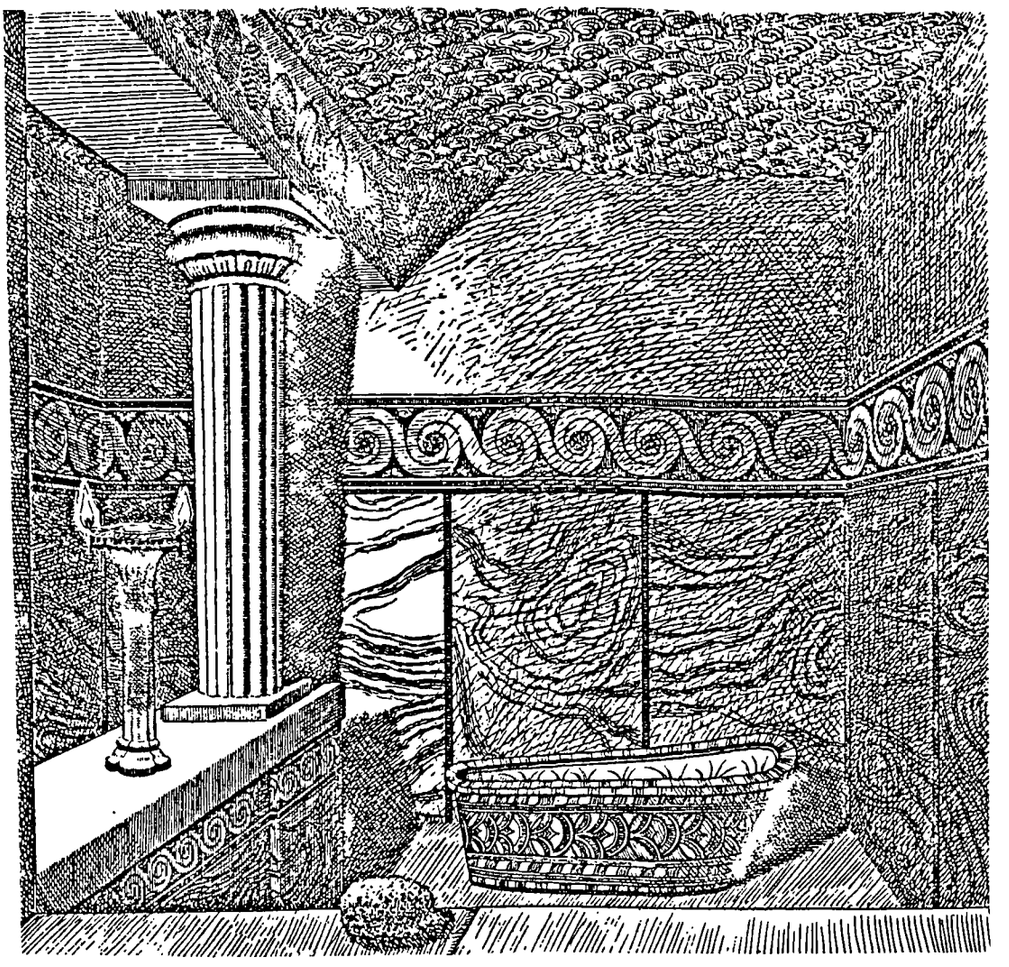


Fig.36B Evans's restoration of the Queen's Bathroom decoration
(from PM III, p.384, Fig.255)

The Horizontal Dimension: Friezes and Panels

Just as the positions in the wall-scheme of the frescoes were largely determined by horizontal constructional features, so their extent around the walls of rooms and passages was determined by the presence or absence of vertical constructional features interrupting the continuity of wall space - for instance, doorways, windows, low balustrades, and vertical beams in the timber framework. Problems that arise are whether the more characteristic form of Minoan wall decoration was the continuous frieze, an arrangement of interrupted friezes, or a series of separate "panels"; and whether or not, in the case of panel decoration, the separate scenes formed a thematically coherent unity in the room decoration as a whole. We can only broadly generalise on these issues, for few paintings are preserved to an adequate length and many others are too broken in character to be decisive.

The continuous frieze was certainly popular in Minoan wall painting. Our three compositions unquestionably from position (E) between the lintel-level and the ceiling, from the Caravanserai (Fig.13), from Kato Zakro (Fig. 39A) and from Thera (ivy band, Fig. 35A) are continuous on three, four and at least two walls, respectively. So, too, the spiral decoration of the Queen's Bathroom at Knossos which extended on three walls above tall gypsum orthostats (Fig. 36B): this arrangement of spiral bands seem to have been typical in the palace at Knossos, where they overran wooden beams at lintel-level on all available wall spaces in a room (cf Fig.35B, partial restoration to show the construction behind the fresco). The painted dado decoration was continuous throughout the chambers of the West Magazines and the Long Corridor on all the walls there, and there is more extensive evidence for this than Evans in fact recorded (Fig.36A: SLIDE 43a). The dado decoration in the Lustral Basin of the Throne Room also continues on three walls. At the east end of the Main Hall in the House of the Frescoes, a continuous frieze

depicting monkeys robbing birds' nests apparently ran from wall to wall (SLIDE 56); and in Room 14 of the villa at Hagia Triada, the pictorial scenes appear to have continued without a break on three walls, too: the fourth "wall" contains the entrance (SLIDE 54). The brilliant reconstruction of the "Swallow Fresco" from Thera shows that the scene unquestionably continued on three walls of the room: and in this case the paintings were found still on their walls after the dust and pumice which had filled the room had been cleared away (AAA A' (1971), Vol.IV - reprint, pp.66-67, Figs. 13-15 and Colour Pl.A', 1). In such continuous friezes, the upper border stripes naturally are repeated in the same arrangement, scale and colours on all the walls concerned. Another probable example, too fragmentary for substantial reconstruction, comes from Hagia Irini on Keos, where fifteen or more "blue birds" were depicted preening and feeding, one after the other.

We have already seen that the processional frescoes at Knossos are not only continuous in individual rooms, but seem also to have continued - interrupted only by doorways or balustrades - from one section of a corridor or staircase to another, and from one floor to the next, in a scheme uniting the wall decoration of many rooms thematically and functionally (Fig.18; and SLIDE 44). We may, for convenience, call these "broken friezes", for repetition of their subject matter from wall to wall and from room to room shows they were designed as thematically continuous sections of decoration: and they are only "broken" where architectural structures, such as doorways, necessarily intervene. In such cases, we sometimes find the artists have made one section or its border stripes slightly larger than another, but this is simply accidental. A clear example of this is provided by the Flying Fish friezes, which collapsed together from one room of a house at Phylakopi on Melos; the best known section is only 22cm high, whereas the other section measures 31cm high (PLATES 125 and 126A respectively). Here some architectural feature apparently

intervened, and it seems certain the friezes adorned two different walls of the one room. In the Throne Room at Knossos we come across a similarly interrupted frieze, with a doorway in the west wall separating the west frieze into a northern and a southern section (PM IV, Part II, Frontispiece). However, the main details on each side of that door are a "mirror image" of the important elements in the frieze on the north wall (SLIDE 53). Although the southern section on the west wall might rightly be called a "panel", "panel decoration" seems a term more fittingly applied to such compositions as those gracing Room 7 of the villa at Amnisos - which, however, combines true panels with, it seems, a continuous frieze in an integrated decorative whole (SLIDE 59).

The frescoes on the west and south walls evidently continued as an unbroken frieze, though exhibiting different plants and, hypothetically, a goddess; but the decoration of the north wall, which apparently contained doorways, was achieved in two panels depicting lily plants on a monumental scale. Although the specific subject matter changes from wall to wall, the general floral design is consistently maintained throughout the room. Even without the goddess, should she not be restored here, the pictorial and decorative character of the scenes present a coherent thematic and symbolic ensemble.

The various "panels" of relief frescoes from the North Entrance Passage at Knossos are united in a different way, although they were probably once separated from each other by vertical timber beams in the wall's construction (Fig.26,p.153)[8]. The panels all show complementary elements in a well known representational cycle relating probably to bull-catching activities, and so are thematically united in a way which no Minoan mind would have failed to appreciate. Less well preserved series of panels tell a similar story, each picture repeating the same scheme or showing some variation on a theme common to all. Thus, the three panels of the Saffron Gatherer Fresco all show the rape of flowers by capricious monkeys scampering about in ornamental gardens

(SLIDE 57). The "Camp Stool Fresco" evidently consisted of at least three panels, each repeating the theme of the other (Fig.21,p.145). The size of these panels, estimated at about 75cm high by about 1.30 metres long, and the scale of the subjects, suggest each may have been fitted into the spaces between beams of the timber framework of their wall at convenient eye-level. Ex hypothesi each section with its surrounding beams would match the overall size of the "Taureador" series of panels, seven or more in number and each measuring about 91.0 by 167.5 cm, whose striped borders dividing the scenes into separate panels would seem to have extended over the vertical and horizontal beams in the wall's framework (SLIDE 46). The "Taureador" panels certainly belonged to two different walls, apparently in two continuous friezes incorporating separate pictures divided artistically by the border stripes, as is clear from two different treatments of the border designs.(9) Despite the "panel effect" here, the plasterwork is continuous and the scenes simply represent different postures of the acrobats and different events in the one activity.

Whether the "miniature" series of frescoes from Knossos belonged to two friezes in different rooms, as the different border stripes of the Temple and Sacred Dance frescoes might indicate (PLATES 26 and 29), or to a "broken frieze" in one room, or to a series of architecturally separated panels, there is no certain way of deciding. That they formed, however, a thematically continuous scheme of decoration is beyond doubt; a tentative arrangement of them is illustrated in Fig.17, opp.p.133.

From this survey we may conclude that continuous friezes, "broken friezes" and panel-decoration, architecturally or artistically imposed, were common forms of decoration in Minoan times, the two former classes particularly so. There are chronological reasons for thinking continuous and "broken" friezes were most prevalent before LM II, while in LM II-III A panel decoration became popular in the case of small-scale compositions.

What emerges most clearly, however, is that, whatever the outward form of the paintings, continuity of theme and very often of specific subject matter was carefully preserved throughout a room's decoration as a whole. An interesting exception, significantly from the Cyclades where we shall find other departures from Cretan norms, is found in the house on Thera whose scenes are partially reproduced here at Fig.35A, p.205. It is difficult to see any connection at all between the pugilistic boys on the left-hand wall with the fine East African Oryx beissa on the right-hand wall (new animals to the Minoan wall painters' repertory). Harmony in design and theme was, however, the general order of the day in the decorative treatment of all available walls of a Cretan room, whether the compositions depicted life-sized figures or simply spiral or dado bands.

Ceiling Decoration

The collapse of superstructures of all Minoan buildings has left little recognisable ceiling decoration in painted stucco. But three and four-branched spirals with rosette or perhaps large lotus flower "filling motifs" were evidently popular as ceiling designs (p.112 above; PLATES 141 and (lotuses) 98). At Knossos, spiral relief compositions from ceilings turned up in the Room of the Miniature Frescoes and Spiral Cornice, near the North Entrance Passage; in the deposit of high reliefs derived ex hypothesi from the Great East Hall; and in the House of the Sacrificed Oxen, probably thrown in from the collapse of a room in the south east corner of the palace. Other relief examples seem also to have been found in the palace, but in unrecorded places. The Minoans may have used other patterns similar to many preserved on the ceilings of Egyptian rock-cut tombs[10] but there is no means of identifying them at present. To judge from impressions at the borders of certain relief spiral fragments, the whole ceiling would be covered, as shown in the sketch reproduced at Fig. 36B. Where, however, the ceiling was supported by thick wooden cross-beams, laid parallel to each other, running spiral bands or even perhaps undecorated plaster might be expected in the intervals.

Floor Decoration

Evidence for painted floor decoration is more forthcoming, but it is still scant. Many floors were flagged with stone, either "squared" or in irregular crazy-paving arrangements, with the interstices between the stones filled with red-painted stucco (e.g. in Block X, Room 66 at Palaikastro (LM I) and in the Throne Room (LM II) at Knossos). Many others, especially in upper rooms, were covered by a hard thick lime-cement mixed with clay particles, crumbs of pottery or minute stream pebbles of different stones and colours. The development of cement floors in the First Palace Period has already been traced in Chapter II. By LM I, the cements contained even more stream pebbles than before and these appear over the entire surface as if anticipating the advent of mosaic (Fig. 37A). Lime-plaster floors were occasionally painted a monochrome red from EM II times onwards, or with reddish bands (e.g. the vestibule to Stairway 71 at Phaistos) or with red and blue spots (a room in the Residential Quarter at Mallia). But the more interesting developments in floor painting took a course parallel to that of mural decoration, and one new example gives definite answers for the first time to some long-standing questions: what floor coverings of perishable materials did the Minoans have, and why are floor frescoes rarer in Minoan Crete than on the Mycenaean mainland?

In MM I, plaster floors were painted red or ruddy-brown, if painted at all, and from Mallia comes a red-painted floor with white bands dividing it into rectangular "flags", clearly copying stone flagging (PLATE 3B). Ornamental decoration comes to stuccoed floors, as to mural painting, in MM IB or MM II, in the floor fresco from Phaistos at PLATE 4B. Here the "incavo" technique, with its affinities with Egyptian decorative stone-carving processes, suggests ornamental quatrefoil inlays of a stone floor which the fresco is imitating (p.17). Until recently, this was thought the last significant Minoan floor fresco until LM II-III A when a marine floor scene was painted at Hagia Triada (PLATE 124A). It recalls the abundant pictorial and

Fig.37

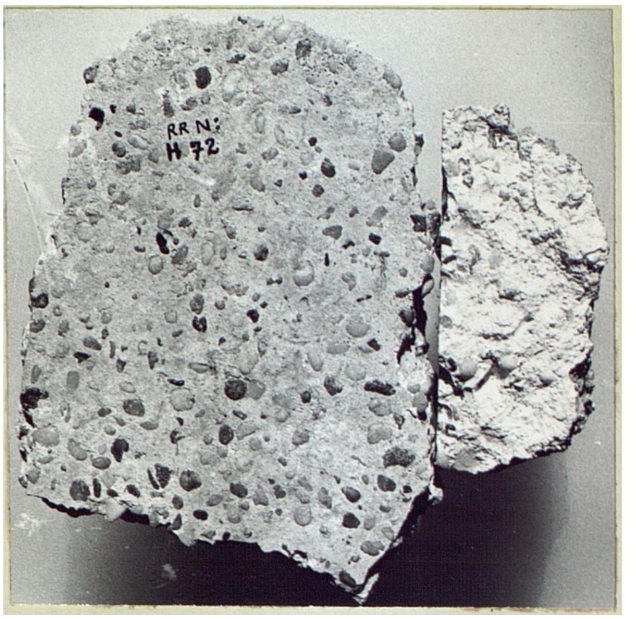


Fig.37A: LM I Floor Cement
from Knossos

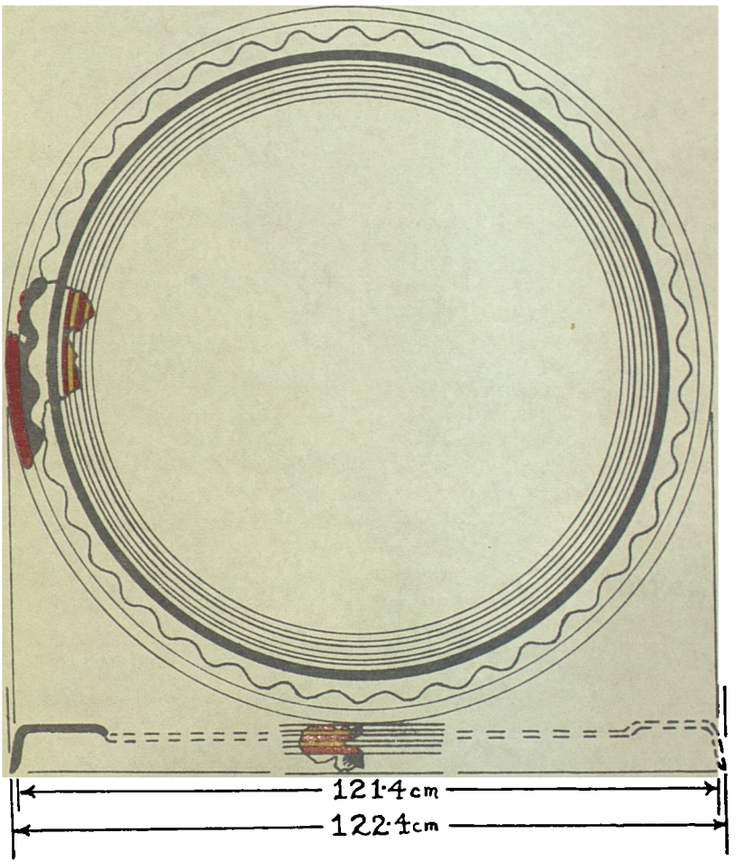


Fig.37B: Restored "fixed" plaster
hearth from Knossos

(See CORRIGENDUM p.xxvi)

representational floor frescoes in the "megarons" of Mycenaean palaces, whose central feature was invariably a large circular stuccoed and painted fixed hearth.(11) These hearths and their surrounding floor frescoes have been widely considered specifically Mycenaean features. But recent discovery of a representational floor fresco and a large painted hearth, both of MM III date, at the Royal Road/North site at Knossos now makes it possible that both features on the Greek mainland derive from MM III Crete, perhaps at the beginning of the Mycenaean epoch when Minoan influence on the mainland was at its height.

The fresco in question appears at PLATE 144B (= 156A) and SLIDE 42. That it adorned a floor is clear from the design, imitating a leopard-skin rug or carpet, and from its remarkable execution in the "incavo" technique which suggests the artist had to walk on the still soft plaster to paint the black stripes, then to wait until the plaster had dried in order to cut out, refill with plaster, and paint the "leopard-patch" areas (see Chapter VIII on "incavo"). The black and white stripes could perhaps also be representational, denoting a zebra's hide. The imitation here of the hides of exotic foreign animals of the African continent (or, less probably, of Syria) implies that the Minoans would have imported such carpets, or the skins or the animals themselves, from that part of the world, using the hides for floor-coverings. Besides being of importance to discussion of Minoan foreign commercial contacts, this fresco indicates that the Minoans had a taste for luxurious rugs and carpets and it supplies a ready explanation for the dearth in Crete of painted floors: evidently the Minoans preferred rugs and carpets with brilliant patterns and colour-schemes to painted floors. Why the Mycenaeans went in for painted floors more readily than the Minoans need not concern us: it is the originality commonly attributed to them in the field of floor-painting that is here in question.

The painted hearth from Knossos mentioned earlier is illustrated at PLATE 191A-B. The larger piece, whose inner edge bears distinct signs of heavy burning, is decorated with red and yellow stripes above a white field and its curvature indicates an original diameter of well over one metre (Fig.37B). Its size and the underside of the plaster show the hearth was perhaps a fixed one. The plaster was laid over a rough clay "base" of some depth whose weight alone would point to a fixed hearth, not a portable one. Moreover, the absence of any fragments of plaster legs where the hearth was found supports this conclusion. Whether or not our hearth was surrounded by a painted plaster floor is uncertain; but the largest fragment and some small pieces of it turned up in the same levels as some of the many fragments of the "Zebra" floor fresco. Moreover, they both seem executed by the same painters.

Our next Minoan floor paintings show a development to be expected in the normal course of events, namely , portrayal of pictorial motifs as such. Marine creatures swimming about are the subjects of floor paintings from Hagia Triada and, probably, Knossos. At the former site, the entire floor of a ground floor sanctuary (Room H) between the doorways at the west end and a low raised bench at the east end was plastered and painted with dolphins, small fry and, in the centre, an octopus facing the entrance (PLATE 124). The scene lacks border bands, but at one side a dado border imitating multicoloured veined stone slabs suggests a rocky fringe to the marine scene on the floor (SLIDE 43g). Here wall and floor decoration agreeably match each other. The style of painting here seems derived from the "Dolphin Fresco" at Knossos, in the "hand" of a better painter, which may also have decorated a floor although Evans assigned it to the north wall in the Queen's Megaron (PLATE 121)[12]. However, although much of this fresco had been thrown out along with other debris in the Reoccupation Period, the largest fragment turned up on the floor of the Queen's Megaron. But it finds no obvious place in the mural scheme put up in that part of the palace by the same painters, in LM II. The difficulty is resolved if the "Dolphin Fresco" had actually graced the floor

of the room, or that of a room above, and this would solve another problem raised by Evans who had an idea that at one time a spiral frieze had extended over part of the "Dolphin Fresco"(13). This is unlikely because the frescoes in question seem to have been put up by the same group of artists in the course of the LM II redecoration of this suite of rooms. Unlike the Hagia Triada example, the Knossos marine floor fresco was bordered by red and white bands (SLIDE 36B, with sea-urchins).

Whether depiction of pictorial motifs on floor frescoes was a Minoan innovation (the genre character of the scene is purely Minoan) or whether a Mycenaean one, first introduced to Crete at Knossos in LM II, it is difficult to say. The Knossian fresco, if from a floor, is earlier in date than known Mainland counterparts but it belongs to the period of Mycenaen occupation of the palace and is stylistically our earliest Cretan example.

A main conclusion is that floor painting was rare in Crete and is so far unknown in the Cyclades in Minoan times, with the exception of a red painted floor of a staircase in House A at Hagia Irini. Carpets and rugs of textile materials or hides were probably preferred to painted floors which, however, we now know had a long history in Minoan Crete. The decoration of stuccoed floors, at first with monochrome colours, evolves in the same way as mural painting, with simple geometrical designs leading to more complicated patterns of representational significance, and then finally come pictorial motifs, although perhaps at a later date than their appearance in wall paintings. The entire floor space seems to have been covered and painted in the few cases we know, and border bands may or may not be present.How appropriate the floor paintings were to their rooms is difficult to estimate; the marine scene in Room H at Hagia Triada seems a strange choice of subject for a shrine, unless the shrine was dedicated to a Sea Goddess - but this cannot be established on the available evidence, namely, "snake-tubes", small clay figurines and votive unpainted cups. Plaster floors were certainly a cheap and common substitute for stone-flagged floors; but most were left unpainted or received only

*Pagination error: Corrigendum no.2.

a monochrome wash of colour. "Cement" floors after MM IB were invariably left unpainted, but by LM I the small multi-coloured stream pebbles in the mixture were allowed to appear in abundance on the surface - perhaps for both practical and aesthetic reasons (Fig. 37A, opp.p.213).

It is a reasonable hypothesis that only important rooms such as house sanctuaries or Halls would receive elaborately painted floor decoration, and then only a few of them - for the reasons already given above. Unpainted, and to a lesser extent, red painted, stucco floors are, however, found at Minoan sites in all periods in such numbers as to make their detailed documentation here unnecessary. The floors of rooms on upper storeys were commonly constructed of "cement plaster" supported by the ceiling construction of rooms below.

The Characteristic Decoration of Minoan Architecture

Rough stone or mud-and-rubble wall-construction demanded some smooth protective covering. This was most readily supplied by lime plaster. That such minor and far-flung sites as the farmhouse at Saktouria west of Timbaki, the peak sanctuary on top of Mt. Petsofa on the east coast, and the impoverished village of Kouramenos to the north of Palaikastro had plastered walls is a good indication that all Minoan settlement buildings were probably finished with coats of plaster, even though painted decoration might have been limited. Discovery of at least monochrome fresco fragments in houses of all the Minoan towns so far excavated confirms this view.

What is less clear is how far the mural decoration of Cretan houses and villas outside Knossos, of town settlements in the Cyclades and on Rhodes, and of villas and houses at Knossos differed from each other and especially from that in the palace at Knossos itself. The differences in fact are substantial. They reveal themselves in the choice of subjects and themes; in the type of decoration from room to room or from floor to floor; in the number of rooms with figured or animal scenes; in the choice of scale or technique of representation,

Fig. 38

NAME OF SITE	M	P	H	C	S	DISTRIBUTION
Archanes: town site	X	X	?			Cretan town and country houses, farms and peak sanctuaries outside Knossos
Chania: town	X		X			
Gournia: town	X					
Hagia Triada: later town	X	Xr	X	X af	?	
Katsamba: house		(X)→	X	←(X b)		
Kouramenos: village	X					
Mallia: town	X				Xr	
Mochlos: town house	X					
Palaikastro: town	X	X	X		X	
Petsofa: peak sanctuary	X					
Phaistos: town house	X				X	
Prasas: town or village	?X	X	X			
Pseira: town	X		X			
Saktouria: farmhouse	X					
Tourtouloi: town or village	X					
Zakro: town	X	X				
Akroteri: Gorceix's house	X	X				Cycladic and Dodecanese town houses
Akroteri: town (Marinatos)	X	X	X	X abg,?f	X	
Hagia Irini: town	X	X	X	X abfg	X	
Ialysos (Trianda): town	X	X				
Phylakopi: Second City	X	X	X	X fg	X	
Phylakopi: Third City	X			X b		
Hogarth's Houses	X	X			X	Suburban town houses at Knossos
Royal Road/North	X	X	X	X a	X	
Royal Road/South	X	X	X	X g	X	
Savakis's Bothros	X	X				
Temple of Demeter site	X			X a		
High Priest's House					X	"Mansions" at Knossos
House of the Frescoes	X	X	(X)	X ab		
H. of the Sacrificed Oxen				X a	Xr	
North West Treasury		X		X a		
South House		X		X b		
South East House		X		X a		
Amnisos	X	X	?			Cretan villas outside Knossos
Epano Zakro	X	X	X		X	
Hagia Triada: earlier villa	X	X	X	X ab		
Nirou Chani	X		"z"			
Tylissos	X	X	X			
Vathypetro	X					
Caravanserai "hotel"	X	X		X b		Villas at Knossos
Little Palace	X	X	?X	X g,?f	X	
Royal Villa	X	X				
Unexplored Mansion	X	Xr	?X	X ?a/g		
Mallia	X		?			Cretan palaces
Phaistos	X	X			X	
Zakro	X	X	?X		X	
Knossos	X	X	X	X abfg	X	MAIN PALACE

Fig.38: Distribution Table of MM-LM fresco subjects at Minoan sites

and in the use of certain colours, notably sky blue and deep yellow. For example, no relief frescoes have been found in the Cycladic settlements, and few sites (Tylissos, Hagia Irini,(?) the Little Palace and the Savakis building) have yet produced true"miniature" compositions like those from the palace at Knossos - even though "miniature"painting at the later Greek mainland settlements was not uncommon, a point which might reasonably lead us to suppose "miniature" scenes ought to have been more common in the Minoan world than they apparently were. Large-scale pictures of men are restricted to the palace at Knossos, with the single exception to date of the pugilists in the new scene from Thera (Fig. 35A): but here the figures are boys, not men! Blues and yellows are used extensively for background schemes in Cretan frescoes only at Knossos and at the later settlement at Hagia Triada, and outside the island only at Hagia Irini on Keos and at Akroteri on Thera - and then to a lesser extent.

The Table at Fig. 38 lists alphabetically the fresco-producing Minoan sites of Crete and the Greek islands grouped in order of their geographical distribution and type of architecture, indicating also which of the five main categories of fresco decoration is known from each site.

Key to Fig. 38:

M = Miscellaneous (monochrome pieces; striped bands; dadoes);

P = Plant life (flowers, trees; r = isolated rosettes);

H = Human figures (? = hypothetical; ?X = possible "figured" fragment known; (X) = later debris; "z" = attributed to female figure);

C = Creatures (a = animals; b = birds; f= marine life; g = griffins)

S = Spirals (r = rosette centre of; or (Mallia) arranged spirally).

This Table is no doubt unrepresentative insofar as it lists only what has been reported in published accounts of what is otherwise known to have survived. And a cross (X) throughout column M may be assumed, as more important forms of fresco decoration turned up at those sites from which no "miscellaneous" pieces have been reported. Nevertheless, some remarkable general

trends in mural decoration emerge. Paintings of wild or mythical creatures and of spirals are astonishingly rare in Cretan town and country houses and villas beyond Knossos as compared with the houses and villas around Knossos and the group of Cycladic sites; and if we remember that the subject matter from Katsamba occurs on a single fragment belonging to the skirt of a priestess or goddess, of all the known Cretan sites outside the town of Knossos only Hagia Triada remains with pictures of fauna. The Cycladic sites and the town houses at Knossos alone compare favourably in the range of major fresco subjects with the palace at Knossos. Similarities and differences in the wall paintings of these various regional and architectural groups of sites go still deeper, however, on closer inspection of the material from each group. The following review proceeds from simple to more complex architectural classes of building, and it ends with a summary of conclusions. References will be found in Appendix A, under the site headings.

(a) Cretan town and country houses beyond Knossos.

The plastered walls left undecorated or painted red and blue in the main ground floor room of House C and in the north west room of House D at Kouramenos, on the east coast north of Palaikastro, suggest that even the most humble private houses in the Cretan provinces were stuccoed and given simple or banded dado decoration. The extent of mural decoration in a better constructed and larger town house, however, may be appreciated from the LMI house excavated in 1962-3 in Block N at Palaikastro which has received exemplary detailed publication in BSA 60 (1965), pp. 252-268.

Here a mud-plaster backing, the usual foundation for a layer of lime plaster, remained in situ at many points, including on the north outer wall (street front) of the house, and in Rooms 1 (Vestibule), 2 (Inner Hall), 5 (Main Room), 10 (Corner Closet) and 16 (a Corridor leading off Room 5); and plain white stucco with a black band was found in place on the north face of the south wall of Room 10 which leads to a staircase whose fifth step up also retained plaster in situ, an indication that the upper rooms of the house were also stuccoed. In the "fill" of some of the rooms mentioned and in Rooms 11 and 14, a store-room and the kitchen, were found

fresco fragments painted in various colours - some red, orange, in two shades of blue, yellowish grey and sometimes in bands of two colours. Many of these pieces were certainly derived from upper rooms with, at the least, simple monochrome and banded dado decoration. The discovery of many fallen painted fragments above the main stairway off Room 2 is important because it has been suggested there was a "house shrine" near the top of the stairs from which fell two stone pyramidal stands for double axes, miniature stone "horns of consecration" and a fine goat's-head rhyton. Most probably, the fresco pieces in question had decorated the walls of that shrine, for we shall shortly see that in buildings of this class and in the Cretan villas such rooms were the most carefully adorned with murals.

It is clear that both ground and upper floors were stuccoed throughout the house, and that the more decorative fresco pieces had once adorned the upper rooms, especially perhaps the shrine near the top of the stairs. Discoveries at other town sites supplement this assessment of typical town house decoration.

In the town site at Archanes, the Antechamber to a cult room on the ground floor retained plain stucco, with red blotches here and there, in situ for over two metres on the east wall(14). Ground floor rooms in two houses recently discovered at Chania preserved dadoes with painted bands in situ. The Main Rooms on the ground floors of Houses Zeta α, Zeta β and House E (Room VIII) at Mallia had traces of stucco on their walls, and in the latter room a dado band with rosettes in spiral arrangement (LMII) was found in situ on the north wall in the north west angle (PLATE 199B). Red, yellow and light blue fragments remained in situ on the walls of a 'lustral basin' south of the palatial quarters at Gournia, and the north wall of an open court in a town house at Mochlos appears to have been painted red. Other houses at Palaikastro, in Blocks Beta, Gamma, Delta, Chi and Epsilon, were found with small areas of plaster painted red, yellow, blue and crimson still on the walls of ground floor rooms; and in Room 22 of House (i) in Block Beta there was a "trace of a spiraliform pattern in dark

red on yellow" (the ochre ground of the plain plaster?). The walls of Rooms III and XVI of House I at Zakro were plastered, and the pillars in "Pillar Crypts" both here and in a house at Palaikastro (Block Delta, Room 20) were stuccoed. The floors in these houses were of stone, impressed earth, unpainted lime plaster, or hard cement.

The fresco decoration which collapsed from the upper rooms of this class of building is remarkably uniform in subject and theme. Apart from monochrome or dado pieces, and two fragments depicting a spiral pattern and a foliate band which had possibly collapsed from an upper room of a house at Phaistos (PLATE 200 A1 and 5), only floral subjects and fragments of life-sized female figures representing goddesses are known. These have been considered to belong to scenes relating to the cults of the Goddess of Vegetation and the Mistress of Animals and Peak Sanctuaries (Chapter V). The goddesses were not infrequently executed in relief fresco, as at Chania (new pieces); at Palaikastro in Block E, apparently from House E above Room 17, in association with crocuses "on the flat" (SLIDE 29a iii); at Prasa in House A, in association with a band of "miniature" trees (PLATES 33A, E and 119A: trees, SLIDE 32h); and at Pseira from a room above that to the north of the ground floor Room 1 at House JK 12 (PLATES 24-25). To the two relief figures already known from this house must now be added others, probably above a plaster dado imitating a wooden wainscot, which are known from coloured drawings recently discovered by J.W. Graham. Another "goddess" fragment from the house at Katsamba, executed "on the flat", also seems to have collapsed from an upper storey.

That such compositions may be assigned to "house shrines" on the upper floors of these houses is suggested by the nature of the scenes; by the fact that life-sized goddesses (or priestesses) are the only figures, and the sole relief subjects, known from the present architectural class of buildings; by their single appearance in the decoration of each house (Pseira apart) which suggests the scenes they appeared in were of limited size; and by the fact that

floral subjects from upper rooms are generally associated with them. That is, all the interesting mural decoration seems always to derive from the same type of room. Moreover, we shall find that "house shrines" with similar compositions are also a feature of the Minoan villas outside Knossos. The dado imitating woodwork at Pseira, known from one of the new coloured drawings, further suggests these compositions may have been raised above the level of benches in the walls of the shrines, in position B in the wall-scheme (Fig. 34, opp.p.204).

It remains to mention an exceptional "house shrine" in Room H on the ground floor at the south east corner of the later settlement at Hagia Triada. Here we find new scenes and a new arrangement of the compositions, which are late in date (LM III A 1). The marine painting at PLATE 124 decorated the floor, with a dado imitating richly veined stone slabs at one side; at a higher level, it seems, were placed two pictures, one showing two rows of processional or dancing women in a two-storey shrine (PLATE 50A), the other a (?) sacrificial scene with deer led by a woman and a man in a Mycenaean cloak (PLATE 82A: SLIDE 24). Such a mixture of different scenes in the one room may indicate a Mycenaean treatment of the mural decoration, as chronological and other considerations suggest. Certainly the decoration is quite unlike that which we have found to be usual in provincial MMIII or LMI Cretan town and country houses.(15) Excluded from the present discussion is a building at Epano Zakro, described as a farmhouse, whose massive walls, large size and rich mural decoration suggest it should rather be grouped with Cretan villas.

On this evidence, the typical ground floor decoration of Cretan town and country houses outside Knossos, originally stuccoed and perhaps simply painted in most rooms, may be said to consist of monochrome and dado-band decoration in various colours except green, with occasionally more adventurous decoration in the form of spiral bands, with or without rosettes. No pictorial frescoes belonging to these rooms are certainly known. Door jambs were plastered, but none are known with representational or geometric decoration. Unpainted stuccoed walls and others with a

few simple bands of colour were probably common in ground floor storage and service areas, perhaps often lacking windows for safety's sake[16]. Those places would be lit artificially with stone lamps or small portable hearths, or indirectly by the light from nearby light wells or open courts; in such dark rooms an essentially unpainted wall would reflect more light than a painted one. Above them were the living quarters, main halls and "house shrines" which were approached by staircases sometimes plastered over. Dado bands, and less evidently spirals, were common forms of decoration in upper rooms. But the most interesting frescoes, often depicting a goddess in a floral setting, were perhaps assigned to the "house shrines" dedicated to the cults of Minoan female deities.

Other scenes from the walls of these houses are unknown except at the later, and possibly Mycenaean, ground floor sanctuary in Room H at Hagia Triada. To some extent these ways of decorating town houses were repeated in the Minoan sites in the Cyclades and in the town at Knossos, but there we also find more adventurous work.

(b) Minoan town settlements in the Cyclades and Dodecanese.

The sites in the Greek islands listed in the Table (Fig.38,p.219) have produced many frescoes which, although a number remain unpublished, have been sufficiently well described and illustrated in preliminary reports to show there were perhaps more differences than similarities in wall painting compared with our previous group.

Nature scenes and small scale figured compositions are predominant and yet the choice of subject matter at the three principal sites in the group - Akroteri on Thera, Hagia Irini on Keos and Phylakopi on Melos - best matches the range of that of the palace of Knossos and its surrounding town houses. Real and mythical creatures are well represented, and spiral compositions seem much more popular than in the Cretan town houses outside Knossos. So, too, human figures which notably now include many pictures of men, in "miniature", at about one-quarter to one-half life size, (PLATES 196 A3-4 and 197 A7) or even at life size in the case of the boy pugilists from Thera (Fig. 35A). But so far relief figures and, somewhat surprisingly,

large-scale female figures are lacking.* "Miniature" scenes from Hagia Irini show men wearing the Minoan brief kilt, the longer Mycenaean kilt or the Mycenaean sleeveless cloak with "wing" appendages (Fig. 10, C3-4 and D5): also a shaggy animal-skin kilt worn by a woman (Fig. 10, C6). Other subjects familiar to the MM-LMI Knossian pictorial repertoire also turn up here: blue-painted birds, myrtles, "leaves on banks", blue reed-infested streams, fish, large griffin's wing fragment, and "miniature" architectural facades (some illustrated at PLATES 197-198 and SLIDE 37). From Akroteri there are blue monkeys, (SLIDE 55) palm trees, lilies, myrtles, reeds and spirals (PLATE 196), and from Phylakopi flying fish, lilies, spirals with rosette centres and female figures at about one-quarter life-size or less, with "miniature" flying griffins embroidered on their skirts (PLATES 120A-C, 125-126; 101C-D; 138C; and 36-37, respectively). Frescoes from Ialysos include various striped bands and plants, notably honeysuckle and lilies (PLATES 93C and 104). However, a Greek mainland influence in the choice of certain subjects at Hagia Irini also seems detectable, especially in pictures of dogs, fallow deer (SLIDE 23c-d), horses, chariots, and men in Mycenaean garb. Such a choice of subjects must surely have arisen from the proximity of Keos to the Mycenaean Attic coast which certainly favoured close commercial, cultural and political ties.

Not surprisingly, then, the themes of the paintings at these sites, and especially at Hagia Irini with its hunting and chariot scenes recalling Mycenaean pictorial representations, contrast dramatically with those from the Cretan provincial houses in both pictorial character and number - even though the scenes from Phylakopi, Ialysos and Thera seem predominantly Minoan in flavour. Religious symbolism, though present in some of these island scenes as we saw in the previous chapter, is less manifest and more oblique than in the decoration of the Cretan town houses, despite worship of the same Minoan (or identical local) deities, in

*Akroteri has now remedied this situation with the frescoes from the "Room of the Ladies" (Thera V, Pls.F-H,and J). Since this section was written (1970), the expanded fresco repertory from Thera has substantially confirmed the present assessment of Cycladic mural decoration.

in particular the Mistress of Animals. Goddess representations are far from certain, and the only possible ones would be the relatively small-scale figures (?) fishing, from Phylakopi (PLATES 36-37A-B), and others from Arvanitis 1 at Akroteri represented by pieces showing a dress pattern and "a small woman's head", and perhaps the figure at Thera V, Colour Pl.H.

A significant point of departure by analogy with the Cretan provincial town houses is that the island sites were not infrequently given pictorial decoration in certain ground floor rooms. Lily frescoes were found in situ above dado stripes in four colours on walls of the ground-level passage, Room 3, and of the "large room beyond" in Mamet's house at Akroteri [17]; and again in situ on the "east face of the central wall" of the ground-floor Room 7 of House 1 (Stratum I) at Ialysos. These rooms probably were, or led to, cult rooms. This seems clear from Marinatos's discovery of a ground floor shrine at Akroteri whose three walls were found with a swallow and lily "continuous frieze" in situ, perfectly preserved; and the scenes at Fig. 35A also graced a ground floor room. More generally, however, the walls of ground floor rooms in these island settlements would probably have been treated with monochrome washes or striped dado bands, as in the Cretan provincial houses. A plastered staircase next to Room XXXII in House A at Hagia Irini was painted red, as fragments found in situ indicate. This leads us to consider the decoration of the upper rooms in houses at these island sites.

The excavation reports make clear that most pictorial scenes had fallen from upper floors, with the interesting exceptions noted above of those belonging to cult rooms on the ground floors. Further publication of details of their find-places will no doubt provide much information on the relation of the paintings to the architecture of the upper rooms where they once belonged. Meanwhile, it is generally true to say that the scale of drawing and the extent of the better preserved compositions suggest continuous or "broken" friezes were most common, and that most paintings belonged to positions D or E in the wall-scheme (Fig. 34). The scenes reproduced

at Fig. 35A provide notable exceptions to these conclusions, for the main zones are characteristic and splendidly preserved examples of pictures at position (B) in the wall-face; moreover, the only link between the two chief compositions are the plain white backgrounds with red undulating bands at the tops of the paintings, and it is difficult to imagine any thematic connection between them. Further, the distribution of fragments of different paintings in individual houses (e.g. at Arvanitis 1 at Akroteri; in House M at Hagia Irini; and in the house in Square G3 at Phylakopi) strongly suggests that more rooms on upper floors of the houses at these sites were given pictorial scenes featuring different subject matter than was evidently the case in the provincial Cretan town sites. We should therefore expect this decoration to belong to Main Halls and important corridors in the upper storeys (e.g. spirals in the passage above Magazine 2 at Arvanitis 1 which no doubt led to a large room or Main Hall above the south east ground floor room), as well as to any "house shrines" there.

On this evidence alone, the Minoan settlements in the Greek islands clearly present an alternative system of mural decoration on both lower and upper floors to that in the Cretan town and country houses of the same period, although it is probably true that the most important decoration belonged to upper floor rooms in both groups of sites. But how do these different decorative treatments compare with that of the town houses at Knosses itself? The question is crucial because Knossos was undoubtedly the artistic, as well as the political, centre of the Minoan civilisation.

(c) The town houses and "mansions" at Knossos.

The social complexity of the town at Knossos is reflected in the different architectural structures there which we must first of all distinguish. In the centre of the town was the palace, and immediately around it a ring of dependent but structurally disengaged houses resembling small villas. These we shall call "mansions" as a convenient collective label. Beyond the mansion lies the town, the largest Minoan one so far as we know. Within its inner belt stood very large "isolated" buildings of the villa class among

which we may count the Caravanserai - possibly the earliest "hotel" in Europe. The town suburbs extended further afield, onto Gypsadhes Hill to the south, perhaps up to the top of the acropolis hill to the west, and up to - if not well beyond - the British School's excavation headquarters near Evans's Villa Ariadne, to the north. Further on, between one and three kilometres nearer the coast, lay various Minoan cemeteries of the town and these spread onto the hill, Prophetis Elias, to the east of the town and, more sporadically, to hill-slopes to the south and west (ASKA, district map).

For the moment we are concerned only with the town houses and "mansions". The dates of the Knossos paintings are especially important in the present context because collectively the frescoes span two periods in which political control of Knossos and Crete was in different hands. Until the end of LM I B (c. 1450 B.C.), the Minoan empire was administered by the Minoans themselves. But in the period LM II-III A 1/2 (c. 1450-1375 B.C.), the Mycenaeans took over control of Knossos and the collapsed Minoan empire. As some motifs in the wall paintings at Knossos and elsewhere seem Mycenaean, it follows that there may also be ways of decorating buildings that are Mycenaean, not Minoan. Lest we confuse the two, and draw false comparisons with the systems of decoration we have already considered, it is necessary to anticipate here chronological conclusions as to the date of the paintings which are put forward in later chapters.

(1) The decoration of the town and suburban houses.

To the south of the palace, on the lower slopes of Gypsadhes, lie Hogarth's Houses (MM III and LM I) and nearby, to the north west, the site of the much later Temple of Demeter. These houses were decorated chiefly with plain or monochrome painted stucco and dado bands in combinations of two to four colours (red/white/black/blue; black/blue/white; red/yellow/white; red/white, and grey/white: HH, PLATES 135A and 143D; and T. of D.: PLATE 193). But one house excavated in 1957 near the former site produced a red and blue spiral above red and white bands (PLATE 135 A4) and in the same or a neighbouring house there were also walls and a stucco offering

table painted with dull blue sage or vetch plants (PLATE 118 B-C, table) and with the "lattice" pattern familiar from the "sentry-boxes" in the palace at Phaistos (PLATE 143D; cf. 142). At the "Temple" site, the later votive deposits penetrated Minoan strata where other suburban houses had once stood, originally decorated with dado bands like those from Hogarth's Houses (all MM III or LMI frescoes). But at the same spot was also found a fragment depicting the genital region of a bull on a vivid blue ground, (?) about half life size, from a much later painting (LM II-IIIA PLATE 193 A10).

This range of subject matter recurs in the town houses excavated in 1957-61 on both sides of the Royal Road beyond the north west corner of the palace. Floral, dado, banded and spiraliform paintings were common in houses on both sides of the road (q.v. Appendix A). From the northern site here, there is the MM III floor fresco imitating an animal-skin carpet from one room at the north west corner of the trench (SLIDE 42); a fine myrtle composition with a deep painted plaster dado (SLIDE 34); a double-zone spiraliform frieze (SLIDE 41); a reed fresco (SLIDE 31) and another depicting Butcher's Broom (SLIDE 33). There is also a fragment depicting red and yellow jewellery beads which from the design, the scale of drawing, the slightly curved surface and the reserved white ground, would appear to have belonged to the wrist of a life-sized female figure executed in low relief (PLATE 191 F1). In addition, in the same area, a tongue, the genitalia, and fragments of the legs of (?) two life-sized bulls in higher relief were found (PLATE 78B). All these paintings appear to have collapsed from upper rooms at the time of the LMIB destruction on this site, if not earlier at the end of MM IIIB.

The scale of drawing of the plants and the spiral fresco is compatible with position D for the paintings in the wall-scheme, although the spiral could perhaps have occupied position E above the lintel-line of a very large room (Fig.34,p.204). The relief compositions were presumably in positions A or B in the wall-scheme, since they show life-sized figures. Plants could conceivably have adorned the "flat" backgrounds of the relief scenes, but this we

cannot now tell. The floral paintings and the floor fresco suggest that friezes rather than panels of mural decoration ran round the walls, and the upper rooms of the house or houses to which all these pictures belonged evidently contained a good number of pictorial scenes, such was the spread of the broken fragments. The technical execution of some of these paintings, with highly polished surfaces, is truly astonishing.

On the opposite side of the Royal Road, the material recovered was much more fragmentary, although clearly there had been many floral, banded and spiral paintings in this area - mostly dateable to LM I or earlier. A dress fragment, from a life-sized figure painted "on the flat" (PLATE 191E), and also a fragment from the shoulder of a life-sized female figure in low relief wearing a short-sleeved jacket (PLATE 4C) turned up here. Both figures may be of goddesses and LM I in date[18]. Two other pieces belong to large griffins' wing-decoration (PLATES 131G and 191 G4) unless the second of these pieces represents part of a woman's flounced skirt; they seem LM II-IIIA in date but come from mixed LM levels. The positions and size of these various paintings would be similar to those on the other side of the road. Fragments of plants and upper border stripes, painted by the same "hand" as depicted the monkey frieze in the neighbouring House of the Frescoes (SLIDE 56), presumably belonged to a similar continuous frieze at position D in the wall-scheme (PLATE 115C).

The MM III and LM I town houses at Knossos have frescoes which closely match the type of subjects, themes, techniques and architectural forms of mural decoration found in the Cretan provincial town and country houses of the same periods. Likewise the positions, the sizes and the scales of drawing of the paintings from both regional groups are much the same and "miniature" scenes are equally absent. But the houses nearest the palace, which are larger and more heavily built, also have more finely and more extensively decorated upper rooms than is apparent in the suburban houses at Knossos and in the town houses elsewhere on the island. So far, the only striking anomaly is the bull relief composition

from Royal Road/North; but its appearance there may not seem so strange after we have considered the larger villas at Knossos. On the other hand, real and mythical creatures, and human figures - including the small-scale "Captain" and his black troops dressed in the long Mycenaean kilt (SLIDE 10), found in late debris high above the House of the Frescoes but stylistically attributable to LM III A 1 - along with more commonplace subject matter from the later town houses (LM II-IIIA), more closely match the choice of subjects and scenes which we have met in the Greek island town settlements, especially at Hagia Irini, and in the late "house sanctuary" at Hagia Triada. These two sites have already been tentatively thought to exhibit possible Mycenaean influence in their mural decoration. However, let us suspend further comparative judgements until the problems which arise in that connection can be seen in better overall perspective (Chapter XI).

(2) The decoration of the "mansions".

The House of the Frescoes, the South House and a Minoan building discovered in 1968 to underlie the house of Mr. Savakis (about half a kilometre north of the modern village of Knossos) were decorated by one group of wall painters active in MM IIIB-LM IA (pp.352ff below). They evidently all contained the same kind of paintings, and the first of these sites supplies the best evidence as to how the "mansions" in general were decorated.

The eastern end of the Main Hall on the upper floor of the House of the Frescoes contained on three walls a continuous frieze with a deep painted dado, at the position D in the wall-scheme. The frieze depicts blue monkeys robbing the nests and eggs of blue doves in a "countryside" scene filled with many terrestial and waterside plants, rockwork, streams and waterfalls (SLIDE 56). Another painting, from a nearby upper room, shows wild goats antithetically disposed around an olive tree with a field of crocuses above (SLIDE 58) and is also attributable to position D in the wall-scheme. This composition, with its religious overtones relating to the worship of the Mistress of Animals, would be suitable decoration in a small "house sanctuary" on the upper floor

whose true position it is now difficult to determine [19].
The existence of such a shrine here is also indicated by a fragment of a stone offering-table with a Linear A inscription accepted by many scholars to refer to some Minoan goddess, which fell from an upper room into the ground floor Room D [20]. Downstairs, matching dadoes were found in situ in the south east corner of Room F and in the south west corner of Room H (v.SLIDE 43b). This discovery suggests uniform dado decoration throughout the ground floor rooms, unless some were given monochrome washes of paint - as may have been the case in Room B where red-painted plaster was noted.

Fragments depicting a bird (? swallow or golden oriole), pebbles, reeds, "sandy" areas, and possibly a blue pool, occurred in two adjacent basement rooms in the South House (PLATES 88B, 111A, and 160A) [21]. They evidently belonged to two friezes, one with the bird deriving from a Main Hall above the "lavatory" where it was found, the other deriving either from an adjacent upper room to the east or from the walls of the Lustral Basin below, where its remnants were found, as Evans thought. That such scenes could perhaps have belonged to shrines or cult rooms is now suggested by the ground floor shrine with the swallow paintings from Thera, as well as by the scenes by the same painters put up in the House of the Frescoes. Monochrome pieces and a "miniature" floral and rockwork fragment executed by the same painters turned up in the building at the site of "Savakis's Bothros" (PLATE 90C), pointing to similar house decoration although the "miniature" fragment suggests the painting to which it belonged may have adorned a small room - and a small "house shrine" is not improbable [22].

In the South East House at Knossos, a corridor or main room above that on the ground floor (Room A1) was adorned with nature scenes containing mice (SLIDE 26), lilies (PLATE 105) and an olive tree now mislaid; these MM IIIB/LM IA paintings had clearly collapsed from an upper storey. An upper room at the northern end of the North West Treasury contained a scene featuring bull-catching and a tree, a fragment of which had collapsed outside the north wall (PLATE 119B). The painting of the bull is unusually sketchy, and it may

have been left uncompleted when the Final Destruction struck Knossos (LM III A 1/2). Apart from the bull reliefs at the Royal Road/North site, this and the bull from the Temple of Demeter site are the only bulls known from Bronze Age wall paintings outside the palace until the later frescoes in the Mycenaean palaces on the Greek mainland. Relief fragments of a bull's dewlap and the rosette centre of a spiral ceiling design were found in the House of the Sacrificed Oxen; but Evans thought they had been thrown in from the south east corner of the palace on its collapse at the end of MM III. Lastly, part of a large spiral fresco was found out of position in the south east corner of the House of the High Priest, and traces of red-painted plaster turned up in the innermost chamber or Adyton. The spiral may have belonged to a decorative plaster wainscot, like a piece found in situ in the "Dog's Leg Corridor" in the palace(23), or in position D or E in the wall-face of a room on the ground or an upper floor. It seems a LM II type.

The general scheme of decoration in these "mansions", with monochrome, dado and possibly spiral decoration in ground floor rooms but pictorial scenes restricted to upper storeys, is the same as that in the Cretan town houses at Knossos and elsewhere. But the subject matter and themes, which seem exclusively to relate to nature scenes without human figures, correspond to the most popular forms of mural decoration in houses in the MM III and LM I Greek island settlements, especially those from Akroteri and Hagia Irini which also produced blue monkey, dove, and swallow friezes. The LM II and III A decoration from the North West Treasury and the House of the High Priest, if considered in isolation, could be said to be "neutral", matching that of Cretan town buildings constructed and painted either before or after 1450 B.C; but the subject matter from the former site finds closest stylistic comparisons with LM II-III A frescoes and others on the Greek mainland.

(d) Cretan villas outside Knossos.

The structures with which we are now concerned were all put

up and decorated before the end of LM I B when they were destroyed. From Vathypetro only simple bands and monochrome pieces are reported, and none are published. The other villas in our list, however, have produced substantial evidence for the general nature of Cretan villa decoration.

A Main Hall or large "house shrine" above Room 7 on the ground floor at Amnisos was adorned with panels and a continuous frieze on two of the walls displaying plants, some in flower-stands, on a monumental scale (SLIDE 59); evidently fallen from the south wall was a fresco depicting an offering table which has suggested the original presence here of a goddess to whom the villa was dedicated. The scenes belong to position B in the wall-scheme, to judge from their low painted dadoes. A similar arrangement is found in the paintings relating to the cult of the Mistress of Animals and Peak Sanctuaries on three walls of the small ground floor "house shrine" in Room 14 of the villa at Hagia Triada (SLIDE 54). The figures here are life-sized. The section on the southern wall shows goats, cats and wild birds not closely identifiable. The scene on the east wall was found mostly <u>in situ</u>, and parts of the other scenes may also have been in place at the time of excavation (1903), but details of their finding-circumstances have never been divulged. Apart from red-painted fragments with Linear A inscriptions found <u>in situ</u> low down on the walls of a small three cornered portico just to the north of Room 14 (PLATE 64A-C), and also other minor painted pieces in a room south of Room 16, these are the only frescoes reported from the two villas. A building from Epano Zakro, however, described as a "farmhouse" but whose size and massive walls alone point to a country villa, was more extensively decorated. The unpublished frescoes are described in preliminary reports, and the writer has seen the more important pieces.

In Room Alpha, two strata could be distinguished with the fresco debris from different storeys. That from the ground floor room included a large part of a scene portraying artistically hybridised lotus and papyrus flowers, in blue and red on a

reserved ground; other plants with flowers and buds; border stripes, and fragments of a spiral design. It looks as if there was a large floral scene or frieze, perhaps above a painted dado, between the floor and the lintel-line in this room, with striped bands at this point either above, below or on top of a horizontal wooden beam in the timber framework of the wall; and above this in turn, in position E, a spiral frieze reaching the ceiling. The pottery from Room Alpha included a good-sized amphora, conical cups and other domestic types of vessel. Their common-place character need not preclude their use for cult purposes in what the wall decoration suggests was a cult room. Coloured bands in blue, red, yellow, white and black also turned up in rooms Beta, Gamma and Theta, pointing to simpler wall painting than in Room Alpha in the ground floor rooms in general. The higher stratum in Room Alpha, assumed to be fallen debris from the upper floor, contained fragments depicting myrtles, lilies, reeds, red leaves and a fine fragment from the patterned skirt of a life-sized goddess - presumably, on the fresco evidence, a Goddess of Vegetation. Here we have all the necessary elements for typical mural decoration of a Minoan "house shrine" on an upper floor, perhaps near the top of a staircase at the southern end of Room Alpha.

In Villa C at Tylissos, Room 7 produced "among ordinary fragments" others with red crocuses on white and blue lily flowers on red grounds, presumably fallen from a room above since Room 7 was a magazine chamber. The excavator compared these unpublished paintings favourably with the flowers in the "best contemporary paintings from Hagia Triada" (i.e. from Room 14 in the villa). The assumption is, that they, too, belonged to an anteroom or its shrine on the upper floor. The room above Room 7 is similar in size to Room 14 at Hagia Triada (i.e. from Room 14 in the villa), and it is also approached by a staircase. Villa A at Tylissos apparently

contained the well known "miniature" figured fragments depicting a procession of priestesses and out-of-door cult or religious activities attended by a crowd of people (Fig.30, p.172): but the exact find-place of the so-called "fan" piece is alone reported. It fell from an upper room in the north east corner of the building into the first pithos to the left of the doorway into the magazine, Room 17, on the ground floor below. The scale of representation and the themes of these paintings - if, as seems likely, the rest were also found here - suggests they decorated a small room or shrine somewhere above Room 17. Villa B was also stuccoed and painted.

In the villa at Nirou Chani, the main Corridor (Room 11), and Rooms 7, 12 and 14 contained fresco fragments, some painted with coloured bands; Room 7 might have been a painter's workshop, according to the excavator. A fragment depicting a "sacral knot" on a red ground, a common emblem of a goddess's attire, turned up in the Corridor (PLATE 53C and SLIDE 16e). Some believe it belonged to a wall there; but it seems more appropriate as an apotropaic, magical or emblematic motif on the wall of a shrine or other cult room on the upper floor from which it had presumably collapsed into the Corridor when the villa was destroyed in LM IB.

This review suggests that only shrines or their anterooms were painted with pictorial and figured scenes, all probably relating to the worship of the Goddess of Vegetation or the Mistress of Peak Sanctuaries and Animals, in the villas outside Knossos. The rooms in question might be on the ground floors (as at Hagia Triada and Epano Zakro) or in upper storeys. Other rooms were evidently assigned monochrome or banded decoration (and perhaps spirals ?). The main features of this scheme of wall decoration find closest comparisons with that of the town houses at Knossos and in the Cretan provinces, except with regard to pictorial scenes in cult rooms on ground floors and to "miniature" frescoes. In these respects the comparisons lie with the murals in the town houses of the Greek islands and in the villas at Knossos, as we shall see shortly. The absence of relief figures in the Cretan

villas under discussion need not be significant; it is their occurrence in the town houses which is really astonishing.

(e) The "villas" in the town at Knossos

There are four large buildings in this group, but the fresco material from them is scrappy except in one room of the Caravanserai which Evans regarded as a "hotel" for visitors to the palace. All the destruction deposits, particularly at the other three sites, were much disturbed by later reoccupations and intrusions, making the dating and original positions of the paintings difficult to estimate. Interestingly, very little can be assigned in the way of mural decoration to periods before LM II.

In the "Pavilion" of the Caravanserai, the Partridge Fresco (LM IA), some 60.5cm high, lay between the lintel-line and the ceiling in a continuous frieze on three walls, with a large plaster dado below painted at intervals with imitations of wooden posts or pillars (Fig.13,p.117). This composition matches the type of subject and themes, and in some cases the estimated positions in the wall-scheme, of the nature scenes from the Knossian "mansions" and larger town houses and also those from the Greek island sites. Fragments of blue and white plaster were recovered in other rooms, enough for us to believe the whole building had once been stuccoed. Against Evans, the Caravanserai was not redecorated; for the fragments Evans assigned to a LM II redecoration (PLATE 100) certainly belonged to the Partridge Fresco as their technical characteristics show.(24)

In the Little Palace, Evans reported "degenerate" papyrus designs, spirals and other fresco "scraps" from the passage immediately west of the Anteroom to the ground floor Shrine of the Baetyls; these cannot now be identified. But equally scrappy pieces, gathered from the Little Palace sherd-boxes in the Stratigraphical Museum at Knossos, indicate more important decoration. They include:

"miniature" (?) fishes' fins on blue (PLATE 190 A1);

"miniature" white lily and red (?) man on grey ground;

? a limb of a mythical "genius" (PLATE 190 A3)[25];
a low relief fragment of a griffin with delicate blue
cross-hatching on white, and red "feathers" (PLATE 190 A6);
a rosette (PLATE 190 A8); dado fragments (not illustrated);
a fragment from rockwork or from a flounced skirt (PLATE 190A9).
Probably these once decorated upper rooms, the "fish" near an upper flight of the main staircase, and the low relief griffin a cult room somewhere above the South West Pillar Room which was also approached by a staircase. In this case, the room may have been redecorated with a scene depicting a Minoan or Mycenaean "genius" in LM II-IIIA, for the griffin piece looks LM I. Despite uncertainties on the date (mostly LM II-IIIA) and original location of these pieces, they attest considerably more important mural decoration in this building than has hitherto been suspected.

To the west of the Little Palace, the Unexplored Mansion revealed scattered fragments of a rosette (PLATE 194 A2), ? a bull's hide (PLATE 194 A5), and a ? dress fragment (PLATE 194 A6), which may be LM I or II-IIIA in date. An earlier fragment (MM III) depicting fine blue and black bands turned up in Room 7 and is probably "wash" from an earlier house up the slope to the west. Two (?) griffin paintings seem, however, to have belonged to upper rooms of this building. One above a red dado area evidently adorned the back wall of an upper room approached by a staircase at the north west corner of the Mansion (PLATES 130C and 195C-D); traces of heavy burning on some pieces of the series suggest the painting was destroyed by a fire which put the nearby staircase out of use in LM II, but the surviving fragments evidently still clung to their wall until they collapsed above a deposit whose northern extension contained substantially unbroken, unburnt, LM III B vessels. The second "griffin", above a yellowish dado, certainly the work of the same painter as executed the other "griffin" painting, possibly belonged to a room above the central ground floor magazine (PLATE 195 A2). Fragments of two plaster hearths also

turned up - a portable one painted inside and out (PLATE 195 A7 and B), and an undecorated one which was perhaps fixed to a floor in an upper room to the south of the eastern magazine chamber in the LM III B Reoccupation Period. (PLATE 194 B).[26] None of the painted stucco fragments from the building need be later than LM III A, and others from the northern platform beyond the Main Corridor look MM IIIB-LM I.

Few traces of wall painting survived in the Royal Villa, to the north east of the main palace. Evans mentions red-painted stucco on the steps and on gypsum-lined walls of the Corridor (A 1), and fragments depicting papyrus flowers: but these were never published and cannot now be traced.

Only the Partridge Fresco, and the relief griffin from the Little Palace, seem certainly representative of pre-LM II mural decoration in this group of buildings. The affinities of the Partridge Fresco to LM I wall decoration in other classes of building have already been mentioned. In the case of the latter painting, the method of execution finds an echo in the bull reliefs from a large LM I house to the north of the Royal Road, but the subject is otherwise known at this date only in two Cycladic sites and in the palace at Knossos itself, there, too, with large-scale griffins in low relief (PLATE 132). The implication is - and it is no more than a hint - that the large "villas" and the richest town houses at Knossos may have occasionally been adorned with paintings truly "palatial" in character. After LM I B, their decoration matches the trend we have already observed in the town houses at Knossos and at Hagia Triada in the LM II - IIIA period - in a freer choice of subject and theme, and possibly more widespread pictorial frescoes throughout the buildings, to judge from the finds in the Little Palace and Unexplored Mansion. But such a pattern of mural decoration cannot be excluded in the pre-LM II epoch of these villas; for our knowledge of the full extent of their decoration in that period is particularly deficient, and the Caravanserai seems the only building in this group to have been left with its

LM I paintings intact and not added to in LM II-IIIA.

It would be natural to suppose from the greater architectural complexity and social importance of the lesser palaces at Phaistos, Mallia and Kato Zakro that they would have been even more finely decorated than were the "villas" and largest "mansions" at Knossos. But the surviving evidence does not suggest this was so, as we shall now see.

(f) The lesser palaces of Phaistos, Mallia and Kato Zakro.

The palace at Mallia has produced only simple painted pieces[27] and pictorial frescoes from the other two sites are restricted - almost exclusively - to floral and geometrical compositions.

From the First Palace at Phaistos come pieces depicting "lattice" designs (like those at PLATES 142-143), from below the third step of the Corridor 76. Similar frescoes were found in situ in the three niches at the northern entrance into the Central Court of the Second Palace (PLATE 142). Floral fragments (PLATE 200 A4 and A6) turned up near the south wall and a spiral fragment near the west wall (PLATE 200 A2) of Room 79, the Vestibule of the so-called "Women's Quarter"; unpublished floral pieces are reported from near the south wall of the same room, and also white-speckled black-painted fragments from near the west wall. Room 81 (a "Bathroom") contained floral fragments like those from Room 79, among various dado and monochrome pieces. In Room 50 (a vestibule) there occurred fragments showing four-petalled rosettes, and in Corridor 80, with a dado featuring blue and white bands preserved to a height of 2.70 metres, there was a spiral fragment fallen from a room above (PLATE 200 A3). Monochrome and banded fragments were found in abundance and often in situ in the ground floor rooms, predominantly magazines and service areas or passages, throughout the palace[28]. This suggests the few important pictorial fragments found had once adorned rooms in the upper storeys from which they collapsed at the time of the LM I B destruction of the palace. The floral pieces possibly belonged to scenes relating to the cults

of the two chief Minoan goddesses, if, indeed, figured compositions were ever on the walls of the Second Palace here. But in any case, Professor Louisa Banti has emphasised that a different scheme of mural decoration was put in hand at Phaistos from that in the Palace at Knossos where figured and animal scenes were everywhere.(29) At Phaistos the accent is upon simple linear decoration of ground floor rooms, with pictorial and geometrical paintings restricted, it seems, to cult rooms or major halls in upper storeys above the "Women's Quarter" in what was certainly a residential part of the palace.

A similar picture emerges from the fresco evidence in the palace at Kato Zakro. Floral paintings (LM I A) occurred in Corridor XLVIb and, in LM I B destruction contexts, spirals and rosettes in Rooms VI-VIII (magazines) and large multi-petalled rosettes in Room/Corridor XXI. All appear fallen from rooms above their find-places. In the ground floor "Banquet Room" XXXIX a spiral frieze in relief ran round all four walls immediately below the ceiling. The only other fragment of note is, significantly, thought perhaps to show the lower part of a female figure, found in Corridor XLVIb.(30)

The general absence of figured and animal scenes in all three palaces, and interest in floral, dado, geometrical and just conceivably goddess compositions alone, are particularly striking features. Banti's suggestion for Phaistos appears to hold good for all three lesser palaces, namely, that they avoided artistic and thematic "competition" with the palatial mural scheme at Knossos because they were adorned according to a different schematic principle. In fact they were painted, to judge by the existing evidence, <u>as if they were merely LM I country villas or richer town houses</u>.

(g) <u>Mural painting in Minoan tombs</u>

Plain and painted stucco fragments have turned up in several Minoan tombs ranging in date from EM III to LM III A 2, usually as debris in the fills of the funerary chambers or of the approaches to them. Whether the tombs had plastered and painted walls and ceilings, or whether the fragments represent debris from nearby houses which found its way into the tombs, it is difficult to say.

In Tomb IV at Mochlos, Seager found plain plaster which he thought had collapsed from the ceiling of the back chamber some time between EM III and MM III[31]. Several scraps of red-painted plaster were found by Hood in tombs II, XIII, XVII and XVIII of a Minoan cemetery spanning the period MM III to LM III A 2 on Upper Gypsadhes at Knossos; Hood thought this material was debris from nearby houses[32]. The same excavator has also recovered painted fresco scraps, in one case with a polychrome geometrical pattern, from two tombs on Lower Gypsadhes (LG Tombs I and II, excavated 1957). One room in the cemetery complex at Archanes, immediately to the west of Tholos B, produced many tiny pieces painted blue, red, orange, grey, yellow or left plain white, and at one point in the room there was a section of plaster preserved in situ to show that the ceiling had at least been covered with plaster - if not also painted.[33] Traces of blue paint have come to light in a few tombs, among them the Temple Tomb at Knossos whose walls were said to have disintegrated painted stucco on them (ILN 26 September 1931), and chamber tomb Eta at Katsamba (Praktika (1966), p.190, Fig.1). Some scholars think the ceilings had been painted blue, to represent in the Egyptian manner the night sky or the blue heavenly vault; but it is also possible such blue traces were once part of the decoration of biers on which the dead lay, as seems to have been certainly the case in the unpublished Tomb 4 at Sellopoulo(LM II-III A).

Of Minoan sites outside Crete, only Kythera to the writer's knowledge has revealed painted plaster pieces in tombs. Black and red on white fragments, and one with a curved red line (? a spiral), turned up in chambers 7, and 4, near floor level, of Tomb E in association with MM III-LM I A (and some Roman) pottery.[34]

The Hagia Triada painted sarcophagus was found standing on the floor in the south easterly half of a small square-walled tomb, a short distance to the north east of the later settlement. The pottery from the tomb, which was plundered to some extent, is classed as LM III A 1 by Furumark. No evidence was found that the walls or ceiling had been plastered and painted (see Appendix A, p.784 for further details of the find-circumstances).

Many Minoan tombs have been excavated in Crete in the last eighty years. Few have produced fresco material, and only two provide certain evidence for the plastering of walls or a ceiling (the Temple Tomb and the chamber at Archanes). Even if in the other cases the fresco remnants are not debris from nearby houses, mural decoration in Minoan tombs was certainly only very rarely carried out; and when it was, the decoration consisted of simple coloured bands or monochrome washes. This is one major field in Minoan life in which Egyptian influence, otherwise commonly to be met, seems to have made no significant mark, so far, that is, as we can tell from the present evidence. But not so on the Greek mainland, apparently. On the walls of the doorway into the MH-LH I-II tholos tomb at Moira (Myron) north of Pylos, red-painted plaster was found in situ. So, too, running spiral friezes on the portal and lintel faces of the entrance into a tholos tomb at Prosymna (PLATE 52C) - a comparison already noted in connection with our interpretation of a detail on the painted sarcophagus from Hagia Triada as depicting the fresco decorated entrance to a Mycenaean tholos tomb (PLATE 52B). But now a Mycenaean "thalamos" has very recently been unearthed at Thebes containing, in situ on an internal wall, the first known picture of a human figure on painted stucco in an Aegean Bronze Age tomb: the figure is female, presumably a priestess or goddess (The Times 6 May 1971, p.7). This discovery implies strong "Near Eastern" if not specifically Egyptian, influence in the mural decoration of Mycenaean tombs, which we have seen to be lacking so far in Minoan funereal buildings.

Summary of Conclusions

We have distinguished above five main positions for the paintings in the wall-scheme, of which the second, fourth and perhaps the fifth were especially popular in all regional and architectural classes of Minoan domestic building (Fig. 34, B, D and E). The decoration most commonly continued on all available walls of a room as a running or "broken" frieze, except, it seems, at sites which came under strong Mycenaean control or influence:

these we find at Hagia Irini on Keos, near the Greek mainland, and in Crete only at Knossos and Hagia Triada in LM II-IIIA. In the buildings to which we refer, the decoration, often including Mycenaean-looking subject matter, tends towards small-scale panels, architecturally or artistically separated, and there may be no obvious connection in theme between one panel and the next. In Chapter XI we shall see that this is characteristic of Mycenaean mainland mural decoration (p.644). But even at the end of the Minoan palatial period, when the Mycenaeans were in control of Crete, the running frieze was never abandoned and indeed perhaps was not even seriously challenged. Ceilings and floors in Minoan buildings were also stuccoed and painted, the latter more rarely, evidently because the Minoans in their heyday preferred and could afford to make or import luxurious and elaborately devised rugs and carpets from woven materials or animal skins. The most easily recognisable and typical ceiling decoration (clearly attested only in the palace at Knossos) is of three- or four-branched spiral designs, often in relief fresco, with "filling motifs" of rosettes or lotus flowers.

We have also examined groups of buildings with fresco decoration, grouped on an architectural and regional basis, and we have found not only that the content of their paintings may differ from one group to another but also that several different overall schemes of wall painting are represented among them, ones in which different scales of representation or techniques may also be evident. In fact five systems of mural decoration emerge, three of which cross the boundaries of our regional and architectural grouping of sites with extant frescoes. These we may conveniently label, in order of their artistic importance, as follows:

(a) the palatial scheme;
(b) the "princely" scheme;
(c) the "secular" scheme;
(d) the "standard" scheme;
(e) the "plain" scheme.

(a) The palatial scheme

This is restricted to the palace at Knossos alone. In the previous chapter, we saw how the main entrances and passages into the palace leading to the most important rooms on the upper floors, via main stairways, were adorned with large-scale, generally life-sized, figures of people in procession or of bulls in netting or sporting scenes. The scheme of decoration was noted to follow the sequence of events in a cycle of ideas relating to the celebration of a major public festival in honour of a goddess who comes to the palace to attend the ritual games and to receive libations and rich gifts of personal adornment. The series of later events in the cycle are reflected in the mural decoration of the upper rooms in the palace, in scenes executed in relief or "on the flat", on a life-sized to a "miniature" scale of reproduction, and placed to some extent in the order in which they occur in the myth-cycle. Thus there is continuity in the themes and the architectural distribution of the paintings, from the entrances inwards and from floor to floor. The upper rooms, including state halls, shrines, main corridors and passages, were decorated with many figured scenes belonging to this festive cycle and also with pictures of the shrines of the "Festival Goddess" and of her favourite guardian animals, winged griffins. Important frescoes not belonging to this scheme of decoration are late in date (LM II-IIIA) and evidently belonged to a few minor shrines on the fringes of the upper series of rooms; or else they were floor frescoes. Rooms of intermediate importance between those we have mentioned and storage and service chambers were most often decorated with a system of running spiral friezes at lintel-level, notably on the ground floor in the Domestic Quarters. Magazines and workshops were stuccoed and painted with simple horizontal bands and stripes or with monochrome washes of colour, notably red; or they may be left unpainted. Thus, the mural decoration in the palaces was basically threefold; as simple as possible in the service rooms and work areas; geometrical in the more important ground floor rooms;

and figured elsewhere, whether in ground floor rooms or throughout rooms on upper floors. Characteristic of this mural scheme are the large scale of representation of many figured human and animal scenes; the widespread use of relief moulding in stucco for many different kinds of subject; the appearance of life-sized figures of men, bulls, griffins and also enormous shields; large lotus flowers alone appear here in Minoan fresco work; and "miniature" scenes were more widespread than has hitherto been supposed. These and relief compositions always seem to have decorated upper rooms. But above all, this scheme of decoration treats the palace throughout its length and breadth as a vehicle for depicting successive scenes of the grand festival.

(b) The "princely" scheme

We might suppose this would be found in the three lesser palaces of the Minoan civilization, but in fact it occurs only in the Little Palace and the richest town houses at Knossos. It is characterised by the presence of elements of the "palatial scheme" and also of characteristic features of the two ensuing schemes in which natures scenes and representations of goddesses are respectively popular. Thus, in the Little Palace we find, in addition to reports of spirals and floral subjects, pieces from "miniature" human and marine scenes and also a low relief fragment of a large-scale winged griffin which constitute the "palatial" elements in this building's mural decoration. The house discovered by Hood to the north of the Royal Road (1957-61) produced many pieces of floral, spiral and other fine geometrical subjects, and one piece apparently from the relief figure of a goddess - but in addition, several fragments of two life-sized bulls in relief fresco, a subject otherwise found on this scale and in this technique only in the palace itself at Knossos.

It is difficult to assess this scheme of wall painting more fully owing to the dispersal and fragmentary nature of the fresco evidence at both sites. Its importance, however, clearly lies in its occurrence so far only at Knossos in both a very rich town

house and also in one major building of our "villa" class here, the Little Palace (the mural decoration of which has hitherto been thought to be insignificant). The suggestion is that only the very richest or most privileged members of society at the heart of the Minoan empire were allowed to incorporate some of the more immediately striking features of the otherwise exclusive palatial scheme into their own systems of mural decoration. That is why we have ventured to call it the "princely scheme".

(c) The "secular" scheme

This occurs in the "mansions" and well-to-do town houses at Knossos, and in a variant form in the settlements in the Cyclades and Dodecanese. Work in relief fresco is absent. The scenes are primarily concerned with nature subjects and are generally merely decorative and secular in their significance. Paintings of the human figure occur, on scales ranging from "minature" to life-size in the case of the young pugilists from Thera; but large-scale pictures of men and also of goddesses are absent:(but v.p.225). Friezes in positions D and E in the wall-scheme seem particularly prevalent, but it is now clear at Akroteri that frescoes in position B in the wall-scheme are not uncommon.

The Knossos variation is best seen in the House of the Frescoes, where the ground floor rooms appear systematically decorated with a single type of banded dado decoration. Pictorial frescoes appear confined to upper floors, with secular nature friezes in Main Halls but with other nature scenes alluding indirectly to goddess worship in "house shrines" approached by staircases. In the island group of sites, however, pictorial decoration (not necessarily of an obviously religious nature) occurs in cult rooms located on the ground floors, while a combination of secular and obliquely religious nature scenes similar to that at Knossos decorated the most important rooms and shrines on upper floors. At these sites spiral decoration seems more common than at Knossos, and there is a suggestion, too, not only that more rooms were given pictorial compositions

in the island sites but also that the house-owners were less concerned to preserve a coherent scheme of decoration from room to room.

The choice of faunal subject matter is particularly striking, since it so often finds connections in this matter with the Egyptian mural repertory, and in its range it is matched in the Minoan world only by the palace at Knossos. The fact that this scheme is characteristic only of the well-to-do houses at Knossos and of the island settlements, and the absence of a strong accent on overtly religious paintings featuring one or other of the chief Minoan goddesses, may imply that this type of mural decoration was particularly favoured by the rich merchant classes of Minoan society whose tastes in wall painting would seem to have been more secular than was the case either in the palaces and villas of Crete on the one hand or in the more humble provincial Cretan town houses on the other - where all pictorial frescoes seem rigidly to have adhered to aspects of Minoan goddess worship. This suggestion is perhaps borne out by a remarkable technical feature, namely, that preliminary sketches of the required paintings are especially common in the town houses at Knossos and in the island sites - as though their owners were always interested in seeing beforehand what they would be getting for their money. It is interesting, too, that the same "secular" system of mural decoration was adopted in the Caravanserai at Knossos, which Evans considered to be a hotel for visitors to the centre of the Minoan civilisation. That is, the widespread Minoan preoccupation with religion is not forced upon the attention of the visitors staying at the "hotel".

It is quite possible that the "princely scheme" may have included secular pictures, too; but it also displayed on the grandest Minoan scale and in the most highly developed techniques major religious symbols, such as the bull and the winged griffin, and also life-sized pictures of goddesses; herein lies the difference between the "princely" scheme and the "secular" scheme which served more private and personal tastes in mural decoration.

(d) The "standard" scheme

The characteristic features of this scheme are the decoration of ground floor rooms with simple dado designs and the reservation of pictorial frescoes for cult rooms and their antechambers only, nearly always on upper floors. Here the paintings are exclusively of two kinds, namely, representations referring to goddess worship, and floral pictures. The former class invariably depicts a goddess at life-size, sometimes in relief, in a floral setting. Only at Hagia Triada, in a ground floor shrine, is she accompanied by terrestial animals and birds of which she is their Mistress (SLIDE 54). At Nirou Chani we find a "sacral knot" represented as an isolated symbol of the power of the goddess, in a painting that may once have decorated the wall or entrance to her shrine on an upper floor; and in House A at Tylissos fragments of "miniature" scenes evidently relate, by Knossian palatial analogy, to a provincial festival in her honour. In another building, at Epano Zakro, a cult room on the ground floor was adorned with floral and spiral frescoes while a house shrine above featured a picture of a life-sized goddess in a richly floral setting. Contrary perhaps to expectation, the buildings adorned according to the present scheme have remarkably few spiral friezes by comparison with other groups of buildings.

This conventional and somewhat narrow scheme of decoration, limiting itself to overtly religious pictures of goddesses or to goddess worship and symbolism, and to their favourite playthings - flowering plants - is especially remarkable in that it embraces three architectural classes of building whose relative importance on every other account one would suppose to have been widely different. These are the three minor Minoan palaces at Phaistos, Mallia and Kato Zakro; all the Cretan villas outside Knossos; and the better class of house in the provincial towns and cities in the rest of Crete.

How are we to explain this extraordinary coincidence in the similarity and limited outlook of their mural decoration, if, that is, we can accept the extant fresco material as being

sufficiently representative to allow any conclusions ? And why are the three minor palaces put on the same decorative footing as the provincial villas and town houses? Any answers must be conjectural, but some considerations perhaps recommend themselves more than others.

A preoccupation with traditional religious concepts and beliefs relating to the worship of nature goddesses may have been particularly strong in the Cretan provinces which in thatcase could be expected to be mirrored in any mural decoration. We have also noted already that the decoration of the villa at Amnisos may have had an intimate connection with the worship of one such deity in the nearby cave of Eileithyia, and similar circumstances at other villas may have prescribed the particular forms of decoration that we find there. But in the case of the minor palaces, the absence of figured frescoes is so total and so astonishing that it is difficult to avoid the supposition that the authorities at Knossos may have suppressed any challenge to their power and leadership that could be expressed in mural decoration elsewhere on the island at any important centre. A single fragment from the palace at Kato Zakro suggests that, if figured scenes appeared on the walls of these palaces at all, goddesses - or female figures at least - alone went up on the walls. This suggestion, for all its lack of any factual basis, at least accords with the picture that emerges from consideration of other archaeological material, notably pottery, to indicate that from the MM III B period onwards the palace and town at Knossos increasingly dominated every aspect of Minoan life and intercourse throughout the island. Moreover, this view finds some support in the study of painters' "hands" (Chapter IX), for it seems that painters from (or at least trained at) Knossos depicted the finest of the frescoes which we find at sites elsewhere in the island. And it is notable, too, that the greatest freedom in the choice of subjects and themes in wall painting outside Knossos itself in fact is found at those sites which are furthest away from direct control by Knossos, namely, in the Cycladic settlements and

in particular at Hagia Irini on Keos where we have seen there is a good number of Mycenaean elements in the wall painting. These points imply that what went up on the walls of important palaces and villas outside Knossos in the rest of Crete was in some way subject to the control of the rulers at Knossos. What, in that case, would be more harmless, and therefore more socially and politically acceptable, than mural decoration relating solely to the island's traditional and widely accepted beliefs in Minoan goddess worship? Certainly this explanation is controversial; but the writer can find no more plausible alternative.

So widespread is this scheme of decoration in the island, in various types of building of unequal importance and significance, that "the standard scheme" seems a justifiable label for it.

(e) The "plain" scheme

The existence of such a decorative scheme is postulated for the poorest houses, both those on the fringes of the Knossos suburbs and others in provincial towns and country settlements, in which it is doubtful if there was ever any pictorial painting at all. At most, very poor Minoan houses would boast the occasional spiral frieze; but monochrome or striped bands would be the rule in all rooms of the house in which any painting was attempted. To this category we may reasonably assign the impoverished housesteads at Kouramenos, perhaps the small farm at Saktouria, and certainly the plastered peak sanctuary on the top of Petsofa. The mural decoration of such humble constructions shows little advance on that of the EM II settlements at Vasiliki and Myrtos "Phournou Koriphi", except in the use of a few more basic colours, and striped bands. Town houses elsewhere might suggest from their fresco remnants similar schemes of wall painting; but wherever finer wall-construction or the occurrence of fine pottery is evident (e.g. in Block N at Palaikastro), better fresco decoration, including pictorial scenes, cannot be ruled out.

Further Considerations

From this survey, other interesting conclusions emerge. The mural decoration of a Minoan building evidently depended to a significant extent on the status in society of the occupants or owner. Moreover, the paintings suggest a hierarchical society, with the rulers of the palace at Knossos at its head who, as we surmise, to some extent and for some unclear reason had some say in what kinds of decoration were permissible in certain types of building in the provinces. It may be, too, that as certain techniques and certain types of scene are only used in certain regional and architectural groups of buildings, there may have been various groups of painters undertaking different kinds of task, as, for example, secular as distinct from clearly religious painting.

The distinction above of five schemes of decoration has proceeded on the assumption that the collective evidence from different sites of the same regional or architectural class should be taken at face value, despite the certainty that at every site only a fraction of the mural decoration has survived. If our general conclusions on that basis are correct in principle, we can now plausibly predict what kind of fresco work, and from what rooms, is likely to come to light at any site of a known type, although there no doubt will always be exceptions to the general rule. But we must first compare like with like in those respects, before comparing the decoration from one regional or architectural group with that of another. For this reason, the claim currently made in some quarters that the excavations at Akroteri on Thera are now showing us for the first time how "Minoan houses" were typically decorated is at best a half-truth; for we have seen that the Cycladic settlements were decorated according to principles not altogether identical with what existed elsewhere in the Minoan world. However, we may equally firmly assert that, from the viewpoint of shedding further light on the architectural, thematic and chronological aspects of Minoan wall painting, the most valuable future excavations - short of the discovery of

another major palace, or of continued excavations in the town of Knossos itself - will almost certainly be at Minoan sites in the Cyclades or Dodecanese.

Notes to Chapter VI

1. This is clear from the square or rectangular plan of rooms and buildings in general; from the use of vertical and horizontal wooden beams in wall and ceiling construction; and from such recurrent right-angled features as stone dadoes and benches, doorways and windows (see, for example PM III, p.334f Figs. 221-222, and p.339, Fig.225).

2. Typical examples are: the Procession Fresco (PLATES 7-11 and, restored, 14A; Fig.18); the Priest-King Relief Fresco (PLATE 18 and SLIDE 1), which has a low relief wainscot; probably the life-sized relief figures in athletic and bull-leaping scenes (PLATES 16, 17 and 76); the bull scene from the upper Hall of the Double Axes (Fig. 35B); the olive tree relief fresco without upper border stripes (PLATE 116B); and the designs in the "sentry-boxes" at Phaistos (PLATE 142; of Graham, AJA 74 (1970), p.233, Fig. 1 for restoration).

3. From Knossos: the Griffin Frescoes (SLIDE 53); the bull scene in the Antechamber to the Throne Room (PM IV, p.893, Fig. 872); the West Porch bull scene (PM II, p.677, restoration Fig. 429); and probably the Shield Fresco, though the dado area is lacking (PLATE 63A). From Hagia Triada; the scenes in Room 14 (SLIDE 54). From Amnisos: the scenes collapsed into Room 7 (SLIDE 59). From Pseira: the relief figures at PLATES 24-25; parts of dadoes imitating woodwork are now known from recently discovered drawings of fresco fragments.

4. See Evans's restored drawing, reproduced in F. Matz Kreta, Mykene, Troja (1956), p.128 (lower).

5. To this position we may attribute the following paintings (the list is not exhaustive): from Knossos - the Camp Stool Fresco (PLATE 54 and Fig. 21); the Dual Chariot Fresco (SLIDE 20) and the "Palanquin Fresco" associated with it (Vol.IV, G, pp.338-341); the "Dancing Girl" from the Queen's Megaron (PLATE 32); the nature friezes from the House of the Frescoes (SLIDES 56 and 58), the South East House (SLIDE 26), and probably the scenes from the South House (PLATES 88B and 160A); the "miniature" bull scene from the North West Treasury (PLATE 119B); the well known "miniatures" from Knossos, Tylissos and Keos; from Hagia Triada - the small scenes at PLATES 14B, 50A and SLIDE 24); and the female figures from Phylakopi (PLATES 36-37). The "swallow fresco" from Thera shows that the main pictorial zone, featuring the lilies springing from the tops of rocky outcrops and also the swallows, unquestionably occupied a similar position in the wall-scheme, confirming that paintings depicted on such an intermediate scale between half life-size and "miniature" would have occupied this position.

6. The Partridge Fresco measures 38cm high, including upper border stripes, and the white band below the frieze is a further 22.5cm deep. A rough estimate of the height of the ivy band in the Thera scene at Fig. 35A, the original of which the present writer has seen briefly in the National Museum, Athens, suggests it does not exceed 60cm including further border stripes below the ceiling level.

7. Neither the published accounts nor the notebooks of the excavators present evidence for such decoration; nor is it a feature of the well preserved rooms at Akroteri on Thera. The painted "replicas" of this form of decoration to be seen in the palace at Knossos today (cf. PM III, opp. p. 346, Colour Pl. XXIV, and an excellent photograph in Crete and Mycenae Pl. 38(top)) are therefore unwarranted.

8. Various restorations of these panels show an olive tree rising behind the back of the bull, or else it may be placed on the right hand side "in front of" the bull; but the olive or myrtle tree at PLATE 116B has border impressions in the plaster at both vertical edges, indicating that the tree was a separate panel in itself; while the tree at PLATE 116A has a right-hand vertical border impression (allowing a possible position to the right of the bull-but not rising behind its back) - yet the scale of drawing seems too small for it to be fitted into a single panel with the bull: in that case, we must assume it, too, occupied a separate "panel", probably framed by the beams in the timber framework of the wall, as shown in the restoration at Fig. 26, opp.p.153.

9. The scale design in the lower border of the panel at SLIDE 50 differs from and reverses the direction of the horizontal borders in the other panels of the series (cf SLIDES 47-48).

10. See PM II pp.192-208; Mrs. Maria Shaw, AJA 74 (1970), pp.25-30. And P. Fortova-Samalova Egyptian Ornament (1963), for a superb collection of Egyptian ceiling designs reproduced in colour. Bucrania in Egyptian ceiling designs (Ibid, nos. 165-168 and 245) could be a motif borrowed from Minoan-Mycenaean ceiling patterns.

11. E.g. Tiryns: Tiryns II, Pls. XIX-XXI; Mycenae, BSA XXV (1921-23), Pls.XXXIII, XXXV, and XLI; Pylos: Blegen and Rawson, A Guide to the Palace of Nestor (Cincinnati 1962), Figs. 7-8, 15 and 21-24.

12. PM I, pp.543ff.

13. PM III, p.378. Mr. M.S.F. Hood has also -and independently- reached the conclusion that the "Dolphin Fresco" belonged to a floor.

14. The excavator believes the fresco shows the figure of a standing woman (Arch.Delt. 20 (1965) B'3, p.560); but the present writer was under the impression that the black marks taken to be the outline of the figure were no more than burnt smudges, when he saw the fresco in situ at the time of its excavation.

15. The provenances of other "late" frescoes from Hagia Triada indicate the pieces were refuse thrown out at a later date, or they are not closely described.

16. So Graham, The Palaces of Crete p.166.

17. J.V. Luce The End of Atlantis (1969), p.88.

18. On the controversial dating of one piece, see p. 30, footnote 7 above.

19. Vol.IV, F, p.17, Fig. 9, on the northern section of the east wall of Room T - a hypothetical position.

20. PM II, pp. 456-459; similar inscriptions on cult implements from six other sites are reviewed in detail by W.C. Brice in Bull. John Rylands Library 48, No. 1 (1965), pp.56-68.

21. The "pebble fragments" from the South House appear to have been placed in trays containing similar "pebble pieces" from the House of the Frescoes, and are now indistinguishable from the latter because they were painted by the same artists.

22. This would still be true if, as is just conceivable, the fragment in question had once decorated a goddess's skirt - like the piece from Katsamba (SLIDE 12c).

23. PM IV, p.220, Fig. 170 and PM III, p.388, Fig.259, respectively.

24. PM II, p.116. The quality and character of the plaster is the same, as is the way the surface has flaked in places; pieces from this frieze have been incorrectly placed in trays of fresco material from the House of the Frescoes.

25. Cf. the hand of the "genius" (recognised as such by Miss M.A.V. Gill in AJA 74 (1970)) in Pylos II, Pl.C (no. 40 Hne).

26. Both were found high up in late debris; the unpainted one strongly recalls an unpainted LM IIIB portable hearth from Orchomenos. The LM III B squatters in the present building lit open fires in a hollow scraped in the floor of one ground floor room.

27. See Appendix A, p. 749 for details.

28. In Rooms 15, 16, 18, 25, 32, 43, 45, 46, 59, 60, 83 and 91-92; in corridors 12, 41, 51, 73 and 80; in doorway 17-19; in stairways 42, 51 and 71; in magazines 29, 31 and 33-36; in peristyle 74; in porticoes 65 and 78; and in vestibule 75.

29. Il Palazzo Minoico di Festos Vol. II, pp.484f.

30. Platon also reports the discovery of "horns of consecration" and flowers painted on the plaster on the walls of Bathroom LVIII (Europa. p.240). These paintings have not yet been published.

31. Explorations in the island of Mochlos (1912), p.46.

32. BSA 53-54 (1958-59), pp.198 and 220-224.

33. For a diagram of the area, see Archaeology 20, No. 4 (1967), p.276, Fig.1; the excavator kindly showed these pieces to the writer at the time of discovery: none appeared to join up.

34. On information kindly supplied by Professor G. Huxley and Mr. N. Coldstream.

CHAPTER VII

THE COMPOSITIONAL STRUCTURE OF THE PAINTINGS

CHAPTER VII

Here we are concerned with the artistic construction of the scenes, that is, with the question how the Minoan painters disposed their important subject matter in space and in relation to background and subordinate pictorial elements. This question entails some examination as to what importance the artists placed on perspective, volume, unity, and continuity in design, movement, and balance in both composition and decorative effect. The elusiveness of a simple answer has been stressed by such admirable critics as Mrs. H.A. Groenewegen-Frankfort whose study of this aspect of Minoan art in her book Arrest and Movement provides most valuable guidelines on this difficult topic.

For present purposes the pictorial frescoes fall into three groups: those in which the main subjects seem encircled by subordinate elements weaving in and out in a closely woven and harmonious design; then those compositions arranged on more straightforward vertical and horizontal axes; and finally those which combine both the above compositional characteristics of design.

Our first group is best represented by human and nature scenes from the House of the Frescoes (SLIDE 56) and from the villa of Hagia Triada (SLIDE 54). Such compositions have been called "nuclear" by some scholars because the main subjects act as centrifugal points around which the background washes and secondary subjects (such as plants, rockwork or other landscape features) encircle so naturally and informally as to look almost accidental to the design. These encircling elements both enframe and link the main subjects together in an artistically coherent unity. In human scenes the figures are not merely focal centres but their narrow waists, too, are pivotal points for the entire figure. So, too, in some animal scenes (e.g. the monkeys at PLATE 84), and the feet of birds become pivotal points for wider circles taking in surrounding rockwork, plants or bushes (PLATE 87). A less subtle example of this encircling principle is evident in the marine floor scene from Hagia Triada where the octopus with its horrendous eyes attracts a circle of curious dolphins (PLATE 124).

The space-relationship, however, between main subject and

surrounding features is often ambivalently denoted, partly because there is little perspective in Minoan painting, partly because some drawing conventions adopted for certain motifs create difficulties even to the extent of confusing opposing visual planes, and partly, too, because the foreshortening of some subjects makes emphatic treatment of volume or mass of secondary importance. A seemingly etherial disposition of the main subjects in relation to their settings is the result and the onlooker feels at a loss to know where or how the subject is exactly situated. Thus, for example, the women in the frieze from Room 14 at Hagia Triada could be floating in mid-air in the one case and half-rising in the other instead of kneeling and seated (SLIDE 54): in the same composition we are unsure of the places of take-off and landing of the goats and where exactly the cat creeping up on the unaware bird is about to place its outstretched paw. The bird with half-opened wings in the frieze from the House of the Frescoes is caught in the painting in momentary indecision as to whether or not to fly off (PLATE 65). In the more formally designed "miniature" compositions from Knossos the circular effect of the crowd and background elements is retained; but the "artistic shorthand" method of depicting the crowds fails to create a sense of three-dimensional depth or correct perspective (PLATES 26 and 29). The tripartite shrine can hardly be shewn in realistic proportion to the surrounding priestesses who consequently lack a realistic space-relationship with it. In the Sacred Dance "miniature" scene the flat plane of the arena is confused with the vertical plane on which the trees and spectators are shown (PLATE 29): the diagonal pathways do little to correct this. This confusion of different planes is most apparent in marine scenes where the fish are seen in profile but the water is depicted "in plan" as seen directly from above. The convention of showing heads in profile view only adds another problem: in the "miniature" dancing scene, for example, the spectators seem more interested in themselves than in what is going on before them: the central point of the picture, surely the ritual dance, seems less important because the artist was unprepared to break away from so rigidly applied a convention. These problems, which the Minoan artists never solved, crop up again in so-called Nature scenes: it is unclear

whether the rockwork, for example, surrounds the fauna or is in front of, behind, higher up or below the creatures. Our only fixed points in space are those where the feet may actually be planted. Thus the encircling principle in this art always leaves the question of precise space-relationships wide open. However, it is probably true that what is higher up in the panel may be understood as more distant from the onlooker whose viewpoint often appears to be - particularly in the friezes not exceeding about 1½ metres in height - the baseline of the composition. Such pictures were placed at least halfway up the wall, between the floor and the tops of doorways. Unrealistic proportions of main subjects to one another helps to account for loss of perspective and satisfactory space-relationships but it also makes some subjects appear larger than life which in part explains their etherial appearance. This peculiarity of ill-proportion is repeated many times in figured scenes, especially in those with architectural features as well; but in Nature scenes it is less noticeable because the relative scale of representation of surrounding rockwork features can never be objectively measured. Interestingly, the rockwork impinging on the upper border stripes of the bird and monkey frieze from the House of the Frescoes adds to the "larger than life" character of the painting of the monkeys (in unrealistic proportion to the flowering papyrus clumps), for the whole scene seems to jump out of its framework of borders as if thrusting itself upon the view of the onlooker (SLIDE 56).

These remarks are far from saying that such pictures lack coherence and artistic unity and feeling for continuity. On the contrary, these effects are achieved in several ways. The rambling nature of the rockwork or background washes and variation of their colouring link up the main features of the compositions in a pleasingly informal decorative, as well as thematic, way. The balance of the colours throughout these scenes is so skillful as to defy adequate description; any harshness is avoided, the colours blending and complementing each other without monotony. The interwoven texture of the various representational elements is carefully maintained by the addition of flowering plants, trees or shrubs with gracefully radiating or undulating stems and

branches which may also overlap one another: a horror vacui and a resistance to isolating any important subject matter go hand in hand to build up a totally integrated composition which, nevertheless, avoids overcrowding. The addition of much secondary subject matter therefore seems more decorative than functional, as Groenewegen-Frankfort has already pointed out. The bending, interweaving nature or "tortional" treatment of rockwork, background washes, plants, streams and other pictorial objects avoids rigidity of delineation along straight axes, in marked distinction to paintings of our second group. In addition to making the subject matter overlap, the artists also employed another "unifying" device, namely, painting the heads of people, animals and birds as looking over their shoulders thereby reversing the direction of the action and diverting one's attention to or from the primary focal point. At the same time, this simple device unifies the scene to left and right of the figure itself, avoids monotony in the direction of the action and also situations of "confrontation" between equally important subjects. The partridges at PLATE 86A, right (and PM II, Part I, Frontspiece), for example, turn their heads in opposite directions although they stand breast to breast. Continuity in the design is preserved by lengthy bands of undulating rockwork or background washes of colour; by the overlapping of the subjects; by the profusion of plants and animal forms whose various parts point in all directions and break down any tendency for one axis to predominate; and by boldly continuing the scene from wall to wall without making architectural or thematic use of the break where one wall meets another in a corner of the room. The scene continues around the room without dramatic interruption.

Furthermore, the postures and gestures of man and animal are often antithetically counterbalanced by the disposition of another limb, but absolute symmetry was avoided. This makes it easy for us to feel in immediate sympathy with the figures, for whatever their formal poses or the ritual in which they are steadfastly engaged, theirs is a natural and relaxed posture which is brought out by the artists' impressive control of boldly flowing and curved lines. This control of "line" never became an objective in itself nor was

it directed in accordance with a strict canon of proportion as in Egypt and elsewhere before and during the period of the Minoan civilisation. The Minoan figures are consequently more dynamic in characterisation, and their lively realism carries as much or greater conviction than the creations of any other artistic culture in the Mediterranean and Near East until the dawn of classical Greek art. The graceful and dynamic line, the sensitive antithetic conception of movement and the balanced drawing and choice of colour breath life into the figures, and it is the liveliness in artistic conception of Minoan art that particularly astonished the world at the turn of this century. This quality in Minoan pictorial representation has been shrewdly summed up in Groenewegen-Frankfort's phrase "absolute mobility", by which she means instantaneous and effortless movement convincingly captured in suspended or timeless animation, the resilient subjects "free from the structural rigidity of organic forms". Rippling muscles, not the mechanics of the body's framework, impel movement; but the action is rarely purposeful because it is self-contained and not "subservient to ulterior achievement". True, there are some instances to the contrary, especially in Nature scenes: the cat in the fresco from Hagia Triada intends to catch the unaware bird (PLATE 66); the monkeys are bent on finding the birds' nests in the frieze from the House of the Frescoes (SLIDE 56); and in bull-leaping scenes the athletes must leap or be gored by the bulls (SLIDES 46-52). But even in these cases, animals and man are portrayed in mid-action and suspended in place and time: it is the spirit of the action, caught in mid course, not the end result, which the Minoan artists strove to depict for all time. The continuity of action, timeless, effortless and graceful, matches the continuity in the artistic structure of these scenes.

In our second group of paintings, naturalistic background details are reduced to a minimum or abandoned altogether; there is little "torsion", and vertical and horizontal axes become prominent. The structure of the compositions becomes tectonic, more static and monotonous, more formal and monumental in effect, with much

greater emphasis on the antithetic and heraldic disposition of the subjects. On the whole, such treatment is the chief hallmark of LM II and IIIA frescoes but it is possible to see its beginnings as early as MM IIIB/LM IA, in such compositions as the goat scene from the House of the Frescoes (SLIDE 58). To this class of composition we may also assign the Griffin Frescoes from Knossos (SLIDE 53), most processional scenes, the Shield Fresco (PLATE 63A), and the scenes on the Hagia Triada painted sarcophagus (PLATES 148-151), to list only some of the obvious examples. Among the processional scenes are here included the Camp Stool Fresco (PLATE 54), the Captain of the Blacks (SLIDE 10), the chariot and related "Palanquin" frescoes (SLIDE 20 and PLATE 51). One need only compare the Griffin Fresco and the famous Procession Fresco from Knossos (PLATE 14A, top) with the earlier friezes from Hagia Triada and the House of the Frescoes (SLIDES 54 and 56) to appreciate at once the structural differences in the composition of these two groups of paintings.

In our second group, rockwork, for example, is abolished entirely or else runs only along the outer edges of the friezes with at best small forays towards the centres of the picture (SLIDES 20 and 57, and PLATE 14A, top). Plants, if present at all, no longer appear undulating sinuously or in radiating bushes but are planted out stiffly one by one (PLATES 50A, 84C, 127, and Figure 12). Undulating background bands, which have largely ousted rockwork, follow only horizontal axes and in more predictably regular paths than before (e.g. PLATE 127). A primary aim now is for monumental effect, either by isolating the main subjects from a naturalistic background setting or by disposing them in stiff antithetic heraldic positions: the Griffin Frescoes and Camp Stool Fresco from Knossos are clear cases in point. The latter painting also introduces a rigidly formal quality into the design in the arrangement of the scene in registers, and the figures themselves are repetative, statuesque and stereotyped (PLATE 54). Even in the famous Procession Fresco, which retains the free, uncramped style of figure drawing

that is a feature of our first group of paintings, the emphasis is on the vertical and horizontal axes of the figures, on somewhat mechanical repetition of both posture and spatial disposition of the participants in the procession, for ever marching along in a void setting in good crocodile order. Contrast this scene with the line of processional "miniature" figures swinging along in a gay throng on the pieces from the Sacred Dance and Grove Fresco at PLATE 6A, or with the more famous procession of harvesters on the carved stone vase from Hagia Triada. The dynamic rhythm in the former painting seems to arise more from the nature of the scene depicted than from any vitality of the figures themselves: "inner life", as it were, of this composition is sacrificed to formality, monumentality, repetition, and in fact to a heraldic conception of the figures about a focal centre in the person of a goddess (PLATE 14A, top). The "nuclear" or encircling principle in the compositional structure of our first group of paintings has, in short, vanished; and after LM IB it never seriously challenged the place of formality in mural composition and the more tectonic structure of our second group. Our third group attempted to combine these two conflicting concepts of design which seems only to have made the predominance of the second more likely to come about. This group is best represented by the frescoes from Room 7 of the villa at Amnisos (PLATES 95-96, 102-103, and SLIDE 59).

Lilies, irises and other plants appear in large radiating groups, the bases of the stems acting as focal centres in the entire assembly from which the rest of the plant radiates as in a half-circle. Stems gently curve outwards, and in two scenes undulating dark red background bands preserve the same half-circle structure (PLATES 95 and 118E). These are features in common with our first compositional group, but there are points of similarity with our second group. There is a deliberately measured, almost mathematical, balance in design, one group of flowers or stems formally and antithetically balancing another (PLATES 95, 102-103). Moreover, the scale of representation of the plants is unusually imposing. The paramount aim here is to

impress the onlooker by formal antithetic formulae and monumental scale rather than by pictorial content, with the emphasis on design rather than on complicated and vividly coloured and contrasting detail. This is also apparent in the goat scene from the House of the Frescoes (SLIDE 58). The radiating plants in the frescoes from Amnisos recall similar clumps of smaller radiating flowers in scenes from the House of the Frescoes but they are "writ large" (cf PLATES 90A-B and 95), and vertical and horizontal axes are strongly pronounced in the large wide plant-pots and architectural features in the backgrounds (PLATES 95, 102-103). The simplicity of the background treatment stands in contrast to that of our first group of paintings (cf PLATES 65-66). There is a static quality in the present pictures, but a spontaneity, also, which finds its expression in the "tortional" and radiating treatment of the chief subjects. In these pictures a more or less even balance in opposing structural concepts is successfully maintained; but it was not long before the more rigid and formal structure took over once and for all.

A fourth compositional group of frescoes has so far remained unmentioned. This comprises symmetrical decorative friezes, such as spiral or "lattice" compositions in their own right: these proceed in straight-forward mathematically measured progression. An interesting exception is the "Zebra Fresco" from the Royal Road/ North site at Knossos which retains the unconstrained interweaving and circular principle described above (SLIDE 42).

CHAPTER VIII

THE ORGANISATION AND TECHNIQUES OF THE INDUSTRY

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CHAPTER VIII

As the Minoan civilisation approached its zenith, mural painting on a lime plaster in nearly all types of building (with the notable exception of tombs) became more and more widespread. The bulk of required raw materials was so massive that we are forced to assume that by the end of MM III, if not far earlier, the industry of mural painting must have been highly organised. Our insight into this and related aspects of Minoan wall-painting is unfortunately only indirect and stems from consideration of the practical and social implications of this widespread art and of the nature of the composition themselves. What little we can reasonably deduce about the industry's personnel and organisational structure, its distribution of labour and its economics, does however agree with what the Linear B tablets and contemporary Egyptian and Babylonian records have to say on the organisation of other industries or crafts in the second millenium B.C.

The labour force

In Chapter II it was suggested that the EM II period saw village communities beginning to sustain a variety of specialised industries or trades, among them a labour force to collect raw materials for use by a second group of workers concerned with plastering and painting the walls of the settlements. By the end of the First Palatial Period (MM II B), the output and quality of painted stucco was far higher and by now the industry probably comprised not less than four types of worker: a group to quarry lime and gather pigments; a second group to transport the raw materials to the centres of production; a third to grind, burn, slake and store the prepared materials ready for use; and, finally, those who required the end products for use - the plasterers and painters. The labour force probably remained like this until the end.

"Schools" and working centres

A frieze on the walls of a single room, and even more so total redecorations of palaces in a thematically unified system of decoration, would certainly require careful planning beforehand. Study of the "hands" of painters responsible for the well-known series of "miniature" frescoes from Knossos points to five artists collaborating on a single project and their individual mannerisms of brushwork suggest less experienced artists closely following the style of more skilled craftsmen among whom one seems particularly outstanding (Chapter IX, pp.319ff). If these considerations alone suggest a hierarchy among painters comprising a master-painter, skilled assistants and promising apprentices, then the time needed to learn to paint well in this difficult medium and the strong continuity to be observed in general style from one period to the next also imply master-pupil relationships among groups of painters whom we may call collectively "a school".

"Schools" in antiquity were often based on the family unit, the craft being passed down from one generation to the next[1]. The legend of the family of Daedalus and the Linear B records from Pylos listing "religious women" and bronze-smiths according to parentage suggest the same of the Aegean Bronze Age[2]. Probably the Minoan craft of wall-painting would have been similarly based although new recruits might well have joined a "family circle" of painters from other sections of the community. How large the "schools" became and whether or not both sexes were admitted we cannot tell.

Workshops and lime-kilns must have been located in or near the main towns and important settlements, though none have been definitely identified. Evans noted several "deposits of colours" in the palace at Knossos and he thought the paints were stored there. A painter's workshop within the palace precinct would fit in well with workshops of potters and stonemasons already identified in basement rooms in the palace[3]. Vessels containing

lime ready for plastering have also been discovered in the palaces at Knossos and Kato Zakro, as well as in several private houses. The lime for plasters may have been stored there too.

The geographical distribution of raw materials is such that we may reasonably assume each important town would have its own lime kiln and local "school" of painters. There are indeed slight regional variations in the quality of plasters and brushwork, and distinctive regional styles of painting can be discerned where there is enough evidence in surviving remains - chiefly in the Cyclades. But in Crete wherever we find large-scale figured compositions the style of painting suggests the work of painters trained at Knossos itself (Chapter IX).

The division of labour

Builders may have carried out simple plastering of walls throughout the history of this craft, the painters only taking over when the plasters were smooth enough to take the painting; for their task was above all to select the appropriate materials and to plan and execute the design. But when plastering was itself an integral part of the design as in those with subject matter moulded in three-dimensional relief, or when wafer-thin "slips" were wanted, we may be sure the painters themselves carried out such plastering.

The master-painter himself would have planned the compositions and, most likely, drafted preliminary sketches or "cartoons" on the direction of those commissioning the paintings. Presumably only the skilled and promising assistants helped the master craftsman to carry out the bulk of the painting: mistakes in this medium could not be rectified except with great difficulty. But secondary ornamentation, applied in the last phases of the painting process, may have been effected by unskilled apprentices; for much of it was dull and repetetive. Like his counterpart of Italian Renaissance times, the new apprentice would no doubt have first learnt to prepare pigments and would be required to fetch

and carry, and we may conjecture, with Evans, he began his painting career by executing monochrome washes or simple dado bands in storage rooms or basements. Perhaps it was the apprentice who added the hundreds of white "impasto" spots as final ornamentation of dress patterns or as the eyes of male figures in "miniature" crowd scenes (e.g. PLATES 20 and 26).

The economics of the Industry and the painter's status in society

What arrangments were made for contracts and payment, who commissioned mural decoration, and what position the wall-painter held in Minoan society are intriguing but open questions. Yet some general suggestions can tentatively be made.

Ambitious pictorial compositions appear chiefly in the palaces, in their large dependant surrounding houses and in the more important villas (those whose geographical situation is most significant). As already stated in this Chapter, the Knossian painter seems to have been responsible for much of the finest workmanship in the rest of Crete. In that case, we may reasonably suppose that the palace authorities at Knossos exercised some sort of control, religious or political, of places featuring important mural decoration which in turn suggests the economics of the industry lay in the hands of the palace authorities. These points lead us to think only the richer and socially elevated members of the Minoan community were in a position to commission fine mural decoration. However, the position in the Cyclades and perhaps to some extent at Knossos itself may have been somewhat different insofar as owners of town houses apparently managed to decorate their houses more lavishly than did others from towns elsewhere. As Knossos was the leading centre of this craft, finer decoration in its town houses could perhaps be expected; and in the Cyclades a greater degree of social and political autonomy - indicated by evidence for significant cultural and commercial contacts with the Greek mainland - than we find in Cretan townships outside Knossos may account for more lavish decoration in the houses of

the bourgeoisie. In all places except Knossos and the Cycladic sites (and LM III A Hagia Triada), blue pigment seems to have been used sparingly, a point which suggests the pigment was costly to import and use freely.

Although wall-painters are not mentioned in Linear B tablets, it seems safe to suppose they belonged to the "working classes", along with smiths, potters and the like: craftsmen and artisans were still centuries away from economic and social independence of the patronage offered by palace authorities and the social elite; and there is no reason to suppose that within his social class the wall-painter - however much his art influenced other artisans or craftsmen or ranked high in general esteem - stood in special favour. For pay, the wall-painter probably received daily or monthly rations of food, like other craftsmen whose payment is recorded in the Linear B documents.

Here we must leave the organisational and economic aspects of the craft, for it would be unwarrented to go further, and turn our attention to the technical aspects of it: and it may be useful to begin with a brief account explaining the present condition of the frescoes.

The effects of damage in antiquity

No undamaged painting on stucco survives to the present day and many were affected by fire at the time of their destruction. Even the two complete pictures on the small sides of the painted sarcophagus from Hagia Triada show worn surfaces and abrased paints making observation of fine detail difficult (PLATES 149 and 151). If the broken condition of all other known frescoes spoils full enjoyment and comprehension of them as artistic and historically valuable records, this condition nevertheless greatly assists observation of technical features which might otherwise escape our notice. Even severe damage by fire can provide useful clues on chronological points and uneven firing assist in determining the correct relative positions of fragments of paintings

to be restored, as in the case of the decoration of Room 14 of the villa at Hagia Triada (Vol. III, pp. 198ff).

One badly burnt picture from that room shows particularly well the types of distortion commonly caused by fire (PLATE 159). The plaster is blackened, the paints over a large area turned to an almost uniform brown-black colour. But burning is usually less heavy, in which case white and light blue may turn grey, yellows become red, reds become brown; so, too, green. Smoke can leave dark smudges on unpainted plaster surfaces (PLATE 44B), and the reaction of heavy firing as seen in cross-section at a broken edge may turn white plaster to grey for a depth of 0.5 cm or more; a case in point is the fragment in relief of a woman's leg at PLATE 42F whose surface colour ought to be white, like that of the adjacent piece at PLATE 42E! Intense heat cracks plaster and can reduce it to an unrecognisable calcined mass. This partly explains why only fragments of originally large compositions have survived.

Other damage was caused when the paintings collapsed from their walls. Large parts of the frescoes would be severely damaged or totally crushed under the falling debris of masonry and wooden beams. Glancing blows of the falling debris or of the painting itself against a harder surface might rub off much of the secondary decoration from the surface (PLATE 47A). Thin surface layers of fine plaster, called "slips", easily flake away and rob us of the painted decoration (e.g. PLATE 160 A and B1), but in doing so it may also reveal sketch-lines of preliminary "drafts" of the composition (PLATE 160 C6, line to left). Thanks to this damage a most significant stage in the painting process is thus brought into view.

Examination of the broken edges of fragments throws light on the layered structure of plasters and paints, telling us how the compositions were built up and how far the paints may sink into the plaster: such information is relevant to the question as to what kind of painting method the Minoans used. Impressions

on the backs and sides of the fragments supply invaluable information on the constructional character of the wall to which the painting belonged and may help to determine the original position of the painting on the wall - even though not a single stone may remain standing of the wall itself.

Tough chemical accretions sometimes appear on the surfaces of the fragments: these obscure the actual painting and are extremely difficult to remove. Fortunately, by and large the Cretan frescoes have escaped such accretions.

Ancient damage to these beautiful paintings, for all its unfortunate consequences, provides considerable technical and architectural information if we know how to "read" the broken pieces aright. Much of what follows is based on close examination of many frescoes in the light of information made available to us simply <u>because</u> the paintings are so damaged.

<u>Materials and equipment</u>

(a) For painting

The Minoan "palette" comprised five prime colours only, prepared from inorganic materials which are more stable and inert than pigments derived from vegitable or animal substances: they are therefore the most suitable for use on stucco plasters. Earth ochres (iron oxide) provided yellows, and, when burnt, reds. Soot, carbonised matter or carbonaceous shale produced black. White was prepared from chalk or calcined lime (calcium carbonate); and blues as a frit from copper-calcium silicate. Blue was evidently imported into Crete from Egypt in ready-made cakes of pigment, rectangular in shape to judge from a partially preserved example (8.5 x 6.0 x 2.5 cm) recently discovered at Archanes. Cakes of red pigment are also known, but in more fragmentary conditions, from Knossos.

Mixture of two or more prime pigments gave other colours, notably, grey (white and black), orange (red and yellow), pink (red and white), and green (blue and yellow): all these may vary

widely in shade. A natural green first appeared in the Aegean Bronze Age, so far as we know, in the late fourteenth or early thirteenth century B.C. at Tiryns on the Greek Mainland: it was prepared from pounded green malachite. There are differences in the textures of the paints, which are generally opaque and were applied in thin or thickish layers up to about 1.0 mm in depth. Some paints, notably white, may be distinctly paste-like and these are termed "impasto". There are also streaky, thin paints, evidently much diluted with water, particularly among blues and to a lesser extent among reds and yellows. Linear B tablets appear to mention both prime and mixed colours[4].

How the paints were prepared is obscure. The accepted view, first advanced by Heaton, is that the raw pigments were probably ground in a mortar after any necessary burning and then slaked (perhaps with calcined lime, though this is disputed) in water until they formed a glutinous paste free from large impurities. From the paste it seems cakes of pigment were perhaps made for storage in readiness for future use, but there is no evidence they were used as in Egypt - set into special hollows in wooden or ivory palettes and rubbed with a moistened brush. On the contrary, Minoan paints seem to have been used in liquid or "paste" forms. The paints owe their remarkably fine state of preservation partly to their careful preparation, partly to a fine protective chalcedony film over the fragments from immersion in the damp soil, but almost certainly more to their inert properties and the method by which they were applied to the plaster.

No brushes have survived. These were probably made from organic materials, such as birds' feathers or reeds with their tips softened by chewing or pounding with a stone, which have long since decayed. The Minoans, it seems, used sponges on occasion (PLATE 4D) and strips of material or leather, to judge from "stippled" painted ornamentation on some frescoes (PLATES 63A, 73C and 155C), and possibly also their finger-tips for large blob-like decoration (PLATE 139 B-C). Small clay vessels contained the

paints, as pots with traces of paints inside indicate that have been found at Knossos, Phylakopi, Tylissos and Mycenae.

(b) For plastering

The finer plasters were made from limestone quarried locally but firm identification of the quarries is none too certain[5]. No lime-kilns of Minoan date are yet known, perhaps because they were not permanent architectural structures but "sow-kilns": these are simply circular open spaces where wood and limstone were built up in a series of alternating layers to a modest height and then allowed to burn thoroughly for several days. The calcined or burnt lime was then raked away and purified. Chemical analysis carried out by Heaton gives the following result for a sample of the finest plasters of the Late Minoan age:

Soluble (98%)	Calcium oxide	... 51.93
	Magnesium oxide	... 1.03
	Carbon dioxide	... 41.18
	Sulphuric anhydride	... 0.54
	Iron and alumina	... 1.81
	Alkali etc.	... 1.39
Insoluble (2%)	Silica	... 2.12

A number of tests showed a general proportion of calcium carbonate in such fine plasters of between 90 and 94 per cent[6].

How the Minoans prepared their plasters is something of a mystery. Heaton suggested the limestone (calcium carbonate, $CaCO_3$) was reduced to a powdery form or "flour" by burning in some kind of kiln at a temperature around 900° and pounding in a mortar, the powder thus obtained (quick-lime, CaO) then being slaked in water possibly for a long time. This process formed a wet lime-putty ($Ca(OH)_2$) ready for immediate use. How these pure lime-plasters held together without any "filler" such as sand or marble dust (the former being a most important ingredient in Renaissance and modern plasters) amazed Heaton and has totally

defied explanation up to the present day. It is, however, clear that some binders, such as hair or fine chaff, were added though these have now dissolved leaving only fine impressions in the plasters.

Clay vessels containing lime-putty have been found at several sites. A pithos in the palace at Kato Zakro was used to contain a large amount, presumably while the work of plastering was in progress[7]. Smaller bowls were refilled from such vessels and some with the putty still in them were found at Knossos in cists in the Long Corridor (PLATE 152 A-C). These show that the plasterers scooped out the putty with their fingers (PLATE 152C). A "coarse red bowl containing fine lime" of MM I date was found at Palaikastro, and other instances are known from elsewhere[8].

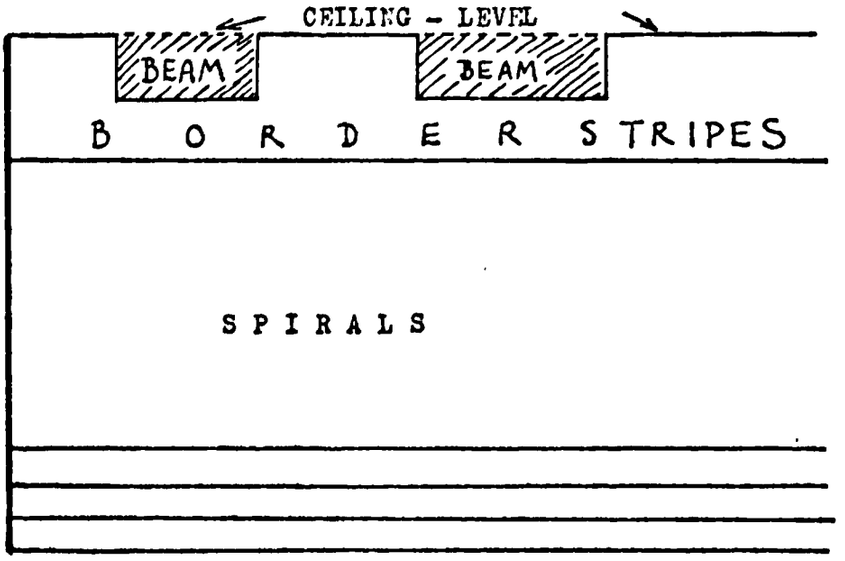
It seems the plaster-putty may have been put on the wall by hand and then smoothed out with wooden floats or polished serpentine "rubbers". Heavy stone-made floats, such as that seen at PLATE 152D, may have been employed to smooth down plastered floors. Some murals show stippled marks on their surfaces as if they were smoothed down with some kind of brush. Very thick plaster layers were sometimes supported by wooden pegs inserted into the walls beforehand (PLATE 154); wet plaster is of course extremely heavy.

Architectural technical features

Several impressed features appear in the plasters which derive from the architectural surroundings into which the compositions were fitted. These features appear in "negative", for they remain as impressions in the plaster when it was put on the wall in the putty condition.

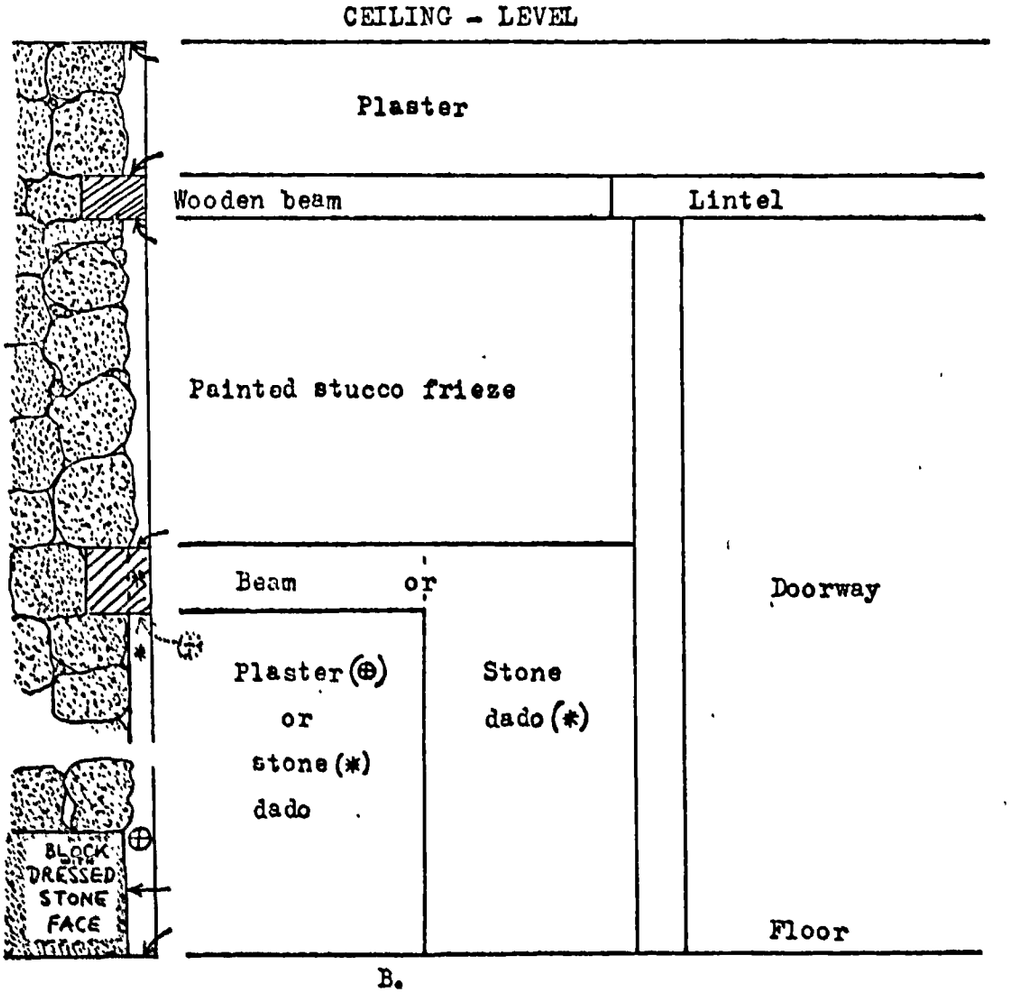
The most common impression is the flat edge, at right-angles to the painted surface, which appears along the borders of the plaster indicating where it was laid up to and abutted the flat surface of some architectural feature. This might be the side of

Fig.39



A.

Diagrammatic view of the spiral fresco from Room XXIX in the palace at Kato Zakro as fitted round the ceiling beams



B.

Diagrammatic cross-section and face of a stuccoed wall indicating at ↖ where and why flat border impressions at the plasters' edges can be expected.

Fig. 50

a beam of the timber framework in the wall; the edge of a portal of a doorway; the upper horizontal edge of a wooden or stone dado or bench; the corner of a revetment in a wall or that formed by two adjoining walls, or the angle where a wall-face meets floor or ceiling. The borders of every painting show these flat impressions: for the compositions were always fitted into rectilinear spaces, whether on walls, floors or ceilings. Misunderstanding of the significance of these impressions led Bosanquet to believe the Flying Fish paintings from Phylakopi might have been made in wooden frames at Knossos and then exported to Melos[9]: but this is certainly incorrect. Thus the flat lower borders of the Procession Fresco from Knossos show where the plaster met the floor of the Corridor of the Procession (PLATES 13A and 14A). Elsewhere in this composition there is a vertical border impression showing where the plaster abutted a revetment or vertical timber beam in the wall (PLATE 9A). Rectangular "cuts" (impressions) appear at the top edge of a spiral relief fresco from Kato Zakro where the plaster circumvented ceiling beams (Fig. 39 A). Pictures with small or "miniature" subjects displayed at convenient eye-level, which are generally in the region of 1 metre in height, usually have impressed upper and lower borders showing where the painting was fitted between a horizontal beam continuing at the level of the lintel of the doorway and another beam or top edge of a dado a metre or so lower down the face of the wall (Fig. 39B). Frescoes of this type with one or more surviving impressed edge can be seen at PLATES 14B, 15A, 35 (or 54), and 50A, in this case with impressed edges surviving on three sides.

The undersides or backs of the fresco fragments shed light on the constructional character of the walls to which they belonged. Where the back is deeply indented, clearly the plaster was laid directly onto a roughly constructed wall of mud and rubble (PLATES 153A and 158C), from which we may reasonably infer as a general rule the wall was an internal one. On the other hand,

Fig.40

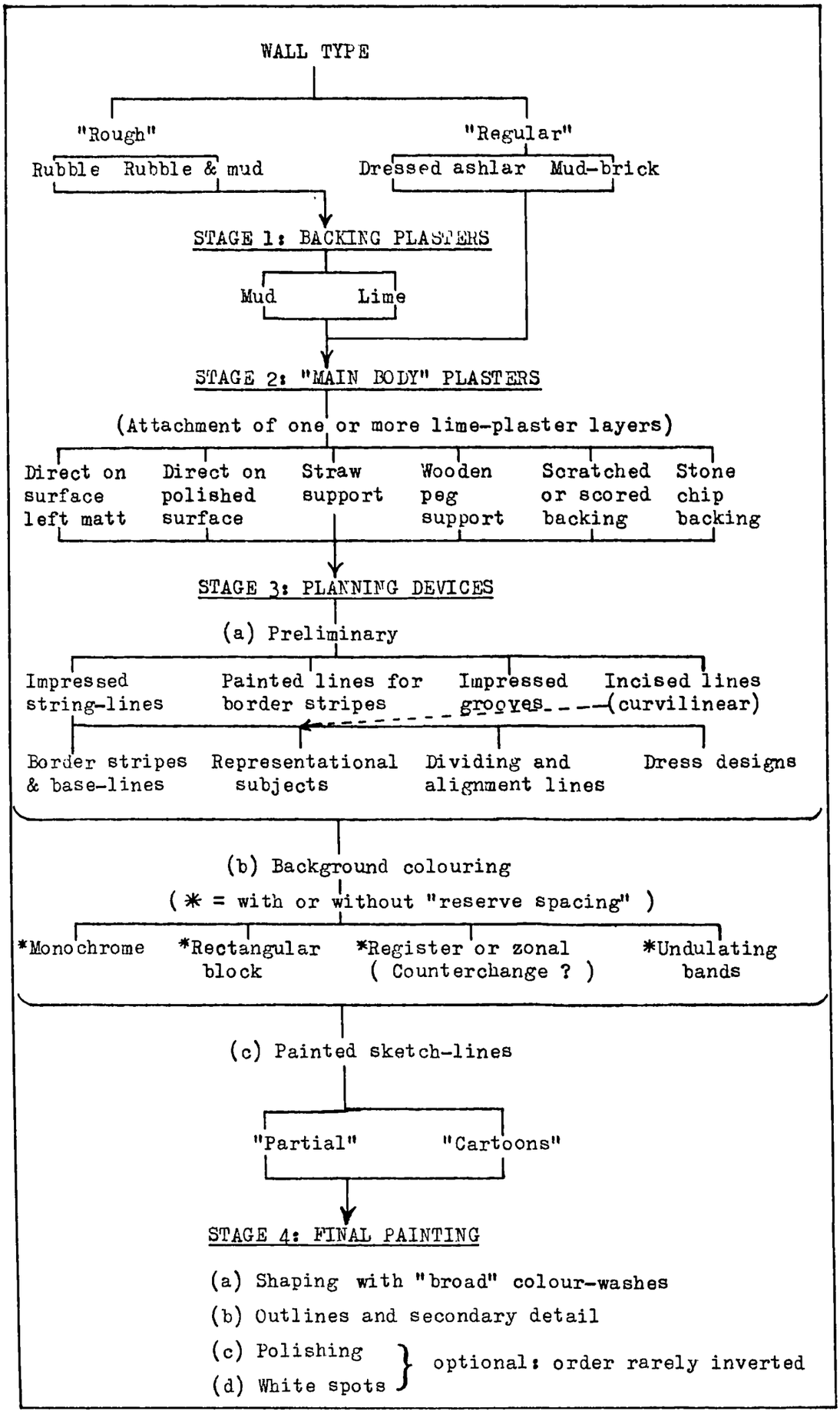


Fig. 40

Table summarising techniques and sequence of processes in the physical construction of paintings executed "on the flat".

fragments that are flat at the back show that the plaster was laid onto a wall-face already prepared in some way, either because it was already covered with a smooth-faced backing-plaster or because the wall-face consisted of dressed masonry. One example at PLATE 153C shows it was laid over a backing-plaster which was heavily scored to take the lime-plaster; and at PLATE 153D we see a small area of painted plaster laid on top of another painted layer acting as a backing-plaster, though these are usually of mud. Another but rarer feature on the undersides is a vertical or horizontal impression where a beam or strut was used in the construction of the wall[10]. We now come to the question how the paintings were actually made.

The physical construction of paintings "on the flat"

The number of stages in the construction of two-dimensional paintings depended on the character of the walls: the first stage listed below was omitted if the wall-face was already flat. But as most paintings decorated internal walls loosely constructed of mud and rubble, four main stages in the operation were the norm:

(1) application of a backing-plaster, usually of mud (but rarely of lime) mixed with chaff, hair and aggregate, in order to conceal irregularities in the wall-face;

(2) the covering of (1) with one or two (rarely more) layers of lime-plaster which together make up what is here called the "main plaster body";

(3) planning the borders and overall design;

(4) execution of the painting.

The main variations of procedure at each of these main stages are listed in the Table at Fig. 40, but some commentary is necessary.

At Stage 2, the "main body" could be attached to the backing-plaster in one of six ways. The lime-plaster may be applied directly to a surface left matt so that the bonding would be greater; but it seems that the "main body" could be fixed even to a polished plaster surface without further ado, and presumably the

action of lime binding to lime was a sufficient force to combine the various plaster layers together (PLATE 153D). The other ways of "keying" the main body all sought a stronger bonding. One method was to insert small straws half-way into the backing-plaster leaving them to stick out slightly: over this hair-brush-like surface the lime-plaster was applied[11]. If the main body was to be exceptionally thick and heavy (particularly in relief compositions) round or square-sectioned wooden pegs were driven into the wall and left protruding - like the straws - so that the lime-plaster could cling firmly onto them (PLATE 154). Alternatively, the backing-plaster might be heavily scored with lines to provide a better key for superimposed plasters on the backs of which the scoring comes out in "positive" (PLATE 153C). In a room in the palace at Mallia, small stones were stuck into the mud backing-plaster to act as a key for the lime-plaster (PLATE 153B). Chipping the surface of an existing plaster to take a new plaster layer, a common Egyptian and Byzantine device, seems to have been unknown to the Minoans. Once the main body had been built up and its surface smoothed with float, trowel, stone polisher or brush, the planning of the composition began immediately (Stage 3).

There are three distinct phases. In the first, the artists invariably avoided any painting whatsoever. They first marked out the extent and often the number of border stripes by pressing taut lengths of string into the soft plaster: only rarely, as in the Camp Stool Fresco from Knossos (PLATES 15A, 35 and 54), was the total width of the border stripes marked with a painted line. Thus borders and the central part of the frieze which was to contain the important design were defined immediately and planning the details could begin in earnest. Again only string-impressed or incised lines were used, for these alone would still be visible if covered over by an opaque background wash of colour. Pictorialisation of important motifs with string-impressed lines was common, especially for architectural features such as shrines, façades, masonry and pathways (PLATES 30, 46A, 47 and 49) or the "battlements" or

"garden wall" in the lily fresco from Amnisos (PLATE 102). Other subjects were picked out in the same way, such as the large flower containers in another painting from Amnisos (PLATE 95), and even the front line of the shin of a Processional Youth (PLATE 9A, centre). String guiding-lines also served alignment purposes: they appear in the centres of columns of the shrine at PLATE 48A and divide the unpainted area of an offering table into two equal halves on the fragment seen at PLATE 53A. The areas of garments requiring complicated patterns were often divided into small squares by string-lines, but in their case it seems probable this was carried out at a later stage: (PLATES 155A and 8, 9B, 10-11, 20 and 21). Guiding lines incised with a stylus or bird's feather are more rare, but clearly preceded coloured depiction of the bull's foot at PLATE 80B; the spiral designs at PLATES 138A-B and especially 139B-C; the madonna lilies at PLATE 101A; and the rosette at PLATE 155B which proves the use of dividers or a compass. A different technique in planning a design is seen in the "Labyrinth Fresco" at PLATE 146A-B: here relatively broad grooves were impressed into the soft plaster, and the artist simply ran his paintbrush along them to trace out the pattern.

This preliminary planning could thus deal with four things before painting began: (1) demarcation of borders and pictorial area; (2) delineation of motifs in general outline; (3) establishment of lines of alignment for later references; (4) demarcation of background areas for different colour treatment (as in the Amnisos pictures, PLATES 102-103). The two other planning phases involved substantial brushwork, but there was also some further use of string-impressed lines in certain cases. How the artists dealt with the background washes, which could be treated in one of four ways (see Table, Fig.40), characterises the second planning stage.

The simplest way was to give the background a monochrome wash of paint. But this was also turned into a device for planning where important motifs were to go. Take, for example, the

"Taureador Fresco" (PLATE 71) which looks as if it had been given a blue background wash over the entire surface of the pictorial area: this in fact is illusory. The blue paint does not underlie the figure of the bull except at the extremities of its outline. That is, the painters left a large unpainted or "reserved" space in the centre of the panel where the bull was eventually to be painted. This technique, which it is convenient to call "reserved spacing", was commonly used in only a rough-and-ready way but it was occasionally refined enough to define exactly the outline of an important part of a larger subject. A case in point is "La Parisienne" whose whole figure was "reserved" in the blue background wash but the profile of her face was carefully defined in the same way (PLATE 35): the black linear outlines were in fact added at a much later stage in the painting process, as we shall explain later[12]. "Reserved spacing" was not confined to paintings with monochrome backgrounds but turns up again in more complicated background treatments. At the present stage, the ground colours of the stripes (often in the same colours as the background washes) were also painted, though details were added later.

The background could also be divided into rectangular blocks of different, sometimes alternating, colours, as in dadoes painted in imitation of stone orthostats (PLATE 145B), in some murals (PLATE 82A) and in some scenes on the Hagia Triada painted sarcophagus (PLATES 148 and 150). A MM III example from Knossos attempts to disguise this simple background-colour division by the later addition of blotches intended to suggest rambling foliage (PLATE 108A). This treatment not only divides the background into darker and lighter areas, which in turn would govern the artist's choice of other paints for each area, but in addition it encourages a tendency to set important subject matter or the most significant actions in the lighter areas: the Hagia Triada sarcophagus illustrates this point well. An important variation on the "block" treatment appears in the Camp Stool Fresco from Knossos where division of the background into blue and yellow areas is made a

device to create superimposed registers for two zones of figures (PLATE 54)[13].

A more complex treatment of the background was to divide it into broad horizontal or diagonal undulating bands in two or more different or alternating colours, as, for example, in the Procession Fresco (PLATES 7A, 9A and 14A, top) or Griffin Fresco from Knossos (PLATE 127). Bands representing variegated rockwork of a landscape fulfilled a similar role in other paintings, such as the Bird and Monkey frieze from the House of the Frescoes (PLATES 65 and 84A-B). Here again we find a tendency to place the more important subject matter in the unpainted or lighter divisions thus created; but "reserved spacing" may also occur in the darker areas[14].

The use of string-impressed lines for marking out squares for elaborate dress patterns in paintings featuring large-scale human subjects presupposes the artist knew exactly where and how large the human subject was to be. This suggests either he had made an outline sketch or "cartoon" of the whole figure and then used his string-lines to mark the areas for dress patterns, and the background areas could then be painted in up to the edge of this outline; or the painting of the background areas was itself a means to indicate the outline of the figure e.e. "reserved spacing" on a very large scale. Possibly both techniques were combined to give the outline of the figure, as may have been the case in the Procession Fresco from Knossos. The point to be noted here is that the plaster was still damp and malleable when the divisions for the dress patterns were made, and that this may have been carried out after background washes had been filled in. Indication of the figure by means of sketches or "cartoons" also anticipates the main feature of the third stage of planning the compositions, that is, the painting of "cartoons" of the main subject matter after the background washes had been filled in.

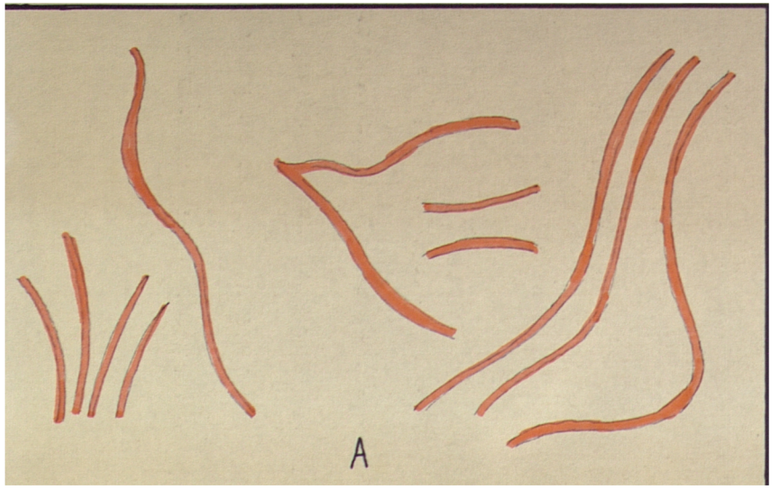
Such sketch lines are painted in red, orange or light yellow paints. Sometimes these lines merely give a start to the design

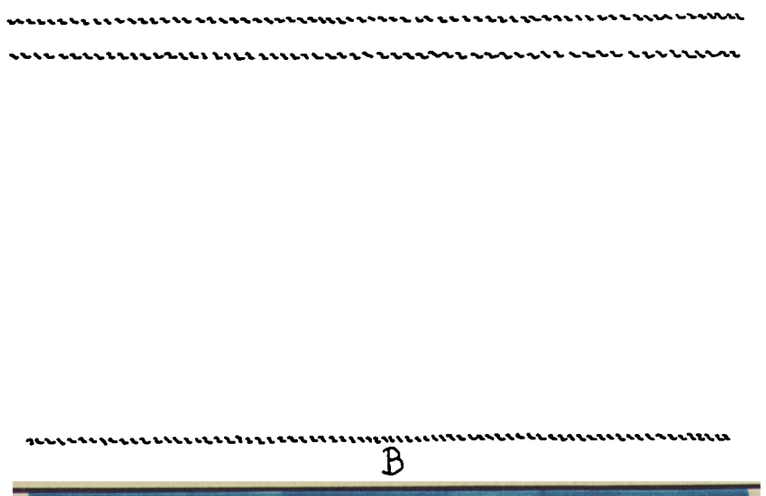
or indicate the limit of part of a greater entity, such as the inner edges of three "blue birds' " wings in scenes from the House of the Frescoes (Vol. IV, F, p.6, Fig. 7A-C). The pebble motifs in the white area above the chariot at PLATE 59A were sketched after the blue background had been indicated, and are one instance where a much fuller "cartoon" of pictorial subject matter is given. Other examples can be found in the "taureador" fresco series from Knossos, where the human figures were sketched in some detail in red paint on top of the blue and yellow background washes of those "panels"[15]. The pendant beads of the necklace at PLATE 44B were also drawn in red outline before being fully coloured in in dark brown paint. Usually, as in all the instances cited, these cartoons are covered from sight in the course of the main final painting process, but they appear where the paints added later have worn or flaked away, where the main brushwork has failed to follow the exact outline of the sketch, or where the lines of the cartoon are allowed to remain in view as supplementary decorative details in the completed design (e.g. the narrow leaves in yellow/golden "watery" paints of the plants at PLATE 111 B and D). There is in fact much evidence for such sketches being a normal part of the Minoan wall-painter's procedure in planning his compositions, a point which most commentaries on the painting process fail to emphasise.

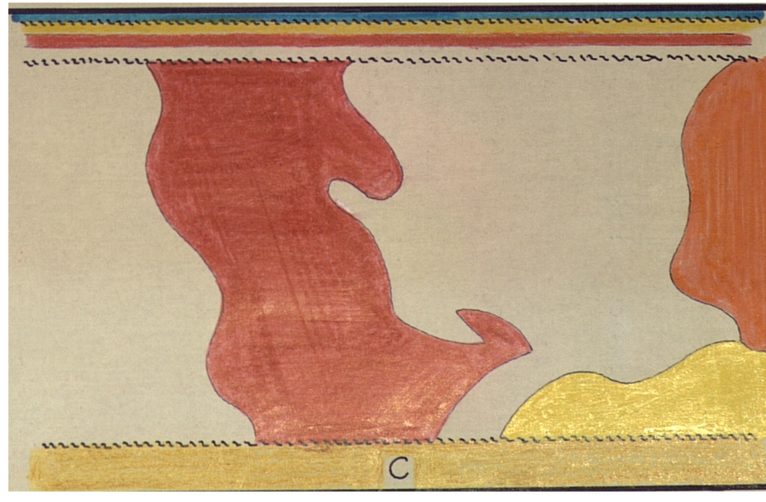
By one means or another we can see that the details of the paintings were planned carefully before the final painting - that which we take to characterise and enliven the important subject matter - was actually begun. Indeed such is the use of string-impressed guiding lines in the earliest phases of this planning stage that it is difficult to avoid the assumption that before ever the painters approached a wall they had already a detailed notion of what and how they were going to paint on the stuccoed wall, even to the point of measuring what spaces they would leave between the string-lines. It is, moreover, quite clear from the evidence given above that the theory propounded by Snijder to the

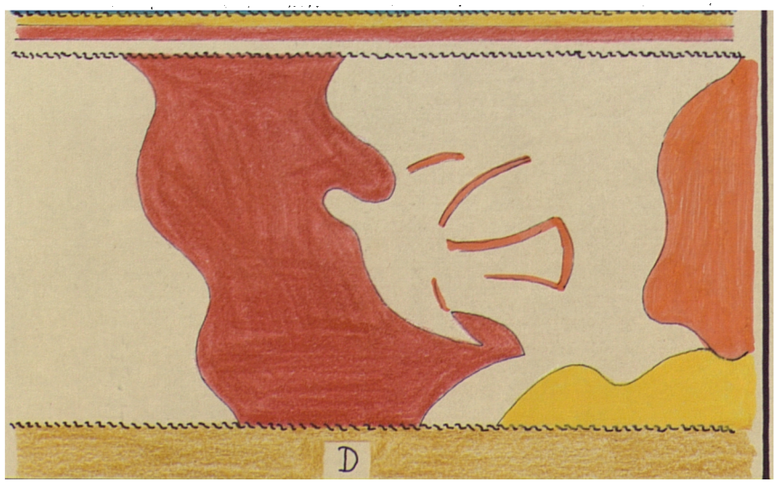
effect that the Minoan artists were "eidetics" who cast mental images onto the walls and painted round them before they faded, by this means alone carrying out their paintings, lacks any foundation in fact (v. pp.53f): the evidence for preliminary planning of the compositions was never taken into account by Snijder, and for that reason alone his "eidetic theory" collapses in toto. The rational procedure exhibited in the planning process, which the "eidetic theory" denies to the Minoan artists, is repeated in the final stage; there is a consistent order in which the paints are applied but it is one on which there is some confusion in many accounts. This order (see Table, Fig.40) is best explained by way of illustrating the successive building up of the painted subject matter in a single painting: the Dual Chariot Fresco from Knossos is a convenient example (SLIDE 60).

At the stage we have now reached the central part of the composition would have appeared to the Minoan painter somewhat as shown in SLIDE 60A: the area of the box of the chariot is "reserved", for no blue paint underlies it except at the front. Now the painter first added on top of the blue ground the broader features of his main subject matter, filling the "reserved" chariot box in red; and it would now appear rather as shown in SLIDE 60B. The next stage put in the yellow areas and possibly arms and reins (SLIDE 60C). Only now did the artist add secondary decoration, such as the marks on the bull's eye-patch, dress patterns, black outlines and features of the charioteer's head (eye and hair) and any ornamentation there may have been on hitherto plainly coloured border stripes (e.g. "bars", scale patterns and the like); SLIDE 60D shows how the painting would look at this point. Contrary to general belief[16], the purpose of the black outlines was not to provide a framework for the broader washes of colour, but only to make the outline of the painted subjects better defined to the eye of the onlooker. These black outlines are invariably superimposed on the broader washes of paint and so must be counted very late additions in the painting process. After polishing the surface











A = Cartoons on the main body of plaster

B = The "slip" applied; impressed string-lines

C = Background washes applied

D = Cartoon-lines on the surface of the "slip"

E = The finished painting

Fig. 41 Developments in painting with a "slip" (hypothetical scene)

to a greater or lesser degree (in this case only lightly) white-spotted decoration was added - last of all, so as not to be removed in the polishing process. To this rule only one exception is known among many paintings decorated with spots of "impasto" white: this is the piece at PLATE 4C, where the polishing was carried out last.

Paintings with "slips" or "intonaco"

Several paintings executed "on the flat" exhibit a somewhat different painting process, one better known from Italian Mediaeval and Renaissance frescoes dating some 3000 years later. Moreover, it is a process that Heaton specifically ruled out in his study of Minoan wall-painting and its techniques[17]. A few instances are known from the palace at Knossos, but it is much more frequently encountered in paintings from the surrounding houses and town and is best seen in paintings from the House of the Frescoes[18].

The stucco was prepared in the way already described for other two-dimensional paintings up to the third stage when planning the composition began. The artists in the present cases now drew on the main body of plaster cartoons of the pictorial subject matter of the future composition in golden or light red paints, which the Italians called "sinopie". Apparently the main body of plaster was allowed to dry out before the artists covered their sketches with a wafer-thin opaque layer of finely prepared lime-plaster (usually about 1.0-2.0 mm thick) which hid the "sinopie" from view. This fine layer of plaster is called a "slip" or in the Italian terminology "intonaco". It was on this new and whiter surface that the final planning and painting was carried out, again in the manner and order described in the previous section of this chapter. Fig. 41, with a hypothetical scene of a bird near a waterfall, illustrates the various stages of this process as they would appear to the artist in the course of his work. Part of a cartoon or "sinopia" of a waterfall, revealed where the "intonaco" has flaked away, appears to the left at PLATE 160 C6.

The cartoons denote the stage at which the master craftsman,

presumably, "drafted" the composition in a preliminary fashion. The Minoan artist, like his Italian counterpart, had to memorise the drafted design once he had covered it with the "intonaco", and as in the Italian frescoes we find that the final painting does not necessarily match the "sinopie" line for line. As the "intonaco" was liable to dry out quickly, the Italian painter only put on as much "slip" as he could paint in a single day. At the end of the day he neatly cut off the unpainted "intonaco" and on the following day he laid a new layer of "intonaco" up to that edge. Thus joints or ridges appear in the plater's surface indicating the extent of each day's work - often an area about 1 to 2 metres as squared. Remarkably, in the Minoan paintings no such ridges appear, even when all allowance is made for the broken condition of the paintings: to this extent, Minoan practice of this technique seems even more adept than the Italian.

The lack of "sinopie" and "slips" in palace paintings in Crete suggests the artists had more definite ideas or instructions as to what was wanted than they had in private houses where this method of painting seems to have been common. This leads on to the supposition that the "sinopie" were supplied primarily for the benefit of private commissioners of paintings, to give them the opportunity to criticise or approve a proposed design according to their personal tastes. Perhaps palatial decoration was less open to last minute alterations to the plan, perhaps because palatial subject matter was more standardised through traditional reproduction of set themes: alternatively, palatial compositions may have been very carefully drafted beforehand on other materials such as leather or parchment.

Whatever the right explanation, there can be no doubt that in all essentials the Minoan technique making use of "sinopie" and covering "intonaco" is identical with that of the Italian Mediaeval and Renaissance fresco painters.

Fig.42

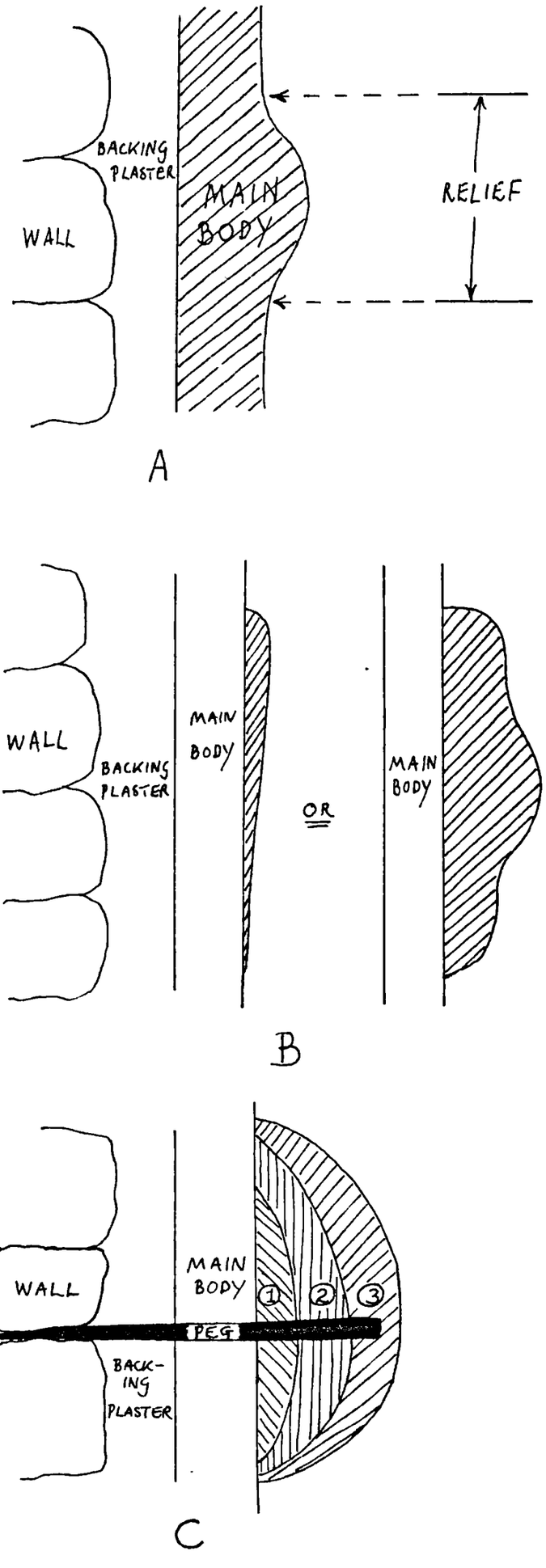


Fig. 42

Principal methods in constructing "reliefs" (shaded areas)

The construction of compositions moulded in relief

Fig. 42 illustrates three ways of constructing relief compositions known to the Minoans. In the first of these (A), the main body of plaster was simply thickened at the required point and moulded into the right shape - a simple technique mainly reserved for borders, low dadoes or uncomplicated features for which a low relief effect was wanted. It was easier, however, for the artist to add further layers of plaster on top of the main body, supporting the greater weight of plaster if necessary by means of wooden pegs (PLATE 154) or by heavily scoring the surfaces of lower layers of plaster (PLATES 41A-B and 153C). The moulding itself was carried out when the plaster was on the wall, perhaps initially by hand then trimmed with metal or wooden tools and rubbed down with stone "polishers". The scoring of lower plaster layers indicates that the construction of the relief subject could proceed slowly as the various layers dried out, and consequently the artist would have time to control the moulding of the subject very carefully; this he did with a lively awareness of eye-catching anatomical detail[19].

A second method in relief work (Fig. 42B) was to apply a single plaster layer above the main body, the latter sometimes being given a monochrome wash of paint beforehand. The relief modelling is "low" or three-dimensionally somewhat undramatic, the effect being more "plastic" than "sculptured". The moulded layer may be extremely thin, as in the Myrtle Fresco from the Royal Road/North site at Knossos where the rockwork rises a mere 4mm above the surface-level of the background plaster featuring the myrtles and turquoise dado (PLATES 67, rockwork, and 114, myrtles): or it may be much thicker, up to 4 or 5 cm in depth, as in the case of the girl bull-leaper's thigh at PLATE 42E or in that of the Priest-King Fresco (PLATE 18). In this example, a "slip" covers the modelled limbs which are moulded in two different ways: the right arm has been more carefully executed "in the round" than the thigh and leg whose muscles are indicated by flat vertical impressions running

the length of the limb.

A third technique adds two or more layers onto the main plaster body and also a "slip" which is then painted (Fig. 42C). There is a noticeably greater "sculptured" effect in the modelling and compositions executed in this way are often described as "high reliefs". In the most outstanding examples (e.g. of human limbs, PLATES 16-17 and 41A-B), the artists come near to attempting true free-standing sculpture though they stop short of bold undercutting behind rounded limbs. These are executed with considerable skill and knowledge of human anatomy, and even the "slips" were delicately fashioned to show veins standing out on hands and legs (PLATES 16D and 17 B1). Spiral reliefs could perhaps be assigned to this class since their central bosses and arms stand out well from the flat background surfaces: but they seem constructed from only one plaster layer, to judge from cross-sections revealed at broken edges (PLATE 141).

Classification of reliefs as "low" or "high" is somewhat subjective in the literature, and definitions seem best based on technique of execution rather than on considerations primarily concerned with the height the relief rises above the surface of the background. For an original composition may have exhibited both "high" and "low" effects which may not be apparent to us looking at the broken remains today. Those constructed by methods 1 and 2 could be called "low" and those by method 3 "high", though it seems right to include spiral reliefs in the latter group. In all three types the painting was carried out as in "flat" compositions, although naturally there was little need of "sinopie" or cartoons. Most reliefs were polished, some highly.

Both "flat" and "relief" pictures could appear in the one painting, as the Jewel Fresco shows with a man "in relief" adorning a goddess drawn "on the flat" (PLATE 44A). This was possibly more common than we might now suppose, since the Minoan artists had until late times a horror vacui and tended to fill the background spaces with representations of flowers, rockwork or other subject matter relevant to their theme - and such representations "on the

Fig.43

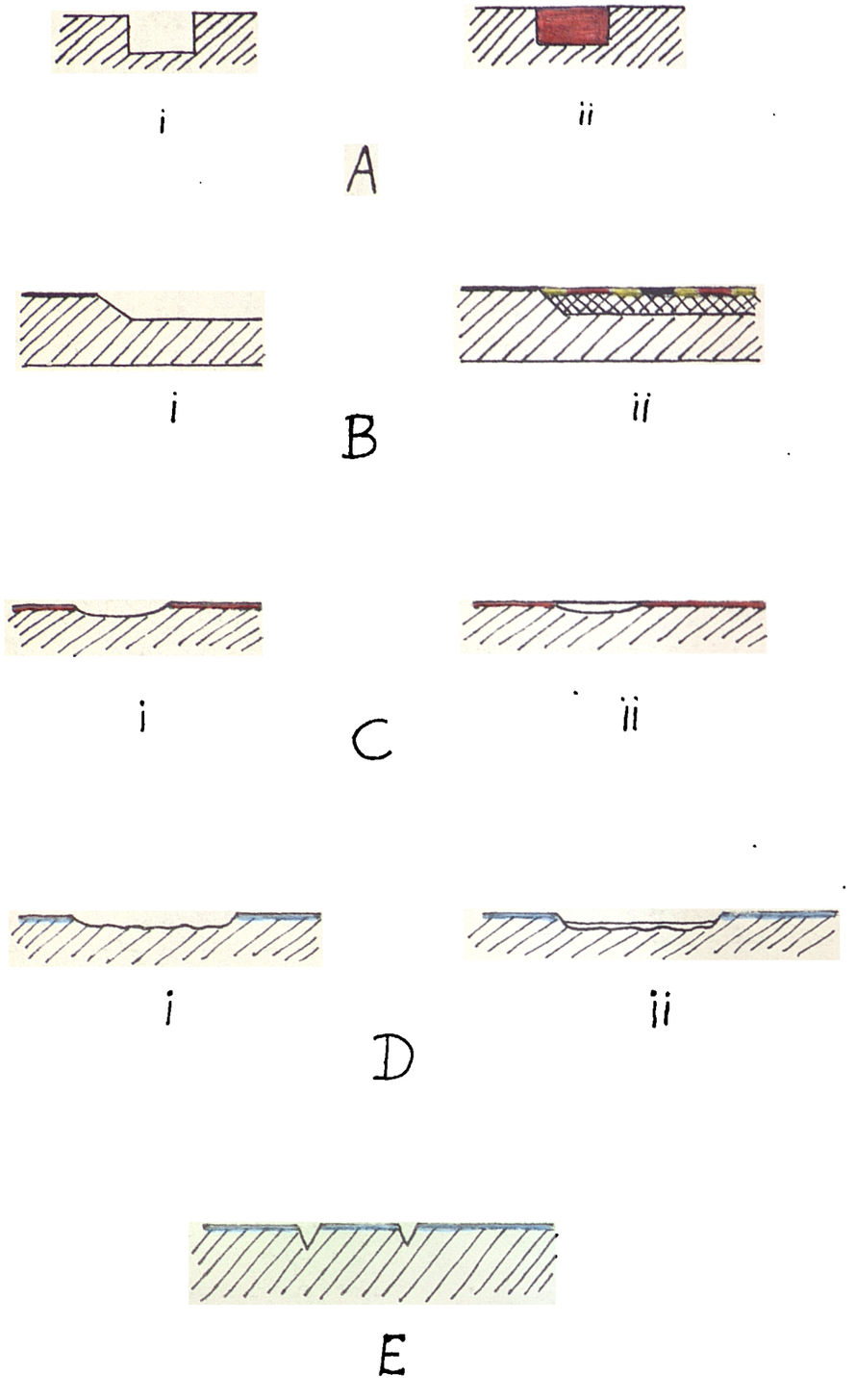


Fig. 43

Diagrammatic cross-sections showing different forms of "incavo".
(i) excisions from the plaster surfaces
(ii) excised areas filled in with pigments, or new plaster (B only).

flat" may no longer be recognisable as having belonged to "relief frescoes". Indeed, the term "relief" seems best confined to modelled items rather than to the entire paintings which contained them.

There is little to support the views that "high" reliefs chronologically preceded "low" ones and that the last important relief work belonged exclusively to the latter class[20]. To the contrary, the evidence for dating these compositions tends to suggest the reverse (v. Chapter X).

Special techniques and uncommon features

(a) "Incavo"

This Italian term means in the present context excision of plaster from the prepared surfaces in the shapes of important subject matter or of special features. The areas cut out were generally filled in with a thick-textured paint ("impasto"), or, more rarely, with a new layer of plaster which was then painted. Five examples are described and illustrated here, each of a different date, technical character, purpose or significance.

The design of the MM II floor fresco from Phaistos was cut out of the plaster in square-cornered grooves which were filled in with red "impasto" (PLATE 4B; Fig. 43A). This technique may have been learnt from Egypt, as already suggested in Chapter II. In the MM III "Zebra" Fresco from Knossos, much larger areas of plaster were cut out, to be filled with a new plaster layer painted in imitation of leopard pelts (PLATE 156; Fig. 43B). We shall see shortly that in both cases the use of "incavo" may have to do with the actual painting method and with the fact that the paintings served as floor decoration. Our third example comes from LM I Amnisos where the shapes of large lily plants were excised from the plaster after its partial treatment to a background wash of red paint (PLATE 157A: cf 102; and Fig. 43C): the excised area was filled in with white "impasto" and secondary detail was added in the usual way. The most plausible reason for use of "incavo" here is that the Minoan artists were

well aware that white "impasto" (which they would need to use here over a partially painted ground) has a tendency to flake off on drying out, especially if applied over large areas. To make this pigment hold, therefore, it would need to be embedded, so to speak, in the plaster itself. Spots of "impasto" can be safely applied by pressing them home into the plaster (e.g. PLATE 42B-E), but this cannot be done on a large scale. The "incavo" technique solves this problem for it has the same effect and can, if necessary, be carried out even after the main body of plaster has thoroughly dried out: secondary painting can be added over "impasto" areas.

The shape of a leaping animal was similarly, but more unevenly, scratched out of the plaster of a LM II-III painting from Knossos (PLATE 83B), but here "impasto" covers only the floor of the excised area (Fig. 43D) whereas in the previous examples the fillings of excised areas are brought to the level of the background surfaces.

The last example is found in the "star of David" motif heavily incised on a fragment, apparently Minoan, found at surface-level at Knossos (p. 86 and Fig. 43E). Here no attempt is made to fill in the grooves which represent the completed motif.

Evidently as time passed "incavo" became increasingly lacking in careful execution and finish.

(b) Repair and "retouching"

When a painting became seriously damaged, it seems the Minoans preferred to remove it entirely, replaster the wall and paint afresh. Repair to a Minoan painting is known in only one instance: the damaged lower fin of a dolphin was roughly refilled with plaster and repainted (PLATE 123A). "Retouching", that is, the touching up of a painting merely by repainting parts of it, seems to have been entirely avoided by Minoan artists.

(c) Mistakes and alterations

These are rare. The Minoans were skilled artists and probably lengthily trained to be accurate and avoid mistakes; once these appeared in this particular medium of painted stucco, they might show up permanently and were removed (rarely successfully) only with greatest difficulty. The classic illustration of mistakes in this medium comes from Tiryns on the Greek Mainland in a bull-leaping picture where the artist has failed to conceal that he misplaced the bull's tail twice and its front legs once (Tiryns II, Pl. XVIII).

In Minoan paintings the human figure is occasionally given two right or two left hands (PLATES 56B, central figure, and 72), or, perhaps, a left hand added to a right arm (PLATE 40 A1) but this is uncertain here. This kind of mistake is much more common in Egyptian murals (of PLATE 211B). Impressed string-lines may be misaligned (PLATE 155A) or may end up having no relevant connection with the end picture, as we see in the so-called "Palanquin" Fresco from Knossos (PLATE 51A2, at figure's shoulder). The proportions of a bull's front foot seem to have been initially miscalculated in the painting at PLATE 80B where the mistake has not been rectified very satisfactorily. On another fragment, at PLATE 62B, a slight depression in the surface of the plaster between the horse's ears and mane marks where too small a plume of the mane had been painted and set, perhaps, too near the ears: in correcting this, the Minoan artist has left almost no trace. These are representative types of error, but the list here almost exhausts their number.

We may now turn to an issue of great importance in the history of ancient mural painting.

Classification of the painting method

The question whether Minoan wall-painting on stucco may be classed as "buon fresco", "fresco secco" or "tempera" has been widely debated ever since Noel Heaton published in 1910 and 1911 the results of his detailed scientific examinations of painted plaster specimens and pronounced in favour of "buon fresco".

In "buon fresco", the paints are applied to a wet plaster still drying out for the first time; at this stage the plaster is damp and malleable and the reaction that goes on in the drying process (converting the putty ($Ca(OH)_2$) back into hard calcium carbonate ($CaCO_3$)) binds the paints and plaster together inseparably. Thus it is unnecessary to add a binding medium to the paints. As no separable "skin" of paint forms on the plaster's surface, because the paint has become one with the plaster, "buon fresco" produces the most enduring kind of painting, one which if properly executed can resist for centuries the ravages of climate and the arch-enemy of mural painting - damp.

In "fresco secco", the plaster is allowed to dry out and is then moistened with water each time some painting is done. Damping the plaster does not make it soft again and so there is less penetration of paints into the plaster and a binding medium such as glue, gum arabic or egg must be added to the paints to make them hold. "Fresco secco" and "tempera", being less permanent painting methods than "buon fresco", are thus more open to the destructive effects of dampness which is at its worst when attacking the paintings from behind (i.e. through the wall).

In "tempera", paints with binding media are applied to a dry plaster and form a definite "skin" of paint on the surfaces; this is liable to flake away and dampness can quickly destroy paintings executed in this way.

Heaton listed the following points as proof that the Minoans practised the "buon fresco" method[21]:

(1) string-impressed guiding lines in the soft plaster;

(2) the dragging up of the soft plaster by the brush;

(3) no sharp line of demarcation between paints and plaster can be seen under a microscope;

(4) no binding medium (egg, glue, gum arabic) can be detected in the paints;

(5) painted fragments can withstand damage from prolonged immersion in organic solvents or in hot or cold water;

(6) treatment with dilute hydrochloric acid makes painted fragments effervesce "... and eventually the pigment is left in a state of powder, proving that the particles ⌈ of pigment ⌋ were merely bound together with carbonate of lime" (JRSA LVIII (1910) p.210);

(7) the paints often pentrate the plaster to a notable depth;

(8) secondary paints "flow into" the ground paints (i.e. those in direct physical contact with otherwise unpainted plaster) and are combined by the carbonate of lime that alone holds them to the plaster, proving that both ground and secondary paints were applied in "buon fresco".

Heaton added some qualifications, however, and pointed out that the huge size of some very detailed paintings, the absence of "intonaco" which is so characteristic of Renaissance frescoes, and the lack of ridges to show the various days' work, might present some difficulties in the way of accepting a "buon fresco" hypothesis for Minoan wall-painting in general. We now know, however, that the method making use of "intonaco" and underlying "sinopie" was well known to the Minoans when it came to painting scenes in private houses. Yet even without this information, Heaton was convinced of the general validity of his hypothesis, and he reached a corroborative conclusion on the basis of tests carried out on painted plaster specimens from Tiryns in 1912. Since then, however, most writers on the subject have rejected the "buon fresco" view[22].

The foremost of studies reaching contrary conclusions, one which takes into account results of several others of note, is that by P. Duell and R.J. Gettens published in the Journal of Technical Studies in the Field of Fine Art in 1942.

Here study of six specimens examined by chemical and photomicrographic means was reported. Duell and Gettens agreed with Heaton in his analyses of paints and plasters and with his conclusions (4) and (5) listed previously. They were less sure that the dragged up plaster would have been caused by the paintbrush, suggesting instead that floats, trowels and even bubbles of air in

the plaster when smoothed over by such tools may have caused the plaster to look disturbed in this way. Their specimens suggested a much more definite line of demarcation between paints and plaster than Heaton's accounts would seem to indicate, particularly where blue paints were concerned. The tenacity of the paints, which they agreed was remarkable, could, they claimed, be explained by the presence all over the fragments (including their edges) of a very fine accretion of chalcedony which, however, must have accumulated in the course of the fragments' burial in the soil. For this reason, Duell and Gettens maintain that no firm conclusion as to the painting method can be based on the physical bond between pigments and plasters, and in this sphere photomicrographic examination of cross-sections likewise does not supply a final answer. This leaves only the evidence of "manipulation of paints on the surface" to establish what painting method was employed. Here the specimens they examined offered nothing positive in support of the "buon fresco" hypothesis. Duell and Gettens concluded, therefore, that the painting method must have been "tempera" (as in contemporary Egypt and the Near East), especially as the presence of a binding agent in the pigments could not be ruled out though none was identified - and lime as one possibility should be excluded. They could find no evidence that the bond between paints and plaster was caused by calcium carbonate formed after the pigment had been applied to the plaster surface, but the presence of a binding medium "can only be inferred from the fact that pigment was attached to the wall and it now has an independent film character like paint" (op.cit. p.221).

Perhaps the most significant of their conclusions is that their tests suggested a final answer would only be forthcoming from "evidence of the manipulation of the paints on the surface" and it is here there is cause for concern: it is open to doubt that the specimens available to those scholars were either adequate or representative enough to give a satisfactory answer. Even if a binding agent were present in the pigments (which is an entirely

open question), this does not rule out the "buon fresco" method: for the chief characteristic and distinctive feature of that method is the application of pigments to a plaster still drying out for a first time: the chemical reaction of the drying plaster makes it unnecessary to add binding media to the pigments, but this does not exclude their use. If therefore we can show that there is substantial evidence to suggest that the plaster was damp and malleable when the paints were applied, in the form of impressions in the plaster surface where the paints were put on, it would seem to follow by definition that the painting method employed was "buon fresco" - however much we may fail to understand from the chemical and practical points of view how its practicewas carried out. What follows is concerned with this point alone.

All would agree that the plaster was still soft at least up to the stage in which string-lines were impressed into the plaster. Two points arise here: it is pertinent to ask why use should have been made of impressed string-lines unless the guide-lines thus provided (only where they were actually required) were not intended to be followed whilst the plaster was still wet and soft? If painting in "tempera" was intended, preliminary planning could wait until the plaster had dried. Second, we have already noticed in the case of large-scale figured compositions that it is possible the background washes helped to formulate the outlines of such figures - which was necessary before impressed string-lines could be used to mark out large areas for dress patterns: in this case, the background washes must have been applied whilst the plaster was still wet and soft. But let us turn to the stage when details were added after application of background washes.

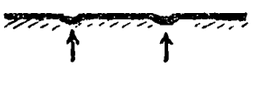
Impressions in the shapes of crocus flowers remain of the fragment at PLATE 158A, indicating where the paints were pushed home into the soft plaster: the fact that here the blue pigment did not hold, but fell out subsequently at an unknown time, might suggest that no binding medium was present. This fragment belongs to the series from the House of the Frescoes, paintings executed

with "slips" which Heaton and Duell and Gettens assumed incorrectly were lacking among Minoan murals.[23] The spiral fresco from Royal Road/North at Knossos, also executed on a wafer-thin "intonaco", shows that even at the last phase in the painting process the plaster was still soft and malleable (PLATE 139; SLIDE 41). After planning with string-impressed lines, the path of the spiral was incised with a stylus in the wet plaster: then the borders and various spacers on each side of the double spiral row and the central filling motifs were painted in, mostly in black. Finally the red blobs of the spiral were added as is proved by the fact that three drops of red paint fell onto the already black-painted area below: but the red blobs were pressed home, possibly with the finger-tips, as is shown by small circular depressions in the plaster's surface around nearly all the blobs: these appear as very faint shadows around the blobs in the photograph at PLATE 139B. The depressions therefore prove the softness of the plaster in the final stages of the painting. The red paint here is extremely thin yet holds tenaciously to the plaster: we may therefore conclude further that deep penetration of paints into the plaster and readily discerned combination of the two leaving no line of demarcation are not necessary conditions of the "buon fresco" method. As most Minoan paintings were executed like this spiral fresco in these respects, there is some reason to think they, too, were painted in "buon fresco": it is not a necessary condition that <u>all</u> the paintings should show similar impressions in the plaster, but their appearance in several paintings merely provides the clearest <u>proof</u> for the general use of this painting method.

It is extremely difficult to say how soft the plaster was when painting began. Perhaps the best explanation for finger-nail impressions in the plaster of the piece at PLATE 44B is that the artist was testing the dampness and softness of the surface immediately prior to commencing painting. On the fragment at PLATE 158B parallel lines in the central blue band show where the

soft plaster was dragged up, in this case certainly by a brush for the parallel lines follow the path of the blue band. Polishing certainly must have removed much evidence for brushmarks,[24] for we even find a good number of pieces where the polishing process has not merely worn down the paints but also rubbed out sections of string-impressed lines (e.g. PLATES 133 A3, 6, 7, 9; 133 D2; 134 C3). Further, a number of paintings have highly polished surfaces even where paint is lacking: tests carried out by the author on unwanted unpainted fragments suggest polishing is best carried out when the surface and paints are still moist, as is also true in burnishing pottery. Among murals whose entire surfaces were polished <u>after</u> painting we may cite those at PLATES 108A; 114; 133 A, C, D; 134C; and 147B as representative examples. That the polishing in Minoan paintings <u>was</u> carried out when the paints and plaster were still damp is indicated by the spiral fresco already mentioned, where the red blobs were smudged by the polishing process alone (v. PLATE 139, C2, 3, 6).

But what of secondary detail? Was this, too, applied <u>a fresco</u> as Heaton claimed? It is in fact common to find that secondary paints are separated from ground paints (viz. those in direct physical connection with the plaster) by a mere film of a white substance: unless this be calcium carbonate formed by the chemical reaction of the drying plaster or lime as an inorganic binder in the paints it is difficult to conceive not just what it is but more importantly how it got there, and why. The specimens examined by Duell and Gettens lacked this feature, a point which diminishes the force of their "tempera" hypothesis. In the case of spots of white "impasto", which appear as final secondary ornamentation in a very large and representative number of compositions, it seems they were pressed home into the plaster because where they have flaked off indentations are visible in the plaster or underlying ground colours appear pushed into the plaster, thus as seen in cross-section:



Neither result would be possible if the plaster were hard at the time painting commenced, in which case we seem obliged to suppose the plaster was still soft even at the very end of the painting process.

Let us turn to the "incavo" process, adopted in the two floor compositions from Phaistos and Knossos. Does it add weight to the "tempera" or to the "buon fresco" hypothesis? The fact that the quatrefoil pattern and accompanying bands in the Phaistos example (PLATE 4B) were deeply cut into the plaster suggests not only that the artist allowed the plaster to dry out before he walked on it but that he recognised that paint applied to a dry plaster would not hold well, particularly if walked upon. So he embedded the design deeply into the plaster by the "incavo" technique. The suggestion is that by waiting for the plaster to dry he could not use his normal painting method. The "Zebra" Fresco presented an even greater problem: here the decoration covered the entire surface area of the plaster - if we make allowance for the "reserved" white bands - of what the remnants indicate to have been a sizeable composition (PLATE 156). If painting on a dry plaster was intended, why should the artist have bothered to cut out and refill with fresh plaster those areas painted to imitate leopard-skin patches? For those upholding the "tempera" hypothesis only one explanation seems possible: the artist made some error in painting those areas. But this explanation seems inherently improbably from what we now know of the careful planning of Minoan paintings on stucco. It seems simpler to assume the use of "incavo" here has to do with his painting in "buon fresco", namely, the artist deliberately walked on the soft plaster <u>in order</u> to paint the black bands whilst the plaster was still wet and malleable. The black bands were certainly painted first of all and in fact define those areas of plaster subsequently cut out and refilled. That is, where those "patches" are situated is where he put his feet and where he left his foot-prints in the soft plaster. To paint those areas, however, he would have to stand on the black and white parts of

the design but this he could only do safely after the plaster had dried. By that time the "leopard-patch" areas would also be dry and so the paints would not bind well with the plaster: in any case, he had to remove his foot-prints. He therefore cut out the irregular-shaped intervals between the series of stripes, refilled them with plaster and painted their new wet surfaces, in imitation of the leopard's hide. Had the painter been able to use a low scaffolding rather than walk on the soft plaster, there is no reason to suppose he would not have been able to paint this design without making useof "incavo".

Inspection of the surfaces of the paintings provides evidence not only for impressions of painted features pushed home into soft plaster at all stages in the painting process, but we also find a painting technique involving "sinopie" and "intonaco" was employed by the Minoans which is essentially identical to that which characterises the most outstanding frescoes of the Italian Renaissance and Middle Ages. Examination of representative Italian frescoes, made possible by two visits to the exhibition in the Hayward Gallery in London in 1969, brought out other interesting comparisons worth further attention. Although measurement was out of the question, it was the writer's impression that paints in the Italian frescoes are on average thinner than is the case in the Minoan paintings, particularly among reds and blues. A Minoan example of the homogeneous combination of plaster with red pigment for a depth of 1 mm, far exceeding in depth and degree of combination anything seen at that exhibition or, for that matter, anything illustrated in reviews of the Minoan painting method, appears at PLATE 158C: here "buon fresco" can hardly be doubted. Further, blues in the Italian paintings were often poorly held to the plaster:[25] yet, with the unusual exception at PLATE 158A, blues in Minoan paintings hold excellently. If we also bear in mind that, unlike the Italians, the Minoan painters added no sand, marble or gypsum dust as "filler" in their plasters and avoided creating ridges between one day's plastering and the next in the surfaces

of the compositions, and that in MM III and LM I they brought their best paintings to a highly polished "marble-top" finish such as was never approached in Renaissance times, it is evident that the Minoans were technically superior to them in practising the art of "buon fresco" painting. Most significantly, the Minoans could dispense with the "intonaco" technique when it came to palatial mural decoration whilst otherwise still employing the same painting method and getting the same "permanent" results: indeed there is some reason to think the "intonaco" technique may even have been invented at a relatively late date in the craft (MM III) to satisfy private commissioners of paintings or perhaps to conduct their commissions more quickly than otherwise. Moreover, Minoan wall-paintings seem better able to withstand damage from the elements than the Italian frescoes.

The paints have held excellently to their plasters after up to 4000 years of immersion in damp soil or even salt water, as at Hagia Irini on Keos (analyses of which paintings suggests "buon fresco")[26]. By contrast the Italian paintings came off rather poorly in a single, admittedly torrentially wet, season in 1966; and it is freely admitted by modern and Renaissance scholars alike that dampness rapidly and seriously affected the frescoes[27]. Daily exposure of a Minoan painting left <u>in situ</u> in the Upper Hall of the Double Axes at Knossos to winter rains, occasional frost and blistering summer suns took at least 40 years to reduce it to so damaged a state that it had to be removed to Herakleion Museum in 1965[28].

<u>Conclusions</u>

Technical studies of the broken remains provide much information on the place where a painting belonged, the character of the wall it decorated, and the manner of its physical construction. On the evidence of impressions in the soft plaster made at the time of painting, and on comparison with Italian frescoes of Renaissance times in regard to both physical characteristics and

capacity to withstand prolonged damage by the elements, there can be little doubt that "buon fresco", or a like process of painting, was invariably employed, as Heaton claimed. Many questions remain to be answered on the subjects of possible binding media, manufacture of plasters and preparation of paints, and how the painters applied themselves to their work - especially in planning their compositions (hitherto an almost untouched topic). Enough, at least, is now known for us to dismiss Snijder's "eidetic theory" completely: for the evidence for careful planning of the scenes, which he never took into account, flatly contradicts it.

The Minoan artists occupy a unique place in the history of mural painting, not merely as the sole users of the "buon fresco" method among ancient civilizations at least before Roman times, but, far more importantly, as its greatest exponents of all time.

Notes to Chapter VIII

1. This is well documented in Egypt (A. Badawy, "The Funeral Stela of Irtysen", Chronique D'Égypte XXXVI No.72 (1961) pp.269-276) and, for example, among Greek and Roman mosaicists (e.g. at Trikkala in Thessaly and at Skala in Kephalinia). See also J.M.C. Toynbee "Some Notes on Artists in the Roman World" Collectio Latomus Vol.VI (1951) p.44.

2. Oxford Classical Dictionary (1951), p.251, on Daedalus; Palmer, Mycenaean Greek Texts (1963), pp.128 and 279.

3. On the east side, the potters' workshop ("School Room"), Lapidary's Workshop, and the North East Potters' Quarters; on the south side, another stone-mason's workshop: see PM Index Volume, and on the latter J. Boardman OKT, B, p.12 n.4 and p.13 n.1. For a gypsum carver's workshop above the West Magazines, see P. Warren BSA LXII (1967), pp.195-201. Hazzidakis has also suggested Room 7 of the villa at Nirou Chani was a painter's workshop (Eph. Arch. (1922) p.11).

4. The more certain of these are:

re-u-ko (λεύκος), white: KN L695

po-ni-ki-ja (φοινίκια), crimson: KN Sd0402

po-pu-ro$_2$ and po-pu-re-ja (πορφυρίω), purple: KN L758 and L474

mi-ja-ro (μιαρόν), "blood-red": KN Ll568

po-ki-ro (ποίκιλος), variegated (? dappled)

mi-to-we-sa-e "painted red": KN Sd0404 (a chariot-box: the colour they usually appear in the frescoes)

e-ru-ta-ra-pi (ἐρυθρᾷφι), red stained: KN Ld573

ku-wa-ni-jo (κυάνιος), kyanos blue: PY Ta714

ma-ra-pi (? dark): PY Cn418.

These words mostly appear in connection with dyeing of textiles; there are also such adjectives as "golden", "bronze" and "silvered" which may have had colour meanings, and a word for (?) "safflower" (ka-na-ko) is coupled with "White" and "red" on MY Ge602.

5. Heaton thought the Knossian lime was quarried about 3 kilometres south of the palace at Hagia Irini, so close were the results of chemical analyses of plasters and lime from that site (JRIBA XVIII, p.700, cited by Evans, PM I, p.532 n.3). But no Minoan sherds are known from that quarry which may have been worked for stone for Venetian structures in the district (so Mr M.S.F. Hood kindly tells the writer).

6. JRIBA op.cit. p.699.

7. This information is kindly supplied by Mr. Joseph Shaw (photo record no.7 on roll 55).

8. BSA Supplementary Paper No.1, p.12 n.2. In Room 1 of the "House of the Sacrificed Oxen" was found a jar containing slaked lime "ready for use" which was covered with a stone slab: the jar was 47cm high and 36cm in maximum diameter (DM/DB 1922 (1), p.35).

9. Phylakopi, p.71: Evans repeats this, ? approvingly, at PM I, p.536.

10. A vertical impression of this type appears at the back of the fragment at PLATE 62B (MC Thesis, no.18A and Figs.109, 161). The relation of this feature to brushmarks on the painted surface makes it certain that the painting represents horses' manes, not a dolphin's fins (Ibid, p.64f): in Alexiou's illustration of the fragment, this feature is ignored and the fragment is tilted to the left (AA 4 (1964), p.802, Fig.6).

11. MC Thesis no.25, Figs.164-165.

12. Enlarged colour reprductions of the original "La Parisienne", such as those on the paper-covers of Crete and Mycenae (1960) or of R.A. Higgins' Minoan and Mycenaean Art (1967), show clearly that the black outlines were painted over the blue.

13. In colour, at KChr IΓ'(1959), pl.opp. p.336. Platon's "counterchange" background arrangement to be seen there is questionable because parts of two separate panels may have been incorporated into the restoration (Vol. IV, C, pp.50-53).

14. For example, the forepart of the "blue bird" at BSA 63 (1968), Colour Plate A, 5 (no.21) = Vol.V, F here.

15. Vol. IV, H, p.55, Fig.6B and Pl.VIII (no.26). See, too, KFA Pl.X, Figs.2, 4 (left toe) and 6, and Pl.XIIA (taureador).

16. Apparently arising from Heaton's account (JRIBA XVIII, p.709f).

17. Ibid, p.709. On the Italian method, see W.G. Constable The Painter's Workshop (1954), p.62; for an excellent "nutshell" summary, see Robert Melville's article in the New Statesman for 11 April 1969, p.526.

18. First described in Kadmos VII (1968), pp.50-58 (= Vol.IV, H, here).

19. That parts of reliefs (e.g. human limbs) were modelled in special moulds and then transferred to the wall seems ruled out by the scoring of lower plaster layers already on the wall in order to take new layers of soft plaster-putty. The relief elements seem to have been shaped with scraping tools or bronze knives, to judge from marks in the plaster surfaces.

20. Against Evans, PM (passim)

21. JRSA LVIII (1910), p.210f and JRIBA SVIII (1911), p.708.

22. A. Eibner, P. Duell and R.J. Gettens, and D. Levi (v. Bibliography). Very recently, however, new studies seem to support Heaton's conclusion (see n.26 below).

23. JRIBA op.cit. p.709 and Duell and Gettens op.cit. pp.198f and 218.

24. How this was carried out and with what instruments is uncertain: J. Hazzidakis suggests stone polishers (Les Villas Minoennes de Tylissos (1934), p.53).

25. E.g. see Frescoes from Florence (Arts Council 1969) Colour Plate on p.208. The blue was apparently supplied a secco and it is "precisely these areas of paint which have disappeared" (E. Mullins "Frescoes on the Move" - Daily Telegraph Magazine no.233, 28 March 1969, p.35: cf picture at p.31).

26. Information by courtesy of Mrs. Kassie Coleman who remarks that an especial problem at Keos has been to deal with the effects of salt water on the fresco pieces from Block M.

27. See, for example, Constable op.cit. pp.59ff; Frescoes from Florence pp.29 and passim; Sir William Richmond and others JRIBA XII (1905), p.314.

28. Appendix A,p.704(3)below. The fresco was found in situ (PM I p.337 n.1 and PM III, pp.294 and 343 n.1) but was removed temporarily while the wall was repaired and reinforced (see PM III, p.290, Fig.189); it then remained in its original place until 1965.

CHAPTER IX

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CHAPTER IX

Introductory remarks

Of the many paintings which occur in the surviving Knossos frescoes, which paintings can be assigned to an individual painter or to a "school" of painters and by what criteria do we assign them?

The extent of the compositions and their techniques of manufacture suggest that as a general rule several painters would probably be working together on the decoration of a building or single suite of rooms. Their training in artistic forms of expression evidently enabled them to achieve a remarkable unity of style which makes it hard to distinguish the "hands" of individual painters in any one group or "school". Yet where it is possible so to distinguish the artists, their individuality emerges in differences in brushwork and line, and to a lesser extent in iconography. Although we cannot refer to previous attempts to distinguish the "hands" of Minoan wall painters, for the topic has never hitherto been broached in a systematised way, our criteria whereby one artist or "school" may be distinguished from another are much the same, and as self-evident, as those which enable us intuitively to distinguish the handwriting of friends or relatives and to recognise who they are before we open their letters and see their signatures. Indeed, it is this same intuition which enables one to recognise isolated fresco fragments - without any documentary aids - as belonging to exhibited fresco "panels" from which such pieces have been left out.

In Minoan wall painting the recognition of artists' "hands" may be said to be easier in some ways than the study of "hands" in scripts because there are not only characteristic treatments

of outline, but also preferences for certain ranges of colours or tones of colour and their use, for certain motifs and themes, for a particular scale of representation, for particular choices and qualities of plasters, techniques of painting, and not least for design in composition - all of which help to distinguish the work of one artist or "school" from that of another. That our material is of Bronze Age date certainly need not deter us. Scholars have already begun to distinguish different scribes' "hands" in Linear B texts - without the additional criteria that different choices of colours, brushwork, materials, techniques and pictorial representation supply in the case of mural painting(1).

We shall first attempt to define the characteristic styles of some ten painters or "schools" operating at various dates at Knossos and to attribute a number of paintings or dispersed fragments to each "school". These Knossian "schools" - not all of which are here included - fall into two broad groups, those working in the palace and those working in the town. There follows a section on Knossian painters who depicted frescoes outside the capital at other sites in Crete and here the artistic affinities of their works with those of the ten "schools" previously considered are noted. A final section comments briefly on characteristics of the styles of painting of certain provincial artists elsewhere in Crete and in the Cyclades.

If the attributions suggested here, reached on the "internal" evidence of the paintings themselves without regard to stratigraphical or topographical contexts, are acceptable, the importance of the results is considerable, especially with regard to the dating of the paintings, since many come from doubtful or mixed contexts (Chapter X and Appendix A). In view of the unity of style of works attributable to a single "school", if one fresco can be assigned firmly to a particular period, then

Fig.44

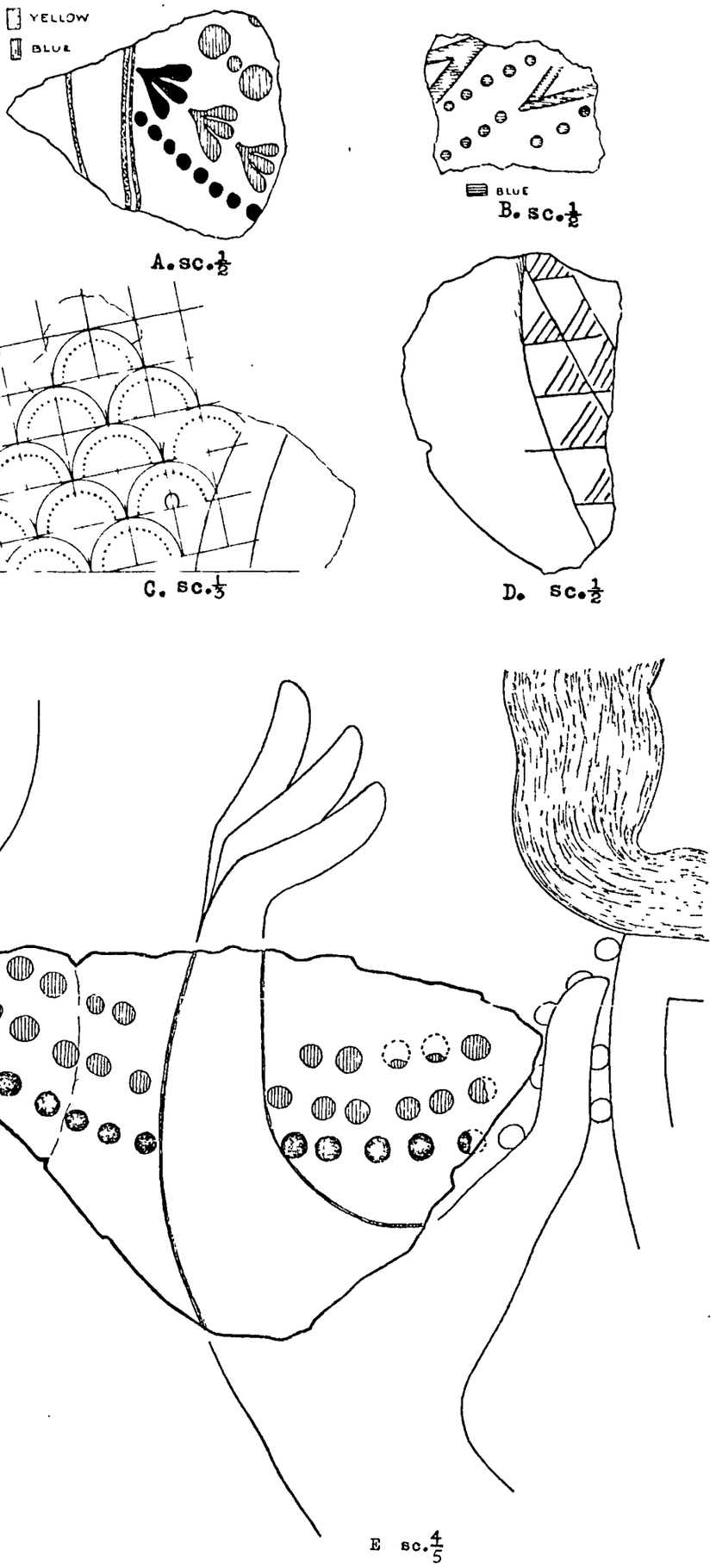


Fig.44: Early Processional Figures, from Knossos ("School A").
Fragments A-D: after PM II, p.680, Fig.430.
Fragment E: restoration of a piece drawn
by Mackenzie (DM/DB p.22 1925 (1)).

we are obliged to admit on our present knowledge that the "floruit" of the "school" in question is established and consequently all other murals identifiable on stylistic and esthetic grounds as the works of the same "school" may validly be assigned to the same period. Furthermore, such a study enables us to find some answers to the question: which rooms or buildings were decorated by the same artists or "school"?

I. PAINTERS IN THE PALACE AT KNOSSOS

Group A: the "Ladies in Blue School"

1. "Ladies in Blue" (PLATE 19); attributed to North East Hall
2. Woman's jewelry (Fig. 44a); found below Corridor of the Procession
3. (?) Necklace (PLATE 45A); attributed to North East Hall
4. Unpublished dress pieces (SMK box no. 1881): Knossos - no provenance.

The hallmarks of this "school's" work are: life-sized female figures with frontal torsos but profile heads; sepia outlines; a restrained colour-scheme favouring pastel shades of blue, brown and yellow; rhythmically flowing, even lines, executed with a lightness of touch that emphasises the easy grace and light, spirited mood of the subjects; and a relatively thick plaster (up to 3.5cm deep), often burnt on the surface and in section.

The drawing and brushwork are neatly carried out, anatomical details being rendered very naturalistically although finger-nails are not shown. Dress designs are carefully planned with very fine string-impressed lines, the "units" thus created being of strictly regular dimensions (about 1.2cm square); tri-curved arch, scale, and  motifs predominate. Simple round, lozenge, "waz" lily and crocus motifs, in bands of one colour or in two alternating colours (usually blue and brown) make up

the various and characteristically arranged swags of jewelry. Hairstyles included white ribbons and jewelry-beads; but details are uncertain, as is also true of the background treatments of works by this "school". The spacing of the figures, known only from the "Ladies in Blue" where the women overlap, has required a relatively complicated alternating arrangement of heads, arms, and bodies - now higher, now lower, or now forward, now behind. The overall effect of these large compositions suggests lively and spontaneous action among delicately coloured, almost monumental, groups of women in crowd-scenes. These have a direct appeal to the onlooker, especially perhaps because of their animated gestures, their partly frontal depiction, and their playing with their jewelry, all bringing out their feminine charm.

The thick plaster is hard and medium-grained, with a slight surface sheen from polishing before painting began. A "slip" is lacking, but intermittent red preliminary sketch-lines appear in places. A white "impasto" paint is used over the blue background for the arm of one woman in the "Ladies in Blue", and both this paint and the blue, especially of the jewelry-beads, are liable to flake. The sepia outlines may once have been the usual Minoan black but turned to their present colour through heavy burning. For technical and other reasons, Evans's suggestion that the figured frescoes from Phylakopi on Melos may be works of the same Knossian "school" does not hold(2).

These painters evidently decorated important public or "State" areas of the palace at one time with large-scale scenes of women, in or near the North East Hall and the Corridor of the Procession and perhaps elsewhere. This suggests they may have been engaged on a more widespread decoration of the palace, but this work has not survived.

Fig.45

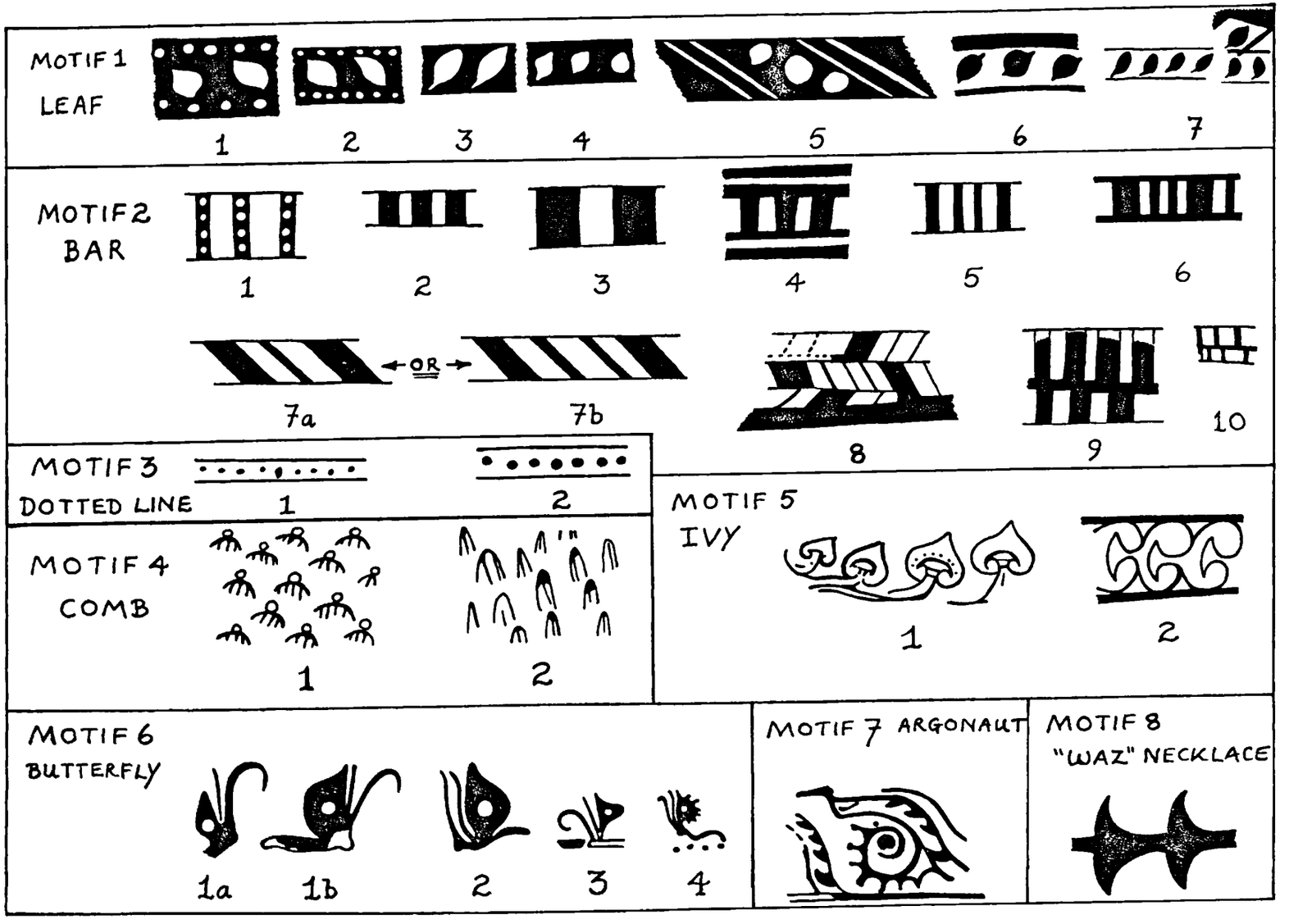


Fig. 45 Motifs of the "Kilt Painters School" (B). sc $\frac{1}{1}$

Group B: the "Kilt Painters School"

This "school" was responsible for a major output of frescoes in the palace, representing human figures "on the flat" at two-thirds life size, in relief-fresco at full or over life size, and also subjects on a "miniature" scale. Whatever the scale of their pictures, the present artists were equally at home. They were fine draughtsmen, confident and neat in their drawing but they used black outlines very sparingly. Especially popular are subsidiary dotted and linearised decorative patterns, "busy" in line and coloration and executed in a manner which may be termed "calligraphic", such is their neatness and usually "miniaturistic" scale of depiction. Diminutive pictorial motifs of subjects drawn from nature or mythical animals as dress designs were also dear to these painters. They enlivened their designs with small, rounded, white "impasto" spots of paint, applied after surface-polishing, in their hundreds. These artists executed processional, offertory, athletic, bull, mythical animal, floral and spiral compositions, drawing upon traditional Minoan themes or others (e.g. processions) from Egypt. Their paintings come from all four sides of the palace and especially from the eastern side whose rooms contained representative examples of all types of paintings attributable to these painters. The figures in relief fresco are life size, in high or low relief, with surfaces invariably well polished.

These considerations suggest this "school" redecorated the palace throughout in accordance with a comprehensive scheme of mural decoration in which smaller and less well finished human figures gave way to others on a grander scale on the walls of important upper rooms from which they eventually fell or were cleared out. Only Minoans are portrayed, in scenes connected with the Minoan festive cult in honour of a Minoan goddess. A

Fig.46

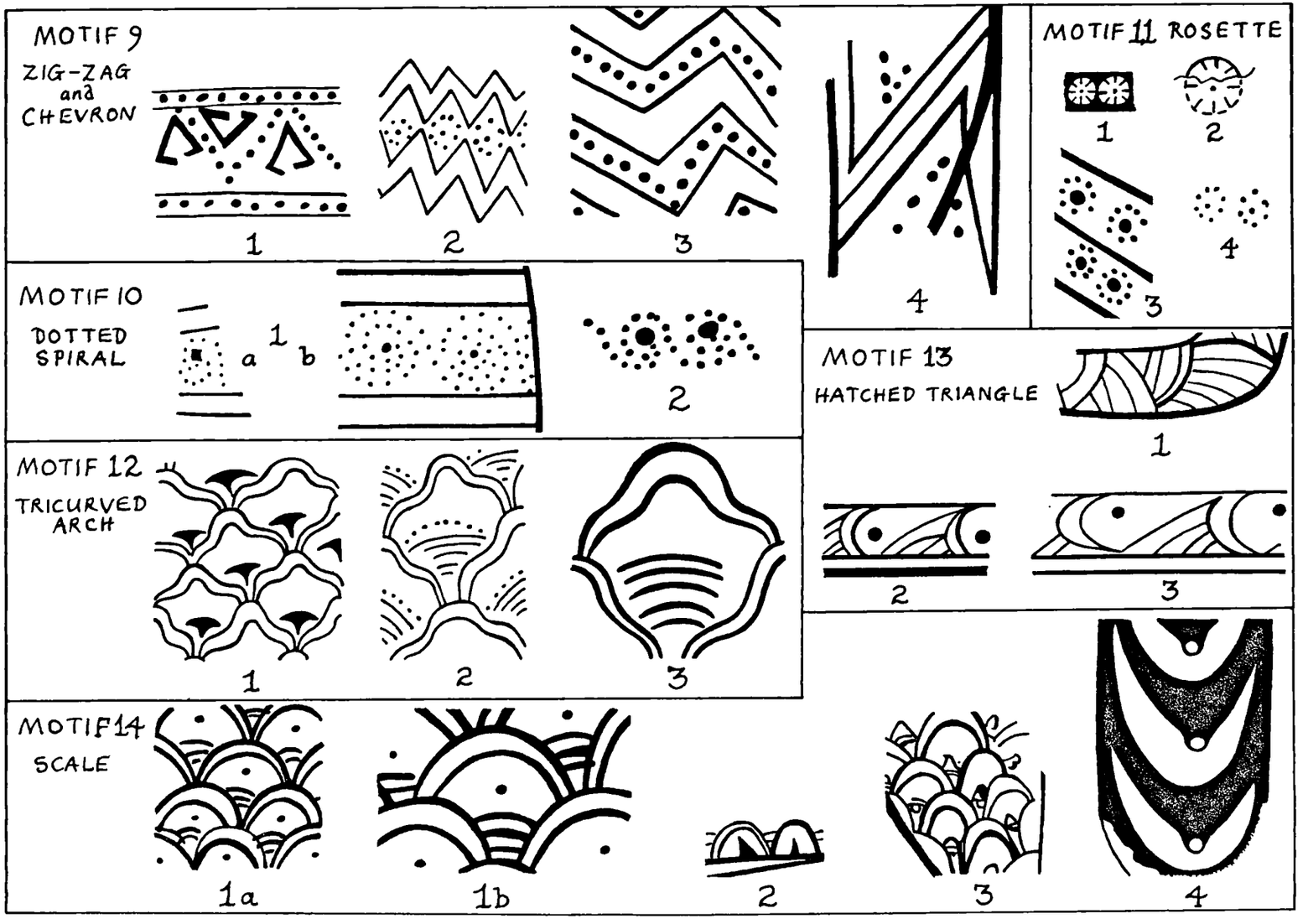


Fig. 46 Motifs of the "Kilt Painters School" (B). sc $\frac{1}{1}$

more detailed discussion now follows.

The "Kilt" series

Scattered throughout some twenty trays of frescoes in Herakleion Museum are many fresco pieces depicting parts of Minoan brief kilts worn by male figures, some 125cm high (two-thirds life size), some if not all of whom were walking in procession up a staircase (SLIDE 44). Identical motifs in identical paints appear from piece to piece, which, with other designs of the same fresco series, are collected together in Figs. 45 and 46. The principal fragments of the series are seen here at the following PLATES and SLIDE 45:

5B; 183 A1, 8-10; 183 B-C; 185 A9, 12; 185 B5, 11; 186 A (cf 185 A12); 187 A-B; 188 B7, 9, 11; 189 A; 189 C1, 2 and 6 of Upsilon XII (E); and 192 A5.

Particularly characteristic is the leaf design in yellow on a black band bordered on each side with a row of small white "impasto" dots; this design recurs time and again on the hems of the kilts, seemingly reflecting a practice of cutting up a long roll of tape into suitable lengths for the hems of identically manufactured kilts (e.g. PLATES 5B; 183 A1; 184 A; and 187 A). The white spots evidently denote stitching. The same leaf motif occurs in different sizes (Fig. 45, Motif 1, nos. 1-2), and in the same "hand" but without white spots (Ibid, no. 3: PLATE 187 B3); and also in white and black paints in "hem-bands" also lacking white spots at the edges (Fig. 45, Motif 1, nos. 5-7). These last seem imitative of the finer forms of leaf design first mentioned, and therefore they suggest a second, perhaps less skilled, artist's "hand". That we have evidence here for different painters is also attested by other motifs of this fresco series of which we find finer and poorer forms (e.g. Fig. 45, Motif 4); but

Fig.47

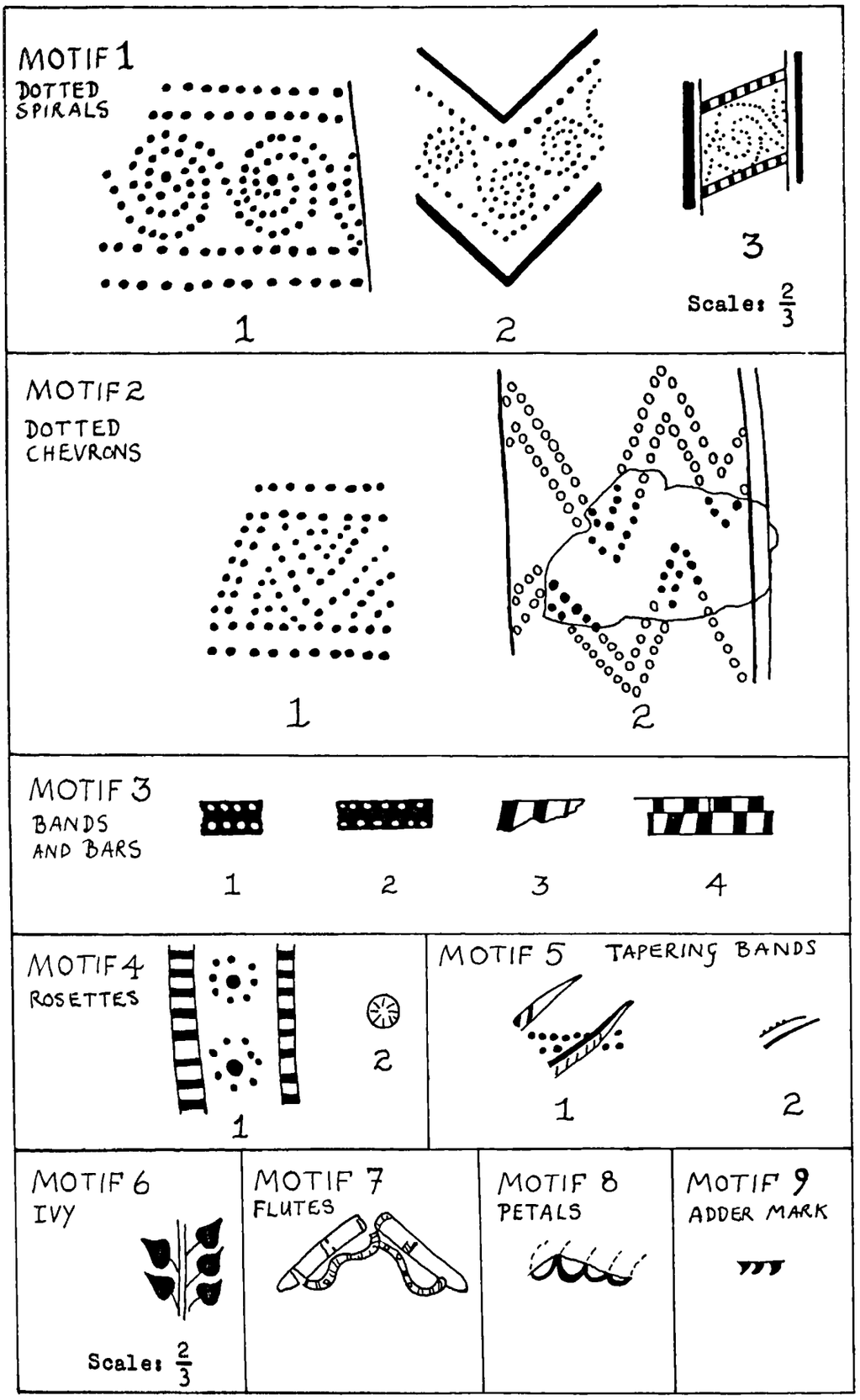


Fig.47: Relief and "miniature" motifs of the "Kilt Painters School" (B)

Scale $\frac{1}{1}$

the number of artists cannot yet be determined.

The kilts generally have multiples of black or red small, "busy", linear or representational patterns on commonly thin "watery" light blue or yellow ground washes. A registered arrangement of the main patterns, which are often repeated between pairs of horizontal or diagonal parallel lines, is one of the most telling features of this series of pieces (e.g. PLATES 5B; 183 A1; 187 B3), although diagonal (PLATE 183 C) and zig-zag or chevron arrangements also occur (PLATE 183 A8-9). The main areas of the kilts are consistently in an overall lighter colour-scheme than their accompanying hem-bands, while the patterns throughout are invariably "miniaturistic". Small spots of white "impasto" paint regularly supply decorative additions, often emphasising the lines of hem-edges or the focal points of individual motifs.

The heads of the figures wearing these kilts are unique to this "school" and highly distinctive. The facial profile is taut, the chin small and trim, the lips crisply defined by curved black lines, and the nose is upturned but not grossly snub as is the case in some Mycenaean human representations on frescoes (SLIDE 2 and PLATE 5). Especially diagnostic for present purposes is the careful drawing of the eye: a black ring round a deep red pupil, and very fine black or red lines in the eye's corner to denote the tear gland(3). A sketch published by Rodenwaldt of a fresco fragment from the palace at Knossos, showing a female figure's face drawn in the same style, suggests that the present "school" painted women's heads in an identical manner(4). Hairstyles are the waist-length Type A (Fig. 9 A1), with distinctively tight curls in crisp "permanent waves" above and below a head-band.

The plasters of the present compositions vary in thick-

ness, from about 1cm to 2cm as a general rule, and also in colour - from white to a light sandy white; but they are consistently fine-grained, with a tendency to crumble at the edges, and are regularly flat at the back. There is reason to think the compositions may have been built up from two layers of plaster, the lower of which seems often to have separated from the upper (painted) layer. These technical features are common to the following group of fresco fragments attributable to "School B".

"Miniature" paintings

Variations in the scale of the butterfly motifs, delicately executed, of the above series of kilt fragments alone indicate that the present artists were at home with truly miniature pictorial representations (Fig. 45, Motif 6: see SLIDE 12 a i-iv). Among these we may also include a series of "miniature" pieces which Evans published as a homogeneous class in themselves[5]:

Flutes (PLATE 43D)
Bucranium (PLATE 43B)
Winged griffin (PLATE 43E)
Winged sphinx (PLATE 43F)
Winged griffin or sphinx (PLATE 43G)
"Enigmatic" subject (PLATE 43H)

} All from the North Threshing Floo fresco dump.

These Evans suggested belonged to the robes of large-scale female figures. The colours and several motifs (e.g. the spotted black bands at PLATE 43D) and small rosettes there and on the piece at PLATE 43F are particularly characteristic of designs painted by the present "school" (cf PLATES 183 A1 and 186 A).

Another fragment which seems painted in a style wholely consistent with the miniature pictorial work of this "school"

is that at PLATE 43A showing a flying "blue bird" (which resembles the treatment of the naturalistic doves from the "Houses of the Frescoes"). To the same miniature class we may perhaps add the "Jewel Fresco" (PLATE 44A and SLIDE 14). Here tiny human heads form the pendants of the necklace of a large-scale female figure being approached by a man executed in relief. The fine brushwork here has all the delicacy of this "school" of artists, and the style of drawing of the man's hand matches that of an unpublished fragment of the "kilt series" showing a man's hand(6). The implication is that our painters also executed relief frescoes. Consideration of yet other paintings from the palace corroborates this view.

Paintings in relief fresco by "School B"

Two life-sized girl bull-leapers: SLIDES 7-8 (low relief); Domestic Quarters

Their kilts and codpieces reproduce in the same style, arrangement and colours eight motifs already found on the kilts of the smaller processional series of men(7). Indeed, the girls are merely full-scale, more elaborately treated and finished versions of the male figures. They are about 180cm in height and are delicately modelled to suggest taut limbs and thigh muscles, and the painted surfaces were highly polished. This was carried out before the small white "impasto" spots of the decorative patterns were added. The polishing and scale of the figures indicate these figures adorned more important rooms than those containing the kilted men (i.e. main rooms on upper storeys)(8). With the present figures we may associate the following relief works as attributable to the same "school":

Olive tree: PLATE 116A - North Entrance Passage

Myrtle tree (?): PLATE 116B - same provenance

Charging bull: PLATE 76 - same provenance

Leg of female bull-leaper: PLATE 42F - same provenance

Rockwork: PLATE 69A - same provenance

Spiral ceiling design: PLATE 141A - found nearby and in the Room of the Miniature Frescoes and Spiral Cornice

Spiral ceiling design: PLATE 141B - attributed to the Great East Hall

Men and women: PLATES 16, 17B and 41A-B - same provenance

Bull fragments (unidentified, but the "human limbs" at PLATE 16 C-D, from the same provenance, probably belong to bulls)

Griffin frieze: PLATE 132 - same provenance

Priest-King: PLATE 18 - South Front of the palace

On the olive tree relief fresco from the North Entrance Passage we find small white-dotted flowers executed in the same paint and technique as the spotted decoration of our two girl bull-leapers' kilts; indeed, the flower designs themselves, without their stalks, are exactly comparable and otherwise confined among relief frescoes to two paintings by this "school" - to the girl full-leaper at SLIDE 7 (kilt hem), and to the myrtle tree in relief from the same site as the olive tree (PLATE 116B). In this case, though the flowers are the same in size, shape and technique, they are blue; but in any case the relief modelling of the two tree compositions - a pattern of raised elliptical "bumps" over the entire field - is identical, and the low relief technique of moulding the plaster from a single thick layer seems essentially the same in all four compositions under discussion. The trees are generally thought to have belonged to the same mural system of friezes or panels as the charging bull, rockwork and female bull-leaper from the same provenance. In these cases, too, the relief-work lies in moulding single thick layers of plaster, though the bull's ear

was perhaps added as a separate entity. While the circumstance of an identical provenance is certainly a major consideration in connection with their attribution as works of a single "school", the relief-work, the complementary nature of the subject-matter, the quality of the plaster, the evidence for a similar polish over the painted surfaces (on which the spots of "impasto" paints were then added), and the similarity of paints - notably a blue in both tree compositions and on the nose-patch of the charging bull - are equally telling in the present connection. The same blue colour, which is burnt, appears on the first spiral ceiling composition listed above which, too, was found nearby. In texture, density and tone this paint originally must have matched the vivid, unburnt blue of the kilt of the girl at SLIDE 7, as is clear from an unburnt fragment from a stylistically identical spiral design found in the region of the "Taureador" frescoes(9).

A feature of the present spiral relief painting is that its coils are moulded from a single layer or roll of plaster in a technique closely resembling the method used for constructing the relief tree and girl bull-leaper compositions. The second spiral ceiling design listed above technically belongs to the same class; and although its painted surface has entirely disappeared, in all other respects, including the character of the plaster itself, it shares the same characteristics as the ceiling design from the northern part of the palace. Similarly modelled spiral ceiling designs occurred in other parts of the palace, all of which seem the products of a single "school" of artists - in this view, "School B". The men, women, bull and griffins listed above as from the same provenance as our second spiral ceiling design share many of the same technical characteristics as the reliefs previously mentioned, except that the human figures, in especially high

relief, were built up from several layers of plaster. We find the same red paints, the same technical finish to the surfaces, the same quality of plaster, and the same powerful modelling of pictorial forms. Both the griffin frieze and the Priest-King relief fresco from the South Front illustrate the same kind of low relief modelling of the stucco as appears in the kilted girl bull-leaper frescoes. The necklace and lily-crown of the Priest-King exhibit the same painstaking treatment of details as is characteristic of the "kilt" series of paintings by the present "school" (cf Fig. 45, Motif 8, from the hairstyle of a man, and PLATE 18). Moreover, Evans associated a "peacock" butterfly in the field of the Priest-King fresco (SLIDE 27k), a motif which otherwise occurs in frescoes - in the same combination of paints - only in the "kilt" fragments listed above (cf SLIDE 12a). All these paintings may therefore be tentatively ascribed to the present "school".

Other paintings attributable to "School B"

A fragment depicting a man's hand apparently holding a lotus flower appears at PLATE 98B. The colours here, notably a rose-red, are certainly identical with those of the "kilt" series of fragments, indicating the work of the same "school". The lotuses at PLATE 98 A and C seem by the same artists, too, even though the former is neater in style and also modelled in relief, as comparison of the use of fine linear details on the sepals of all three flowers suggests. The same brushwork and a similarly lively colour-scheme appear on the "bird's wing" fragment at PLATE 88C. This, too, may be attributed to this "school".

Other considerations

Whether or not these painters also executed the famous

Fig.48

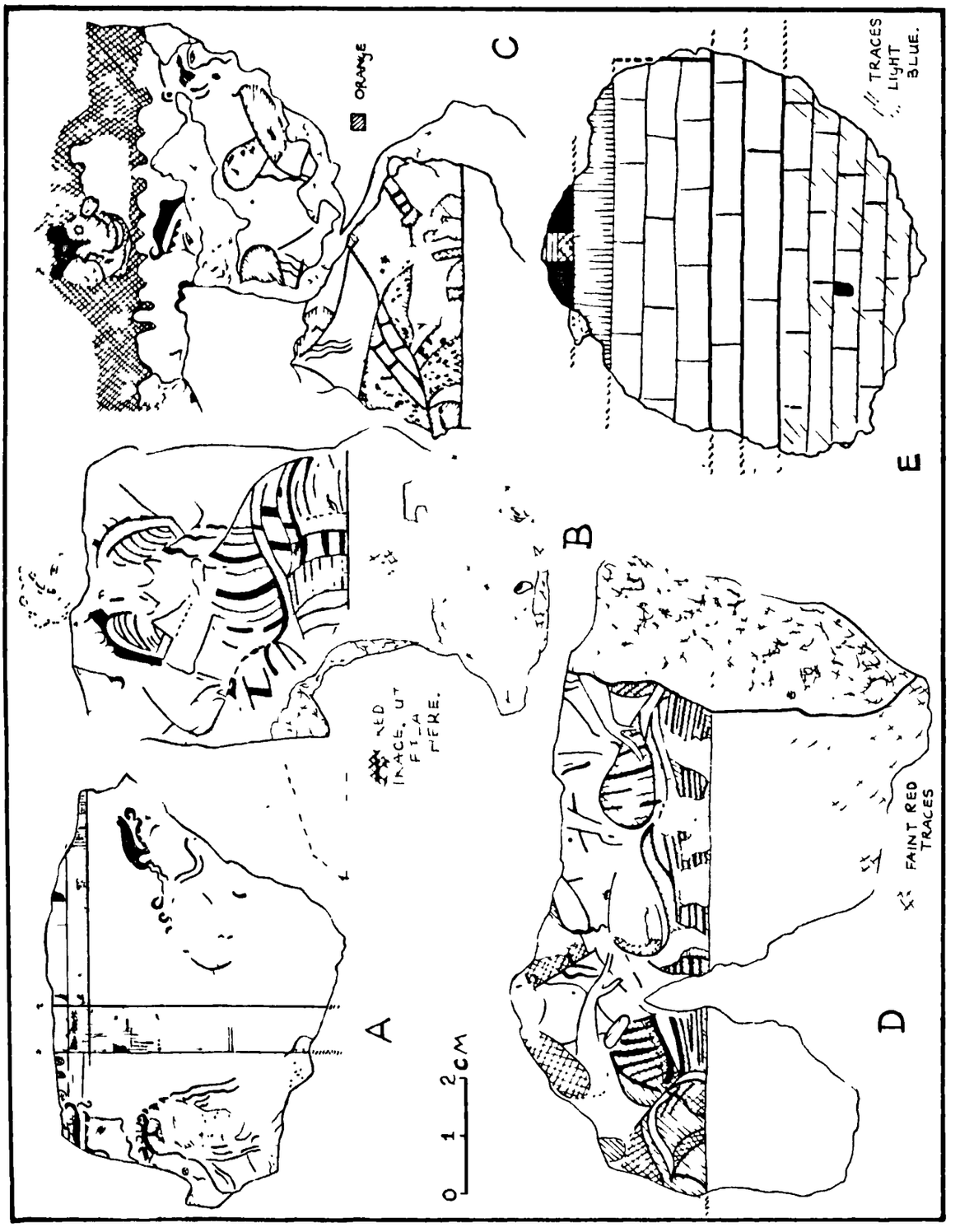


Fig.48 "Miniature" fragments from Knossos

A-B : "Miniature" painter A

C : "Miniature" painter C

D : "Miniature" painter D

E:Architectural fragment painted by "School C"

Scale: $\frac{1}{1}$

series of "miniature" figured scenes from Knossos ("School C") it is difficult to say on present criteria, although other considerations suggest they did (see p. 437f below). But those "miniatures" have many features in common with the frescoes discussed above:

> Similar hairstyles and robes; depiction of Minoans only in cult scenes; a similar technical finish and calligraphic use of line; small white "impasto" rounded spots of paint for eyes in crowd-scenes; the themes and subject-matter are the same, though more architecture appears in the "miniatures"; and figures appear on staircases.

These "miniature" compositions are now considered in their own right.

Group C: the "Miniature School"

Differences in scale of drawing and in brushwork suggested to Evans that more than one painter of a single "school" had executed the present series of frescoes[10]. At least five different "hands" are distinguishable in these paintings from the small corner shrine near the North Entrance Passage of the palace. A sixth "miniature" painter is represented by the piece at PLATE 28B, from a cist of West Magazine XIII. But in this case there are reasons to believe the composition belongs to a later date than the main series. Some sixty heads drawn by five of these painters, including the latter, are reproduced in Fig. 49[11]. The characteristics of each "hand" are now considered.

Painter A: Temple Fresco (PLATE 26);

> fragments at PLATE 27 A, B1 (Fig. 48, A-B) and perhaps C;
>
> fragment at PLATE 46C;
>
> HEADS: female (Fig. 49, nos. 1-12, 19-21), male (Ibid, nos. 15-18, 22-29)

Fig.49



Fig.49 "Miniature" heads on frescoes from Knossos

nos.1-12, 15-29: Painter A

nos.30-42b: Painter B

nos.13-14b: Painter C

nos.43-49: Painter E

nos.50-60: LM II/IIIA 1 "miniature" painter

The heads of the priestesses by this artist are particularly finely drawn, their hairstyles reproduced in careful detail: a fine forelock, three neat blobs denoting curls below a headband, and fine curls over the shoulders (Fig. 49, nos. 1-12). Facial outlines are given individual characterisation and the pupil of the eye is always inserted; the heads measure on average 1.8cm from the top of the hair to the neck-line provided by the upper hem of their jackets. This painter's treatment of heads in crowd scenes (Fig. 49, nos. 15- 29) is interesting: variations in the speed of execution show a gradual disintegration in style between typical female heads (nos. 19, 20, 23 and 24 which, in the Temple Fresco, are drawn against a red background as though they were the heads of men) and the much less refined heads of male figures (e.g. no. 22). This feature suggests all the heads were painted by a single "hand". Garments are painted in red, yellow, orange and blue with white and black subsidiary bands, the decoration being confined to trim linear and net patterns. The border of the upper red crowd scene undulates gently and is lined with neat little blobs forming a red fringe. Necklaces worn by figures in the crowds consist simply of a fine white "impasto" line. The fragment at Fig. 48B, certainly in the "hand" of this artist, evidently belongs to the Temple Fresco from which it has been omitted. Only this artist seems to have depicted what Evans called "matronly figures", with breasts drawn in full outline, in the miniature compositions from Knossos.

This artist draws with easy rhythmic lines, in an exceptionally neat and detailed style, on a relatively small scale. Indeed his figures evidently supplied the "model" for the work of less skilled painters, as we shall see. For these reasons alone, he may be counted the principal "miniaturist" known to

us from Knossos.

Painter B: Sacred Dance and Grove Fresco (PLATES 29-30, 31A-B and 6C);

Miniature "warriors and captain" (PLATE 6A-B);

HEADS: female (Fig. 49, nos. 30-35), male (Ibid, nos. 36-42)

This artist has an altogether more uniform but angular style of figure-drawing, as is clear from his most extensively preserved work - the Sacred Dance and Grove Fresco (PLATE 29). Noses and chins point sharply, and the pupil of the eye is not indicated. The eye is usually drawn in one continuous line, unlike the eyes drawn by Painter A, and lips are more definitely indicated. The hairstyle, too, is different and highly distinctive: a great quiff of hair lacking a hairband replaces the tidier coiffures portrayed by Painter A, and ears are more elongated. Necklaces here have pendant beads, all in yellow paint (Fig. 49, no. 32). To Painter B we may tentatively ascribe the miniature "Ladies in the Casements" (Fig. 49, no. 35) on a fragment published by Evans but which is now perhaps missing[12].

Male heads follow the same stylistic trends as the female heads, although they have generally a great curl above their foreheads and lack a side-lock near the ear (Fig. 49, nos. 36-41). Identical hairstyles recur on the fragments depicting men with yellow "spears", at PLATE 6 A-B, showing that the present painter executed those figures too (cf Fig. 49, no. 42 A-B with nos. 36-41). Indeed, the fragments in question may reasonably be attributed to a blue background area of the Sacred Dance and Grove Fresco from which they have hitherto been left out. Our present painter's heads, both male and female, are somewhat smaller than those by Painter A, as is clear from Fig. 49. The women's skirts are less elaborately treated in both design and range

of colours than their counterparts by Painter A; blue and yellow paints predominate and in the original fresco, as distinct from restored areas, net designs are lacking. The outline of the crowd scene, too, is drawn differently, undulating with greater irregularity than before while the "fringe" is more carefully rendered.

Comparison with the "hands" of his associates at Knossos shows that Painter B is very much an individualist, with his own distinctively personal style of drawing.

Painter C: fragment at PLATE 27D (Fig. 48C);

HEADS: female (Fig. 49, nos. 13-14A), male (Ibid, no. 14B)

This artist closely followed the style of Painter A, his women's heads being very similar to those drawn by our first man (cf Fig. 49 nos. 13-14A with nos. 1-12). But his treatment of skirts and the red crowd area illustrates distinctive variations on Painter A's style (v. Fig. 48 C). Small black spots and lines now provide decorative details on skirts, such as do not occur on garments drawn by our two previous "hands". The red fringe of the crowd area is quite straight and the red blobs at its edge are untidy. The white band below the seated women on the present fragment is broader than that in the Temple Fresco by Painter A, indicating that Painter C worked on a different "panel" in this fresco series. The overall style of Painter C is, however, neat and competent which seems true also of his male heads, to judge by the one instance fairly well preserved in the crowd area (Fig. 49, no. 14B).

Painter D: two fragments at PLATE 27 B2-3 (Fig. 48D);

HEADS: none surviving

The priestesses drawn by this artist are slightly different in scale on the two fragments attributed to him, but the style of drawing is uniform. This is neat and clear, but sombre colours

(chiefly red and blue), with linear decorative details added in somewhat heavy-looking black parallel lines, distinguish the dresses of these figures and the painter's own style from counterpart features in other miniature "hands". The figures were on much the same scale as those by Painter A, but here they are more crowded together in more compact spatial relationships. Despite competence in drawing, the overall dull effect of the painting on these two pieces sets them apart from other scenes in this fresco series as the works of a different painter.

Painter E: fragment at PLATE 28A;

HEADS: female (Fig. 49, nos. 43-45), male (Ibid, nos. 46-49)

The heads of both sexes painted by this artist clearly follow the general style of Painter A; but the execution is noticeably heavy-handed and coarse by comparison. The scale of representation is much greater (on average 2.2cm, or slightly more, from top of head to neck-line). Facial features are coarsened and ears are elf-like, while necklaces are broad bands with serried-bar details, evidently inspired by certain necklaces painted by Painter A (cf Fig. 49, no. 45 with no. 5, by Painter A). Yet there seems here a forceful effect of depth in the composition, with the central figure (Fig. 49, no. 44) almost concealed by her neighbour to our right (Fig. 49, no. 45). The red blobs at the fringe of the crowd scene are large and rounded in shape, lacking the lightness of touch of the other artists. The male heads in the crowd are the least carefully executed examples in the entire series, and it is not unreasonable to regard Painter E as the least competent of this group of artists.

Comment

Another piece clearly of the same fresco series cannot yet be

assigned to any one painter (PLATE 46B).

This survey suggests these artists were each allotted a section or panel of the friezes to complete individually, since in the two best preserved compositions - by Painters A and B - there is no evidence for the presence of more than a single "hand" in either. When the paintings went up on their walls, we should imagine not less than five artists each working on their own sections of a thematically unified system of mural decoration. Further, their individual styles and mannerisms point to a hierarchy of proficiency and perhaps of social standing, as follows:

(1) a "master painter": A

(2) experienced painters: B, C, D;

(3) perhaps a "pupil", E, who imitates A's style rather laboriously.

In that case, we could expect Painter A to have planned the compositions as a decorative whole and to have supervised their initiation with string-impressed lines, of which there is an abundance in these frescoes, as well as their execution. If further distinction of "hands" be considered, attention may be drawn to the "hand" of the fragment at PLATE 27C (Fig. 49, no. 3) - an exceptionally precise and miniature representation, where, however, the drawing of the eye closely recalls that typical of Painter A.

The style of our sixth painter, represented by the fragment at PLATE 28B (Fig. 49, nos. 50-60, all male heads), bears a slight resemblance to that of our "pupil", Painter E, insofar as the brushwork is coarse and the heads large (on average, 2.5cm including necks). But there are notable differences: facial outlines are defined by the hair of a preceding figure and the white eye-spots are larger and more elongated, while chins and noses are distinctly angular. In the latter respect

there seems a closer comparison with heads by Painter B who in one case has also defined a face by the hair of a preceding person (Fig.49, no.35, p.320). We may tentatively suggest the present artist derived his style of painting from those of two other painters, B and E, which point may be of chronological significance.

This piece appears to belong to the same scene as one or both of the fragments depicting shrines at PLATE 48 A and B and the bull's head fragment at PLATE 74A, as conjecturally restored (Fig.24, p.150). The plasters and paints of the fragments, which turned up together in the western cists of West Magazine XIII, are the same in depth and quality; so, too, the relatively coarse brushwork, string-impressed lines and wearing of the painted surfaces. If this association of the pieces is correct in principle, then the architectural renderings there to be seen corroborate the conclusion that this painter does not belong to "School C", as a detailed comparison of the shrines here and in the Temple Fresco by Painter A would show.

That the "school" represented by the "miniature" Painters A-E may be the same as "School B", as mentioned in the previous section of this chapter, will be discussed further in Chapter X dealing with questions of chronology.

Group D: the "Mycenaean School"

This "school" affords our best insight into the range and quality of paintings by any one group of artists at Knossos, for many compositions attributable to it are readily recognisable and many were found relatively well preserved in situ. Chapters X and XI show that this "school" first introduced Mycenaean subject-matter to Minoan wall painting in Crete and that it was responsible for the last major redecoration of the palace before its destruction c. 1375 B.C.

Chief features of its work are large, near monumental, compositions; grandiose conceptions and scales of representation; repetition of major motifs, highly stylised; hieratic disposition of large subjects; boldly firm black, slightly rough-edged, outlining; a stiffening or rigidity in all artistic types of movement; a lack of direct esthetic appeal to the onlooker in both overall style and colour usage; and emphasis on symbolic content, at the expense of esthetic appeal of delicately drawn scenery and of feeling for intricate design and for personal relationships in the figures depicted. Emphasis of the paintings' pictorial message now replaces great attention to subsidiary but convincingly interlaced detail as a primary artistic concern. Grandiose formal conceptions in these paintings strive to make us catch our breath in awe.

Background pictorial details are minimal and are no longer on an equal representational footing with the main subject-matter unlike the frescoes of "schools" already mentioned (where such details survive). Consequently, pictorial settings may seem ill-defined or occasionally incongruous either with the habitat of the principal subjects or with the paintings' original architectural settings. "Nature" as a central element in artistic outlook has become out of place. The thematic keynote now is "Man", as against "Man in his accustomed environment". The whirling, centrifugal compositions of other "schools" and their accentuation of diagonal movement in overall design, give way here to "tectonic" schemes emphasising only horizontal and vertical lines and movement in flat, shallow space. The horizontal arrangement of coloured background bands in broad, sweeping, contrasts of light and dark conveys a simpler sense of movement - more majestic, perhaps, but less animated - than is apparent in the more

Fig. 50

Fig.50: The Find-Places of works by "School D" at Knossos

KEY

Nos.1-9: human figures

Nos.10-19: dadoes and related scenes

10: bull fresco

11: shield fresco

12: griffin frescoes

13: bull fresco

Nos.20-28: spirals and rosettes

Nos.29-34: other animal or plant subjects

29: argonaut fresco

30: bull and floral fresco

31: floral fragment

32: bull fresco

33: horses' manes (unknown provenance)

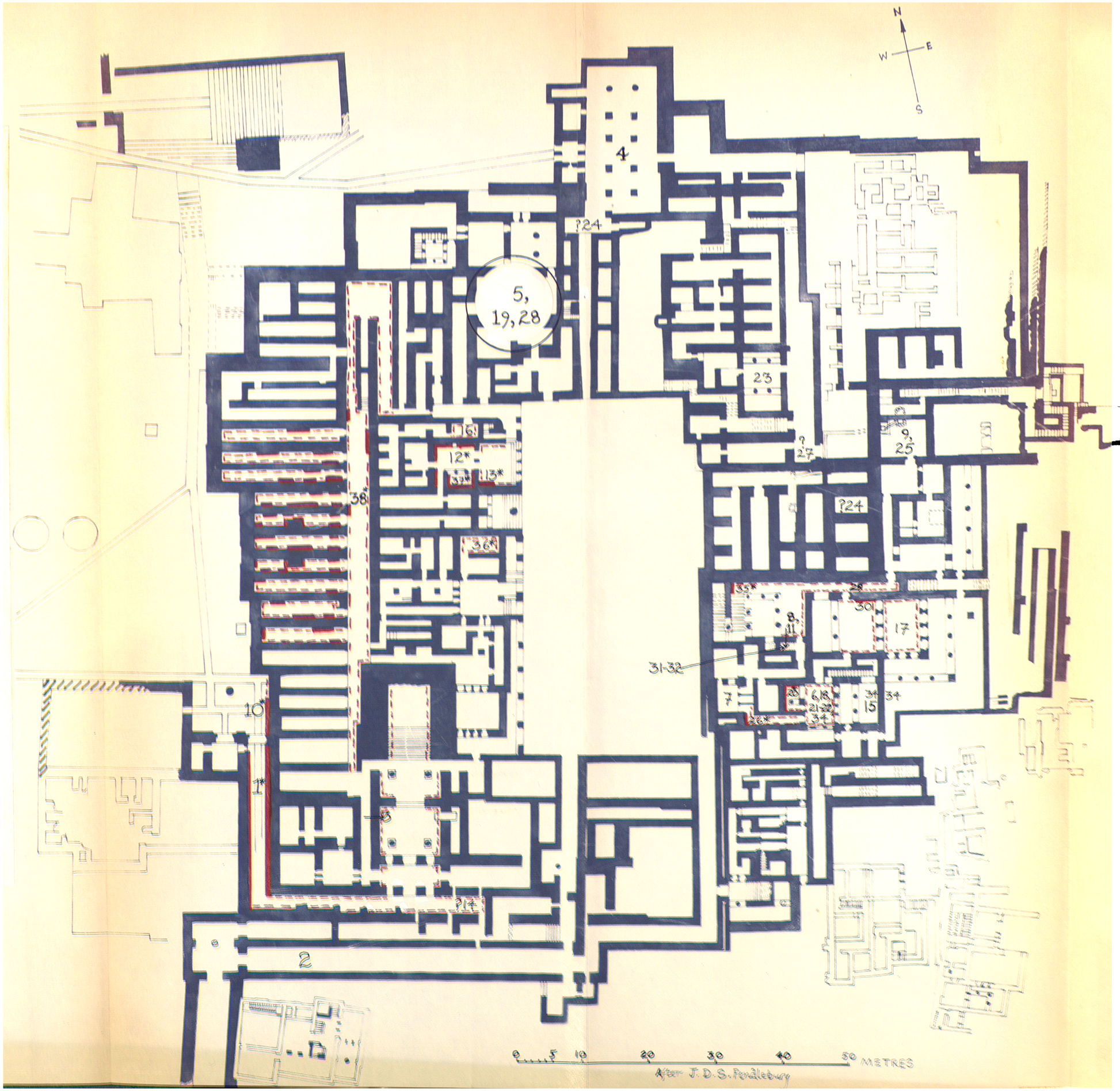
34: dolphins and small fry

Nos.35-38: banded dadoes

Also: spiral fresco, High Priest's House

found in situ

conjectural but probable continuation of mural decoration by this "school".



complex whirling schemes of other "schools". Yet the "duplicated" figures in the present paintings seem static - not so much caught in action at a particular moment in time as stuck in a particular poise in measured space-relationships with one another against an unchanging back-cloth, as if they were monumental paper "cut-outs" systematically marshalled there.

Men now appear in greater numbers than women, and when women are portrayed they appear singly and usually in full profile, not in part-profile, part-frontal, view. Although pride of place may be given to an isolated female figure, the impression is given that the men are the motivating force in scenes of cult ritual.

A special problem is the distinction of individual artist's "hands". The size and extent of the paintings, especially of processional scenes, argues for a large number of members of this "school"; but no attempt will here be made to ennumerate them.

The find-places of frescoes attributed to "School D" are shown in Fig. 50 in the numerical order in which they are listed here; asterisks (*) signify paintings found in situ.

1*. Procession Fresco (PLATE 14A, top: includes pieces at PLATES 9A, 12D, 13A and 14A, lower); Corridor of the Procession. Evans estimates there were originally 536 life-sized figures in this composition (PM II, p. 720).

2. Man in ankle-length kilt (PLATE 12C); S. of Procession Corridor.

3. Cupbearer Fresco (PLATE 7A and SLIDE 9); attrib. to west wall of South Propylaeum.

4. Man carrying stone bowl (PLATE 56A); N. Threshing Floor deposit.

5. Female ankle (PLATE 166 C4); same provenance.
6. Youth's head (PLATE 7B and SLIDE 3: body pieces at PLATES 164 A37 and 171 A1); Queen's Megaron.
7. Kilt fragment (PLATE 9B); Room of the Stone Bench.
8. Kilt fragment (AM/AE 1705); Demon Seals area.
9. Cloaked man with raised arm (PLATE 13B); Room of the Stone Spout.

Figures by this "school" are drawn with great boldness and control of sweeping line, with dark red outlines for body parts (see arms of Cupbearer, PLATE 8) and thick black outlines for garments which include long forms of kilts and ankle-length cloaks. The scale of representation is uniformly life size or slightly larger. At the same time there is a bulky painterly quality in the use of broad masses of colour within outlined areas which extends also to the detailed treatment of dress designs, as can be seen in the case of nos. 1-3 and 7-9 listed above. Dress patterns are of two types: boldly graphic (e.g. PLATE 9A, right) or "painterly combinations" of colours (e.g. PLATE 9B): in either case hem-borders feature heavy black lines on an unusually grand scale of depiction. Large varied quatrefoil and scale patterns are especially popular. White "impasto" decorative spots are now at least twice the size of those applied by other "schools" so far mentioned, and are one diagnostic feature of the piece at PLATE 56A as a painting of this "school". The dress motifs are large and invariably planned with the aid of large string-impressed grids. In the "graphic" class, double-outlined patterns with a thick outer and a thin inner line are common - a feature also of lines in the background schemae of this "school" which serves to divide differently coloured background bands and which assists the accompanying broad-band washes of colour in conveying a sense

of horizontal movement throughout the composition, matching that - for example - of the actual figures in the Procession Fresco (PLATE 14A, top). These background bands are generally "streaky" in appearance, unlike the solidly opaque ground colours in compositions of other "schools", and large uneven brushmarks in those areas are much in evidence.

The treatment of human bodies is also distinctive, suggestive of dynamic masses through emphasis of large, bulging and tensed muscles; these are drawn with boldly sweeping lines and curves, clear-cut angles forming at the junctions of limbs - especially arms (e.g. PLATES 8 and 56A). The broad red washes of body colours on close inspection often seem somewhat roughly applied, lacking the smoothness of red body colours applied to figures by other painters. Joints of legs and arms are well rounded in shape and picked out in form from their continuations, thus adding to the impression of strength, majesty and masculinity which characterises the figure-drawing of this "school". The various parts of the body indeed form very distinct units in themselves which in part accounts for the rigid, almost unarticulated, look of these figures - as if they were the assembled parts of massive clockwork toys of superior but uniform manufacture. It is possible that some kind of stencil may have been used, but the figures do show slight variations in height and proportions. A feeling for the sinuous in human anatomy is less evident in the work by this "school" as compared with that of others. A powerful masculinity is evident also in the treatment of heads, to judge by the Cupbearer and a newly restored head from the Queen's Megaron (PLATES 7 A-B and SLIDES 9 and 3, respectively). The facial outline is strong, large lips slightly parted and pouting, the chin somewhat heavy. The eye is boldly drawn with black outlines and pupil, but that of the Cupbearer also shows

the tear-gland at the wrong (outer) corner (see Fig. 9 B1,p.55). A "medium", shoulder-length hairstyle, adorned with spotted ribbons and terminating in two or three large, trim curls, seems also to have been characteristic, and so, too, the representation of heads against a streaky yellow background colour.

Space relationships between the figures have a carefully measured appearance, though figures may overlap (PLATE 13A), stand side by side (PLATE 12D) or stand singly one in front of the other (PLATE 9A). The overall effect, however, is that of "plotting out" the figures in a mechanical way which emphasises the strong vertical and horizontal axes of design in the compositions: this we shall find is also a feature of the treatment of plants in background scenery of other paintings by these same artists.

Technical characteristics, as well as style of drawing, are telling, too. The plasters preferred by this "school" are generally off-white, granular and fairly hard, and the surfaces present a slightly roughish appearance. Close inspection suggests the plaster of the Procession Fresco is identical with that of the nearby bull and dado fresco from the West Porch (PLATES 80B and 145B), showing identical effects of fire on their plasters. Moreover, their depth (from 1cm to about 3cm) is similar and is typical of that of several other paintings attributable to this "school". These technical links between these two frescoes are of great importance because the West Porch painting exhibits significant connections with other major compositions in the rest of the palace.

Dadoes and related pictorial compositions

10*. Dado and bull fresco (PLATES 80B and 145B); West Porch

11. Shield Fresco (PLATE 63A); stair-well to Room of Demon Seals

12*. Griffin Fresco (PLATES 127-129 and 111D); Throne Room

13*. Bull fresco; Antechamber to Throne Room (PM IV, p. 893, Fig. 872)

14. Dado fragment (PLATE 161A); Corridor of the Procession

15. Dado fragment (PLATE 147A); East light-well, Queen's Megaron

16. Dado fragment; Room of the Woman's Seat, next to Throne Room (HM 11 Delta VIII, 10)

17. Dado fragment; Hall of the Double Axes (HM 79 Zeta XVI,4)

18. Dado fragment; "Area of Queen's Megaron" (HM 72 Beta X, 4 & 6)

19. Dado fragment; North Threshing Floor deposit (HM 25 Eta IV, 3)

Characteristic of all the dadoes in painted plaster listed above is the heavy treatment of broad lines to imitate veined stone, whether conceived as a continuous stretch of material or as juxtaposed blocks of stone. The lines in question, often in black but also in other colours (notably red) on plain or opaque or streaky-coloured grounds, undulate on a diagonal or vertical incline, the brushwork being coarse, flat and bold. The West Porch dado reproduces broad stippled lines which reappear at exactly the same scale and in the same style on the Shield Fresco, in the darker areas of the ox-hides. Here, too, we find heavy black and "double-outlines", in red paints, which were noted above as characteristic elements of the Procession Fresco. Moreover, technical features of the plaster and its surface character correspond to what we find in the figured paintings. The same style of brushwork, though in solid lines, reappears in the dadoes of the Throne Room frescoes and in the bull scene of its Antechamber, whose dadoes Evans long since noted bore a family resemblance to that of the West Porch composition[13]. Other fragments of similar dadoes, identical in paints, style

and mannerisms of brushwork occurred in several other parts of the palace, as listed above (nos. 14-19), including one piece from the Corridor of the Procession itself. Such is the uniform character of these pieces that we may accept all as the work of this "school" of painters. But the designs and brushwork of other motifs which appear in some of the paintings listed above bring us to yet other examples of the output of the same "school", notably compositions with spiraliform and rosette motifs of the same character as those which appear behind the shields in the great Shield Fresco (PLATE 63A).

Compositions with spiraliform designs and large rosettes

20*. Frieze (PLATE 155B); Queen's Bathroom

21. Fragments (PLATE 140E and 171 A2); Queen's Megaron

22. Fragment (PLATE 140D); "Area of Queen's Megaron"

23. Fragment (PLATE 140B); area of North East Hall

24. Fragment (PLATE 167 A7); Loomweights Basement area or North Entrance area

25. Fragment; Room of the Stone Spout (HM 62 Lambda VI, 10)

26*. Fragment (PM III, p. 388, Fig. 259); "Dog's Leg" Corridor, near Queen's Megaron

27. Fragment; north of North East Shoot (HM 52 Omikron VII 2)

28. Several fragments; North Threshing Floor deposit (PLATE 166 A2, 3, 5 and 6)

Characteristic of the spirals and rosettes in the Shield fresco is the large scale of drawing, the spirals being executed free-hand in thickish black outline with plain (unpainted) white branches containing twelve-petalled rosettes in the centre of each volute. The overall effect is perhaps vulgar to modern taste and the brushwork is irregular and "heavy". The rosettes are typically coloured with an outer circular band in grey-blue, with heavy black outlines giving shape to the individual petals;

these have red filling motifs within, while others in the same colour appear on the circumference. Varied rosette forms, evidently executed by different artists of this "school", are collected at PLATE 140, where further characteristic features may best be detected: a central unpainted circle in the rosettes; rough drawing of the filling motifs; the occasional use of a compass or similar tool to define the spiral volutes - a mechanical feature also used for half-rosettes as "spacers" between volutes in several examples, including the frieze from the Queen's Bathroom (PLATE 155B). Broad border stripes defined by heavy black outlines accompany this class of spiral friezes, in recurring combinations of red, yellow, blue-grey and white paints. Fragments of such designs by this "school" are unmistakeable in appearance, and they also bear many of the technical features relating to plasters which have been described above as typical of paintings executed by "School D". In particular, the surface character of their plasters may be especially appreciated from PLATE 140.

A most important correlation may here be made: stylistically identical rosettes, also in very large spiraliform volutes, appear on the shoulders of the griffins in the Throne Frescoes, as comparison of the shoulder area at PLATE 99B with the rosettes at PLATE 140 shows. Moreover the same colours and colour-scheme are used, and the brushwork is identical, while the outer red filling motifs of the rosette at the former PLATE find an exact correspondence to the linear forms at PLATE 140 B, C (left) and D. Such is the agreement in these instances that we may accept all these paintings as executed by the one group of artists. The griffin frescoes, now intimately linked in regard to "painter's hand" to the Shield Fresco in style, brushwork, design of motifs and technical character, bring us to two further groups of paintings attributable to the same "school".

Other pictorial compositions

29. The "Argonaut" Fresco (PLATE 170B and Fig. 12 - restoration); upper east-west corridor, Domestic Quarters

30*. Bull and floral fresco (PM III, p. 339, Fig. 225 - a sketch); upper Hall of the Double Axes[14]

31. Floral fragment (PLATE 111C); stair-well to Room of Demon Seals

32. Bull fragments (PLATE 75 A-C); same provenance as no. 31

33. Horses' manes fragment (PLATE 62A); Knossos palace - ? east side

34. Dolphin Fresco (PLATES 121-122, with 120D); Queen's Megaron

The style, brushwork and colour-scheme of the reeds in the background of the Griffin Fresco, as well as the elliptical motifs on those creatures' backs, are found again in the so-called "Argonaut Fresco" (Fig. 12; cf PLATES 127-128 and 111D, from the Griffin Fresco) and are so closely similar that both paintings may be firmly attributed to the one "school", if not to one painter's "hand". The plants show the same mannerisms in denoting veined leaves - small black brushstrokes quickly sketched at the open upper edges of the leaves. Similar, too, is the "plotting out" of isolated reeds over coloured background bands, horizontally aligned, which emphasise the "tectonic" conception in composition characteristic of this "school" and typical also of its figured scenes (cf Procession Fresco, PLATE 14A, top). Floral subjects of the same type, grandiose scale and general style of arrangement and treatment, though evidently executed in broader washes of colour, appear in nos. 30-31 listed above; these, too, may be ascribed to our present painters. On no. 30 there is also a life-sized foot of a bull, comparable in style and scale to those noted by Evans in the West Porch and Throne Room Antechamber frescoes

(nos. 10 and 13 here). Bulls were clearly a favourite subject of our painters, for they also depicted the animal represented by the pieces at no. 32: technical features, and the treatment of the hide show this to be so. The hide's patches are lined with irregularly wavy light grey "bands" in a manner identical with that feature - in similarly "watery" textured paints - in the depiction of the ox-hides of the great Shield Fresco series (PLATE 63A and B1) where the same colours recur.

The character of the plaster and paints, the brushwork and large white "impasto" spots, the heavy outlining and broad painterly style, and not least the grandiose scale of representation of the horses' mane fragment at no. 33 above make it also a work of the same "school". If, as in the case of many other known horse representations in Aegean Bronze Age frescoes, the present animals were originally harnessed or about to be harnessed to a chariot, the scale of drawing here would make it by far and away the largest horse and chariot composition known from the entire Aegean Bronze Age, at not less than one-half life size. There remains no. 34, the "Dolphin Fresco", whose chronological separation by Evans from the spiral friezes found with it is untenable (see footnote 16), if only because its painters were those who depicted the Procession Fresco itself with which we began this survey (cf no. 1; PLATES 14A, top and 7-11). Many criteria show this is so.

Heavy outlines, "doubled" on the dolphins' bodies, match those features in the Procession Fresco. The colour-scheme for the dolphins matches that of the background in the Procession Fresco, too, although the paints for the dolphins are bolder and more opaque. In this respect, the blue especially agrees with that of the kilt of the youth at PLATE 10 (although here the colours are artificially darkened by a wax which the elder Gilliéron applied to preserve the painted surface). As in the

treatment of garments and dress designs in the Procession Fresco series, we find in the Dolphin Fresco the same combination of linear or "graphic" design and "painterly combinations" of colours, particularly in the case of the "small fry" surrounding the dolphins. Moreover, the eyes of the "small fry" are treated in the same abstracted manner as the "eyes" in the centres of the rosettes in spiraliform paintings by the same "school" - a small black-outlined but unfilled circle (cf PLATES 122 B-C and 140 with rosettes); further, their fins and tails show brushwork identical in kind with the treatment of the reeds in the Griffin Frescoes from the Throne Room and in related compositions. The preserved Dolphin's eye, on the other hand, exactly matches in overall shape, in disposition and colour of the pupil, and in size, that of the processional youth from the Queen's Megaron (cf PLATE 122A with SLIDE 3 and PLATE 171 A3). The elliptical shape of the pupil itself is tellingly uniform in both cases. In addition, the thin "watery" blue lines in the background, denoting the sea in which the fishes swim, find very close comparisons in the similarly textured paints, likewise with "wavy" edges, which have been noted above to occur in the outlining of ox-hide patches in both the Shield Fresco (no. 11, PLATE 63A) and a bull composition (no. 32, PLATE 75A-C) attributed to the same painters.

We also find the same heaviness of feeling for and systematised arrangement of large scale motifs in the Dolphin Fresco as are typical elsewhere in works by this "school ", and the background scheme exhibits an equally typical unreal "backcloth" quality such as is evident of the Procession Fresco, too. The background, even with its original sea-urchins reinserted in it (presently omitted in the exhibited panel, PLATE 121), would remain a highly conventionalised sea-scape, lacking the conviction of the freer example in the

Flying Fish frescoes from Phylakopi (PLATES 125-126). The feeling for realities of Nature, such as is present in the Phylakopi compositions, is as typically missing in the Dolphin Fresco as it is in the Procession Fresco, in the Griffin Frescoes from the Throne Room and in the Argonaut Fresco. Indeed, in all the paintings under discussion the function of the background schemes is not so much symbolically significant as primarily decorative. The rockwork above the figures in the Procession Fresco and the landscape behind the "Argonaut" seem inappropriate, on the one hand, to a scene of ceremonial figures entering the palace and, on the other hand, to another whose principal subject is a marine creature; but, as Evans indicated, such a notion may not have struck the Minoan's imagination as strange, accustomed as he no doubt was to a mountainous landscape and sea-shore reed thickets(15). Enough, however, has been said to suggest good reason for associating all these frescoes together as executed by the same painters or "school". Our final group for a similar attribution concerns dadoes with simply coloured horizontal bands.

Banded dadoes

35*. Fragment (SLIDE 44, right); above lowest step of Grand Staircase

36*. Fragment reported in Room of the Cists (Evans)

37*. Frieze; Lustral Basin of Throne Room (PM IV, p. 909, Fig. 883)

38*. Many fragments; throughout the West Magazines and Long Corridor (see plan, Fig.86, p.685)

Broad red stripes spaced out by narrower, though still unusually wide, white stripes (some 4cm deep), are a feature of the upper area of the Griffin Frescoes in the Throne Room (PLATE 127). This ponderous treatment of border or upper dado stripes is

is characteristic, too, of spiral bands by this "school" as is clear from the designs in the Queen's Bathroom (no. 20 above, and see PM III, p. 383, Fig. 254), in the "Dog's Leg" Corridor (no. 26 above), and in the Shield and associated spiraliform frescoes (PLATES 63A and 140). It recurs in the same massive form, brushwork and alternately red and white colours in two instances noted above (nos. 36-36); but in the dadoes of the Lustral Basin in the Throne Room itself and in the West Magazines we see typological variations. In the former, the usual broad red band, defined by narrower than usual white bands, with a very broad blue-grey band below, divides the otherwise monochrome red dado scheme into two sections - at eye-level as seen from the Throne Room. In the West Magazines, whose mural treatment consistently represents a uniform dado scheme from chamber to chamber and in the Long Corridor, the plaster was left unpainted except for a broad red band (5.5cm wide) followed by a narrow red band (about 1cm wide) at nearly one metre from floor-level, such bands in the same colours, scale and arrangement being repeated some 50-60 cm higher (SLIDE 43a). The scale, arrangement, colours and plasters in these cases are consistent with work by this "school" and so they may reasonably be attributed to it.

Comment

"School D" was obviously involved in a major redecoration of the palace. Evans's account of the present series of frescoes in the Palace of Minos also attributes many of them to one scheme of redecoration, while in the case of other paintings which have here been ascribed to "School D" he constantly points out close similarities with the paintings he attributed to the mural scheme he had in mind. Yet he

failed to draw the conclusion that all were put up on their walls by the one group of painters - primarily, it seems, because he believed two distinct mural redecorations involving the present frescoes were apparent in the Domestic Quarters of the palace. But neither his archaeological nor his esthetic reasons for believing this to be so are convincing(16), and evidently he was never completely satisfied with his definitions of the style of either group of frescoes - as his transference of the Shield Fresco from the earlier mural scheme to the later one in PM IV (p. 881), with all that that implies for the spiral friezes throughout the Domestic Quarter, shows. Yet the artistic correlations between the paintings under discussion which Evans noted are still valid and have anticipated the conclusions presented here with remarkable agreement.

Evans linked the spiral decoration throughout the Domestic Quarters with that in the Shield Fresco as belonging to a single decorative scheme (PM III, pp. 343ff; PM IV, p. 889; and elsewhere). The bull fresco from the Upper Hall of the Double Axes (no. 30 above) was "clearly contemporary" with the bull painting from the Antechamber of the Throne Room (PM IV, p. 889): this, too, with the Throne Room Griffins, with the dado decoration in its Lustral Basin, with the Argonaut Fresco, and with the West Porch bull and dado composition (PM IV, pp. 892ff and 1013). The dado designs accompanying most of those paintings he saw were repeated elsewhere in the palace, including at one point in the eastern continuation of the Procession Fresco Corridor, at no. 30 on the plan at Fig. 50 (PM IV, p. 878; perhaps the piece listed as no. 14 above). Although not drawing - in this view - the correct chronological conclusion, Evans saw clearly that the compositional schemes were the same in essentials of style and in background treatment on the Throne Room paintings, in the Procession Fresco, in the Shield Fresco

and in other compositions already mentioned (PM IV, pp. 881, 892f and 909f). He noted the paintings had certain technical features in common, such as the plaster reaching right down to floor-level and so replacing stone dadoes (PM IV, pp. 881 and 892). Evans also appears to have been impressed by the similarity of the rosette and spiral decoration on the Throne Room Griffins to that of the friezes in the Domestic Quarter, although - for no compelling reasons - he thought the latter were earlier in date (PM IV, p. 877). That an identical style of processional figure-painting had adorned rooms in the west, north and east wings of the palace in a single mural scheme was very clear in Evans's view (PM IV, p. 881).

Group E: the "Taureador School"

The series of picture-panels - not less than seven (v. Vol. III, Part II, nos. 46-51) - known collectively as the "Taureador Fresco", depicting on blue, yellow or white monochrome grounds men and women vaulting charging bulls, is clearly by a single group of artists, as the uniformity in format of the panels, the drawing methods, the elongated anatomical proportions, the scale of representation of the figures, the design in composition and the technique of execution indicate (SLIDES 46-51). But the panels were painted by at least two different artists, one delineating leg and thigh muscles of his female figures by fine vertical black lines (SLIDE 50) which do not appear in the figure-drawing in the rest of the series (cf PLATES 38; 39 A-B; 40 A-B; and 71-72). While most of the "Taureador" fragments were found together in the Room of the Stone Spout, the pieces at PLATE 40B (SLIDE 51) turned up near the deposit of high relief fragments at the southern end of the corridor leading south from the former room. This may indicate a uniform scheme of decoration which originally extended into more

than one room of the palace. This is not unlikely, for the same artists depicted the fresco called the "Dancing Girl", from the Queen's Megaron area (PLATE 32).

Although the scale of drawing of the dancer is larger than in the "Taureador" frescoes, the triple arrangement of locks of hair, their wavy style and wild-looking curls on the crown of her head, as well as similarities in the drawing of facial profile and hands, in all these instances show that the same artists were at work. Their technical execution of these paintings was also the same, as the evidence for preliminary red sketch lines, for application of paints, and for similar plasters shows.

Group F: the "Chariot School"

It has been suggested elsewhere that the painters of the chariot scene at PLATE 59 (SLIDE 20) and of the so-called "Palanquin Fresco" (PLATE 51) were members of one "school" - though their "hands" are certainly different - on the grounds of general uniformity in style, of coincidence of provenance, and of exhibiting scenes explicable satisfactorily only in terms of one another: the bull in the chariot scene is to be slaughtered ritually by a priestly figure represented in the second composition(17).

These artists drew what Evans often called "large miniature" figures, sturdy in their bearing, with Mycenaean forms of dress (notably long cloaks), cropped hairstyles, "puffed out" chests, slightly open mouths, and hands reduced to rounded fists with a thumb sticking out. The painter of the chariot scene, the better artist, had a liking for cobalt blue backgrounds, delicate linear or dotted dress patterns, and applied his paints rather thickly. The other painter, however, regularly uses a deeper, harsher blue background colour, and his

figures' faces are more elongated with longish noses and open mouths: they are immediately recognisable as his work (PLATE 51 and see Vol. IV, G, p. 337, Fig. 6). Where these artists were working in the palace it is difficult to state because their paintings had been dispersed in antiquity to various regions on the north, south and east sides.

The following fragments may safely be attributed to the chariot painter, and other fragments are also known in HM storerooms.

1. chariot scene (PLATE 59; SLIDE 60); pieces from Area of the Stone Amphora (East Lapidary's workshop), North Threshing Floor Area or area of High Reliefs deposit; area of the South Lapidary's workshop;
2. Trussed bull or dappled chariot (Vol. IV, G, p. 333, Fig. 3A-B); S. Border of Area of Fish Fresco (Dolphin); area of North Portico - Different Areas;
3. Male bull-leaper (Oxford, AM/AE 1862) - Knossos, unknown location, but certainly a palace fresco.

(?)4. Male figure (PLATE 15E); Knossos palace, fresco dump between Procession Corridor and South House (DM/DB 13 April 1908).

The painter of the priestly figure in the shrine, awaiting the arrival of the bull, may be ascribed the following pieces:

1. "Palanquin" pieces (PLATE 51 A2-3, Ba and C - top row); Room of the Clay Matrix;
2. Man in sleeved cloak (PLATE 51 A1); South Front - "in a pit sunk to the west of the north-south drain" (DM/DB 28 March 1900, inked copy);

3. Figure on folding-stool (Vol. IV, G, p. 337, Fig. 6C); S. Border of Area of Fish Fresco;

Other fragments of frescoes in his "hand" are known from several trays of material in store in Herakleion Museum(18).

Group G: the "Camp Stool School"

1. "Camp Stool" (PLATES 54, and 15A and 55 for details; heads at Fig. 9, B2-3); west end of West Magazines XV-XVI
2. Two overlapping men's heads (PLATE 15B): Knossos palace - uncertain location
3. Male head (PLATE 15C): Knossos palace - ? W. Magazine I, II or III
4. Horses' manes and ear, and an unpublished body fragment (PLATE 62B); Area of North Foundations (n. of N. Entrance Passage).

The style and use of line of this "school" rank among the crudest known from Minoan Crete. Figures are sketchily portrayed with somewhat uncontrolled line and have lost any litheness of human form, except perhaps in the drawing of the head of the famous "La Parisienne" where an uneven black outline - now thicker, now thinner and occasionally broken - animates the face: this and the untidy blotch of red for the lips (which conceals their grotesque shaping in the black outline), along with her notable "ox-eye", give this figure an exceptionally popular appeal (SLIDE 4). Other heads are heavily outlined in black with little sensitivity, and are squarish. All figures have shoulder-length medium hairstyles of Type B2-3, the locks falling in three or four tresses; they may or may not have a large, crudely drawn, forelock. Eyes are disproportionately large for heads and are heavily defined by black lines. In the case of "La Parisienne",

the tear-gland is in the wrong corner of the eye - as in the Cupbearer Fresco (see PM II, p. 706, Fig. 442b). Hands and feet, usually attenuated, out of bodily proportion, and curiously "squared off" at their extremities, match the rough drawing of heads. Great use is made of narrow vertical black lines as dress decoration in an overall diagonally registered treatment of the divisions in the drapery. Blue and red lines forming a pendant frill substitute for black lines in the robes of the two more colourful "Parisienne" figures of the "Camp Stool Fresco". Backgrounds, in thinnish blue or yellow paints only, involve no scenic or architectural settings, for these modestly sized paintings depict only scenes of human interest. The compositions seem strictly tectonic in design, as the quasi-counterchange arrangement of background colours emphasises. The surface of the plaster, some 3.0cm in average depth, has a meagre polish - and is almost matt. Individual border stripes are relatively broad for a composition of this height (about 72.5cm) and are indifferently painted at their edges.

In the main composition, the "Camp Stool Fresco" (of which it seems there were originally at least three "panels"[19]), there may be evidence for two artists at work. The better of the two painted the two "Parisiennes" which are larger in scale and are more highly coloured than the smaller series of figures: these seem all painted by the second and cruder "hand". In that case, these panels supply evidence for two artists at work on major subjects in each "panel" - for it does not seem possible to dissociate the two "Parisiennes" from "panels" containing the other figures. No. 2 listed above is undoubtedly in our second painter's "hand", but not enough is left of no. 3 to ascertain which artist painted

that piece. No. 4, probably from a chariot fresco, is attributed to this "school" on the evidence of the quality and depth of plaster and paints, their colours, the heavy-handed brushwork, and surface "facies".

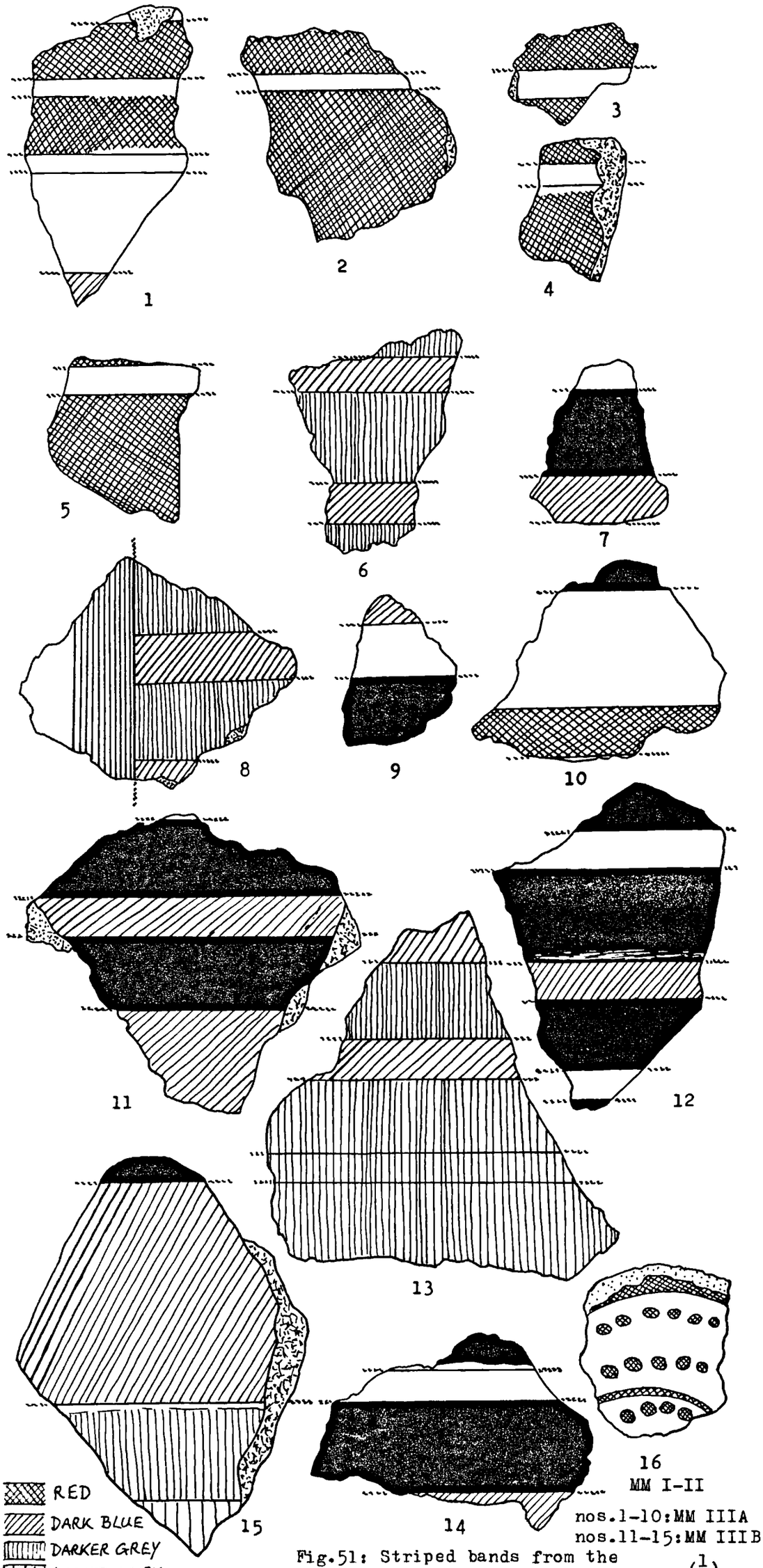
II. PAINTERS OF TOWN HOUSES AT KNOSSOS

Group H: the "Royal Road School"

The excavations at this site (1957-61) produced many fresco fragments of pictorial and striped-band compositions with these features in common: fine-grained, white, fairly hard plaster in a flat layer between 0.5 and 1.5cm in depth - flat because it had been laid over a prepared flat working surface; a brilliantly high polish over the painted surface which, where best preserved, is as smooth to the touch as a polished marble table-top; an absence of black outlines in drawing; a certain stiffness in delineating forms deriving, it seems, from too much care and concentration in technical execution at the expense of an easy flowing rhythm in painting; extremely careful and neat brushwork; very fine string-impressed lines to mark out straight lines for coloured bands, among which, typically, very narrow white stripes are contrasted with equidistant broader ones usually in one colour only; a preference for darkish hues of green, red, and blue, and for lightish greys; occasional preliminary sketch-lines in red; slips; and floral and geometrical subjects. A few fresco pieces with these characteristics are known from the palace at Knossos, and from surrounding town houses to the west and south. Otherwise paintings of this high technical quality are unknown from Crete, with the exception of one piece from Palaikastro (PLATE 135B).

Such is their uniformity in these respects, among which the high polish seems especially diagnostic, that on general

Fig.51



MM I-II

nos.1-10:MM IIIA
nos.11-15:MM IIIB

Fig.51: Striped bands from the North Lustral Basin, Knossos $(\frac{1}{1})$

stylistic and technical grounds all the paintings look the work of one "school" only.

Bands of the "narrow white class"

Typical features of this class are white bands between 2.0 and 6.0mm in width alternating with others in one colour only usually measuring between 1.0cm and 3.0cm in width; sometimes a band in a third colour rounds off the series of stripes, but the presence of a fourth colour is more rare. A dark Venetian red is particularly popular in contrasts with white bands. Very fine string-impressed lines may define the edges of the white stripes but sometimes these are lacking: in such cases a "ruler" of some kind seems to have been used. In the case of blue and black alternating stripes, the black bands may be only slightly wider than those in blue, for more uniform widths allow the contrast of the blue to stand out more effectively; but both coloured bands generally remain fairly narrow. The blue in question has a dark, almost greenish, tinge about it. The painting is carried extremely carefully right up to the straight sides of the bands, though the high polishing of the painted surfaces has sometimes worn down paints and string-impressed lines. To this class we may attribute the following fragments:

Knossos palace, North West Lustral Basin

1. Red and white bands (Fig. 51, nos. 1-5; nos. 6-10 were found with the others and show the same red and darkish blue paints).

Royal Road/South

2. Red and white bands (PLATE 133 A2-3).

Royal Road/North

3. Myrtle Fresco, with red and white bands (SLIDE 34): its elements are: turquoise dado and very low relief rockwork (PLATES 64D, with "graffito"; 67 A-C, rockwork); "leaves" (PLATE 67D); myrtle shoots (PLATES 67A and 114); bands (PLATES 114A and 134C).

4. Red and white bands (PLATE 133 A6, 8).

5. Red, white and black bands (PLATE 133 A5).

6. Worn black and white bands (PLATE 133 A4).

7. Black and white bands, dark blue area (PLATE 133C).

8. Red, white, blue and black bands (PLATE 134 A-B).

9. Black and blue bands (PLATE 133D).

Hogarth's Houses (Gypsadhes Hill)

10. Red, white, black, blue bands (PLATE 135 A1).

11. Grey and white bands (PLATE 135 A3: other pieces in this style are not shown here).

12. Black and blue bands (PLATE 135 A2).

13. Red and white bands (PLATE 143 D3), to which painting belong

14. red lattice design (PLATE 143 D2) and red "grass-leaves" (PLATE 143 D1).

15. Red, white and black bands (PLATE 143 D4).

Of the pictorial motifs associated with these border stripes, the most significant from the present point of view are the lattice design (no. 14) and its accompanying "leaf motif". Stylistic and technical comparisons suggest we may attribute further frescoes to the same style:

Knossos palace, Area of Loomweights Basement

16. Red lattice designs on white and very dark blue (PLATE 143A).

Knossos palace, Area of the Hall of the Double Axes

17. Brownish-red lattice design on white (PLATE 143B). The character of plaster here is especially comparable to that of a large piece depicting the present class of red and white stripes which turned up together with the pieces, in the same style, listed at no. 2 above.

(?)18. A similar lattice pattern from the North West Threshing Floor area (PLATE 143C).

The simple "block-like" division of background colours on the pieces at no. 16 recurs on the Reed Fresco at SLIDE 31 which is also highly polished. This method of background treatment is otherwise known only in paintings of quite different style and technical accomplishment in LM II-IIIA. We may therefore here

add three further paintings, evidently executed in the one "hand":

Royal Road/North

19. Reed Fresco (SLIDE 31); the background division of colours is naively disguised with blotches of red "foliage" to conceal the line of demarcation.

Royal Road/South

20. Reed fragments in grey and yellow on white (PLATE 109 B3-4).

21. Very pale light blue reed on white (PLATE 109 B5).

The unusual red, diminutive, "leaf motif" in no. 14 has its counterparts in a dark blue paint (seen also on no. 19) but identical in style of brushwork in "grass-leaves" represented on fragments evidently of circular painted-stucco hearths from the Royal Road areas:

Royal Road/South

22. Blue grass motif with red and yellow bands (PLATE 191 C1).

Royal Road/North

23. Circular stucco hearth (PLATE 191 A-B).

The red and yellow bands in these cases are also distinctive in their treatment, and the above correlations suggest bands of this nature are also characteristic of paintings by the present "school".

Bands of the "red and yellow class"

Like the blue and black stripes previously mentioned, those in the present colours are fairly uniform in width. A consistent feature is the lack of string-impressed guiding lines, a feature shared by some red and white stripes of our "narrow white class" (e.g. no. 2 above). The surface polish is also extremely high and glossy. With nos. 22-23 we may attribute the following fragments as belonging to the present style:

Royal Road/South

24. Red and yellow bands (PLATE 191 C2-3).

25. Red and yellow bands (PLATE 133 B1-2).

Hogarth's Houses

26. Red and yellow bands (unillustrated) associated with nos. 13-14 above.

There are other banded frescoes which, because of their highly polished surfaces, similar colours to those we have already considered, and quality and depth of plasters may also be attributed to "School H":

Royal Road/North

27. "Zebra Fresco", with black and white equidistant bands (SLIDE 42).

Temple of Demeter site

28. Red and white, and grey and white bands (PLATE 193 A1-5, 7, 9).

Unexplored Mansion

29. Blue and black bands, with white (PLATE 194, A1, worn).

Four further frescoes may also be assigned to this "school" by reason of particularly unusual colours or techniques of execution which also occur in frescoes already assigned to these painters.

A very dark, saturated, blue paint is found on nos. 3 (rockwork), 16, 19 and 22 above, which recurs in:

Royal Road/South

30. Papyroid flowers on white (PLATE 109, B1-2).

31. White lilies with blue stems, on red (PLATE 101 A-B): here the flowers were first excised by "incavo" in the plaster (in the manner of no. 27 above), filled with white "impasto" and polished. Fine incised lines serve as anthers. Restored at Fig.109, p.727.

One of the many colours which merge together in the very unusually treated rockwork of the Myrtle Fresco, no. 3, is a velvety maroon red with an almost lilac tinge. This paint is known to recur only in:

32. Dark green plant on white (unillustrated); Royal Road/North.

A distinctive feature of the same rockwork (no. 3) is the deliberate use of the brush to bring out parallel linear striations,

closely spaced together, to imitate characteristics of the natural veining of certain types of Cretan rocks (PLATE 67B). The same use of the brush, this time to denote veining in wood, is found in identical form only in:

33. Imitation of wooden plaques (PLATE 147B); Royal Road/North.

Five other fresco fragments show highly polished surfaces and plasters characteristic of paintings by this "school", as well as a similar combination of darker and pale colours:

Floral subjects

34. Light blue plant (PLATE 109 A1-10); Royal Road/North.

35. Vetch with dark blue, green, leaves and yellow stem (PLATE 118A); Royal Road/South.

36. Similar vetch (PLATE 192 B4); Knossos, site unknown.

Other subjects

37. Brown dotted spiral (PLATE 191 F2); Royal Road/North. The path of the design is lightly traced by a finely incised line (cf no. 31 above).

38. Red cross on light grey (PLATE 109 B7); Royal Road/North.

General stylistic characteristics of representational painting by "School H"

Floral subjects were especially favoured by these artists and afford our best insight into their style of painting. Typical features are the somewhat stiffly drawn, relatively thick stems which show little "torsion" except at the tips; the sharp-edged but slightly irregular shaping of leaves in opaque colours; the thinning of colour at the edges of leaves in more watery paints; strong vertical orientation of the plants; and, it seems, their capacity to rise straight out of solid rock (no. 3). Leaves on the whole seem rather coarsely attached to stems which may be overpainted in dark

red (no. 3). Reeds are executed in broad upward-sweeping brushstrokes which tend to widen on leaving the stems (not individually represented) through increased pressure on the brush (nos. 19-21). Darkish colours are preferred for opaque areas of paint, but there is frequent use of very light shades of yellow, light blue, green, and grey. Black is relegated to border stripes and occasional internal details in pictorial subjects (nos. 30 and 34).

So far as we may tell, principal motifs are repeated at assymetrical intervals which avoid a static disposition of the subjects. Although the axial arrangement of plants and horizontal arrangement of the rockwork below the myrtles of no. 3 combine with somewhat rigid drawing of forms to deny a sense of movement in composition there, this is countered by the rhythmic undulation of the upper edge of the rockwork and the irregularities of its lower edge, and by the diagonal direction of brushstrokes over the same area. The sober colour schemes and apparently empty plain background areas surrounding plants, with the other features already mentioned, give these paintings a feeling which we may characterise as "archaic", and it seems evident our painters were more at home with superlative technical execution than with easy-flowing draughtsmanship.

Of great interest and promise, though never regularly taken up in Minoan mural painting, is the clear attempt at chiaro-scuro in the colouring of the rockwork of our Myrtle Fresco (no. 3; SLIDE 34): light and dark areas come and go in the merging of different subdued hues of blue, red and grey. The very low reliefwork there, reaching 4mm high near the upper edge but tapering to the normal surface level at the turquoise dado, is especially noteworthy because it may be the earliest known

modelling in Minoan stucco relief of a pictorial or representational form. Other interesting technical features include the use of lightly incised lines on surfaces to guide the paths of designs (nos. 31 and 37) and the splashing of white "impasto" paint almost at right-angles to the brushwork on the rockwork at PLATE 67B (no. 3). Here, and in the case of small elliptical white "impasto" spots around the "leaves" in the same fresco (PLATE 67D), the high polishing was done after application of those paints so that a completely smooth and glossy surface remained. The polish of the paintings seems the most amazing technical achievement, for it gives the impression the paintings were executed behind a transparent, glossy surface.

Group I: the "House of the Frescoes School"

Paintings by this "school" are especially recognisable from the character of the plaster, its depth and colour, from the process of painting, from the vivacity of the abundantly different colours, from the style of floral and animal subject matter, and from its predilection for equidistant upper border bands in a characteristic combination and arrangement of five colours. We may ascribe the following paintings to this "school":

From the "House of the Frescoes":

1. Bird and monkey frieze (SLIDE 56)
2. Goat and olive tree painting (SLIDE 58)
3. the so-called "Linear Signs, Group B" (PM II, p. 441, Fig. 258; see Volume IV here, article H)

From the South House[20]:

4. Reed, "swallow" and "pebble" fragments (PLATES 111A, 160A, and 88B; perhaps, too, PLATE 70A-B, for the "pebble" fragments have certainly been confused with those from the "House of Frescoes")

From Royal Road/South (adjacent to "House of Frescoes"):

5. Myrtles and border stripes (PLATE 115C)
6. Veined leaves (PLATE 119C)

From "Savakis's Bothros" (500 metres north of the Palace):

7. Miniature crocus clump in rockwork (PLATE 90C)

The plaster is a distinctively pale sandy colour, flat at the back and between 0.3cm and 1.2cm thick; it is fine-grained but not hard, and it is inclined to crumble at worn edges. A fine white "slip" (some 1-2mm thick) supplies the painting surface, except in large red-painted background areas. The "slip" conceals golden or less usually red preliminary sketch-lines from view which are exposed where the "slip" has flaked off in antiquity. The "buon fresco" process of painting invariably adopted by this "school" has already been described and illustrated above (p. 286ff and Fig. 41). There is a wide range of colours, including a lilac pink, of outstandingly lively tones which enhance the style of drawing. This "school" uses colour partly according to Minoan-Egyptian conventions in representation of naturalistic subjects (e.g. a blue for cercopithecid monkeys) but more, it seems for esthetically decorative purposes, imaginatively balancing complementary and opposite colours according to artistic taste.

The draughtsmanship shows supreme confidence in "line" without substantial use of black outlines. Flowing lines and shapes, "torsion", overlapping motifs, and some crowding of subsidiary background elements - notably flowers - are characteristic. So, too, small "radiating" clumps of flowers with alternating open and closed buds - circularly enclosed in pockets of rockwork - and the triple appearance of such motifs as waterfalls, papyrus thickets, "common mallow" and other plants, so arranged as to balance their sections of the paintings. Crocuses and irises never have more than five open flowers in one clump. The rockwork in the principal composition (no. 1) is diagonally arranged through the pictorial zone which not only contributes to a powerful sense of lively movement in

the design but also by its irregular shaping organically activates and adds depth and texture to the spaces, as well as it leads the eye from one point to another in circular or "centrifugal" paths around main subjects. The rockwork is "linearised" in treatment with further highly decorative additions of veins and mottling in black, white, red, orange, blue and olive green irregularly shaped lines and blotches; white "impasto" lines and bands provide an irregular outline to different areas of rockwork which, uniquely in Minoan murals, may impinge on upper border stripes creating a three-dimensional effect. Colour contrasts are indulged to the full, but tastefully, even in the representation of a single motif (e.g. in alternately coloured leaves of plants). Expressionistic naturalism is the keynote to pictorial representation here, especially in the case of animals with their conventionalised colouring. The textures of hair and feathers are shown in a stylized way by small blue dashes towards the outlines of monkeys' limbs and wings of "blue birds" (SLIDES 23h and 27a). There is very considerable attention to minor details throughout the subject matter which appears in these scenes, making these the most complicated paintings in their use of colour and detail known in the entire Aegean Bronze Age world.

Upper border stripes are especially diagnostic. In descending order, the favourite colour-scheme shows black alternating with blue bands, followed by a single white stripe, followed in turn by alternating red and yellow stripes: a further white stripe separates these bands from the pictorial area of the fresco. The coloured bands are more or less equally narrow but more so than the white stripes. String-impressed guiding-lines are applied only intermittently, the bands being drawn primarily "by eye". As a result, the breadth of a band varies along its horizontal course.

Technically the paintings do not live up to their high standards of artistry and draughtsmanship. There is a slight surface polish only, and the "slip" has flaked away extensively - a point which suggests its imperfect binding with the main body of plaster. But these painters were otherwise masters of the "buon fresco" process in Minoan times. The piece from "Savakis's Bothros" shows they were also at home in similarly executed miniature-work, as one might reasonably surmise from minitiae of detail in their larger compositions.

The above list of paintings suggests our painters were active in house decoration on the north and south sides of the palace and in one northerly suberb of the Minoan town. Yet, brilliant painters as they were, their work is unknown within the palace itself.

Two "hands" may perhaps be distinguished. Crocus motifs in the finer "hand" are particularly elegant in the outlines of open flowers whose stamens are drawn neatly as separate entities (PLATE 90B); in the other "hand", crocus clumps have only four - instead of five - open flowers which are more bulbous in shape and the stamens are generally attached at their lower ends to the flower proper (PLATE 90A). Study of the treatment of rockwork and pebbles in these paintings might support a similar conclusion.

Group J: the "Soapy Slip School"

Characteristic of the paintings by this "school" is a "slip" which feels "soapy" to the touch, and is liable to flake from the main body of plaster where a lime-like, powdery film appears: this easily adheres to the finger when touched. The "slip" is thickish, about 2mm or slightly more, and the plaster itself is about 1.5cm deep, flat at the back, medium-grained, rather gritty in appearance and sandy-coloured. The

"slip" conceals light red preliminary sketch-lines. The brushwork lacks the crispness of execution of other "schools", and principal floral motifs appear limp and flabby in style; other lines, however, may be neat and finely drawn or indifferently executed! The spacing arrangement of border bands corresponds to that of "School H", but the colour-scheme adopted is most comparable to that of "School I". The following are readily recognisable as the work of the present "school":

From the Royal Road/North area:

1. Floral fresco with border bands (PLATE 110)

From the "Unexplored Mansion":

2. Unpainted piece, perhaps debris from another house to the west (PLATE 195 A1)

The technical features of the latter fragment makes its attribution to this "school", as defined by the Royal Road pieces, certain. We may now turn to a brief review of painters at work at other Cretan sites and in the Cyclades.

III. PROVINCIAL PAINTERS IN CRETE AND THE CYCLADES

The frescoes of concern here fall into two broad classes which may be defined as follows:

Class 1: technically and artistically fine paintings, executed in refined styles and often depicting large-scale subject-matter on generally good quality plasters, sometimes moulded in relief;

Class 2: paintings on hard, often dirty-white, plasters, occasionally in relief, executed in what are clearly less refined styles of painting and brushwork; the subject-matter may be large-scale, too, but it is often drawn on smaller scales of representation.

The second category is most commonly met in towns and settlements large enough to have supported their own industries and local artists' workshops (as local pottery fabrics show) and the assumption is that such paintings were created by provincial artists.

The first group, however, is artistically outstanding and on the whole the paintings occur at somewhat isolated sites, such as country villas, where the community never seems to have been large enough to sustain a local mural painter's workshop: once the site was adorned with frescoes, there would be little need to retain the mural painters any further. This consideration alone suggests that the artists concerned came from, and were trained, elsewhere. Some of the sites in question, such as Ammisos, Prasa, Nirou Chani and Katsamba, are, moreover, within easy reach of and were at the time administratively controlled by Knossos, certainly the chief centre of mural painting in the Aegean Bronze Age. In such cases, it is tempting to believe the mural artists were commissioned from Knossian workshops. Indeed, the style of painting and the pictorial content of the frescoes, also the colour conventions adopted, are wholely Knossian in character. But these are features characteristic of all the paintings of Class 1, a point which suggests all such paintings in the provinces of Crete may have been executed by artists trained at Knossos itself. The questions therefore arise: to which Knossian "schools" do the paintings of Class 1 bear closest artistic affinities? Can any of this group of frescoes be reasonably ascribed to any particular "school" at Knossos - insofar as it has been possible to determine them thus far? The answers again concern style, techniques, and brushwork and can be reached independently of chronological considerations of find-place and stratigraphical context, although in the next

chapter we shall see that the results have important chronological significance.

Here we shall be discussing "affinities" with Knossian "schools", not "influences" which imply chronological precedences: these remain to be established. Moreover, since all the Knossian "schools" or identifiable groups of painters that must have once existed have by no means all been defined above, we may find that some paintings of Class 1 show artistic affinities with more than one Knossian "school" discussed previously, a point which argues for further Knossian "schools" of which material evidence at Knossos itself is not at present known. Some local artists and "schools" of Class 2 in Crete and the Cyclades will be discussed briefly at the end of this section.

(a) Knossian painters outside the capital

Here we shall discuss in alphabetical order seven sites with frescoes attributable to Knossos trained artists. In each case, the type of site and its frescoes are listed first and discussion follows.

Amnisos, villa, Room 7

Large floral frescoes (SLIDE 59 - PLATES 95, 102-103, and 53A)

Minor floral pieces (PLATES 94C and 118 D-E)

Although the frescoes were executed on local lime-plaster, the style and brushwork are wholely Knossian in character. Vetch and sage plants closely resemble others depicted by "School H", while the papyrus motifs of the offering table at PLATE 53A are identical in mannerisms of style with papyri drawn by "School I", though sepals are missing (cf PLATE 107A). Similarly monumental radiating groups of plants cannot be matched at present in frescoes from Knossos, but their typological forms and "radiating" treatment correspond closely to

elements in the long frieze from the "House of the Frescoes" ("School I"). The restraint in design in the Amnisos paintings seems comparable to that of floral frescoes by "School H" (cf SLIDE 34). The use of "incavo" at Amnisos is best compared with that of the "Zebra Fresco" perhaps of the same Knossian "school", but the parallel is not exact; relatively fine string-lines for the plant-bowls recall the work of "School H". The absence of black outlines also agrees with the style of the two "schools" mentioned. The madonna lilies at Amnisos come closest to others depicted by "School I" (PM II, p. 455, Fig. 266C). Other features, however, bring to mind "School D", namely, grandiose composition, broad upper border stripes, a heavy "painterly" style of drawing leaves at the bases of plants, and "empty" backgrounds - also a feature of "School H" frescoes. If Gilliéron's restoration of the dado at PLATE 96 is correct, there is a very close resemblance to dado-work by "School D" (cf PLATE 127, restored).

The affinities mentioned clearly lie with paintings of "Schools" H, I and D at Knossos, but their mixture here suggests a group of painters not attested at Knossos itself on present evidence.

Epano Zakro, villa or large house

Goddess's skirt fragment (unpublished but examined by this writer)

This piece shows three small motifs also in the repertoire of "School B", closely comparable in scale, form and colouring (v. Fig. 45, Motif 2, no. 3 and Motif 8; and Fig. 47, Motif 4, no. 2). These are drawn in the same "calligraphic" manner of that "school", and a blue paint on our fragment matches the vivid blue of the kilt of a girl bull-leaper in relief likewise attributed to the same Knossian "school" (v. SLIDE 7). Thus there are strong affinities here with work by "School B" at

Knossos, one of whose members could perhaps have painted the present figure.

Hagia Triada, Room 14, villa

Figured and Nature frescoes in a single frieze (SLIDE 54 - PLATES 21-22 and 66; details at PLATES 23A, 81, 82C, 87B, 91 and 97B)

The radiating plant designs, the general definition of rock-work and specific plant forms (notably crocus, ivy, lily and veined leaves), as well as the general character of the nature scene here, unquestionably show exceptionally strong affinities with the "Bird and Monkey Frieze" of "School I" (cf SLIDE 56). But the use of pastel shades of brown and grey for rockwork areas in a more naturalistic (less ornamental) depiction of landscape denotes different painters here. The figure-drawing has features in common with that of "School B" and of "School D": respectively, patternless blue and red bands vertically aligned on the skirt of the kneeling woman (cf the Priest-King's kilt, SLIDE 1), and also the "watery" blue ground-colour there and neat scale pattern; but the use of dark outlines on the same figure and also the more "painterly" large dress designs on the skirt of the central goddess come closer to work by "School D" (cf PLATE 21 with PLATES 8-9). The "plotted out" arrangement of myrtles near the same figure also recalls a mannerism of "School D", but there is more "torsion" in the present case and the plant-forms agree with others drawn by "School I" (cf SLIDE 35).

As the neighbouring palace at Phaistos has revealed no evidence for figured compositions and its floral frescoes seem provincial in character (see below p. 365), we may accept the present paintings from Hagia Triada as depicted by Knossian artists - if of a "school" not clearly represented there in the surviving material. That it was a truly

palatial "school", however, is suggested by the discovery of a small rockwork fragment within the palace at Knossos whose style of delineation agrees well with that which appears in the present frieze (cf PLATE 68B). So, too, that of the grey rockwork on the lily piece from the South East house at Knossos (PLATE 105).

Hagia Triada, later settlement

(1) Procession with music (PLATE 14B - details at PLATES 57, 58B and 136B)

The style and scale of figure-drawing here, showing men and women in long cloaks with medium-length hairstyles, comes closest to that of "School G" which depicted the Camp Stool Fresco at Knossos (cf hairstyles at Fig. 9, B2-3); but the drawing is generally finer in outlines here and a preoccupation with vertical lines as dress decoration is lacking. The rosette-row border, on the other hand, resembles that which borders the shrine in the "miniature" scene (Fig. 24, p.150) whose crowd of spectators was identified above as painted in a sixth artist's "hand" (see p.324f): this artist, however, flourished later than the principal "Miniature School, C". The same border treatment appears in a second mural from the later settlement at Hagia Triada, to be considered next, and also on the Hagia Triada painted sarcophagus (PLATES 148-151).

(2) Figures leading deer (SLIDE 24 - PLATE 82A)

Three features here, the treatment of garments, the scale of drawing and the division of the background into yellow and blue "blocks", find very close comparison with paintings of the same Knossian "school" as before, notably in the Camp Stool Fresco (School G). Garments are likewise divided into broad diagonal zones by narrower white bands and adorned with thin vertical black lines to suggest patterns or folds (cf PLATES 54-55). The brushwork is equally untidy. A

member of "School G" at Knossos may have executed this painting, such is the distinctive drawing of the figures.

Katsamba, "megaron" (i.e. villa ?)

Fragment of goddess's skirt (Praktika (1959), p. 318, Fig. 2; and SLIDE 12C here)

The miniature "Nature scene" on this fragment matches the scale of representation and delicate black outlining of isolated pictorial motifs of "School B" (cf PLATE 43, all except C). Similarly the dotted scale motif below that design resembles the neat drawing of scale patterns on the skirt of the priestess in the painting from Room 14 at Hagia Triada which, in turn, has been compared in general terms to designs in the style of the same Knossian "school" (see p. 360 above). But the composition of the "Nature scene" also recalls those of "School I" (cf SLIDE 56). On the whole, however, the affinities lie closer with work by "School B".

Nirou Chani, villa

Sacral knot (SLIDE 16E - PLATE 53C)

The "bar" designs in a chevron arrangement here match the delicate style of others executed by "School B" at Knossos (cf Fig. 45, Motif 2, nos. 7-8), though they are drawn at a somewhat larger scale. The neatness of the design and brushwork seem wholly compatible with work by that "school".

Prasa, villa or large house

Woman's head, and skirt in relief (PLATE 33 A and E)

It is difficult to believe that this small site, not far from Knossos, should have had its own mural painters knowledgeable in relief stucco-work. Knossos, surely, would have supplied the artists. This seems confirmed by the technique and miniaturistic character of painting of a small fragment depicting trees, also from Prasa (PLATE 119A): in both respects comparisons

lie firmly with paintings executed by "School I", in the use of a "slip" technique and on comparison with the floral miniature-work of the "crocus clump" at PLATE 90C. The two principal fragments from Prasa, however, find affinities with the style of human heads and dress motifs of "School B" in regard to the forms, arrangement, and colours of their designs, especially in the case of the larger and smaller leaf motifs on the dress fragment in question (cf Fig. 45, Motif 1, nos. 3 and 7). The head is worn, but the shape of the black curls there and their careful execution is not far from the treatment of curls of the male head at SLIDE 2. It may be recalled that the heads of both sexes depicted by "School B" were evidently similar in all but the colour of skin (p. 313 above). These fresco pieces from Prasa may accordingly be accepted as Knossian work, executed in the manner of painting of "School B".

Pseira, town house

Two relief figures of women at life-size (PLATES 24-25) Seager long ago commented on the Knossian style of these figures[21]. Ivy-row, chevron, dotted spiral, linked spiral quatrefoils, and small rosettes on the figure's garments at PLATE 25 all have their counterparts in the motival repertoire of "School B" at Knossos (cf Figs. 45-47), and the vertical bands in the centre of the same figure's skirt find analogous arrangements of bands in the kilt of the Priest-King Fresco (SLIDE 1), and other compositions executed at least in part in the manner of that "school". The delicate use of black lines for dress and pictorialised hem-patterns here is also comparable. On these grounds alone it appears the affinities of these paintings lie firmly with paintings of "School B" at Knossos, but there are some differences - notably in the

treatment of hems with their own wide border stripes.

(b) Some provincial artists of Crete

Among the frescoes which are here considered "local" work, the most interesting perhaps are the "miniature" series from Tylissos (House A), relief frescoes from Palaikastro and the palace at Zakro, and floral fragments from the palace at Phaistos.

The former display many general features of the miniature scenes of "School C", but what distinguishes them as the work of a provincial artist is the treatment of male heads and garments (Fig. 30 A, E, G-J; cf PLATES 29-30, the Sacred Dance Fresco from Knossos). The heads are long or somewhat mis-shapen, lacking the crisp outline typical of most male heads in the famous Knossian series. Kilts have rounder, less accurately shaped, codpieces and the main flap in two out of three instances is not shown as covering the buttocks - unlike kilts in the Knossian miniatures! Further, the puttees worn by the Knossian figures are carefully delineated in some detail in fine black lines whereas the Tylissos men go either barefoot or in plain white puttees lacking indication of leggings or thongs at ankle-level. Their drawing, therefore, may be counted provincial work.

The long spiral fresco in relief which once ran all around the ceiling of the Banquet Hall in the palace at Zakro is two-branched. The rosette bosses are painted in accordance with Knossian colour conventions for rosettes of "School B" (e.g. PM III, Colour Plate XV, opp. p. 30); but the modelling is coarse by comparison with spiral reliefs of that Knossian "school". At Zakro the spiral volutes are nearly twice the size of their Knossian counterparts and less distinction is made in the rounded modelling of each branch around the central boss. These features give the composition an imitative character

and for that reason it may be assigned to a local artist at Zakro. It follows from this that the occurrence of relief stucco-work at a provincial site is not necessarily the hall-mark of the presence there of a Knossian wall-painter. This conclusion seems borne out by a relief fragment of a large-scale woman's arm from Palaikastro which, too, is crudely modelled by Knossian standards.

Probably, however, the provincial modeller of relief frescoes is likely to have been inspired by relief paintings in the capital, where they were plentiful, and he may have learnt this branch of the art there: but he never achieved the artistic standards of his associates at Knossos.

A series of floral fragments from the palace at Phaistos, of the type seen at PLATE 200 A4, suggest local workmanship. The plant, a darkish brown colour and perhaps a myrtle, has long leaves tapering to a point (slightly indented on one side) which are crudely attached to the main stem - often without stalks. Nothing quite like this is known to the writer from Knossian floral representations, unless the myrtle leaves from the Caravanserai may here be cited but these have good stalks (PLATE 115E). The same may be said of the other fresco fragments illustrated here from Phaistos. However, the colour-scheme and arrangement of the bands at PLATE 200 A5 are similar to those features in the bands painted by "School I" at Knossos. The grass-stems at PLATE 200 A6 resemble in their neat style and delicate brushwork the stems of riverside plants in the large frieze by "School I" from the "House of the Frescoes" (cf SLIDE 29i and PLATE 84A), but in the present example the leaves are more free of their stems. All these fragments seem local work. We may now turn to three distinctive Cycladic "schools" of wall-painting.

(c) Cycladic "schools"

In Chapter VI the choice of subject-matter and architectural disposition of mural paintings from the Cyclades were found to be distinctive of that group of island sites. Similarly their style of painting shows general regional differences from the styles of frescoes from both Crete and the Greek mainland. Plain unpainted backgrounds, to show off the scenes to their best advantage, are especially popular in the Cycladic frescoes and there is limited use of wavy coloured background bands. Subordinate subject matter is suppressed except in those paintings which show strongest artistic affinities with Cretan murals. There is, on the other hand, considerable use of fine black lines for outlines and subordinate decoration, and occasionally deliberately heavy use of black outlining for bold effect in details or in compositional design. Commentaries on each of our three Cycladic "schools" now follow:

Hagia Irini on Kea, town settlement (PLATES 197-198)

The chief compositions from this site form two broad groups clearly executed by different artists: (1) floral and "blue bird" paintings whose conventions of colouring, style of drawing and choice of motifs show almost exclusive affinities with paintings of "School I", although not in their technique of execution (PLATE 198 A1-6)[22]; and (2) "miniature" figured scenes of men with cropped hairstyles hunting, (?) boating and preparing libations in architectural settings (PLATE 197 A1-5). In both groups detailed background treatments are avoided, and yellow and blue are favourite colours there. The second group certainly shows many artistic affinities with the "miniatures" from Knossos of "School C", but the figure-drawing - awkwardly and imprecisely done - is entirely provincial in character, as detailed comparisons with the Knossos

series would show; it bears, in this writer's view, a closer stylistic kinship with the "miniature" figure-drawing of Tylissos which, too, is provincial in character. On the other hand, some of the "miniature" subject-matter (e.g. chariots, horses, a dog or leopard hunting) seem drawn from the Mycenaean representational repertoire (see p. 173 above).

The painters of the floral and bird pictures at this site seem more familiar with Knossian styles of representation. But some elements in their scenes, notably, the rigid delineation of myrtles seen at PLATE 198 A4 and on other fragments of the same painting, come closer to mannerisms in paintings by "School H" (SLIDE 34) than to what appears in scenes by "School I", while other features seem untypical of the work of either Knossian "school" (e.g. the rough brushwork of the birds and their depiction against an empty yellow background).

A dolphin painting from this site seems more closely related to the next "school" to be considered in view of the choice of pastel colours in "watery" paints (SLIDE 37).

Phylakopi, Second City

Undoubtedly in the "hand" of one "school", if not of a single painter, are the compositions from the house in Square G3 of the city plan. These are the two "Flying Fish" friezes (PLATES 125-126), a panel depicting two semi-naked female figures (PLATES 36-37B) and an obscure subject at PLATE 37C.

The technique of painting and technical characteristics are the same in all these paintings. A "slip" covering light red preliminary sketch-lines is adopted, and the paints are faint pastel shades, especially of blue and yellow. Much use is made of very fine black lines for outlines and inner details. The painted surfaces of the plasters are worn - indeed, have almost peeled away in an unusually distinctive way. The

linear draughtsmanship is particularly sensitive, except in the treatment of hands and fingers of the women: these are too short to be correctly proportioned, but a novel touch here is the addition of red-painted finger-nails. In these respects, the suggestion of Evans that these figures were perhaps executed by the same "school" as depicted the "Ladies in Blue Fresco" ("School A") does not hold (footnote 2). The appearance of flying griffins (not swallows) on the skirt of one figure recalls similarly pictorialised dress motifs on garments depicted by "School B" at Knossos (cf PLATE 43, all except C).

Possibly to be attributed to the same local "school" at Phylakopi is the lily-flower painting at PLATE 101 C-D, to judge from the general "facies" of the painting.

The only fresco remotely resembling the same painters' work, to this writer's knowledge, is the dolphin composition from Kea, mentioned above. We may therefore accept this "school" as local to the Cyclades.

Thera: Marinatos's excavations (SLIDE 55; PLATE 196; and Fig.35A)

While this account was being written, Professor Marinatos's excavations have revealed a large number of frescoes, especially of Nature scenes, at Akroteri. Photographs of these, as fragments or as restored scenes, have appeared widely in Greek periodicals and various national newspapers and journals. Although the writer has not been able to study the new paintings in detail, they seem to him to form at least three stylistically homogeneous groups from the view-point of painters' "hands". The paintings at Fig. 35A represent the finest style while the monkeys at SLIDE 55 represent the poorest depicting cruder natural forms. The by-now famous "Swallow Frieze" certainly belongs to a third group.

In general the choice of motifs, colour conventions,

arrangement of subjects and design, and styles of drawing are thoroughly Cretan in character, though with Cycladic additions. More specifically, the Nature scenes show many affinities with paintings by "School I" although there is a greater use of black outlines. Flowers, especially myrtles, illustrate this close relationship particularly well (PLATE 115D; cf PLATE 115 A-B, from Knossos). But animals, such as the new goats or oryx (Fig. 35A), the monkeys at SLIDE 55, and also the flying swallows exhibit characteristics of brushwork which are unknown in Crete. The treatment of line in the oryx representations is so masterful that it is tempting to attribute them to a Knossian painter: but the picture of the boxing youths, from the same room and unquestionably by the same artist, shows a peculiar treatment of hairstyles in which blue-coloured hair of the cropped Type C is overpainted in black in an inferior version of the long style Type A (Fig. 9). The latter is basically akin to hairstyles drawn by "School B" at Knossos (cf SLIDE 44), while the former strongly recalls those of "School F". The sinuous figures of the boxers shows affinities with the style of "School B".

The drawings of monkeys, in scenes more filled with background detail than is the case of the finer series of paintings, seem frankly imitative of the better known animals from the "House of the Frescoes" ("School I": cf SLIDE 23h), such is their treatment of disproportioned front limbs, of a patterned disposition of tails, of wavy forehead bands and short muzzles.

The drawing of the swallows, with underside views and bending tails tipped with round black blobs of paint, exactly matches the rendering of those birds in contemporary Cycladic vase painting, and the artist responsible for the fresco may certainly be counted a provincial, but excellent, painter.

Further discussion must await fuller publication and

further study of the new frescoes from this site.

Conclusions

It is clear from the above survey that the principal Knossian "schools" with which the mural paintings from the rest of Crete and the Cyclades show strongest affinities in style, colour conventions, choice of subject matter and its arrangement are "Schools" H, I, B and C; next come "Schools" D and G, and, in regard to "cropped" hairstyles of Type C, "School F". "Schools" E and J seem without stylistic affinities in paintings outside Knossos itself. We have seen that some regional "schools" show affinities with the work of more than one Knossian "school". In the chapter which follows we shall find these conclusions to be chronologically significant.

Notes to Chapter IX

1. E. L. Bennett Transactions of the American Philosophical Society Vol. 48 (1958) pp. 85-95 who identifies six scribes' "hands" in tablets from the "House of the Oil Merchant" and two "hands" in others from the "House of the Sphinxes" at Mycenae. Also, J-P. Olivier is cited by J. T. Hooker (Kadmos IV (1965), pp. 84) as preparing a study of scribes' "hands" in Linear B tablets from Knossos.
   The distinction of artists' "hands" in other ancient classes of material, notably in Classical Greek vase-painting, has long been studied (e.g. J. D. Beazley JHS XXXI (1911) pp. 276-295 on the Berlin Painter).

2. PM I, p. 544ff and PM III, p. 40; but see p. 367f below.

3. Four such "eye" fragments are known, one of which is only 2/3 the size of the others and lacks the tear-gland lines.

4. Now in HM tray 165 Theta XV (No provenance);

5. PM III, pp. 39-42, Figs. 23 and 25.

6. The style in question may be appreciated from another fragment of the series depicting a man's toes, at PLATE 163 All. The piece cited was identified too late for inclusion here.

7. Compare the type and style of the following motifs from these relief figures and the "unplaced" fragment which goes with them (at PLATE 42 D, left) with others from the main "kilt" series (with references in brackets):

Fig. 47,	Motif 1, no. 1	(Fig. 46, Mot. 10, nos. 1b-2)
"	Motif 2, no. 1	(" Mot. 9, no. 1)
"	Motif 2, no. 2	(" Mot. 9, nos. 3-4)
"	Motif 3, no. 2	(Fig. 45, Mot. 1, nos. 1-2, which are broader, hence the appearance of leaves)
"	Motif 3, no. 3	(Fig. 45, Mot. 2, no. 7)
"	Motif 3, no. 4	(" Mot. 2, nos. 2 and 10)
"	Motif 4, no. 1	(Fig. 46, Mot. 11, no. 3)
"	Motif 5, no. 1	(cf PLATE 43 D, left, below petals also attributed to the same "school").

8. This seems confirmed by their places of discovery - in lightwells in the Domestic Quarters, clearly having fallen from important upper rooms.

9. HM tray 57 Zeta XIII, 1 "Area of Cowboy Fresco".

10. PM III, p. 48; but Evans's statement that ".... more than one artist had collaborated on a single panel" does not seem confirmed on close examination of the originals.

11. The heads in this illustration have been drawn from the following sources and have been corrected against the originals. Gilliéron's drawings reproduced in PM III contain a number of inaccuracies of detail.

No. 1, ($\frac{1}{1}$) from original.

No. 2, from photograph of original (slightly over $\frac{1}{1}$).

No. 3, to scale, after PM III, Fig. 33.

Nos. 4-12, to scale, after PM III, Figs. 29-31, but with corrections - especially to nos. 7-11.

Nos. 13-14, to scale, from original.

Nos. 15-29, to scale, after KFA Colour Pl.II A, with corrections to nos. 16 and 20.

No. 30, to scale, from original (Vol.IV, E, no. 15, Fig. 7A and Pl. IVc).

Nos. 31-34, slightly over actual size, from photograph of originals.

No. 35, to scale, after PM II, Fig. 375; original (?) missing.

Nos. 36-41, to scale, after drawings by Gilliéron in Ashmolean Museum.

No. 42 A-B, to scale, from originals; (Vol. IV, E, nos. 16-17, Fig. 7 B-C and Pl. IVd).

Nos. 43-49, slightly over actual size, from photograph of originals.

Nos. 50-60, to scale, after KFA Colour Pl. VI, Fig. 12, with corrections to nos. 51 and 55; no. 60 really does have two right ears!

12. PM II, p. 602, Fig. 375 and, in colour, KFA Pl. IV, Fig. 15. Quite possibly this is identifiable with a more broken and heavily burnt piece now in HM tray 165 Theta XV, 11 "Ohne Angabe".

13. PM IV, p. 893.

14. The present writer has examined this fragment, removed from the palace to the Herakleion Museum in 1965.

15. PM IV, p. 891.

16. PM IV, p. 888f (and elsewhere) gives prominence to the view that the lime deposits choking rooms in the Domestic Quarters consisted of lime for plasterers who were redecorating the walls in that area at the time of the "Final Destruction". Evans therefore postulated two redecorations here, to the later of which he referred the spiral decoration under discussion. This he surmised - without confirmation from the excavation - to have been laid over the Dolphin Fresco (PM III, p. 378). But he failed to realise that all the frescoes in question were put up on their walls in a single decorative scheme by the one group of painters; nor need we suppose the frescoes found together in that Quarter necessarily belonged to the one room, for several basement rooms here were reoccupied by "squatters" who unquestionably had thrown fresco debris out of the rooms they cleared into several dumps to the east of this Quarter (see below p.452ff). Further,

the Dolphin Fresco may have decorated a floor, not a wall (see p. 215f above). Most scholars are now convinced the lime deposits were blocks of gypsum and perhaps limestone used in the architectural construction of this Quarter which had become calcined to lime at the time of the great fire of the "Final Destruction". Thus it is unnecessary to follow Evans in this matter which has rendered his chronological review of the frescoes concerned unreliable as regards LM dates - but his observation of stylistic and artistic affinities among the paintings are still valid.

17. See Vol. IV, G, pp. 338-341.

18. Other pieces in this artist's "hand", and perhaps belonging to the "Palanquin Fresco", are in HM trays 84 Omikron II, 85 Beta VI, 87 Gamma V, and 89 Gamma XVII, from the general area of the Queen's Megaron; also, in HM tray 128 Theta I and other boxes noted in Vol. IV, G, p. 337, Fig. 6 D-F, all without specific provenances, and in the lower row of PLATE 51C in the present study.

    Further pieces in the "hand" of the "chariot painter" himself may be two fragments of human heads in HM 20 Delta VI (North Threshing Floor Area).

19. See Vol. IV, C, p. 52, for two panels; the third is represented by the piece at PLATE 15B here, with unique alternating red and black blobs in the field. See Fig.21, p.145.

20. Evans remarked on the "great family likeness" of the frescoes from this house and those from the "House of the Frescoes" in PM II, p. 378.

21. Excavations at Pseira, Crete (Anth. Pub. Univ. of Pa. Museum, Vol. III), p. 11.

22. Reeds in light blue water (PLATE 198 A1-2), the "blue birds" (Ibid, A3), the myrtles (Ibid, A4) and the "dried leaf" motif at Ibid, A5, all find close counterparts in the "Bird and Monkey Frieze" from the "House of the Frescoes", by "School I" (SLIDE 56).