# THE RUDE STYLE <br> C $\angle A T E$ (YPRIOTEB. II C - F. III POTTERY) <br> AND ITSAFFINTTIES 

Thesis submitted to
The University of London
for
the degree of
Master of Philosophy
by:
Demetrius Anson

1974


## All rights reserved

INFORMATION TO ALL USERS
The quality of this reproduction is dependent upon the quality of the copy submitted.
In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed a note will indicate the deletion.


ProQuest 10107242
Published by ProQuest LLC(2016). Copyright of the Dissertation is held by the Author.
All rights reserved.
This work is protected against unauthorized copying under Title 17, United States Code Microform Edition © ProQuest LLC.

ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346

Ann Arbor, MI 48106-1346

The Cypriot Rude Style is derived from Myceanaen Pictorial Pottery with which it shares similar shapes. Its pictorial decoration, however, differs appreciably from the mycenaean originals and it is clear that the two groups were painted by different artists,

Studies have been undertaken to group together the work of some of these artists, and attempts made to discover their chronological sequence.

Unfortunately, the vast majority of Kude style pottery comes from tombs which are, moreover, inadequately published. Consequently the reconstruction of their chronological sequence could only be attempted on the basis of their estimated stylistic development.

The recent publication of a series of stratified vases from Enkomi now furnishes an external chronological criterion. This, and the availability of new material from the French excavations at the same site, and also from Kouklia, provide the basis for a re-assessment of the Rude Style's development, and for its affinities with other pictorial pottery from Cyprus.

In this paper, Chapter I begins with an introductory survey of previous literature on the Rude Style, and then briefly discussea its relationshp with the pictorial decoration, shape and fabric of Mycenaean pictorial pottery.

In Chapter II, and attempt is made to group together related Rude Style compositions.

Chapter III begins with a comparative study of Rude Style and Mycenaean pictorisl bell krater shapes, and then goes on to subdivide the Rude Style shapes in accordance with their peculiarities.

Chapter IV describes a project undertaken in conjunction with the Oxford Laboratory for Archaeology and History of Art. Here, the fabric of eighty eight Rude Style and Pictorial Class vases were sampled spectraraphically. The objects were: first, compare the two wares, and second, determine whether Rude Style fabric might show complexities which would permit its subdivision into groups of similar composition.

Finally, Chapter V undertakes to correlate the evidence from the preceeding studies of style, shape and fabric. Vases wherein peculiarities of style, shape or fabric are concurrent were then compared with the chronological framework, arising from new excavations. A tentative proposal for the Rude Style's development is then suggested, and historical conclusions are drawn.

## TABLE OF CONTENTS

Abstract of thesis. ..... 1
Table of contents. ..... 3
List of figures. ..... 4
List of tables. ..... 5
Iist of abbreviations. ..... 7
Acknowledgements. ..... 12
CHAPTER I
Introduction. ..... 15
The relationshin of Pude Style and Pictorial Class vases. ..... 24
CHAPTER II
The stylistic subdivision of Rude Strle vase paintines. ..... 45
CHAPTER III
The characteristics of Pictorial Class and Rude Style bell krater forms. ..... 83
CHAPTER IV
Spectrographic fabric analysis of Rude Style and related wares. ..... 120
Appendix I: Catalogue of vases analysed. ..... 151
CHAPIER V
Historical Conclusions: The collating of Rude Style, shape, style and fabric subgroups, and their chronology. ..... 178
Bibliography ..... 212
List of plates. ..... 219
Fig. 25.Fold outI
Fig. 26.
Fold outII

## LIST OF FIGURES

| Fig. 1 | Related RS paintings in Style Groups 3, 7 and 4. | 63 |
| :---: | :---: | :---: |
| Figs. 2-8 | RS and Pictorial Class vase paintings. | 68-82 |
| Fig. 9 | Points of reference for the proportional measurement of the bell krater shape. | 89 |
| Figs. 10-15 | Profile drawincs of Pictorial Class and RS bell kraters and sherds. | 108-119 |
| Fig. 16 | Composition patterns of Pictorial Class and RS bell krater sherds. | 142 |
| Fig. 17 | Composition patterns of Enkomi RS and Peloponnese A fabric groups. | 143 |
| Fis. 18 | Composition patterns of Rude Style $Z$ and Enkomi RS fabric groups. | 144 |
| Fig. 19 | Composition patterns of samples Pyla-Verghi (41) and (42). | 145 |
| Fig. 20 | Composition patterns of Peloponnese A and Kouklia $T$ fabric groups. | 146 |
| Fig. 21 | Composition patterns of Enkomi local pottery, Enkomi modern clay, and the Enkomi RS fabric group. | 147 |
| Fig. 22 | Composition patterns of samples Enkomi (66), Enkomi (67), Enkomi (68) and the Enkomi RS control group. | 148 |
| Fig. 23 | Composition patterns of samples Larnaka (80) PylaVerghi (81) and the Enkomi RS control group. | 149 |
| Fig. 24 | Composition patterns of samples Enkomi (74) Aradippo (70) and the Peloponnese A and Enkomi RS fabric groups. | 150 |
| Fig. 25 | The RS shape groups, $A, B$ and $C$ and the bell krater shapes of the Pictorial Class (extract of TABIE XVII). | $\begin{gathered} \text { Fold out } \\ \text { I } \end{gathered}$ |
| Fig. 26 | The comparison of RS shape and style groups. | $\begin{aligned} & \text { Fold out } \\ & \text { II } \end{aligned}$ |

## LIST OF TABLIES

TABLE I Height of RS and OTHER bell kraters. 86
TABLE II Rim diameter of RS and OTHER bell kraters. 87
TABLE III Section thickness of RS and OTHER bell kraters. 88
$\begin{array}{ll}\text { TABLE IV } \quad \begin{array}{l}\text { Height to thickness relationship in RS and } \\ \text { OTHER kraters. }\end{array} & 88\end{array}$
TABLE $V \quad$ HEIGHT/BASE relationship in the RS and OTHER
bell kraters.
TARLE VI (HEIGHT/BASE)/HEIGHT relationship in RS and
OTHER bell kraters.
TABLE VII (HEIGHT/BASE)/HEIGHT relationship in RS bell
kraters.
TABLE VIII (HEIGHT/BASE)/HEIGHT relationship in OTHER bell 92
TABLE IX $\quad \begin{aligned} & \text { BD/FC } \times 2 \text { relationship in RS and OTHER bell } \\ & \text { kraters. }\end{aligned}$
TABLE X $\quad \begin{aligned} & (\mathrm{BD} / \mathrm{FC} \times 2) / \mathrm{BD} \text { relationship in } \mathrm{RS} \text { and OTHER bell } \\ & \text { kraters. }\end{aligned}$
TABIE XI ( $\mathrm{BD} / \mathrm{FC} \times 2) / \mathrm{BD}$ relationship in RS bell kraters. 94
TABLE XII (BD/FC $\times 2$ )/BD relationship in OTHER kraters. 94
TABLE XIII $B D / B C$ relationship in $R S$ and OTHER bell kraters. 95.
TABLE XIV $\begin{aligned} & (\mathrm{BD} / \mathrm{BC}) / \mathrm{BD} \text { relationship in } \mathrm{RS} \text { and OTHER bell } \\ & \text { kraters. }\end{aligned} \quad 95$
TABLE XV $\quad(B D / B C) / B D$ relationship in RS bell kraters. 96
TABLE XVI ( $\mathrm{BD} / \mathrm{BC}$ )/BD relationship in OTHER kraters. 96
TABLE XVII BD/AG relationship in RS and other bell kraters. 97
TABLE XVIII $\begin{aligned} & (\mathrm{BD} / \mathrm{AG}) / \mathrm{BD} \text { relationship in } \mathrm{RS} \text { and OTHER bell } \begin{array}{l}\text { kraters. }\end{array}\end{aligned}$
TABLE XIX ( $\mathrm{BD} / \mathrm{AG}$ )/BD relationship in RS bell kraters. 98
TABLE XX (BD/AG)/BD relationship in OTHER bell kraters. 98
TABLE XXI Conversion factors of control elements. 126
TABLF XXII Control groups. ..... 127
TABLE XXIII Classification fabric composition. ..... 131
TABLE XXIV Assignment of individual sherds (Enkomi RS ..... 132 excepted).
TABLE XXV Computer assignment: Individual members of Enkomi RS Control group. ..... 139
TABLE XXVI Computer assignment of RS and OTHER. ..... 140

## QDPar Trone

Tourra-70
$\triangle$
SK
Ancirendetmu

25
OB
$2{ }^{T}$
2n. -208
9. A .

2
$30 \times 0$

2ry
nohaolouscoer haterer
Ancrican Toumal of Arohgeolon.
 of $4 x$


2laseicel Tommel.
Orisela inoherloxica.
Oouscula atheniensia.
2apotine ranlonation uanterly.
Report $0^{2}$ the Denentreat $0^{-}$itiouitics, Syoms.

Brais Toue a'ant oriental et di archeolonie.

M1asia I
$B$ Eyblos

OAS

CJA

CHA BE

CVA OI

STA Private 3

Dikaios

Essai
C.T.A. Wohacfer Alesia I - Mission Archéologique d'Alasia
Tome IV (Paris, 1971.
T. B. Walters. Catalogu of the Greok
and Itruscan vases in the British Iuseum
I part ii (Ionton, 1912)

1. Dunand Touilles de Syblos 1926-1238

I - II (Jaris, 1937-56)

Canbridge Ancient Iistory

Corpus Vacoruni Ansignomun

Corpue Vasorum Antiguorum Great Britain
Pe. i, II, G.b
V. Karageorshis Corous Vasomm Antiguorum

Ouprus ani Lamara District Puseum
Ts. i (Nicosia, 1963)
T. Karageorghis. Corpus Vasorun Antiouorum Private Collections Fs. i (Njcosia, 1965)
P. Dikaios. Enkomi Bxcavations 1948-1958 (Maintz, 1969)
E. Coché de La Perte. Essai de Clarification
de la céramique Nycenienne d' Enkomi
campagnes 1946-1947 (Paris, 1951)

| Treav. | A. S. Wmary, A. Firith and I.E. Waltere. Peavations in Cymus |
| :---: | :---: |
|  | (Iorion, 1960) |
| Tnlomi-4lasia I | C.F.A. Schaeffer. |
|  | Inkoni aje $\quad$ : |
|  | 1946-1950 (Paris, 1952) |
| Gezer | R. A. Stewart Mecalister |
|  | The Excavation of Gezer - 1902-1905 and |
|  | 1907-1009 - I - III (London, 1912) |
| Creece in the | E. Vermeule. Greece in the Bronze Are |
| Pronze Are | (Chicaso, 1964) |
| KYTPOMOTIKON | \#PAKTIKA Tor \#Ps Tor $\triangle 1 E Q$ NOYE |
| EYNEAPION | Kriponorikor Erwe $\triangle$ PIor, 1969 |
|  | $\begin{aligned} & \text { TOMOS A' APXAON TMHMA } \\ & (\Lambda E Y K \Omega \leqslant 1 A, 1972) \end{aligned}$ |
| IISS | Y. R. d 'it Desborough. |
|  | The Iast tycenaeans and their Successors |
|  | (oxford, 1964) |
| Wissions | C. P. A. Schaeffer. |
|  | Missions en Throe 1932-1935 |
|  | (Paris, 1936) |
| $\underline{M P}$ | A. Furumark. |
|  | The Wycenaean Dottery (Stockholm 1941) |
| MPL | T. IT. Stubbings. |
|  | Hycenzean Pottery in the Levant |
|  | (Sambridge, 1951) |


| ycenaens in the | Lots of Archeeolocioal Gmmosium. |
| :---: | :---: |
| Tastern Mediterranean | The Wroeneens in we Westemn Weditumanean |
|  | Irach - April 1972. (aicosia, 1973) |
|  | I. du Plat Taylor and others |
|  | Hetou-zigates: A Late |
|  | Prones ave Sorotuary in cypus (Oxford, 1957) |
| Zoyy. Doe. | V. Harajeorgis. |
|  | Mouveaux Documents nour I'Etude du Eronze |
|  | Récent A Chypre. (Paris; 1965) |
| Ercblers | E. Sjonvist. |
|  | Problems of the Late Cynriots Bronze Are |
|  | (Stockholm 1940) |
| SCE | Swedish Cyous Expedition |
| Shepard | Anna 0. Shepard. |
|  | Deramics for the Archaeologist |
|  | (Nashington, 1956) |
| Stratigraphie | 工. F. A. Schaeffer Stratigraphie Comparee |
| Comparee | Chronologique de I' Asie Occjedentale |
|  | (London, 1948) |

＋
ッショロ，18
－．．．
8．2．
Toures
Perioge
T． 3.
I．${ }^{\text {Tr }}$ ．
\％o．

## Other

ت
ARP．
KLA．
$\cdots$
RAS．BEA．
PS。
ENT．

Tritish Moseam，Iondon．
Sypmus Itusevan，Ticoste．
nousée rational du Iouvre．

Lata ornoriot．
Late Telladic．
rycensean．

## Duado Strine．

Issd in tie Trables of Chepter IIf to denote vases from impera，lavila，＂yrtou－Figades and RAS Shamra respectiveler

## Furumark Shape．

Furumenk Kotif．

## ACKNOWLEDGE SENTS

The subject of this paper was surgested to me bylr J. N. Coldstream my Supervisor, to whorn I'm much indebted for his advice and encouragement.

To Dr. E. T. Hall, Director of The Cxford University Laboratory for Archaeology and the History of Art, who made it possible to examine spectrographically the fabric composition of ninety Rude Style and related vases, I owe a debt of gratitude. I am also grateful to Messrs. F Schweizer and A. Alldred and to the other staff of the laboratory for their collaboration in this project.

I most gratefully acknowledge the financial aid that I received from the Research Fund Committee of the University of Iondon, which made it possible for me to travel to Cyprus to collect the necessary fabric specimens of pottery.

To Dr. R.Higgins and the Trustees of the British Museum, to Dr. V. Karageorghis and Mr. and Mrs. Nicolaou of the Department of Antiquities in Cyprus, and also to Miss.A. Caubet of the Musée du Louvre, I owe my thanks for the permission to draw, photograph and take fabric samples, from vases in their care.

To Professor C. F. A. Schaeffer who made available much unpublished Rude Style pottery from Enkomi and Ras Shamra, and for the co-operation of other members of the French Archaeological Mission to Cyprus, I am much in debt.

I an also indebted to the late Professor P. Dikaios for kindly permitting me to use pottery from his excavations in Enkomi and Pyla-Verghi. For access to pottery from Kouklia, I am grateful to Dr. F. Paier.

For their encouragenent and advice, when $I$ begen this work, I should like to thank Dr. H. W. Catling and Miss. J. du Plat Taylor.

I should also like to express my thanks to the late librarian, Miss. J. Southan and the present librarian Miss. A. Healey, of the Institute of Classical Studies, for their kindness and for facilities for study, in the library of the Institute.

To my parents I am indebted for their patience and understanding, and also for their financial assistance without which the undertaking of this research would have been inconceivable.

Finally, to my wife who has shered the hardship and anxiety of the last four years and who has spent lons hours, at home and in the field, making all the drewings in this text, I owe a deep debt of gratitude.

## CHAPTER I

INTRODUCTION:

THE RELATIONSHIP OF RUDE STYIE
AND PICTORIAL CLASS VASES

## ImRODTOLIOT

The ear?iest evidance of extengive Cumiot foreion contacts ates from the closing stages of the early bronze age, when, for the first time, Gruian and palestinian impors apear in larse quatities, in the Oymiot tombs of iapthos and Tounous. These comercial contacts contince and are lorely increased durins the midule brone ase, in the peace ant stability achieved in the east rediterrancan, after the expulsion
 ITAde Croriot panted pottery and later Base Ring and wite SIip wares are recorded from many sites in Syria and Palestine, wile Levantine and Bgrption goods are found deep within Cyms.

It is thought that much of this material was ewchanged for Cypriot copper. (1) Thatever its orisins, trake with the orient brought impontant chances. The island became more prosperous, while the distribution of settlements began to change. Settlements in the north lost their importance to those in the eastern and southern coasts. Here, from as early as the late li.C. period, arose the commercial, urban centres of Entromi, Kition, and Hela Sultan Tekke, which were destined to play an important role in the develonment of the island, during the late bronze are
(1) See T. Gatling in CAH, Fascicle 43 "Gyprus in the Neoliticic and Bronze Ase Periods", 32.

With the exoention of a very fer objects from the wost, found in M.G. contexts, the castwerd tinadins interests of Cyprus were to remain domimant until the late bronze ace, when the Fycenaeans began to participate increasingly in the trade of the eastern tiediterranad.

The Iucuative east Fediterranean trede, wich was enriching Cyprus, attracted the Iycenaeans who by L.I. II were trading with east and Empt trrough colonies in riletus and Phodes, where the Minoans had preceeded them. Pich in copper and reographically well placed to participate in the affarr of the east hedi bown an ocasionally visited by the yycenaeans prion to fall of Knossos (2) while Gpriot potery is found in Srete and other Aejean is?ands. (3)

By the fourteenth century, following the destruction of the Gretans $a s$ a power and their rapid replacement in the Dodecanese by the Mycenaeans, vast quantities of Mycenaean pottery are found in the east and in partionlar in Oyprus. It becomes not uncommon to find more Aegean than local pottery, in tombs in and around Enkomi wala Sultan Telke The quantity of Mycenaean pottery found in Cums is so great, that it becomes possible to speak of a re-orientation in Gypiot wade from its traditional eastern involvement to an ever-increasing involvement with the westo inycenaean pottery continues to be found in equally large quantities and, by Myo. III B, a large proportion of all the lnown lifcenaean pottery from this period, comes from Cyprus.
(2) Ibid. 56
(3) Ibid. 54; Cadogan and Tzedakis in Krmpolorikon sruEAPIon Nicosia (1972); Popiam BSA 58 (1963) 88-93 P1. 26-27.

This Aesean pottom, whin is not only found in Oyprus but also on sites in Syria and Palestine, difers subtly when looked at as e whole, Sron what is wavily pound in reece. Whe individuality of this eastem roup has long been recogised by experts in the field and the names Levantontrenaean and Gpro-felladic have been coined for it. It differs from the noms of the mainland bot: qualitatively and quantitatively.

Some Iycenaean sheves such as the Pilsrim Plask, appear to bemore Pavoured in Gerus, on tie other hand, the Kylix which is comon on the mainland is rare in the east.
dantitatively, some shapes are more largely represented in the east than in the west. The stirmp jar is one such shape. Others are the large anphoroid and bell kraters. These larse vases are decorated with chariot scenes, which are seemingly insuired by similar compositions in palace frescoes. Later, when the bell lrater becones the more popular krater shape in Mycenaean III $B$, the most common subjects of the pictorial composibions are bulls, birds, goats and deer.

These large vases have also been found in the Peloponnese (Pl.33/1) and notably at Berbati where a potbers work shop which produced pictorial wares was recently discovered. (4) The vast majority of them, however, comes to us from Crprus. Indeed for the neriod L. F . III A: 1 - A: 2 the site of Enkomi alone has nroduced more decorated kraters and wiphorae, than Mycenaean Greece taken together.
(4) Catlinc Op. Cit. 57

The peouliarities and also tie lame nunbers of this Levanto-incenaean potieny has hed sone experte in Cypriot archaeology to visualise a Mycenaean colonisation of tie island from as early as L. F. III A:1-A:2. This interpretation, as Cating aotly points out, fails to explain an sobonoe many othen indeces that one would expect to rind in a Mreenaean colony.

Bven in areas were lycenaean pottery is most abundant, the design of tomus and the burial customs are rypriot. With the exception of a very fem Iurur silver vases, all metal objects found in Gymus at tais period are of Coriot lesign. Jewellery is different, while stone vases and seal stones of ycensean type are also missing. (5)

Another explanation put forward for the presence of such numbers of ryceraean pottery in oyprus is toet they are the product of migrant Dycenaean craftsmen working in Oyprus. (6) Aspectrographic analysis of the fabric of Nyceneean pictorial wares from Cyprus undertaken by the Research Laboratory of Archaeology in Oxford, has shown that these wares are of the same composition as Mycenaean wares from the Peloponnese. (7) This has settled the question of their provenance to the satisfaction of the majority of scholars.
(5) Ibid. 55-58
(6) Nouv. Doc. 201
(7) Catling and Nillett in BSA 60 (1965) 212-224.

Amonsst the larse quantities of decorated inycenaean jottery unearthed from Cypriot tombs in Bnkomi, Maroni and Mavaia by the Turner Tinst excavations in 1895-1898, (8) there appeared a small group of bell kraters with horizontal handes, wich did not confirm with the nows of other pictorial pottery of Mycencean type. Despite a close similarity in shape and overall decoration, differences in technique were discernible in the less glossy slip and the Erk brown-black paint, which was frequently used in their decoration.

Althou the general disposition of horizontal fill-in lines were the same in both groups, the actual style used to depict the animal motifs of goats, bulls, deer and birds used to decorate each type, dirfers. Tho animal Jrawincs of the non confomine group, wiviz mere frequently depicted in connection with plant motifs, mere semingly frem more spontaneous"y than on the other pictorial bell kraters.

The spontaneity of these compositions frequently degenerates into carelessness. H.B. Walters, who catalogued the Cypriot pottery from the Turner Trust excavations kept by the British Museum, recognised their stylistic uniformity and classed them separately, in a cotegory mearred for Mycenaean vases of debased and inferior quality.
A. Fummark wes the first to publish a study of these vases which he called tie Rude Style. (10) The dullness of their paint was noted as wexe certain subtle differences in the shape of the RS Krater, whose profile he frequently found to be more biconical than that of other bell kraters. (8) EXCAV.
(9) BMC 85-88
(10) N.P. 465-470

The distinctive decorative elements were 3 so stodied. Fumumark noted here a proponderace of onientel motifs and these led him to conclude that the RS was not a Nycenaean or even a Levanto-liycenaean ware but, that it was a Levantine derivation of inycenaean potiery.

Ancther contribution to the study of these vases has been mede by 3. E. Stubbings. (12) He disagrecs with Furumark's conclusion that the RS is a cmude derivative that can easily be distinguished from other Fifcenaean or Levanto-rycenaean pictorial pottery and notes that oriental motirs are also present on Levento-prcenaean wares:

Stubeings, who beljeves thet gycenaean pictorial pottery was made in Gypus, secs the R a as only one of many stylistic sroupinge, into which the pictorial Inycenaean pottexy of Gyprue, can be subivided. He holds that the individuality of wares such as the RS, is attributable either to particular pottery producing localities, or to the work of individual craftsmen.

Stubbings has isolated seven such groups. Two of these stylistic groups consist of RS vases. (13)
J. I. Benson, who has been working on the same hypothesis (namely that the recognition of distinct personalities in the style of vase decoration, is nossible in the late bronze age and can lead to useful archaeological conclusions), has recognised yet a third RS vase painter.
(11) Ibic. 470.
(12) Stubbinge in BSA 46 (1951) 168-176.
(13) Ibid. 171-173.
(14) Eenson in AJA (1961) 342 .

In a more recent mon, which devotes a whole chater to the ztody of the 5 , (15) Jaragecrgis araws up a cetalonue of Ris vases which more than doubles the list tram up by Purumark. This enlerged list drams most of its new examples of the $I S$ from more recent excavations. The increase in numbers is also due, in part, to the inclusion in the RE of a moup of finelv morised and decorets vases (Pls.4/1, 26/5 Pis.3/1), bearing RS deconetion, wich had hitherto not been included in the RS, (16) eventhounh their rinchip with the RS had Ione been recognised. (17)

Wancreorwis who holds that Mrreenaean nictonial pottery was mede in Tymus, rightlo situstes the beginninge of the $R S$ lete in myoeneean III $B$, when those finely worked RS vases are said to appear. Thejr finesse is presented as evidence for a reaction, by a new rroup of Gyoriot artists, apanst the leondence, wich conventiond piatowi pot pory is know to maderg in late Treencean ITI 3.

Eventually, the RS itself is said to undergo a period of decline, similar to thet of the earifer pictorial pottery which it had replaced. Fron stylistic studios, similar to those of Stoboings, Karageorgis groups the vases of the RS into three separate strlistic entities. The sirst group contains the finest RS compositions mentioned above. The second group conoists of vases whose decoration is less fine, and the third, Jroups together the cmidest specimens of the RS. These two last uroups are said to be procressively later, on the assumption that the RS was becoming increasingly cruder and more decadent with the paseage of time.

```
(15) Nouv. Doc.
(16) Ibid. 234-236 Pl. 23/1-2.
(17) M.P. 246, 470 n.1.
```

The scarcity of seourely dated samples of pis composition, jetraots From the ohronological, signifioance of such rroupings. This prooedure, however, raises very interesting questions wich will be discussed in a later section. Quections of even greater importance, are raised by Reraceoreis inclusion of finely worked and decorated vases in the RS category.

If one yields to the stylistic evidence and accepts these as members of the RF, it becomes dipficult to uphold the qualitative distinction which Ias Prequently been made between the $R S$ and other Nycenaean Pictorial kraters. Indeed, the validity of cmaness as a criterion in this instance, has already been brought into question by Stublinge, ho notes that it is not exclusively a property of the Ris and that it frequently appears on other racusean types. Moreover, Stubbings, notes that the quality and finish of both the RS and other lycenaean pottery may range from fine to crude, in $三$ way that makes their separation impossible.

No major work has been done on the RS since that of Karageorghis, and there are still fundanental questions about its origins which remain un-answered. The Blectro-spectrographic analysis of Mycenaean necked craters from Cyprus, decorated with chariot, bird and bull compositions of III A-III 3 type, have shown that these vases were made in Greece. (19) Compositions with bull motifs are not however restricted to the necked krater. They appear on the bell krater as well. If, all fine pictorial pottery is indeed made in Greece, one might then argue that the finest of tine RS is made there also. Moreover, if as it is claimed, these vases are the precurssons of the PS, (20)
(18) Stubbing: Op. Cit. 173.
(19) Catling and Millett. Op. Cit.
(20) Nouv. Doc. 231-234.
the grontot virin of tie RS tradition oula come under question. Ir thia wand it is intoresting to note that there existe astorial vabes in meoce, deconated in a marurain strongly reminiscent of the 2 (21) P?. $33 / 2-3$ ).

A re-eraningtion of tecorative strie and in partion an shape and
Somic anevant in each roup, might therefone thon forther light on Gein interelationsinp. A stwdy $j$ ght also be nale of variations in style, chap and robaid, telon toyether, within the RS itself. It could then be possible to detemine whether the $R S$ is subdivisible into groups, regresenting, perhaps the prodict of different workshops or ingividuals. Tiis would certainly appear to be the case of some of the vases from Karageorghis' phase A, as well as some of the RS piotonial pottery from the wells of Evreti in Fouklia (22) (Pls. 26/3-4).

Stylistic and techncal rirerences mithin the $R S$ can however be Aue to Chronological as well as Geographical differences. The discovery of PS motifs on Myc III C:1 shapes (Pls. 4/4, 28/1-2, 29/1 and Fig. 8/11) certainly speak for the longevity of the RS Group. An attempt could therefore be mede to establish the chronological order of changes in style, shape and perhaps fabric.
(21) Benson NJA (1967) 316-317 see also Vermeule CJ 59 (1964) 193, FIG.1-2; Mouv. Doc. 258-259.
(22) Naier in RDAC, (Nicosia 1959) 40, 42 Pl. IT.

## MON PIGURATVE :TMTENS

Many pacellels may be dram between the decoration of the RS and that of the Myc III: B Pictorial Class. The Differences existing between them are relative ratiner than exclusive

Wo begin with the norizontal lines which cover most of the outer surfeces of fycenaean pottery, it is interesting to note thet thoir kispositJon is similar both on the RS and Pictorial Glass bell kraters,

These horizontal lines were seemingly an econonical way of filling-in and deconating the surfaces of the vese, but they also serve to underline the krater's width, by breaking dow its verticality. They also act as a frame to the pictorial compositione, mich are painted on the upper half of the krater, left vscant for this purpose.

Nearly all of these lines are therefore situated on the lower half of the krater, under the piotorial composition. However, the paint which is renerally applied to the unper side of the rim, may extend to cover its underside and then invad: the outar surface of the vase for about a centimeter. The hoxizontal band so fomed, acts as a frane for the tov of the composition (PI. 9/1).

This arrangement is most common in the RS. However, on the Pictorial Class bell kraters, the under side of the rim is nearly always unpainted, a separate horizontal line being drawn on the face of the vose above the composition.(Pl. 38/1).

The horizontal lines below the compositions are not situated

```
hapozamay, but are arama in groups at specific points.
    The most nsual locations of these lines is Eirst; at the shoulder of
the rrater and inuciately below the pantot composition, where nsun?y
thmee nh sometmes two thick lines may be drem; and second, imnediately
ebove the base, mere there may be up to trree thin Iines, of approximately
half a centinetre taickness. Nore usually however, there is only one line
here, which is reality, is the continuation of the paint covering the base,
on to the lower face of the vase. (F1. 6/1).
At approxirately midway between these two groups, there is ofter but not always, another grom of lines. In the RS, there may be as many as tiree lines (PI. 22/1) but there are examples with only two, or even one
```



``` rroup and the base, may be halved acain by yet nore horizontal lines.
In the Pictorial Class, the area between the shoulder and the base line way carry one thick stripe although generally, no line whatsoever is drawn. On the other hand, the Pictorial Class bell kraters may have one or more Inas wainted on their inner face wich may even be slipped, while in the Rs, the inside is generally left undecorated (P1, 36/2).
The treatment of the handes is, however, the same in both types. Paint is generally applied around the roots of the horizontal handles. The top and sometimes the inner and outer side of the handle, may also be painted with a thick line, extending from one root to the other (21.6/1). Eramples wherein the whole handles is painted are rare on both types (Pl.1/2).
The pictorial panels in the handles zone are not only framed horizontally but also vertically at their sides. In the RS, the horizontal
```

extension of most, but not all the pictorial panels, is delimited by vertical lines. These are drawr near the horizontal loon handies, and ioin the horizontal line under the rim, to the interspaced lines at the waist of the lwater.

The most simole of these partitions ia wede by two, three and sometimes four vertical lines. On some lraters, there are dots filling-in these lines, or oblique strokes cutting across ther. On others some of the inner parallel lines may undulate and zis-zag (Pl.6/1)。

On some vases, these vertical lines may even serve as a support for other fill-in motifs, consisting of leaves or apirals, thus creating ctylized trees. (Dl.3/1). Alternatively, tree drawings at the edre of a songosition, may fulsil the function of the border line ( $\mathrm{Pl} \mathrm{o}_{\mathrm{o}}$ (1/2).

Border lines may appear on only ore side of a composition, while the use of different veriants on each side of a painted panel, is not unnomn.

SEitar parallel lined motifs do exist in the Pictorial class. Gever, almost always they act only as partitions within the decorative panel, and are seldom found in the viciais of the horizontal handes (P1.36/2).

It is also interestirg that the $R S$ border lines are frequently more closel: comparable with the Palestinian, rather then the Mycenaean Trisliph motif.

IIGTRATTVE DECORATTON
When we turn to the pictorial compositions decorating the vases of each group, it is again possible to draw many parallels betwen the RS and the (23) 俱.P. 467.

```
Fatomiet 77.ar.
```








```
Sabovol maujwamea. In the os on tie other hand, buIl urotomes are
moctionly mon eribtent.
    Tecome entswing Enth a digcuseion of the abvious atyliatic diferences
sepmating theac two empes, montion chould be mate of the subaliom
locoration of tho vyc.uIT P, Nictoricl 2lasa comosition.
    Iith the wroevtion of a vem, fer vacea decorated with bulis
woomanied by men, little effort is wurondol on comeosition. Sutsilism,
```



```
little or no reletionship with tine bull. The seme is tme of other animals,
birds sud notably fish,mich may be drem on the sane penel as the
Pictorial Class bul1.
```

ITwed compositions are practically inexistent in the RS $(21)$ and thongh cubsidiary notifs (ohiefly spirals), mnconnected with the bull are not moomon, prants ane cenerally associated with tie bull, who is lepsoted
(21) Enwomi PI.4/1 chows a gat and bul togetien. Toulia Pr 23/1-2 showa bula cul bials. Yet, lespite their ouvious relationship with the R thoy con havdly be considered to be typical examples. The first is not strinetically assimilable with any of our vaees ( $p$. 65) whe eccond is a tyoicelly the III C:1 side spouted jug shape. On the other land, Re katere mar have a different composition on eech panel, wiliso bhe Widrial Class vases whicl jenerally repeat the sane composition on each panel.

Peeding on them ow whie reaching down to do so. This mamentary and often repeated composition is totally absent in all pictorial Class vases. BUIS

Then the actual bulis of the Pictorial Olass are exanined, we noticed thet although they are acourately drawn in outline, which faithfully renders the physical proportions, thein contours are often indisoriminately filled in wit small crosses, circles and dots. (PI. 38/1). Their arpemance is reminiscent of embroidery crafts by wich they were probably Encpinod, and thoy lock rathen too dimensional and lifeless. At times they are not minke other iegeanmoties, wich havo lost their meering with repetition.

BS bulla che thomselves strlised and may be filles in with spirala and verticel strokes (27. 21/1). Indeed, moh of the stylisation in the RS seems to stem from a Enonthene reduotion of the bull to its esertial elements. It is not the reault of $e$ pre-occupation to produce pleasing omanental decoration.

Flements of this shorther maner of drawing are the thick dorsal line, sometimes curving up to emphasize the powerful sioulders, a large and amprisingly expressive eye and large reproductive organs.

The spontaneity of expression brought by simplification, sometimes leads to sketchiness and complete nerled of proportions which may reduce tine dravincs to Iittle better than soriblus (Pl, 7/2 Tis, 3/5). Yet, sometimes this same disnroportion may achieve the expressivness of a caricoture which captures admirably the movement and liveliness of the animal (PI 2/1).
 the bull is drew faitufully in outine, and unike twe bulls of the Pictoriel Ilass, bee inem lines are nsed to represent anatoracal detail, and to sugest t':e third dimension. The underside and lecs receive moch attention, mile the beck, shape is predetemined by the truditionaly Beavy torsal lins, apparently draw with one swift brosh stroke. This line, which holds the arowine to yether, defines to a lage evtent the ghape of the bull's head, and limits the posaibilities of Jraming syes, moths, etc. Mith any finesse.

In consection with the inner lines of RS drawings, Karageorghis has pointed out that the PS uses lines of varying thichess to express relief in a manner reminiscent of contemporary Syrian ivory corving. (25) GOATS, DETR 12 TRTE OR LTPE SCDE

The embroidery effect, totally absent in the RS, is also found on the majority of stags, birds and hybids, of the Pictorial Class. The two Mrouvs are therefore quite distinct.

Cnly in the revresentation of goats and deer may some parallels be draw between them. Even though most of the RS goat drawings are constructed Iike the bulls, around a heavy dorsal line of $F M 6 / 4$, there exist RS goats which like those on other Pictorial Class vases, are uniformly filled in with the red-brown paint.

The animal plant eating theme so typical of the PS, is moreover shaxed By Pictorial Class vases decorated with goats. Fere, as in the RS, eats may (25) Nouv. Doc. $239 \mathrm{n} .1,2$, and 3, $235 \mathrm{n} .3,242$.
be aepictod uth thon heod thmed back over theim shoulder, reeching for a plant. It is diffiontito sive an explanation for their obvious relationgip with the $F B$, however, it seems guite eertain that the two grouns connot be tho eroduct of the sane centre or school.

Dofore moving on to the himd anminge, mention would he made dithe
"Tree of iffe" theme mhich in Aeresn Pictorial pottem; is fregrently assooteted aith the poat. (26)

This oriental thene, an the associsted scheme of Tereldic Confrontation, is common in the decorative arts of the orient, from the earliest of times. It is therefore interesting that plants flanked by confronted goats and otier dimals are Preguent in the RS (PIs. $2 / 2,6 / 2$, $9 / 1,10 / 1,14 / 3)$ 。

These plants are moreover closely comparable witi Palestinian models and it is possible that the "rree of Ifife" scheme in the RS, may be taren directly irom oriental prototypes. The same may be true of other oriental thenes, such as the Palmettes winch are also frequent in the RS (PI. 15/1, 2,4). Towever, as some of these eastern elements are also present, if less frequently, on Five III A:2 and III: B (Pl. 38/2) (28) as well as on earlier I. N. III Pictorial pottem, (20) it is nossible that many may reach the RS second hand, from Pycenaean Pictorial pottery.
(26) I.D. 454.
(27) Ibid.
(28) See also BMS PIG. 135a, b.
(29) M.P. 194.

STES
As yith the derming of ramols, RS and Piotorial Class bied arawings are lifely to be the product of seperaty artiste. Fiotomial 3lase biras
 stand out shonl- from the as im drawinge.

Re virns ane Amom in profile and face towards tho lat as amp.
We coneve bac: and conver: breast of these bimo are fomas by too
 cuete a shape at timos comprable to that of a new moon.

At the froct, tyac ourver genoraily join and continue vertioaily bo Com a moxe or less elongated neok. Nis. line then ompes acain, horizontaly to fom the characteristic curved long beak. The lower half of the head is then added separately.

At the back, the two curved lines foming the body open out after coming together to form a fan shayed tail.

One outspread win? is druw in profile by two lines curving upwards and back from the birds back to the tip. Body and winss are senerally filled in with curved lines and straigh strokes.

Parallels have been drawn between these birds and those of late Vinoan Pottery (30) and it appears that these arawings owe more to Cretan than to Hycenaean vase painting. It should however, be mentioned that the Ris birds have the distinctive up-turned beaks of the Avocet, a wadding bird, and are thus assimilable with the majority of other Pictorial Class birds, which cesemble Feron, Comorants, Dwans and Geese.
(30) Jouv. Doc. 247; Op. cit. Benson (1961) 343.

```
    Tho contenta of RJ pictoriel lrawingr mould therefore appear to
maglel that of the Pictorial Class, wity wich it sames in a similar
wretion of pictozial vase painting. Whe two urougs are momovar certain
to sexva for the sme purpose, and are likely to be catering for a similar
market.
```


 24／1，13／1）：and the asep krater witi vertical henales（P1．3／2，Jia．2／2）。

A folso neoted far（ol．32／1－2）and cylindricnl oup beve aloo bon olamed（31）mut these vases are stylistically unlikely centigstes．（32） Ctuer shonos begrine pg decoration，and wich should be mentjoned here，are the bows end fuge of Mreenaean III：：Which are decorated with as rotife（IS．4／4，28／1－2，29／1 and Pis．8／11）。

Thmaric，mo mares a distinction between the lurceneean wares of Gypme and the RS wich he considers to be a derivative，categorised the RS shanes as having the＂马eneral shave＂or as＂nractically identical＂or＂similar＂（33） with owinar woenaen shanes．

Such distinctions are only demonctmable in the cese of the bell rater of which there are enough samples，boti wity RS and with other pictorial decoretion，to permit mearinmply comparisons to be mede between the two

The DS bell looter，es Famarl rightly points out，has cenerally a more biconical nrofile then fown 281 with whol it is compareble．（34） Although Pictorial Mlass lwaters，with a biconical profile and conversly DS lraters with a rounded profile are not unknown（see belon p．82．）．

In tho Eritish Vuseum＇s catalogue where many RS lraters were first
（31）Pr．P．465－466
（32）Nouv．Doc． 256 n． 4.
（33）Op．Cit．465－466．
（34）Ibid．


 the beseness of baw and is certainly not horne out by their chape. 3ady shopen, asymbacol vases seem to be equally frequent in the RS as in other ryceneean kraters.

If Ferageornis admits that not all RS katers have a biconical nrofile, (36) he inkirectity malres another distinction between the :rater of each tope. In the CVA catologues of Cyprus wich include many of the Wroenaean Pictorial traters, he labels nearly all of the Ris kraters as (SS 282), whereas most other bell Lraters are labelled (IS 231). (37) This, as in the case of a RS krater from Inkomi, (38) is perinaity because the upper sides of many RS kraters appear to be more vertical than with (RS 281). As (RS282) is a late form of the bell krater thought to belong to the late lycenaean III 0;1 period, it appears to express the lateness of the RS. The possibilities of comparisons between the RS and the Fictorial Class kraters, have not ber whasted, and an attempt will be made to exten? these further.
(35) RMC 85.
(36) Nouv. Doc. 256
(37) SVA M 10-17 Pls. 13-15
(33) Mouv. Doc. 234 PL. XXIII/1-2.

```
    It is derciont to low, if the otwer shave used by the 2m,
O" so Jivonee Smom thoae of rore ontinumy \ycenaean Piotorial ramea.
Onops other than the bel? bator awe welativolv acuree both in tho
```



```
Latan, does howeven =uilom the mavo Iovoloment as othow such
Watere Now the Dictorial Slass, havina the Ione straight neol
bvical of ric III B.
It seens then, with the exception of the ratheratopical Myc ITI C:1 Gaos bearing Rs motias, bat the RS utilizes similer shapes as the majonity of pyo II B:1 pictorial nottery.
```


## Pars

The RS is tistingishable from most other Veenaen Pictorian mares, br the peculivities of its luaten drape and by its listinctive decometion. The frequent oosceness of its finish, mich is dne to a dull boige slip, darl brom naint and a conrser eobric, aces not suffice to distinguish it clearly Erom all otiner fycenaean pottery.

It is reasonable to suppose that tie coarse ware not made by the same yeople as the makers of ordinary lycenaean pottery. It is therefore not surprisine that in cyprus, where most of the kycenaean pottery found is Drobebly imported, not only the FB but also other coarse wares are of ten held to be cypriot imitations of Mycenaean pottery. (39)

The presence of coarse lycenaean wares in Creece as well as in Jypus, (40) and the recognition of fine RS wares (41) however, wams that to draw far-reachine conclusions from visual distinctions between fine and coarse wares, may be an over simplification.

The importance of subdivisions made from experience and knowledge of a ware's external properties must not however, be ignored, even if they serve only as the starting point for a more profound examination.

The texture of fabrics is determined by the grain size of the clay used. It is also determined by the firing temperature which controls the porosity of the fabric. It is however, the non-plastic inclusion, their quality size and shape used as tempering, which are the primary determinants of a fabric's texture.
(39) Dikaios 249-250.
(40) Problems 69-70.
(41) ITouv. Doc. 232-239 Op. Cit. A.JA (1967) 316-317.

In wores more there are big dipferences in olay composition, terperiny suf firing conditione, the expert mio can understand the tecmical factors involved in makins potterv, may often hatinuisi with acouracy between two diferent fabrics. The stenamisatior and mifomity of Ifoenaean pottery throunout the yyeenoen monl. inkes the gutivision of Focneean potbery roups more afficult to attein.

Sociantate with in intimate experience of Wreneean pottery my Precuenty distinguis' wit: accuracy between any two or more grouns havins different provenances. Trfortunately, the personal nature of the sensory oriteria for these subdivisions, makes them unsuitable for widesmeed use, because they are difficult to commucate and standardise scientifically. The more easily standardsed methods which the laymen may use to compare the external properties of fabrics, (42) are particularly Aisupointing when apnlied to Nycenaean nottery. Comparisons of febric colour with the use of standardised soil chart coloun values betweon wares as liverse as fine Vycenaean III A - III B Fictorial pottery held to be mede in Greece, and course examples of the RS, whose Cypriot oricins have never been questioned, show that similer colour values sere present in both rouns. Overlaps in the range of hardness or resistance to penetrate also seem to appear in both types. (43) Comparisons of the type of fracture (ie whether sharp or jagced at the break) also seem fruitless acre, as all Moycenaean pottery seems to be of medium hardness which leaves similar edges on fracturing.
(42) Shepard. 244.
(43) See next page.

If the systematic study of rycenaean fabeics witio the nared eye is uncewardine, the use of acientific techniques which can pernit the recnanition of cly types, the thpe and quantity of non-plastic inclusions and the firing temperature, increase infinately the importance of fabric studies For all stidents of wecioean ceranics.

Wot ell analutio methots require the slills of the specialised scientiet. Talid clessifications cen be made $b_{u}$ the bained non spocialist of thin sections of fabric, through the use of the wiwoular mionoscope. (4) In this way may be recomisel tho nrincipal classes of tempering. For this reason the binooular mioroscope is always used to establish the broad febric classification wich preceed other more complex analyses of fabric.
(43) In the course of this study of the PS Pabric, recourse has been taken to spectrocraphic tests to determine the quantity of certain minerals present in boti the RS and other ycenaean III B Pictorial wares and thus estoblish a wider basis for the comparison of the two wares (see Chapter IV page 120).
Powder samples of botin fabrics were obtained through the use of an electric drill. It was observed durine the drilling that the hardness of individual examples varied meatly. Some RS Erasments vere very soft, while otiens proved ver. resistant to drilling, more so than many of the finelur worlied necker, cheriot oraters.
As no accurato method of measuring and comparing hardness could bo used here, it is not poseible to make any inferences from such observations. It is perhaps wrth mentionin, thet the one frarort Erom Varageorgin's finely worked group A, which it was possible to sample, was extremely resistant to penetration.
(14) OD. Cit. 141.

Sone of these analutical methods, which include the use of optical and elootronic mioroscoges and Xav diffraction, to detemme the crobtaline ermanyment of the paste in thin sections, as well as differential themal malyses and microciemicel analysis, (45) have been aplied to lucenaean jotterw with the aim of characterising goro-roenaean products by anelour with sther jocenaean ceranics. (46)

The examinstion of a thin section of fabric under a nolarised nonGromatic licht, with a petrographic microsoope can sar much about ita moleculan crystal structure. (47) Jrijstals too seall to exanine under a conventionel microecoge can be exanined further with an electronic mi moscope (48) and their inage recorded on a catinde tube. Tho recomition of the curstals present in fine olay will indicate the extent of its crystalisation, and therefore the rance of the fixing temperature, and provide useful information for the recojnition of the fabric's composition.

Identification of crystals can also be achieved by the process of $X$ ray diffraction, (50) wherein a powdered sample of the fabric is bombarded with $X$ rays of a know wavelencth and the angle of its diffraction measured.

```
(45) Ibia. 138-147.
(46) Courtois. 149.
(47) Ibia. 19-38. Shepard. 139-140.
(48) Courtoiz. 41.
(49) Ibid. 41-49. Shepard. 19-20.
(50) Ibid. 146-147.
```

These angles are then compared with the lnow diffraction standards of nure elenents. By comparison it is possible to recognise the composition of the mineral crystals present in the samples. Tnfortunately, the frequent destruction of a fabric's crystal structure during firing, as well as the very mired composition of ancient pottery, limit the usefulness of this metrod in Archaeology

Differential Thermal Analysis is (52) used to identiey clays, particularly when they are too fine graineu for netromranic analysise is powdered sample is refined through a uniformiy increasing temperature in the company of an inert material whoh ic used as a reference. Increases in tenperature produce characteristic reaotions in most substances. These may absorb or emit heat as they undergo a chenge of structure. If the resultant fluctuations of the wample's temperature at any one point of the firing, are plotted graphically against the temperature the sample of reference, they will characterise many of the fabric's componant elements.

Difficulties arise nowever when dealing with complex mixtures of clays, wherein two elements have a similar reaction at the same firing temperature and pose problems of interpretation. Also, as most well fired pottery is taken through temperatures exceeding those of the most diagnostic changes, differential analysis is more often used for the examination of raw clays. (53)
(51) Ibjd.
(52) Ibid. 145-146.
(53) Ibia.

Tinaly, michochemical analusis (54) which is nomally used for the identificatio of paints and clazes can also be used for the recomition of elements in the fabric.

The simultaneous use of so large a variety of analytical technioues to the study of ifycenaean pottery, provided much information about the compasition of the clay and also about its preparation and treatment. On the basis of such knowledge it was possible to compare and distinguish between archaeolocically different IVycenaean pottery sroups and sometimes even to subdivide these further.

Whe eranination of thirteenth and fourteenth century iryensean pottery shows these fabrics to be homogenenus in their composition and execution. (56) The chemical elements present in the majority of these vases, sucreat that they rore not mede in Cypmis (57) but in the Argolid. (58) Whis aomors vell the results obtained eamion from Gectuomenio malysis of Mronaean pottery, both from Greece ard elsemhere in the Aecean worl. (50)

In Wronaean TIT Z however, Ifreanean fabrico cease to be homogenens as many different tynes of paste are used to make dycenaem potterir in the
 halfonzean prototype. Clays may be mimed so thet tyey will resemble the Lnolid fobric and firing temperatures zay be acordincly rodified. (60)

```
(54) Ibid.141-143.
(55) Courtois. 173.
(56) Tbig. 159.
(57) IbI.
(58) Ibi.. 173.
(59) OD.Cit. DSA 60 (1965) also; Catling, Mehards whentotojle in
(6) \(\frac{35 A}{7} 58(1253) 104\).
(6) Jourtois. 158, 178.
```

Gowoven, it an not nossible fnom these toets to leteminc wich of those lator wosnaean III B:2 manes was mede in Grous, priow to Yoonaeon -II $\mathrm{G}: \mathrm{I}$, when most froenaean pottery appears to be local A larae enowh homojeneous late ITI 3 sarnole was not tested. It was, hovever, possible to ascertain that the RS, was likely to be local. (62)

Spectromaphy (63) is another analytical process winch has been used. Tais method which can identify the eloments present in clays, iz 6 fastor cnd more economic method than microchemical analysis, and may record the presence of elements present in smaller proportions then is possible with chemical anelysis. (64) Also, as it requires only a small quantity of fabric, this method is particularly suited to stuies dealing with Pictorial vases of museum collection qualitor.

The recognition of the elenents present in pottery is usually not sufficient to achieve the seperation of any two or more different fabrics. Such a subdivision is only possible when thene are trace elements present in one category which are absent in all others. Only then would it be reasonable to suppose that the former ware cane from a different source. Generally, the recognition of a fabric's physical properties, mineralogical content and its reaction to increases of heat is necessary, so that they may form as mide a basis as possible for any subsequent subdivision. (65)
(61) Ibid. 178.
(62) Ibid.153, 179.
(63) Shepard. 143-145.
(64) Ibjid. 144.
(65) Ibia. 145.

Spectrography can however, give quautitative as well as gualitobire Matts. It is therefore possible to estinate with satisfactory acounacy. the nercentage in which netallic elements ane represented, particulanly when these are only in low oncentrations. (66) It then becomes possible to distinguish between wares wh ch show consistent uuantitative jifferences over the same chosen rance of characteristic elements. In this way, it was possible to characterise the fabieice of Jycencean and inoan wares into different homogeneous groups, each representing the centre of segean civilization in which it was found and supposedly made. (67)

It should honever be stressed that wile this method may permit us to distinguish between groups of pottemy, it tells us very little about the tecinical aspects of wares or their prodiction.

As we have seen above, this method, men applied to the Hycenaean III A2 - early III B Mycenaean Pictomial pottery of Gyprus, showed that for the elements tested, its fabric was indistinguishable from that of wares from the Peloponnese. (63) Distinct patterns were obtained however from crude Mycenaean wares from two Cypriot sites. (69) No $R S$ or later pictorial wares from Cyprus were examined in the Research Laboratory of Archaeoloey and Wistory of Art in Oxford, where these spectosraphic teste were carried out.
(66) Ibid.
(67) Op.Git. BSA 53 (1763)
(63) Op.Cit. BSA 60 (1965)
(69) Ibid.III, PLS. $32(B), 33$ (A).

Firth the permission of Dr. E.T. Hall, the laboratory director, it has now been possible to examine the Cabrics of later Mycenaean III B Pictorial pottery shapes and also that of the Ris from site tirowhout Oyprus and Erom Gyria. The object of this exercise is first, to determine if the IiS wares, both fine and coarse can be show to form either one or more homogeneous proup and second, to compare the results outained from the RS and other later Mycenaean III E pictowis pottery from Cyprus, with the results obtained in the past from other Mycenaean pottery found in reeece and Cyprus. The results of this study are presented below in Cnapter IV Page

$$
45
$$

## CHAPIER II

THE STYLISTIC SUBDIVISION
OF RUDE STYLE VASE PAINIINGS

Similarities in the conception of many of the $R S$ figurative drawings make it likely that it is the work of a small number of artists. This has prompted stylistic studies of the RS to be undertaken, with the aim of grouping together drawings likely to represent the work of individual painters. (1)

It has also been claimed (in a study carried out by Benson on the RS birds), (2) that it is possible to trace the chronological sequence of a painter's works, through the study of his technique and style.

Karageorghis has gone further in this direction by proposing a scheme, in three phases, for the evolution of the RS's decorative style, based on the assumption that the paintings became progressively cruder With the passage of time.

Much of the RS to date comes from Enkomi and other neighbouring sites in south-eastern Cyprus and if the RS aas developed in this small area, it would indeed be logical to suppose that the cruder drawings in Karageorghis' phase $C$ are later imitations of the fine compositions in phase A. (4) It would also be possible, as Karageorghis' proposal would imply, that ceramic decorative fashions were followed uniformly by all of the RS vase painters.
(1) Stubbings BSA 46 (1951) 171-173: Benson AJA 65 (1961) 342-345.
(2) Ibid. 343.
(3) Nouv. Doc. 231-259.
(4) Ibid.

However, the presence of the RS, or pottery analogous to the RS, in western Cyprus, Syria and even Greece, (5) raises the possibility that it was not produced by only one centre. Some of the differences of style discernable might, therefore, be due to regional rather than chronological differences.

In this regard, it is interesting to note that the seven vases representing Karageorghis" phase A, were discovered at five different sites. (6) More importantly, the three categories drawn up by Karageorghis are excessively wide. The vases which they contain/may be subdivided further.

Many newly discovered RS vases have since been published. Also, it hes been our good fortune to be given access to hitherto unpublished $R S$ pottery, from the French excavations in Enkomi. It was therefore decided to undertake a new subdivision of the RS's decoration.

Our object at the outset will be limited to grouping together paintings which are very similar to each other in style. Questions regarding the origins, and chronological order of these groupinds will be raised briefly. A discussion of their historical significance will be reserved, however, until the RS's shape and fabric have also been examined.
(5) See above p. 23 n. 21.
(6) Nouv. Doc. $232-239$.

## STYLE GROUPS: QUADRUPEDS

GROUP 1
Amongst the finest of the RS drawings we have;
Kition Fig. 3/1
Kouklia P1. 26/5
Kouklia Pl. 26/1 (possible)
These vases are distinguished by;
i. Triangular dotted lines, topped by a horizontal eye brow.
ii. The open mouth and snout carefully drawn with short curved lines.
iii. A fill-in of curved lines along the neck. These lines vary in thickness and are probably meant to suggest volume.
iv. The distinctive way of drawing leaved branches wherein the outermost leaf on the branch is evidently drawn first.

Karageorghis, who was the first to publish Kition Fig. 3/1 and Kouklia PI. $26 / 5$ is convinced that they were painted by the same man. (7)

Kouklia P1. 25/1, though not as finely drawn as the former two, has similar fill-in at the neck and, as far as can be seen, some care was taken in the drawing of the lions mouth.
(7) Ibid. 236.

## GROUP 2

| Larnaka | P1. 17/1 |  |
| :---: | :---: | :---: |
| Enkomi | P1. 17/2, | Fig. 2/9 |
| Klavdia | Pl. 18/1 |  |
| Kition | Pl. 18/2 |  |
| Arpera | P1. 19/3, | Fig. 2/10 |
| Pyla-Verehi | Pl. 20/1 |  |
| Pyla-Veremi | Pl. $21 / 1$ |  |
| Aradippo | Pl. 22/2, | Fig. 3/6 |
| Byolos | Fig. 2/5 |  |
| Maroni | Pl. 13/1, | Fig. 7/1 |
| Enkomi | P1. 14/1 |  |
| Hala Sultan Tekke | P1. 19/2 |  |

(possible)

Group 2 is distinguished by;
i. An exceptionaly thick dorsal line.
ii. The neck and foreleg which are drawn by a curved line, extending dow from the muzzle to the hoof.
iii. The second foreleg drawn somewhat bent at the knee, sometimes in a right-angled articulation.
iv. The undexside, which is described by a long, horizontal, curved line beginning as a thick, intumed curve behind the second foreleg, and extending back either to the bull's genitals, or to the hind legs.
V. The comparatively more carefully drawn hind legs. The hindmost drawn as an extension of the down-curving dorsal line, and separated from the preceeding leg, by a looped curve.
vi. The dew claw which is added to the hind legs, and sometimes the forelegs, as a separately drawn triangle.
Vii. The comma-like curves, small dots, vertical lines at the
(8) Ihid. 240.
waist and spirals, which are used to fill in the drawing.
viiic A clump of small leaves at the end of a branch, under the bull's head and mouth.
ix. The use of thin vertical mavy lines, between the border lines, near the horizontal handles. (9) Such a motiy is common in Group 2 whereas most other groups use oblique strokes or widely zig zagging lines, to fill in the border lines.
Aradippo Pl. 22/2, Klav.dia Pl. 18/1 and the Byblos Krater Fig. 2/5 have been grouped together by Stubbings, and Karageorghis has suggested that Mlavdia PI。18/1 and Larnaka PI. 17/1. were painted by one man. (11) It is interesting to note however, that Larnaka PI. 17/1 bears an even closer resemblance to Enkomi PI. 17/2. Karageorghis included all of the then known vases from this group in phase $B$, (12) with drawings as diverse in appearance as the bull on Ras Shamra Pl. 25/2 (see below group 4) and the Iions of Waroni P1. 7/1. (13) Despite the fact that many of group 2 's characteristics are peculiar to itself alone.

To the bulls of group 2, may also be added some vases decorated with goats. Two of the goats decorating the amphoroid krater Mar oni PI. 13/1,
(9) Furumark (MP 467) has remarked that these wavy-line border lines are closely comparable with Palestinian Trigliphs.
(10) Stubbings Op. Cit. 171-172.
(11) Nouv. Doc. 239-240.
(12) Ibid.
(13) Ibid. 241-242, 244-245, Pls. 24/4-5, 25/2.
which share many of group $2^{\prime}$ s characteristics (in particular no iv), unmistakably belong here.

The remaining two goats on this vase which are completely filled in with red-brown paint. It seems logical to suppose that both types of goat mere painted by the same man, as the amphoroid krater has a continuous painted panel and the composition is unified.

Similar goats filled in with paint can be seen on a bell krater from Enkomi, Pl. $14 / 1$, depicting a lion attacking goats. The similarity is strong and bot'h vases have been attributed to the same artist (14) the vase might therefore be included in group 2, as might a bell krater fragment from Hala Sultan Tekke ie PI.19/2 decorated with a goat, of which only the hind quarters are preserved.

With the exception of Hala Sultan Tekke Pl. 19/2, which Karageorghis attributes to phase $B,(15)$ these goats have all been put into the early phase A group. (16)

In this regard it is interesting to note the presence of goat drawings filled with paint, on the vases of the earlier Pictorial Class (See above p. 29).
$(14)$ Stubbings 00. Cit. 174.
$(15)$ Nouv. Doc. 245.
$(16) \frac{\text { Ibid. } 238-239 .}{}$

## GROUP 3

Of the remaining known drawings of goats and deer, there are seven which may be tentatively grouped together.


Although these drawings are definitely different from goat drawings in group 2, their fragmentary nature makes it difficult to match them closely

Enkomi Pl. 12/1, Enkomi $12 / 2$ and Ras Shamra Fig. 7/3, all have a similar shaped head which curves slightly downwards from the forehead to the muzzle. Also, they all have the same large oval eyes and open mouth.

Maroni PI. 19/1 differs from these vases in having horns and a muzzle of different shape. Their eyes and oval ears are the same, however, and it is possible that it stands out only because it represents another animal type.

To these vases might be added Enkomi P1. 12/3. The small vertical fill-in lines, across the back of the animal depicted here, being the same as on Ras Shamra Fig. 7/3.

Similar although more rectilinear stripes may be seen on Enkomi and Kalopsida P1. 14/2 (it has not been possible to examine and compare the two fragments which constitute Enkomi and Kalapsida P1. 14/2. However, it is clear from photographs that these two pieces belong to the same vase), and Enkomi Fig. 6/10.

It is difficult to match these two animals with the rest of the group.
(i) Karageorghis (Nouv. Doc. 238-239) places this vase in his Phast A, together with Maroni PI. 13/1 and Enkomi Pl. 14/1, which in our study are placed in Group 2.

It should however be noted that the drawing of the hind legs on Enkomi and Kalopsida Pl. 14/2, is similar to that of Ras Shamra Fig. 7/3 GROUP 4

Another group of paintings showing some homogeneity consists of;

| Enkomi | Pl. $1 / 2$, Fig. 2/1 |  |
| :--- | :--- | :--- |
| Enkomi | Pls $5 / 1-2,6 / 1$ |  |
| Ras Shamra | Pl. 25/2,Fig 3/10. |  |
| Enkomi | Fig. 2/8 |  |
| Enkomi | Fig. $3 / 2$ |  |
| Enkomi | Fig. $3 / 3$ |  |
| Enkomi | Fig. $3 / 9$ | (possible) |

It is distinguished by;
i. Thinner, more elongated, waisted bulls.
ii. A dorsal line which curves upwards from the waist to the rear, where it forms a triangular root for the tail, and forward to the comparatively high shoulder area. The line then slopes down from the shoulder to the head, to form a rather long neck.
iii. The detail of the hind legs, which are finely drawn, and in whith an attempt is made to render the inside of the left leg, through the use of fine horizontal brush strokes.

The astonishing similarity of the bulls on Ras Shamra P1. 25/2 and makomi Pl. $1 / 2$, makes it likely that they were painted by the same man, and thus, perhaps, the confronted Sphinxes Fig. 3/10 and birds Pl. 9/1 (See below Group 7), which are painted on their respective second sides.

To Group 4 must also be added a goat, the other side of Enkomi Pl. 5/1-2 being decorated with a goat, reaching up to an unusually thick tree-like plant motif, not unlike that on Enkomi Fig. 3/\$ from this same group.

Indeed, it is not impossible that these two vases were painted by one man. Another sherd decorsted with a sphyin, Enkomi Fig. 3/9, may also belong here, if we judge from the lines used as a fill-in, and the shape of the torso and legs, which are comparable with those of Ras Shamra Fig. 3/10 Moreover, both sphynxes are part of compositions of heraldic confrontation. It should however, be remarked that the two sphynxes have wings of different shape and fill-in.

GROUP 5

| Enkomi | Pl. 2/1 |  |
| :--- | :--- | :--- |
| Enkomi | PI. $3 / 1$ |  |
| Enkomi | Fi'g. $3 / 4$ |  |
| Enkomi | Pl. 4/2 |  |
| Enkomi | Pl. 6/2, Fig. 2/14 | (possible) |
| Kouklia | Plis 28/1-2, 29/1 | (possible) |
| Kouklia | Fig. 2/4 | (possible) |

The bulls of group 5 are distinguished from those of group 4 chiefly by; i. The thicker stripes across the neck.
ii. Thicker contour and fill-in lines.
iii. Less detail in the drawing of the legs (particularly the hind legs).

On the other hand, there also exist certain similarities in these two groups they share:
i. A similar triangular shaped tail root.
ii. An elongated muzzle and open mouth.
iii. Large oval eyes.
iv. The used of a similar mottle body fill-in.

Similarities in the shape of the head, horns, ears, eyes and nostrils of the bulls on Enkomi P.1. $4 / 2$ and Kouklia PI. 28/4-2 and 29/1
(and perhaps Kouklia Fig. 2/4) are so striking, that these vases were almost certainly painted by the same man.

Enkomi PI. 6/2, decorated with a crudely drawn bull may also belong here. This vase, like Enkomi Pl. 2/1, presents us with an open mouthed bull drawn in profile, but whose horns are drawn full face. As may be seen on P1. 6/2, the smaller sherd from the French excavations in Enkomi, decorated with leaves and the trunk of a palm tree, filled with oblique strokes joins on to this krater fragment.

The three Mycenaean III 0;1 jugs appear to be after the same model. The protomes of Enkomi PI. 4/2 are decorated with the same heavy curved lines across the neck and have eyes similar to the bulls of Enkomi Pl. 2/1, which are themselves rather curtailed.

Kouklia Pls. 28/1-2, 29/1 is decorated with Myc III C:1 birds a typically in the company of bulls. The heads of these bulls are identical, however, with those of Enkomi PI. 4/2. The massive humped back of the Kouklia P1. 28, $29 / 1$, bulls is also very similar to the backs of bulls on Enkomi Fig. 3/4. The same is true of the upper forelegs, which in both vases are formed by inverted eliptical curves. Moreover, in both these vases, the bulls ears are filled in with oblique strokes, On the other hand, the manner of suggestions the third dimension with short horizontal strokes, on the inside, hind, upper leg of the Kouklia PI 28, 29/1 bulls is reminiscent of group 4.

Many of the characteristics of Enkomi Pl. 4/2 and Kouklia Pls 28/1-2 29/1, apply also to Kouklia Fig. 2/4: Traces of a sharply sloping neck, scored by heavy vertical stripes and a striped ear suggest that it too may be related with group 5.

The apparent relationship of these late vases with group 5, and even group 4, is of considerable interest, for it suggests... that a late date should also be ascribed to them.

GROUP 6
Not altogether unlike the bulls of group 4, are those of group 6, which like group 4, includes a composition of heraldicaly confronted sphynxes. It consists of;


Perhaps the most noticeable criterion for separating out these vases is;
i. The attention which is given to the drawing of the bull's dewlap. (18)

Othersare;
ii. A square-ended muzzle.
iii. The thin curving lines on the neck and face.
iv. The long neck and accentuated shoulder zone, described by the down curving dorsal line.
(18) In only one other drawing of a bull ie Enkomi Pl. 3/1, of group 5, had a dewlap been included. This, however, is unlike the zig zagging lines used to drawn dewlaps in group 6.
v. The rounded hind quarters described by the continuation of the dorsal line, which merges. with the foremost of the hind legs, the rear-most hind leg being added on separately.
vi. The finely drawn legs and hooves.
vii. The heavy mottle fill-in of the animals which actually shows up the shape of the brush.

Many of these criteria are applicable to the other side of P1. 8/2 which shows two sphynxes in heraldic confrontation P1. 8/1. Indeed, heraldic confrontation is not infrequent in the whole of this group, where it is also not uncommon to find single animals atypically facing towards the left, rather than towards the right. This certainly seems to be the case of Enkomi Pl. 4/3. If we juage from the large size of this sherd, the bull shown must have occupied the whole panel, eventhough the accompanying plant motif is identical to that of Enkomi P1. 2/2, which depicts confronted bulls. The bulls and plants decorating Enkomi Pl. $1 / 1$ Fig. 2/3, from the French excavations in Enkomi, and Enkomi Pl. 2/2, now in the British Museum, are identical. These fragments must almost certainly have belonged to the same vase.

The fine quality of the group 6 paintings, as well as the treatment of similar subject matter ie sphynxes and heraldic confrontation, totally absent in group 2, makes group 6 comparable with group 4 •

It should however be mentioned that the alightly wavy vertical lines making up the border lines of Enkomi Pl. 8/1-2 from group 6 are of a type which is generally featured of group 2.

## BIRDS

'Drawings of RS birds have been closely studied by Benson and some of them have been attributed to a single psinter. (19) The attribution of Bird drawings to individual artists does pose however, greater problems than the drawings of the RS Quadrupeds.

To begin with, all of the birds are similarly executed (see above CH I), and have the same general appearance. On the other hand, no two birds look exactly alike and and as a rule display a wide variety in the shape of the body, the wings, the tail, and in the fill-in decoration. Thus, it becomes difficult to draw a line at the point where might end the work or one artist and begin that of another. Understandably Karageorghis has been rather critical of Benson's "long beak painter" list and has himself been careful to attribute bird drawings to individuals only when their resemblance is particularly marked. (20)

Yet, instances where birds on the same panel of a vase are unidentical, warn that we cannot exclude the possibility that a painter, little concerned with uniformity, is responsible for the drawing of many of these vases. The confident sweeping brush strokes used in their execution tend to support this arguement.
(19) Benson Op. Cit. 342.
(20) Nouv. DOC. 246-247.

In our study, however, we will limit ourselves to subdividing the RS birds into wider categories of drawings, which appear to share in a family likeness.

## GROUP 7

| Enkomi | Pl. 9/1 Fig. 4/1 |
| :--- | :--- |
| Enkomi | Pl. 10/1 |
| Enkomi | Pl. 10/4 |
| Enkomi (21) | Pl. 11/1 |
| Enkomi (21) | Fig. 4/2 |
| Ras Shamra | Fig. $4 / 3$ |
| Enkomi (21) | Fig. 4/4 |
| Enkomi | Fig. 4/6 |
| Fnkomi | Fig. $5 / 2$ |
| Enkomi | Fig. $5 / 3$ |
| Pierides 36 | Fig. $5 / 4$ |
| Myrtou-Pigades | Fig. 5/6 |

This group is chiefly distinguished from other RS birds, by a narrow and more or less long neck.

It is also interesting that aside from Enkomi Pl. 9/1, whose second side is decorated with a style 4 bull (see above Pl. $1 / 2$ ), the only four other group 7 vases wherein a different second side survives, Pls. Pl. 10/1, (22) Figs. $4 / 2$, (23) $4 / 4$ and $5 / 6$, are also painted with antithetic spirals or spiral triangles.
(21) These vases were originally classed amongst the earliex works of the long beak painter (Benson OP. CIT).
(22) This vase also bears a drawing of a deer ie P1. 14/2 Group 3.
(23) In the description of this vase in AJA (65), 342, face B is incorrectly stated to be decorated with "the tip of a wing of a bird", this is nothing other than a portion of a palmette or spiral triangle.

Group 7 moreover includes the only three known compositions of heraldicaly confronted birds Pl. 10/1 Fig. $4 / 3$ and $5 / 6$. GROUP 8

Enkomi (24) Pl. 11/2
Enkomi (24) Pl. 11/3
Enkomi (24) Fig. 5/1
Enkomi
Fig. 5/5
Enkomi
Fig. 5/7 (possible)
These drawings stand out fron those of the preceeding group for the following reasons;
i. The two curves forming the dorsal line the underside and breast, come less close to touching at the root of the tail, which in consequence is thicker.
ii. The birds are rather thicker at the neck.
iii. The wings are comparatively smaller and thinner.
iv. The fill-in consists of more regular but thicker brush strokes.

GROUP 9
Enkomi
Pl. 9/2, Fig. $6 / 2$
Enkomi
Pl. 10/2, Fig. $4 / 7$
Enkomi
Enkomi
Pl. 10/3, Fig. 6/3
Fig. 6/1
(24) These three vases were originally classed amongst the later vases of the long beak painter (Benson OPL CIT)

This group if distinguished by;
i. The use of straighter, thicker lines for the drawing of body, tail and wing contours.
ii. The rather large, less rounded heads with a straight beak.
iii. The more frequent use of mottle as a fill-in.

On a closer examination of these bird drawings in Groups 7, 8, and 9, it becomes tempting to visualize a progression in their style. The flowing curves used in the execution of group 7, appearing to give way to the more stilted representations of group 8 and then group 9. This however, is difficult to maintain without first undertaking a study of the krater shapes concerned. Indeed, without the evidence of vase shape and fabricit seems pretty difficult to gauge the significance of any of the nine groups outlinedhere. It does however, seem pretty clear, with the possible exception of some near identical drawings, that we cannot claim any of our groups to represent the output of one man. Each group is likely to contain the work of several individuals.

Indeed, these nine style groups are unlikely to represent distinct entities, for there exist considerable overlaps in their style. The similarities existing between groups 4 and 5 has already been mentioned, and as we have seen, the lines separating groups 7, 8 and 9 are by no means definate or absolute. It is therefore possible that one painter may have contributed to two or more groups.

This certainly appears to be the case, when we examine vases with
a different subject on each of their sides. The sphynx on Enkomi P1. 8/1 certainly has the same anatomical characteristics as the bull P1. 8/2 on the opposite side. (See above group 6). To a lesser extent, the same is true of the sphynx and bull on Ras Shamra Pl. 25/2, Fig. 3/10, from group 4, notably in the leg detail of the sphynx, which is moreover not dissimilar to that on other bulls from the same group. Again, on Enkomi Pl. 5/1-2 from group 4, the leg detail and fill-in of goat and bull is the same.

If, then, we accept as a working hypothesis that the painting of each vase is wholly attributable to one man, an attempt might be made to tie in together, groups consisting of different subject matter.

The group 4 bulls and group 7 birds as represented on each side of Finkomi Pl. 12 and $9 / 1$ could then be associated, as might antithetic spirals and spiral triangles common to group 7 (see above p. 59 ). To these might be added a style 3 goat or dees ie Pl. 14/2, painted on the other side of Enkomi and Kalopsida P1. 10/1 from group 7. Finally, a drawing of a sphinx on Ras Shamra Fig. 3/10, might also be added here, the other side of this vase ie Pl. 25/1, being identical to Enkomi Pl. 1/2 from group 4 ( Fig. 1 ).

It might therefore appear that with the possible exception of groups 1, 2 and 5 there are stylistic reasons to associate most of the groups outlined here.


| 01／\＆ 8 \％ | 乙／̧己 •Td emxeys sey $* 2 / 1 \cdot \tau d-$ | 1／6 •La тшояй <br> ＊ト／Oト・โを | － $2 /$ tr $\cdot$ Ld |  |
| :---: | :---: | :---: | :---: | :---: |
| $t$ dnox | $\checkmark$ dnox | L đnoxd | $L$ dnox | $\varepsilon$ dnox |
| rusqds | ring | patcg | JT70N textas | 工eed pur sfeon |

$\bar{I} \cdot \mathrm{DIN}$

The individuality of group 1 appears unquestionable, but can it also be claimed that groups 2 and 6 are separate entities? From the material at present available for study, this does appear to be the case. The discovery of new vases, could however alter this picture.

Stylistio studies are not without limitations. To begin with, there are still many vases which cannot be fitted into any of our groups.

The most worrying examples display the characteristics of two otherwise dissimilar groups, two such vases are:

Kyrenia Pl. 2\%/1-2
Ankastina Fig. 3/7, 7/4
Kyrenia Pl. 23/1-2 is decorated on the one side, with a spiral composition similar to those accompanying the birds of group 7 and on the other, with a bull whose dorsal line is similar to that of bulls in group 2, while its carefully drawn legs and hooves are more in line with bulls in groups 4 and 5 .

Ankastina, Fig. $3 / 7,7 / 4$ is decorated with goats on the one side and a bull on the other. This bull is not altogether different from the bulls of group 4. However, the vertical border lines to the right and left of the goats, are of the type normally associated with group 2 (see above Aradippo Fig. 3/6).

Other vases which it was not possible to fit into any of our style categories include;

```
    Enkomi PI. 3/3
    Enkomi PL. 4/1
    Enkomi Pl。7/2
    Enkomi Pl. 13/2
    Kazaphani Pl. 14/3
    Hyla-Verghi Pl. 21/2
    Ras shamra Pl. 25/1
    Enkomi Fig. 2/6
    Gezer Fig. 3/5
    Ankastina rig. 3/8
    Enkomi Fig. 7/2
    and Kouklia rlso 26/2, 3, 4, and 27/1, 2, and 3
    We cannot exclude the possibility that some of these
unattributed drawings may belong with the vases grouped above.
The criteria used to make these groupings are baesd on the
observation of generalities, and it is not always easy to decide
where to draw the line delimiting any one group.
Enkomi Pl. 7/2 and uezer Fig. 3/5, two nearly identical drawings, have stripes accross the neck resembling those of bulls in group 5. The same is true of the two bulls on Enkomi Pl. 3/3, although certain parallels may be drawn between the execution of their hind legs and the bulls of group 2.
Pyla Verghi Pl. 21/2 is decorated with a RS bull whose dorsal line and fill-in re semble groups 4 and 5 . What can be seen of the leg detail however, makes this attribution doubtful.
Ras Shamra P1. 25/1, from Karageorghis' phase A, (25) decorated with an antithetic spiral composition on theone side and a bull on
```

(25) Worth mentioning in this regard is an unprovenanced, unpublished bell krater ie Pl. $24 / 2$, now in the Ashmolean inuseum, decorated entirely with a series of such stemmed spirals.
the other, has a stemmed spiral atypically growing out of the groundi", infront of the buil, as with Enkomi.PI. 5/1 of group 4 .

Amongst the unattributable RS paintings we pind a large proportion of vases from Kouklia.

With the exception of Kouklia P1. 26/1 and P1. 26/5 discussed in Group 1, Kouklia P1. 28/1-2 and Fig. 2/4 discussed in group 5 and Kouklia P1. 27/4 which is decorated with a common spiral, Kouklia $26 / 2,26 / 3,26 / 4,27 / 1,27 / 2$, and $27 / 3$, cannot be closely compared with the drawings of any of our groups or with each other.

Also of unique style and finish, are the compositions of Enkomi P1. $4 / 1$ and Kazaphani P1. 14/3. These like the above mentioned vases from Kouklia might well represent the output of different artists or centres of production, than the drawings which we have been able to group above. Unfortunately, in the absence of further examples it is difficult to make any generalizations about them.

It seems then, that if studies of style may raise interesting questions regarding the origins and chronological order of the $R S$ vase Paintings, they cannot always provide the answers.

The value of a careful compilation of stylistically different groups should however not be underated. If studies of style alone are incapable of answering all the questions which they raise, they can help to orientate typological studies of shape and more importantly of fabric composition, which may themselves provide some answers.

In the following pages an attempt will therefore be made to establish
i. Whether the apparent evolution in the manner of drawing RS birds, is reflected in changes of Krater shape.
ii. If the apparently independent style groups 1, 2 and 5 are also independent as regards their shape and fabric composition, conversely, the shapes and fabric employed by groups 3, 4, 5 and 7 will be looked at, $t_{0}$ determine whether their unityof style, is also borne out by a unity of shape and fabric.


Fig. 2.

Fig. 2.

1. ENKOMI =Fls. $1 / 2,9 / 1$ \&: Figs. 4/1, 12/5; Sample 4; See pages $53,62,123,133,153$.

Schaeffer Excavations 1967.
2. ENKOMI $=$ Pl. 3/2; Sample 2; See pages 33, 56, 123, 133, 194 n. 35 . Schaeffer Excavations (1946).
3. ENKOMI = PI. 1/1; Sample 3; See pages $56,123,133,152$. Schaeffer Excavations (1962).
4. KOUKIIA; Sample 55; See nages 54, 124, 135, 167. Maier Excavations, (TE III 130).
5. BYBLOS; See pages 49, 189.

Fouilles de Byblos I 102 PL. 157/1534.
6. ENKOMI. See page 65.

Schaeffer Excavations (1962).
7. KOUKLIA $=$ Pl. 27/3; Sample 61; See pages 124, 134-135, 168. Maier Excavations (TE III 128).
8. ENKOMI; Sample 6; See pages 123, 133, 153.

Alasia I 72 FIG. 14/19.
9. ENKOMI = Pl. 17/2 \& Fig. 15/3; Sample 1; See pages 49, 123, 133. Schaeffer Excavations (1966).
10. ARPERA CHIFLIK; Sample 32; See pages 49, 123-124. Ashmolean Museum (1953.340).
11. ENKOMI; Sample 7; See pages 123, 133.

Schaeffer Excavations (1965).
12. hala sultan tekke. Sample 79; See pages 124, 136.

Ashmolean Museum (1953.423).
13. ARPERA CHIFLIK; Sample 31; See pages 123, 134. Ashmolean Museum (1953.346).
14. ENKOMI $=$ P1. 6/2; See page 54 . BMC C427 + Schaeffer Excavations.


Fig. 3.

Fig. 3.

1. KITION; See pages $48,197$.

Nouv. Doc. 236-237 PL. XXIII/6.
2. ENKOMI ; See page 53.

CM A1759; Nouv. Doc. 249 FIG. 54.
3. ENKONI = Fig. 13,4; see pages 53, 181.

CVA CM A2023 FL. 14/6.
4. ENKOMI; See pages $21,54$.

CM T 19/24; SCEI 563 PL. 91; Nouv. Doc. 243 PL. XXIV/7 FIG. 53.
5. GEZER; See pages 65 .

Gezer III PL. 159/13 Gezer II 194
6. $\operatorname{ARADIPPO}=$ Pl. 22/2. Fig. 12/6; Sample 30. See pages 49, 134, 194. Louvre AM 679. BSA 46 (1951) 171-172 FIG. I.
Nouv. Doc. 250 N. 4 .
7. ANKASTINA; See page 64.

Nicolaou, RDAC (1972) 62. FIG. 4. T 1/193.
8. ANKASTINA; See page 65.

Nicolaou, RDAC (1972) 77. FIG. 4. T 1/193.
9. ENKOMI; See page 53.

CVA CM 1958/II - 17/5 PL. 13/4, Nouv. Doc. 242 PL. XXIV/3. FIG. 55/1.
10. RAS SHAMRA $=$ Pl. 25/2; Sample 50; See pages 53,62.

Uparitica II Figs. 56/46, 60/18, Nouv. Doc. 241-242 PL. XXII/3-4.

Fice. 4

1. ENKOMI. See F'ig. $2 / 1$.
2. EHKONIT? $=$ FiE. $14 / 5$. See Dage 59 .

Benson, AJA 65 (1961) 342 ff. PL. 106/FIG. 26 (BM 1938/11-20/3)
3. RAS SHAFRA. Sample 52; See pages $59,123,133-134$.

Musee de St. Germain En Laye No. 76882.
4. ENKOMI = Fiধ. $14 / 2$; See page. 59.

EMC C423, CVA BM PL. $\varepsilon / 3$, Excav 45 FIG. 71 (931).
5. $\quad$ ENKOAI $=$ Pl. 10/4. Sample 11; See pages 59, 123, 133.

Schaeffer Excavations (1966).
6. ENKOMI; Sample 10; See pases 59, 123, 133.

Schaeffer Excavations (1962).
7. ENKOMI = Pl. 10/2, Fiع. 15/2; Sample 12; See page 60.

Schaeffer Excavations (1965).


Fig. 5.

Fig. 5

1. ENKOMI; See pace 60

CVA CM A1760 PL. 13/5-7, NOUV. Doc. $246 \mathrm{NO} .1 \mathrm{PLNXVI} / 1$, Benson, AJA 65 (1961) 342 ff. PL. 108/FIG. 31.
2. ENKOMI; See nage 59

Dikaios 843-844 PL. 73/28.
3. ENKOMI: See pase

59
SCEI 598 PL. E5, NOUV. DoC. 247. PL. XXXVI/6-7.
4. ENKOMI; See page 59.

CVA Private Collections Cyprus $G$ Pierides No. 36 PL. 7/1-4, Nouv. Doc. 246-247, Benson, AJA 65 (1961) 342 ff.
5. ENKOMI; See page 60

Dikaios 284, 843-844 PL. 80/18.
6. MYRTOU-PIGADES; See page 60

Myrtou 43-44 FIG. 20/191; Nouv. Doc. 255 N. 5
Benson AJA 65 (1961) 342 ff .
7. ENKONI. See page 60.

Nouv. Doc. 247 PL. XXVI/5.


Fig. 6.

Fig. 6

1. ENKOMI? See page

BM 1938/11-20/2.
2. ENKOMI = PI. 9/2. Fig. 14/9; Sample 13; See pages

Schaeffer Excavations (1949).
3. ENKOMI = Pl. 10/3; Sample 14; See pases

Schaeffer Excavations (19,62).
4. ENKONI; See jage

Ashmolean Nuseum 1953. 438.
5. ENKOMI; See page

Dikaios 316 PL. 81/34.
6. ENKOMI $=$ PI. 12/1. Sample 15; See pages

Schaeffer Excavations (1970).
7. MARONI = FI. 19/1; Sample 38; See pages BMC C426.
8. ENKOMI = Pl. 12/2; Sample 17; See vages Alasia I, 109 FIG. 25/5.
9. ENKOMI $=$ P1. 12/3; Sample 16; See nages

Schaeffer Excavations (1969).
10. ENKOMI; Sample 18; See pages

Alasia I Fig. 25/7.


Fig. 7

FiE. 7

1. $\quad \mathrm{MARONI}=\mathrm{PI} .13 / 1$; See page 49

BMC C389, Stubbings, BSA 46 (1951) 174.
Nouv. Doc. 239 PL. XXXIII/7.
2. ENKOMI; See page 65.

Dikaios 335 FL. 192/15.
3. RAS STiATA $=$ Fig. 15/5; Sample 49; See pages 52, 123, 133-134. Ugaritica II $218 \mathrm{FIG} .91 / 11$, Nouv. Doc. 238.
4. ANKASTINA See Fig. 3/7.
5. RAS SHAMRA; Sample 87; See paces 124, 136.

Ugaritica I 105 FIG. 96/E, Ugaritica II 224, FIGS. 94/E, 61/i-C.
6. RAS SHAMRA; Sample 88; See pages 124, 136.

Ugaritica II 218 FIG. 9/5, 16.


Fig. 8.

Fig. $\varepsilon$.

1. ENKCNI; Sample 19; See paces 123, 133. Schaeffer Excavations (1966).
2. ENKOMI; Sample 26; See vages 123, 133. Schaeffer Excavations (1949).
3. ENKOMI; Sample 27; See pages 123, 133. Schaeffer Excavations (1069).
4. ENKOMI; Sample 24; See fages 1く3, 133. Schaeffer Excavations (1961).
5. ENKOMI $^{2}$ Pl. 15/3; Sample 25; See pages 123, 133. Schaeffer Excavations (1949).
6. RAS SHAPRA; Sample 51; See vages 123-123, 133-134. Wusee de St. Germain En Laye No. 768 E 3.
7. ENKOMI; Sample 22; See pages 123, 133. Schaeffer Excavations (1962).
8. $\quad$ ENKOMI $=$ Fig. 14/4; See pace 104. BM 1938/11-20/5.
9. ENKOM $=$ Pl. 15/1; Sample 21; See pages 123, 13j. Schaeffer Excavations (1963).
10. ENKOMI; Sample 29; See pages 123, 133.

Essai $17 \mathrm{PL} .2 / 7$.
11. ENKOMI; See pages $23,33,208$.

Schaeffer Excavations (1967).
12. ENKOMI = FiE. 14/3; See pages 23, 104.

BM 1938/11-20/15.

## CHAPTER III

THE CHARACTEERISTICS CF
PICTORIAL CLASS AND
RUDE STYIE BELL KPATEP FORMS

Much Myc, III B Pictorial vase decoration and most of the RS compositions were painted on the sides of horizontal handled bell kraters.

Their popularity as grave goods in L.C. II tombs, has resulted in the preservation of many whole or reconstructable examples of each group. This provides us with a large enough eample of each type, to permit the undertaking of a study aimed at
i. studying closely the nature of the bell krater shape and comparing the RS and Pictorial Class bell kraters, and
ii. establishing whether the RS might be subdivided into more than one group consisting of similer shapes which may represent the product of different potters, or centres of production.

Profile drawings were made of RS and Pictorial Class bell kraters from Cyprus and the Levant, now in collections in Great Britain, France and Belgium. Figs. 9-15 some drawings were also copied from publications and then brought to scale with out profiles.
(1) The profile drawing of figure 9 reproduces Dikaios PL. 124/20. Figs. 13/1, 3 \& 4 are taken from Nouv. Doc. Fig. $51 / 3$ and Fig. 54 respectively. Fig. $13 / 2$ is from Myrton-Pygades Fig. 20/191 and Fig. $15 / 5$ is taken from Ugaritica II Fig. 91/11.

In the first part of our study, the shapes of RS and Pictorial Class kraters are compared with each other as if they each form a homogeneous group. This procedure has seemed valid in view of the fact that the Pictorial Class examples considered are nearly all members of the "embroidered" class, while their shape presents us with far greater uniformity than those of the RS, which are thought to be the produce of a single workshop.

The shape of the RS krater, was first defined with reference to the shape of the Pictorial Class krater, taken as a standard by Furumark. (3) It was noted that the profile of the RS kraters is genacally more biconical than that of the Pictorial Class.

The profile of RS kraters is indeed,frequently more angular than that of other kraters. Yet,it should be noted that bioonical profiles are not unknown amongst the vases of the Pictorial Class Fig. $10 / 4$ and that far from 211 RS kraters are of biconioal profile (Fig. 12/4, 14/1-2).

It is unfortunately difficult to measure accurately the angularity of kraters' profiles. Even biconical kraters retain their curves and it has been impossible to make a systematic comparison of the two groups, for angularity of profile.
(2) H.W. Catling Cypriot Bronzowork In the Mycenaean World (Oxford 1964), 42.
(3) M.P. 465-466.

## GENERAL DIAENSIONS

The measurement of the vases assembled here ie. Figs. 10-15, shows that the height of the krater form varies from approximately 15 to 36 cm , and its diameter, from 21 to 38 cm .

With only a very few exceptions (nink. Fig. 12/4), the RS kraters are genarally not as high and have smaller rim diameters than other bell kraters (TABLES 1 AND 2). This is not to say that all other kraters are bigger than those of the RS and that there are no other kraters smaller than some examples of the RS.

## Tiolat

EDHGH
Di CK

```
R.S.
Fnk. Fig. 12/4
Enk. F1g. 10/2.
Eak. F15. 10/1.
Enk. Fig. 10/4; Enk. Fig. 10/3.
Enk. Fig. 11/1.
Kla. Fig. 14/1; Eak. Fig. 13/1; Baa Sha. Fig, 15/1.
Enk. 715. 12/5.
Enk. Fig. 11/2.
Enk. Fig. 12/1; Eak. Fig. 12/2.
Enk. Pig. 14/2; Enk. Fig. 13/7.
ATa. Pig. 12/6; kyrtou Pig. 13/2; Eak. Fig. 13/6.
Arp. Fig. 11/4; 登.7ig. 11/3.
Eak. Fig. 12/3.
Enk. Fi5. 13/5; Enk. Fig. 13/8.
Enk. F15. 13/9.
Enk. Fi5. 13/4.
Enk. F15. 13/3.
```

TRBLEII
RIM D.

|  | R.S. | ONHER. |  |
| :---: | :---: | :---: | :---: |
| 38 | - | Enk. Pis. 10/7. |  |
| 37 |  |  |  |
| 36 |  | Fink. Fig. 10/2. | - |
| 35 |  |  |  |
| 34 |  |  |  |
| 33 |  | Enk. Pig. 11/2; | Enk. Fig. 10/4. |
| 32 | Enk. Fig. 12/4. | Fnk. FiE. 11/1; | Kla., Pig. 11/3. |
| 31 |  | Enk. Fig. 10/3; | Enk. Pis. 12/1. |
| 30 |  |  |  |
| 29 | Enk. Fig. 12/5; Enk. Fis. 13/1. | ATP. PiE. 11/4; | Enk. Fig. 12/2. |
| 28 | Kla, Pig. 14/1. |  | . |
| 27 | Myrtou Fis. 13/2; mik. Pig. 14/2. | Enx. Fis. 12/3. |  |
| 26 | Enk. Fig. 13/6. |  |  |
| 25 | Rea Sha. Fig. 15/1. |  |  |
| 24 | Enk. P1E. 13/7; Enk. F1g. 13/9. |  | . |
| 23 | Ara. Fig. 12/6; Enk. Mig . 13/5. |  |  |
| 22 | Enk. Fig. 13/3; Ink. Fig. 13/8. |  |  |
| 21 | Enk. F1G. 13/4. |  |  |

There is in fact a considerable overlap in the height and rim diameter measurements, from RS and other kraters. However, out of fifteen RS kraters examined, only one was higher than 28 cm , as opposed to five out of eleven other kraters measured. The average height of the RS krater being approximately 24 cm , while that of others 29 cm . Also, only one of the RS kraters haS. a diamelez larger than 29 cm , as opposed to eight of the remaining eleven other kraters, while the average diameter of the RS krater, is approximately 26 cm , as compared with 32 cm for other kraters.

It seems clear then, that the RS krater is smaller than the other kraters of Myc III B, and as may be expected, the generally smaller RS krater is also of a lighter build, being thinner walled, and more fragile than most other kraters (TABLE III)
$\qquad$ Tसाह IIL
THICKIESS
IN CM.


OTHERR.
Fak. Fig. 10/1; Enk. Fig. 11/2.
K1ä. Fig. 11/3; ATP. Fig. 11/4; Enk. Fig. 12/1.
Eak. 718. 10/2; Eak. Fig. 10/3; Enc. Fig. 11/1.
Eak. Pig. 10/4.
Enk. Fig. 12/2; Fak. Pig. 12/3.

- The mosaurement of the vases' thickness has boan
taken from the upper aides of the vase, at approximately
aid-way between the rim and the roote of the horizontal
bendles. . "

Indeed, there appears to be a direct relationship between the thickness and the height in the bell krater form (TABLE IV).


## PROPORTIONAL COMPARISONS

 OF KRATER SHAPESWith the aim of establishing other such relationships in the proportions of the krater, the largest diameter of each of twenty seven kraters was measured, ie. FC X 2 (Fig. 9). The point of intersection of this diameter with the vertical axis of the vase ie. BD was established at $C$, and the distance between $B$ and $C$ measured.

The distance between the rim and the roots of the horizontal handles ie. AG. was measured on each krater. The diameter of each base ED X 2, was also measured.

The height of each krater was then divided by each of these dimensions to give a simple relationship between itself and the height of the krater. If, for example, the base diameter of krater was 10 cm , and its height 30 cm , the division would give the number of units of height present in the krater

[^0]Once the HEIGHI/BASE relationship in each krater was known, it was possible to present this graphically, for all the kraters measured.The degree of variability in the whole group could therefore be demonstrated more systematically, than by comparing each of the profile drawings individually.

## TAIFE V

HEIGES/BASE 1.0., ED/EDC2

|  | 8.s. | OThix. |
| :---: | :---: | :---: |
| 3.0 |  | Znk. Fig. 10/3. |
| 2.9 |  | Enk. 7ig. 10/2. |
| 2.8 | Ezak. Fig. 12/4; Ras Sha. 7ig. 15/1. | Enk. 7ig. 10/1. |
| 2.7 | Enk. Fig. 14/2. |  |
| 2.6 | Ara. Fig. 12/6; man. Fig. 13/1; Kia. Pig. 14/1; Mytiou. Pi5. 13/2. |  |
| 2.5 | Eak. Pig. 13/9. | Enk. 7ig. 10/4. |
| 2.4 | Eak. Pig. 12/5; Enk. Fig. 13/4; Eak. Fig. 13/6; Eak. Pig. 13/7; Enk. 7is. 13/8. | Ind. Fig. 12/3; Axp. Pig. 11/4. |
| 2.3 |  | Enk. Fig. 11/2; Enk, Pig. 12/1. |
| . 2.2 | Enk. 7ic. 13/3. | Enix. Fig. 11/1; Enk. Fig. 12/2. |
| 2.1 | Eake. 71E. 13/5. | Exa. P1g. 11/3. |

From the graphic presentation of the dimensional relationships of the krater it was possible also, to see if the degree of variability in the HEIGHP/BASE relationship of the RS krater alone, differed from the Variability of the krater form as a whole (TABLE V).

Finally, a second Eraph was drawn wherein all of the twenty six kraters appeared together in descending order of their height TABLE VI. The HEIGHT/BASE proportion of each krater was then plotted against its height. The object of this exercise was to establish if the HEIGHT/BASE relationship of the krater form would vary with a change in its height.

provesance
sMPE 7Ic. vase heic IN CK.
abore 2.5日ator 2.5

| Enc. | Enk. | Eric. | Enk. | Enk. | Erin. | Enk. | Ras Sho. | K1a. | En'. | Enk. | Eric. | Erik. | K2a | Enk. | Arp. | Enk. | hra. | MJr. | Enk. | Enk. | Enk. | Enk. | Enk. | Enk. | Erik. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10/1 | 10/2 | 12/4 | 10/3 | 10/4 | 11/1 | 13/1 | 15/1 | 14/1 | 11/2 | 12/5 | 12/1 | 12/2 | 11/3 | 13/7 | 11/4 | 14/2 | 12/6 | 13/2 | 13/6 | 12/3 | 13/5 | 13/8 | 13/9 | 13/4 | 13/3 |
| 36 | 36 | 35 | 30 | 30 | 23 | 28 | 28 | 28 | $2 \varepsilon$ | 27 | 27 | 27 | 26 | 26 | 26 | 26 | 25 | 25 | 25 | 24 | 23 | 23 | 21 | 20 | 15 |
| $\times$ | X | $\times$ | $\times$ |  |  | X | $\times$ | $\times$ |  |  |  |  |  |  |  | . $\times$ | $\times$ |  |  |  |  |  | $\times$ |  |  |
|  |  |  |  | $\times$ | $\times$ |  |  |  | $\times$ | $\times$ | $\times$ | $X$ | $\times$ | $\times$ | $\times$ |  |  | $\times$ | $\times$ | $\times$ | $\times$ | X |  | X | $x$ |

Similar graphs were also drawn up in which the twenty six kraters were divided into two groups RS (TABLE VII) and OIHER (TABLE VIII), and the exercise repeated, with the aim of establishing whether a change in height would produce a different HEIGH/BASE relationship in each group.

TADLE VIL. ( HEIGHT/BASE )/ HEIGHT. 10.(BD/ED $\times 2$ )/ BD.
Ress

| Provenance | Enk. | Ras Sha. | Ela. | Enk. | 2nk. | Enk. | Enk. | Ara. | :17r. | Enk. | Enk. | Enk. | Enk. | Enis. | Enk. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| shapi ric. | 12/4 | 15/7 | 14/1 | 13/1 | 12/5 | 13/7 | 14/2 | 12/6 | 13/2 | 13/6 | 13/5 | 13/6 | 13/9 | 13/4 | 13/3 |
| vase height <br> IN CM. | 35 | 28 | 26 | 28 | 27 | 26 | 26 | 25 | 25 | 25 | 23 | 23 | 21 | 20 | 15 |
| above 2.3 | $\times$ | $\times$ | $\times$ | $\times$ |  |  | X | $\times$ | $\times$ |  |  |  | $x$ |  |  |
| BrLoy 2.5 |  |  |  |  | $x$ | $\times$ |  |  |  | $\times$ | $\times$ | $\times$ |  | X | $x$ |

$.0^{\circ}$

SABLEMUT (HEIOHT/BASE)/HEIOHT 10.(BD/天D X 2)/BD.
отиг:

| provenamet | Enk. | Enk. | Enk. | Enk. | Enk. | Enk. | Enk. | Enk. | K1a.. | Arp. | Enk. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| shapt ric. | 30/1 | 10/2 | 10/3 | 10/4 | 11/1 | 11/2 | 12/9 | $12 / 2$ | 11/3 | $11 / 4$ | 2/3 |
| heicitr IK CK. | 36 | 36 | 30 | 30 | 29 | 28 | 27 | 27 | 26 | 26 | 24 |
| abore 2.5 | $\times$ | $\times$ | $\times$ |  |  |  |  |  |  |  |  |
| bxiov 2.5 |  |  |  | X | $\times$ | $\times$ | $\times$ | $\times$ | $\times$ | $\times$ | $\times$ |

HEIGHT-BASE RELATIONSHIP
It seems therefore, that certain conclusions may be drawn about the relationship which exists between the dimater of the krater's base and its height.

In the twenty six kraters which were measured, the base diameter of all kraters varied from about half to a third of the vases's height (TABLE V). Also, there appears to be a direct relationship between the diameter of the base and the height of the vases, the bases becoming proportionally narrower when there is an increase in height (TABLE VI). This is particularly clear in the Pictorial Class bell kraters examined. Here, all vases of a height lesser than 30 cm , proved to have a HEIGHT/BASE ratio smaller than 2.5 (TABLE VIII).

In the same way as for the HEIGHT/BASE ratio; i. The relationship of the largest diameter to the height ie FC $X 2 / B D$ was calculated for each Vase- (See Fig. 9).
ii. The vertical axis $B D$ at $C$ was observed and $B C$ measured. $B D$ could then be compared to $B C$ ie $B D / B C$.
iii. Finally, the distance between the rim $A B$ and the roots of the horizontal handles at $G$ ie $A G$ was calculated and compared with the total height of the krater ie BD/AG.

An examination of the relationship existing between the height and the largest diameter in twenty six bell kraters shows that there are.74-.98 units of height for each unit of diameter. The width of the bell krater is always greater than the height (TABLE IX)

## TKME K

```
BD/FCxZ
R.S.
    OTHER.
    1.00
    - Enk. Fig. 12/4; Ara. Fig. 12/6; Ras Bha. Fig. 15/1!
    - Enk. Fig. 13/7; Enk. Fig. 13/8; XIE. 71g. 14/2.
    .95
    - Enk. Pig. 14/1.
    - Fnk. Fig. 13/1; Enk. Fig. 13/9.
    .90 Enk. 8ig. 13/5
    gnk. Fig. 10/1; Enk. Fig. 10/2.
    Enk. Fig. 10/3.
    Enk. Fi巨. 12/2.
    Enk. Fig. 12/3.
    Enk. Fi5. 10/4.
    Enk. Fig. 12/1.
    Axp. Fig* 11/4.
    Enk. Fig. 11/1.
    M1ag:Fig. 11/3.
    Bak. Fig. 11/2.
```

It seems however certain that there is no direct relationship between the height of a large krater and the largness of its diameter.

Diameters which are considerably wider than the krater's height may be found on both tall and short kraters (TABLE X).

TABLEX $(\mathrm{BD} / \mathrm{FC} \times 2) / \mathrm{BD}$.
proverance

| Enk. | Enk. | Enx. | Enk. | Enk. | Eric. | Enk. | $\begin{array}{\|l\|} \hline \text { Ros } \\ \text { Sha } \end{array}$ | 21a. | Enk. | Enk. | Enk. | Eric. | K1a. | Enk. | Axp. | Enk. | hra. | Mjr. | Enk. | Enk. | Enk. | 2nk. | Enk. | Enk. | Ens. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10/1 | 10/2 | 12/4 | 10/3 | 10/4 | 11/1 | 13/1 | 15/1 | 14/1 | 11/2 | 12/5 | '12/1 | 12/2 | 11/3 | 13/7 | 11/4 | 14/2 | 12/6 | 13/2 | 13/6 | 12/3 | 13/5 | 13/8 | 13/9 | 13/4 | $13 / 3$ |
| 36 | 36 | 35 | 30 | 30 | 29 | 28 | 28 | 26 | 28 | a7 | 27 | 27 | 26 | 26 | 26 | 26 | 25 | 25 | 25 | 24 | 23 | 23 | 21 | 20 |  |
|  |  |  |  | $\times$ | $\times$ |  |  |  |  |  | $\times$ |  | X |  | $\times$ |  |  |  |  | . |  |  |  |  | X |
| $\times$ | $x$ |  | $\times$ |  |  | $\times$ |  | X | $\times$ | X |  | X |  |  |  |  |  | $\times$ | $\times$ | $\times$ | $\times$ |  | X | $\times$ |  |
| - |  | $\times$ |  |  |  |  | $\times$ |  |  |  |  |  |  | $\times$ |  | $\times$ | $\times$ |  |  |  |  | $\times$ |  |  |  |

The RS Krater is however of a more elongated shape. Its largest diameter is proportionally smaller than the diameters of Pictorial Class vases. There are between .84 and .98 units of height for each unit of diameter in RS kraters, as compared with . 74 and .90 on Pictorial Class kraters (TABLESIX, XI, and XII), the average for the RS being .94 and .83 for other kraters.

## TABLE XI (BD/rC $\times 2$ )/bD.



TABLE XIT ( $\mathrm{BD} / \mathrm{FC} \times 2$ )/BD.

## OTILER.

| provenanct | Enk. | Enk. | Enk. | Enk. | Enk. | Enk: | Enk. | Enk | Kla.0 | Arp. | Enk. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| shape tig. | 10/1 | 10/2 | 10/3 | 10/4 | 11/1 | 11/2 | 12/1 | 12/2 | 11/3 | 11/4 | 12/3 |
|  | 36 | 36 | 30 | 30 | 29 | 28 | 27 | 27 | 26 | 26 | 24 |
| . 70 |  |  |  | X | $\times$ | X | X |  | X | $\times$ |  |
| . 86 - . 94 | $\times$ | $\times$ | $\times$ |  |  |  |  | $\times$ |  |  | $x$ |
| .95-2.00 |  |  |  |  |  |  |  |  |  |  |  |

## 95

## RELATIONSHIP OF BC AND BD

The location of the point of intersection of the largest diameter with the vase's vertical axis BD at C (Fig. 9)was seen to vary from a third, to half of the vases's height (TABLE XXIII).

RABTE XIII
$B D / B C$

onier.
Enk. Pig. 12/1.

Enk. Pig. 10/4; E1A. Fig. 11/3;
mank. Pi5. 12/3.
Enk. Pig. 10/2; Enax. Fig. 12/1.
Enk. Pig. 10/4; Eak. Pig. 11/1.
Enk. Pig. 10/1; Arp. Fig. 11/4.

Enk. Pig. 11/2.

There seems, however, to be no direct link between the situation of point $E$ and the height of the krater. 2ARLE XIV ( $\mathrm{BD} / \mathrm{BC}$ )/BD.

| Enk. | Eri. | Emi. | En\%. | Enx. | Erix. | Enk. | ROS sho. | K1a. | Enk. | Enk. | Enk. | Enk. | K2a. | Enk. | Arp. | Enk. | Ara. | Myr. | Enk. | Enk. | Enk. | Enk. | Enk. | Enk. | Enk. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10/9 | $10 / 2$ | 12/4 | 16/3 | $10 / 4$ | 11/1 | 13/: | 15/1 | 14/1 | 11/2 | 12/5 | 12/1 | 12/2 | 11/3 | 13/7 | 11/4 | 14/2 | 12/6 | 13/2 | 13/6 | $12 / 3$ | 13/5 | 13/8 | 13/9 | 13/4 | 13/3 |
| 36 | 36 | 35 | 30 | 30 | 28 | 28 | 28 | 26 | 28 | 27 | 27 | 27 | 26 | 26 | 26 | 26 | 25 | 25 | 25 | 24 | 23 | 23 | 21 | 20 | 15 |
|  |  |  |  |  |  | $\times$ | $\times$ |  | $\times$ | $\times$ |  |  |  |  |  |  |  |  |  |  | $\times$ | $\times$ |  | $\times$ |  |
| X | : | $\times$ |  | $\times$ | $\times$ |  |  | $\times$ |  |  |  |  |  | $\times$ | $\times$ |  | $\times$ | $\times$ | $\times$ |  |  |  |  |  | $\times$ |
|  | $\times$ |  | $\times$ |  |  |  |  |  |  |  | $x$ | $\times$ | $\times$ |  |  | $\times$ |  |  |  | $\times$ |  |  | $\times$ |  |  |

Mith both RS and other kraters, a change of height does not appear to produce a similar and constant change in the position of the largest diameter (TABLE XIV).

It does appear however, that the largest diameter is situated lower down from the rim of the RS krater than it is on other kraters. (TABLES XV and XVI).

TABLE XY (BD/BC)/BD.
R.S.

| PROVENANCE | Enic. | $\begin{array}{\|l\|} \hline \text { Ras } \\ \text { Sha. } \end{array}$ | Kla. | Enk. | Eni. | 2ni. | Enk. | Ara. | :5r. | Enk. | Enk. | Enk. | Enic. | Eni. | Enk. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SHAPE TIG. | 12/4 | 15/1 | 14/1 | 13/1 | 12/5 | 13/7 | 14/2 | 12/6 | 13/2 | 13/6 | 13/5 | 13/6 | 13/9. | 13/4 | 13/3 |
| VASE hEIGHT IX Cx. | 35 | 28 | 26 | 28 | 27 | 26 | 26 | 25 | 25 | 25 | 23 | 23 | 21 | 20 | 15 |
| 2.2-2.4 |  | $x$ |  | $\times$ | $\times$ |  |  |  |  |  | $\times$ | $\times$ |  | $\times$ |  |
| 2.5-2.7 | $\times$ |  | $\times$ |  |  | X |  | $\times$ | $\times$ | $x$ |  |  |  |  | $x$ |
| 2.8-3.0 |  |  |  |  |  |  | $\times$ |  |  |  |  |  | $\times$ |  |  |

TABLE XYI (BD/BC)/BD.
OTHLR.

| provenahci | Enk. | Enk. | Enx. | Enk. | Enk. | Enk: | Enk. | Enk. | K1a.. | Arp. | Eak. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| shape rio. <br> vase height IM CK. | 10/1 | 10/2 | 10/3 | 10/4 | 11/1 | 11/2 | 12/1 | 12/2 | 11/3 | 11/4 | 12/3 |
|  | 36 | 36 | 30 | 30 | 29 | 28 | 27 | $2 ?$ | 26 | 26 | 24 |
| 2.2-2.4 |  |  |  |  |  | X |  |  |  |  |  |
| 2.5-2.7 | $\times$ |  |  | $\times$ | X |  |  |  |  | X |  |
| 2.8-3.0 |  | X | X |  |  |  | X | $\times$ | X |  | $\times$ |

## RELATIONSHIP OF BD AND AG

The location of the horizontal handles (measured from the rim to the roots of the handles), along the vertical plane of the krater ie AG (Fig. 9) varies from well over a third to a tenth of the total height of the vase (TABLE XVII).

## PABCE XVIX



There appears to be a relationship between the location of the hande and the height of the krater, vases which are smaller having their handes proportionally lower down than big vases (TABLE XVIII).


This particularly holds true for the majority of RS bell kraters, which are generally smaller than those of the Pictorial Class (TABLES I AND II). It should however, be noted that some of the bigger RS kraters also have their handles situated proportionally lower down, than Pictorial Class kraters of similar or lesser height (TABLES XIX AND XX). Enkomi Fig. 12/4, Aradippo Fig. $12 / 6$ and Klavdia Fig. $14 / 1$ are exceptions to this (TABLE XIX) and are discussed below in p. 102.

| proverance | Enk. |  | K1a. | Enk. | Ink. | Ėnk. | Enk. | ara. | \%r. | Enk. | mak. | Enk. | mar. | Enk. | Enk. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| shipt ria. | 12/4 | 15/1 | 14/1 | 13/1 | 12/5 | $13 / 7$ | 14/2 | 12/6 | 13/2 | 13/6 | 13/5 | 13/6 | 13/9 | 1 | 13/3 |
|  | 35 | 26 | ${ }^{28}$ | ¿8 | 27 | 26 | 26 | 25 | 25 | 25 | 23 | 23 | 21 | 20 | 15 |
| 9.0-5.9 | x |  | $\times$ |  |  |  |  | $\times$ |  |  |  |  |  |  |  |
| 3.0 - |  | $\times$ |  | $\times$ | $\times$ | $\times$ | $\times$ |  | x | $\times$ | $\times$ | $\times$ | $\times$ | $x$ | $\times$ |

TADLE XX $(B D / A O) / B D$.

| provenance | Enk. | Enk. | Enk. | Enk. | Enx. | Enk: | Enk. | Enk. | 18.. | Axp. | Enk. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| shupl fic. | 10/1 | 10/2 | 10/3 | 10/4 | 19/1 | 11/2 | 12/1 | 12/2 | 11/3 | 11/4 | 12/3 |
| VASE hetight IK CK. | 36 | 36 | 30 | 30 | 29 | 28 | 27 | 27 | 26 | 26 | 24 |
| 9.0-3.5 | X | X | X | - X | X |  | $x$ | $\times$ | X |  |  |
| 3.0-3.0 |  |  |  |  |  |  |  |  |  | $\times$ | $\times$ |

From the vases examined, it seems that the proportions of the RS bell krater differ significantly from those of corresponding shapes from the Pictorial Class. The RS forms are generally smaller, more elongated and have a lower centre of gravity. The positioning of the horizontal handles differs appreciably from the norms of Pictorial Class bell kraters. With only few exceptions, all RS vases have their handles affixed lower down from the rim.

Karageorghis as we have seen (see p. 34 ), suggests that the majority of RS kraters are of the late F.S. 282 form. (4) However, in a recent Swedish Cyprus Expedition volume, wherein Astrom lists all the known F.S. 281 and F.S. 282 forms, (5) we find that RS vases are classed with the earlier F.S. 281.

Of THE F.S. 282 kraters listed, there is only one bell krater (from Dikaios' Excavations in Enkomi), of which a profile drawing is available. (6) The profile of this Cypriot Close Style vase, decorated with antithetic spirals and a central trigliph, is reproduced in Fig. 9.
(4) See also p. 34 n. 36
(5) SCEIV, i c 367-375.
(6) Ibid. 375, Dikaios 285 PL. 124/20.

This vase is approximately 27.5 cms high, and has a rim diameter of 29.5 cm we have seen, such small dimension are nearer to the average obtained from RS kraters. Also, it has a BD/FC X 2 ratio of 8.54, a $B D / B C$ ratio of 2.44 and a $B D / A G$ ratio of 4.6 , figures which are generally typical of RS bell kraters. It moreover, has a biconical profile and its angular, everted rim is similar to that of $R S$ vases in group $B$ iii (see below p. 105)

The close confirmity of the late vase with the norms of RS shapes, would suggest that these kraters are indeed a later version of the bell krater, assimilable with F.S. 282,

It must, however, be stressed that some overlapping occurs in the proportions defining the RS, and Pictorial Class shapes and that while it is possible to make valid generalisations concerning them, it is not always easy to attribute with certitude individual vases to any one group.

It is moreover not surprising, particularly in view of the small number of vases measured, that it is difficult to use the tables defining each group further, for a subdivision of the shapes which it includes. Vases which are grouped together in one table can be widely scattered in all others and may have a different shape of rim and base.

The measurement of the proportions typical of a group of stylistically similar vases, such as the RS or the Pictorial Class bell kraters, may permit us to discover the unformulated and probably unconscious conventions of vase making, common to the group as a whole. It is moreover likely that these conventions will be different from those of any other autonomous group,
even wher it employe the same shape. To go further and try to use the same statistics for the identification of the work of individual potters or production centres within one group, would require a far greater sample of whole vases from each group than it was possible to draw and measure, and probably more whole vases, than are at present known.

Yet, if the RS and Pictorial Class potters seem to be indifferent or only subconsciously and superficially consistent, with respect to proportions of their bell kcaters, the location of the horizontal handles, being a more conscious deliberate act, presents us with something of a consistent pattern.

TABLE XVII in which are tabulated variations in the location of horizontal handles on RS kraters shows that vases with a similar $B D / A G$ relationship Fig 9 may frequently have the same type of rim, base or general profile (see also Fig. 25).
i. For example Enkomi Fig. 12/4, Aradippo Fig. 12/6, and Klawdia Fig. 14/1, all have exceptionally high BD/AG values, which cause them to stand out from the majority of vases, tightly grouped together with a $B D / A G$ of between 4 and 5. It is therefore interesting that they also happen to have amongst the most rounded, least biconical profiles of any of other RS kraters drawn and measured. In the case of Enkomi Fig. $12 / 4$ And Klaudia $14 / 1$ the similarity extends to the shape of their rims and bases.
ii. Lower down the scale, Enkomi Fig. $13 / 1$ with a $\mathrm{BD} / \mathrm{AG}$ figure of 5, is very similar in profile and rim shape to Myrtou Fig. 13/2, which has a figure of 4.5. Similarly, Enkomi Fig. 13/5, with a figure of 4.5 , is almost identical in profile rim and base shape with Enkomi Fig. 13/4 which has a value of 4. It should also be noted that in TABLE XIII Enkomi Fig. 13/1 and Enkomi 13/2 have a similar BD/BC figure.

Handle placement on the bell kraters examined would therefore seem a valid criterion for the subdivision of the RS into two groups. GROUP A

Enkomi Fig. 12/4
Aradippo Fig. 12/6
Klavdia Fig. $14 / 1$
These have a high $B D / A G$ value and a rounded profile.

## GROUP B

Enkomi Fig. 12/5
Enkomi Fig. 13/1
Myrtou Fig. 13/2
Enkomi Fig. 13/3
Enkomi Fig. 13/4
Enkomi Fig. 13/5
Enkomi Fig. 13/6
Enkomi Fig. 14/2
Ras Shamra Fig. 15/1
These have a lower $\mathrm{BD} / \mathrm{AG}$ figure, and incidentally, a diameter which is frequently proportionally larger than the height of vases in Group A (TABLE IX).

There are however, some vases witithe not-withstanding their low set handles do not appear to belong with the vases of group B.

These vases make up a third group C (Fig. 25). GROUP C

Fhkomi Fig. 13/7
This vase has been set aside because of;
a. its exceptionally low handles (TABLE XVII)
b. its thak section (TABLE III)
and c. a less everted rim which is reminiscent of the rims of Piotorial Class vases. It is moreover of a more elongated, narrower, shape than most of the vases of group B, which have less than . 95 units of length for each unit of diameter. In this respect, there exists a certain resemblance between it and Enkomi 13/8, which also has unusually low-set bandles (TABLE IX).

Enkomi Fig. 13/9 which is apparently misshaped cannot be attributed to any group and will benceforth be disregarded.

It is also possible to compare the shapes of the RS bell krater visually, by taking into account the shape of rims and where possible, bases. This permits the inclusion of the many RS sherds which, because of their fragmentary nature, could not be used in the statistical study of shape.

By taking into consideration both types of evidence ie measurement of handle position and visual comparisons of rim and base shapes, the following proposal may be put forward for grouping together most of the RS bell krater shapes included in this study (see Fig. 26)

## Ai

Enkomi Fig. 12/4
Klawdia Fig. 14/1
and the sherds.
Enkomi Fig. 14/8
Enkomi Fig. 15/3
These later have the same thick rim rectilinear on the underside and rounding off at the end, which are found on the whole vases. Aii

Aradippo Fig. 12/6
Despite the similarity of this vase's proportions with other vases of Group ${ }^{A}$ (see above), it differs from these considerably for rim and base shape.

Bi
Enkomi Fig. 13/1
Myrtou Fig. 13/2
These vases have biconical profiles with incurving undersides, Their rims are long and angular.

Bii
Enkomi Fig. 13/4
Enkomi Fig. 13/5
Ras Shamra Fig. 15/1
These vases have more rounded rims and profiles with the carination higher than in the preceeding group.

A very small bell krater, Enkomi Fig. $13 / 3$ shares some characteristics of both Bi and Bii.

## Biii

Enkomi Fig．14／2
and the sherds
Enkomi？Fig． $14 / 5$
Enkomi？Fig。 $14 / 3$
Ras Shamra Fig．15／5
All these vases have a long everted rim which is generally quite thin．

Biv
Enkomi Fig．13／6
and the sherds
Enkomi ${ }^{\text {个 }}$ Fig．14／4
Enkomi Fig．15／4
By
Enkomi Fig． $12 / 5$
and a sherd
Enkomi Fig。 14／6
These two vases have rather thick rims apparently shaved while still on the wheel so that they are pointed at their extremities．
©
Enkomi Fig．13／7
and the sherds
Enkomi Fig．15／2
$\begin{array}{ll}\text { Enkomi？Fig．} 14 / 7 & \text {（possible）} \\ \text { Enkomi Fig．} 14 / 9 & \text {（possible }\end{array}$

As with Enkomi Fig. 13/7, Enkomi Fig. 15/2 has a thick section, an only slightly everted rim, a low handle and is apparently of a very elongated shape with a small diameter.

Enkomi? Fig. 14/7, which is perhaps mis-shaped, has a rim which at first appears to be incompatible with these vases. Closer comparison does show however, that is is more easily assimilated here than with the sverted rims of any of the other groups. Its low set handle and elongated profile are also very similar to Enkomi Fig. 13/7 and Enkomi Fig. 15/2.

Enkomi Fig. 14/9 which has a thick short rim and section may also belong here.

## CONCLUSIONS

From these few whole vases and sherds assembled here, it is difficult to put forward a scheme for the typological development of the RS krater shape.

Some of the groups outlinedmight be produced by different workshops. This appears to be the case with groups $A$ and $C$. The same may be true of some of the vases in group B, wherein exist radical differences of rim, base and profile shape.

Further, the rounded profiles and high set handles of Group A, reminiscent of the Pictorial Class F.S. 281 bell krater, suggest that this group might be earlier than groups B and C. As we have seen, the biconical profile and low set handles characterizing groups $B$ and $C$ closely resemble the later F.S. 282 bell krater form.

A study of shape alone howerer, is insufficient to permit such assertions, particularly as the shapes available are few and fragmentary. It will therefore be more proper to leave questions of relative chronology and individual workshops, until our results can be considered together with the evidence from stylistic studies of decoration, fabric analysis and stratigraphy.


Fig. 10.

Fis. 10.

1. ENKCMI; See pages 80-99.

BIIC C409, Excav. 49 FIG. 76 (1261), CVA FL. 9/10.
2. ENKOMI; See pages 80-99.

BMC C403, Excav. 42 FIG. 72 (1269), CVA PL. 10/3.
3. ENKOMI; See pages 80-99.

BMC C413, Excav 48 FIG. 73 (965), CVA PL. 8/9.
4. ENKOMI; See pages 80-99.

BMC C404, Excav 48 FIG. 76, CVA PL. 6/14.

110


Fig. 11.

Fié. 11.

1. ENKOMI; See paces 80-99

BMC C408; Excav 35, FIG. 63 (1038). CVA FL. $9 / 5$.
2. ENKONT $=\mathrm{Pl} .36 / 1$; Sample 74; See pages 80-99.

Missions 74 PI. KXIII/5, FIG. 371, AN 2663 Musee du Louvre.
3. KILAVDIA; See pages 80-99.

BMC C398.
4. ARPERA CFIFLIK $=$ PI. 35/1; Sample 72, See pages 80-99. AN 678 in Musee du Louvre.


Fig. 12.

## 113

Fig. 12.

1. ENKONI $=$ PI. $36 / 2$; Sample 75; See pages $80-99$.

Missions 74 FIG. 37, iO 18591 in Musee du Louvre.
2. EMKOMT; See pages $80-99$.

EIC C411, Excav 48 FIG. 73.
3. ENKOMI; See pages 80-99.

BLC C397, Excav 8, 45 FIGS 14, 71, CVA PL. 7/1.
4. ENKOMI $=$ P1. 8/2; See nages $80-107,180,184-186,194-196$. BMC C417, Excav 49 FIG. 76 (1260) CVA PL. 10/1.
5. HMKOMI = Pls. $1 / 2$, $9 / 1$ Fies. 2/1, 4/1; Sample 4; See pages 80-107. Schaeffer Excavations 1967.
6. $\operatorname{ARADIPPO}=$ Pl. 22/2 FiE. 3/6; Sample 30; See pages $80-107,124,133-134$. Pusee du Louvre Alr 679, StubbinEs, BSA 46 (1951) 171-172.
FIG. I, Nouv. Doc. 250 N. 4


Fig. 13.

Fig. 13.

1. ENKOMI $=$ Fi§. 3/4; See pages $80-107$, 181-102.

SCE I PL. 91, Nouv. Doc. 243 PL. XIIV/7, FIG. 53.
2. MYRTOU-FIGADES = Fig. 5/6; See pages 80-107, 181-182. Myrrtou 43-44 FIG. 20/191, Nouv. Doc. 255 N.5, Benson AJ. 65 (1961) 342 ff .
3. ENKOMI? = Fl. 15/2.; see pages 80-107.

Nouv. Doc. 255 PL. XXVIII/4 FIG. 51/4.
4. $\quad$ ENKOMI $=$ Fig. 3/2: See pages 80-107, 181-182. Nouv. Doc. 249 FIG. 54.
5. EMKOMI = P1. 5/1-2; See pages 80-107, 181-182. BMC C420, Excav 45 FIG. 71 (933), CVA PL. 7/9.
6. ENKOMI $=$ PI. 2/1; See pages 80-107, 181-182. BMC C418, Excav 33 FIG. 6 (1205), CVA PL. 7/7.
7. $\quad$ ENKOMI $=$ P1. 11/2; See pages $80-107,182$. BMC C422, Excav 45 FIG. 71 (931), CVA PL. 8/1. Benson AJA 65342 ff PL. 106/FIG. 29.
8. $\quad$ ENKOMI $=$ P1. 7/2. See pages $80-107.182$. BMC C419, CVA PL. 7/3 Stubbings BSA 46 (1951) 173 PL. 19/13. MP 466, Nouv. Doc. PL. XXVII/3.
9. ENKOMI; See pages 80-107. BHC C 424 CVA PL. $8 / 2$, Excav 45 FIG. 71 (930).


Fig. 14.

Fir. 14.

1. KLAVDIA $=$ Pl. 18/1; Sample 35; See naces $80-107,124,133,180$. PMC C421 ME 466, Stubbines, ISA 46 (1951) 171, Nouv. Doc. 239-240 EL. XIV/6.
2. ENKOMI $=$ Fig. 4/4; See paces 80-107. 181-182. BIC C423, Excav 45 FIG. 71 (931), CVA PL. $8 / 3$.
3. EMKOH? = Fie. $/ 12$; See paçe 105.

E5 1038/11-20/5.
4. ENKOTI? = Fir. $8 / 8$; See page: 105.

PM 1938/11-20/6.
5. BNKCII? = Fis. 4/2; See pace. 105 .

BM 1938/11-203, Benson AJA 65 (1961) 342 ff PI. 106/FIG. 26.
6. $\quad$ ENKOMI? = PI. 11/1; See pace. 105 .

BM 1938/11-20/1, Eenson, AJA 65342 PL. 106/EIG. 27.
Nouv. Doc. 246 PL. XiV/6.
7. $\quad$ ENKOMI? $=$ Fip. 6/1; See pages 105-106.

BM 1938/11-20/2.
8. $\quad$ ENKOMI $=$ Pl. $2 / 2$; See page 104.

BMC C425, Excav FIG. 62 (1235).
9. ENKOMI = Pl. 9/2. \& Fig. 6/2; Sample 13; See pages 105-106, 123, 133. Schaeffer Excavations (1949).

Fig. 15.

Fič. 15.

1. RAS SHAMRA $=$ P1. 25/1; Sample 53; See pages 80-107. 125,133. Usaritica II FIG. 60/22-23, Fouv. Doc. 237-238 PL XXIII/3-4.
2. ENKOMI PI. 10/2. Fig. 4/7; Sample 12; See pages 105-106, 123. Schaeffer Excavations (1965).
3. ENKOMI = Fl. 17/2. Fig. 2/9: Sample 1; See pages 104 , 1сす. Schaeffer Excavations (1966).
4. $\quad \mathrm{MNKMI}=$ Pl 11/3; See pages 105.

CVA Brussels Cinquantenaire 1251,
Benson, AJA 65 (1961) 342 ff.
Nouv. Doc. 237,247 FL. XXV/5.
5. RAS SUAIRA = Fig. 7/3; Sample 49; See pages 105123 . Usaritica II 218 FIG. 91/11, Nouv. Doc. 238.

## CHAPITER IV

SPECTROGRAPHIC FABRIC ANALYSIS
OF RUDE STYIE AND RHJATTED VARES

## INTRODUCTION

Opinion has been divided regarding the origins of the : fine Mycenaean Pictorial pottery which Pirst appears in large quantities in Cyprus in Myc. III A:2. The relative scarcity of Pictorial pottery in Greece, added to the peculiarities of Mycenaean pottery in Cyprus and the Levant as a whole, has caused some scholars to believe that Mycenaean pottery was produced in Cyprus from as early as the mid-fourteenth century B.C. by Greeks,living there either as immigrants or as colonisers.

On the other hand, the absence of any evidence other than ceramic, for Mycenaean settlement in Cyprus at this early date, has brought others to conclude that most of the Mycenaean III A - III B patterned and Pictorial pottery of Cyprus was imported from Greece. (2)

The RS which is different and probably later than most of these fine Pictorial vases remained outside the controversy.. In the first hypothesis it was attributed to Cypriot potters other than those producing fine Levanto-Mycenaean pottery in Cyprus, (3) and in the second, to Cypriot inditators of Mycenaean pottery imported from Greece. (4)
(1) Problems 9, 92-97; Stubbings MPL 25-26.
(2) Op. Cit. CAH 57.
(3) Stubbings On. Cit. 38 Also in BSA Op. Cit. 173.
(4) Immerwahr in AJA 60 (1956) "Book Review" 140, n. 25.

In both cases,the individuality of its pictorial decoration was viewed as the expression of a measure of Cypriot originality and autonomy in the later half of the thirteenth century, when Mycenaean influence abroad was on the wane.

As we have seen, the case for regarding the Pictorial Class as imports, was vindicated by a series of Spectographic analyses conducted by Oxford's Research Laboratory of Archaeology, on the fabric of Mycenaean III A:2 and III B patterned and Pictorial pottery (Catling and Millett, 1965). The fabric of the vast majority was shown to conform with the composition of Mycenaean pottery found in the Peloponnese (Group A). (5)

Although no RS wares were analysed, two groups consisting of cruder non Pictorial Mycenaean pottery ie $L$ \& $M$ thought to be local immitations, were recognised at Arpera and Enkomi respectively.

Yet, the existance on the one hand of Mycenaean Pictorial fabrics deemed in distinguishable from the $R S,(7)$ and on the other hand, individual stylistic sub groups within the $R S$, some technically similar to the better vases of the Pictorial Class, (8) demands further explanation.
(5) Catling Richards and Blin-Stoyle Opo Cit. 94-115; Catling and Millett. Op。Cit. 212-224.
(6) Ibid. 111.
(7) Stubbings Op. Cit.
(8) Benson ATA (1967) Op. Cit. 317.

The technical diversity of Myoeanaean pottery in Cyprus, in Myc. III B, which is apparently the result of very mixed origins, makes difficult the classification of fabrics with the naked eye. To study the relationship of the RS with the pottery of the Pictorial Class, it was therefore decided to employ a more scientific method of fabric analysis.

Spectrographic analysis which requires very small samples of fabric was particularly suited for this study, which deals with pictorial vases which are usually of museum collection quality.

Spectrographic studies of the composition of the $R S$ and related fabrics was therefore undertaken at the Oxford University Research Laboratory of Archaeology, with the kind permission of Dr. E. T. Hall. These studies were carried out against the background of the earlier Catling and Millett studies of Minoan and Mycenaean pottery, and we were fortunate to benefit from comparisons made with groups previously established from sites in Cyprus, Crete, Rhodes and the Greek mainland (Catling et al. 1965). 1.

To Establish first of all, if the RS of Enkomi formed one or more homogeneous control groups with a distinct identity, 29 whole vases and sherds from fnkomi of varied shapes and varied quality of execution and stylistic decorative merit ie nos 1-29, were sampled.
2.

19 other samples of RS from 10 other sites in South-Eastern and NorthEastern Cyprus ie Aradippo 30, Arpera 31 and 32; Hala Sultan Tekke 33; Kition 34; Klawdia 35; Kyrenia 36; Larnaka 37; Maroni 38; Pyla Verghi 39, $40,41,42,43 ; \mathrm{Phlamoudhi} 44,45,36,47,48$ and four samples of RS from Ras Shamra 49, 50, 51, 52, 53 were also analysed. The object here was to
determine if they would confirm with the material from Enkomi, or form separate groupings attributable to other workshops, or perhaps another locality. 3.

In particular, one of the finely worked kraters from Karageorghis' Phase A, said to be the precussisor of the RS ie Kouklia 54, was sampled and analysed.
4.

From the West of Cyprus, 11 RS types of good quality ie Nos. 55-65 were sampled at Kouklia, with the object of establishing first, if they formed a separate group and second, if any of them could be shown to have some provenance as vases from the East.
5.

An attempt was also made to localise the origins of the RS pottery from Enkomi. Samples were taken from plain white and coarse late bronze age vases from Enkomi ie Nos 66-69, as well as from a local clay bed and a modern workshop ie LCP 1-6, and their composition compared with that of the vases excavated in Enkomi.
6.

Given the importance of group A in Catling's and Millett's findings concerning the question of import, and also as a check upon the validity of the conversion figures used in comparisons with group A from the Peloponnese, nineteen new samples of Pictorial class pottery from Cyprus and the Syrian coast ie. Nos 70-88, were also examined. These include; krater shapes FS. 52-55, FS. 8-9 and FS 281; FS 296 dishes; one conical rhyton and one small jug.

## Analytical Technique

Under the direction of Mr. F. Schweizer of the Oxford Research Laboratory, the sherds were analysed by standard spectrographic technique using a Hilger Large Quartz Spectrograph. The application of this technique to the analysis of pottery has been described by Richards, (9) Catling et al., (10) and more recentlyby Prag, Schweizer and Filliams, finely ground and mixed with a fixed proportion of graphite, amroonium sulphate and lithium carbonate (internal standard) and arced under controlled conditions. The intensities of the selected analysis lines were measured from photographic plates with a Hilger non-recording microphotometer.

The method was calibrated using U.S. Geological Rock Standards.

[^1]The difficulty involved in recreating the same laboratory conditions was overcome, by retesting some of the Greek Bronze Age sherds previously examined. Conversion factors were determined to convert earlier results published by the Oxford Research Laboratory up to 1969, which were based on calibration by chemically analysed Greek Bronze Age sherds (see Catling et. al. 1963 for details).

TABLE XXI contains the conversion factors for the different oxides.
TABLE XXI Conversion factors

| Oxide | Factor | Oxide | Factor | Oxide | Factor |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathrm{A1}_{2} \mathrm{O}_{3}$ | 1.4 | $\mathrm{TiO}_{2}$ | 1.2 | CaO | 1.0 |
| MgO | 0.9 | MnO | 1.3 | $\mathrm{Na}_{2} \mathrm{O}$ | 1.2 |
| $\mathrm{Fe}_{2} \mathrm{O}_{3}$ | 1.2 | $\mathrm{Cr}_{2} \mathrm{O}_{3}$ | 0.5 | NiO | 1.3 |

Analyses published by the Oxford group before the re-calibration of the method have to be multiplied by these factors.

## Treatment of analytical data

The chemical composition of each sherd was compared with Aegean Bronze Age pottery groups previously established by the Oxford Research Laboratory. In addition a new group was established consisting of Rude Style pottery found at Enkomi.

Table XXII - Control Grouns

| Site | Composition Type | Reference <br> iio. oxford | Publication |
| :---: | :---: | :---: | :---: |
| irgolia averace | a | 1-4 | $\begin{aligned} & \text { Catling et al. } 1963, \\ & \text { p. } 104 \end{aligned}$ |
| Cretan average | B | 10-15b | do. |
| Palaikastro II, Crete | B | 13 | co. |
| Zakro II, Crete | B | 15b | do. |
| Peratj, Attica | C | 5 | do. |
| Anarintios I, Euboea |  | 7 a | do. |
| Volos II, Thessaly $\}$ | D | Eb | do. |
| Argyropo lis II, thessaly |  | 27 b | do. |
| Rormariani, Thessaly | 玉 | 9 | do. |
| Zakro I, Orete | P | 15 | do. |
| Thylakopi I, Lelos | II | $16 a$ | do. |
| Pnylakopi III, ielos | I | 16 c | do. |
| Ialysos I, Rhodes | J | 17a | do. |
| Ialysos iII, Rnodes | K | 17c | do. |
| Arpera Caifilir I, Cyprus | I | 18 a | do. |
| Enkomi I, Cyprus | if | 19a. | do. |
| Zakro, Crete | i | 15c | Catling and Killctt, 1965 , |
| Polaikastro, Crete | 0 | 130 | do. |
| Pylos, Peloponneae | P | 30 | Catling and Nillett, 1967 |
| Platonia, Spercheios, Valley | Q | 31 | do. |
| Koullia, Cjprus ${ }^{+}$ | T |  | Catline and :iillett, unpublished. |
| Enkomi Rude Style, Cyprus |  |  |  |

For the selections of sherds and archaerloeical detoils consult the relevont publications.

[^2]For the assignment of individual sherds to control groups, two different approaches were used. Firstly, composition patterns were drawn, as shown in fig. 16-24, and compared visually with those of the controls and secondly, a computer programme written by Mr J. Alldred, of the Oxford Research Laboratory, was applied. The assignment procedure involves defining a measure (in this case of type dissimilarity) between each group and each individual sample, and then assigning each individual to that group with the smallest measure. This strategy depends for its success on the definition of the measure.

If Yij is the concentration of the ith element in the jth group, $\sigma$ is the deviation in that value, and Xik is the conentration of the jth element in the kth individual, then if there are $n$ elements processed, the measure qjk between individual $k$ and group $j$ is defined as

$$
q j k=\begin{array}{ll}
1 & n \\
n & \sum_{n=1} \quad \frac{\left(Y_{i j}=X_{i k}\right)^{2}}{\delta^{2}{ }_{i j}}, ~
\end{array}
$$

When for each individual all such measures have been calculated, the best fit and second-best fit groups are quoted, together with the correspoinding q-values.

It is reasonable to expect, that the reliability of an assignment being the same as the confidence level at which the values of $\delta$ were defined, correspond to a q-value of approximately (or just less than) unit. It is thus possible to see if a sample can belong to only one group, or to more than one group, or to none at all, especially when q-values are always either much less than or much more than the borderline case of unity.

The programme was written in 1900 FORTRAN with upper limits of up to 11 elements, 50 control groups and 100 individual samples and run at the Oxford University Computer Laboratory.

## RESULTS

Assignment of sherds to pottery control groups.
Preliminary examination of the results showed a wide variation in the clay composition of the Rude Style sherds, from the different sites in Cyprus. In the first instance, each sherd was singly compared with $a l l$ the previously established groups listed in TABLE XXII. After the first computer run, the relevant ones proved to be $B, A, M$ and the Rude Style Enkomi group. The remaining control groups could be eliminated. The assignment of Rude Style sherds to Cretan control groups seemed puzzling, and it beoame later clear that their extremely wide composition ranges made them unsuitable as effective controls. When, as a check, all Rude Style sherds found at Enkomi were processed, it was found that they had an almost equal chance of being allocated to Crete as to Enkomi. It was therefore impossible to consider Crete in conection with the present investigation, and all sherds were re-processed omitting the Cretan groups. The new set of results indicated a preliminary subdivision into the following categories; Enkomi Rude Style, Enkomi M, Peloponnese A and a considerable number of rogues. As already pointed out above, the assignment of sherds to the fabric A group and its distinction from the local Enkomi groups was of special importance.

The local Enkomi composition type $M$, however, has long been a cause for concern. Attempts to reassess the figures first published by Catling and Millett in 1965 have been reported by the same authors in 1966 and 1969. More recently in a new attempt, they extended their survey of Cypriot fabric to Plain White Pottery of late Cypriot date which they
oonidered almost certainly to be locally made (Catling and Millett unpublished comm.) The different types $M$ are illustrated in Fig. 16, superimposed to the Enkomi RS control. Although there is a good general agreement it was decided to use the Enkomi RS group only as control.

A number of randomly chosen group A sherds were remanalysed in order to verify the new calibration of the instrument, and their composition ranges are shown against the Enkomi Rude Style group in Fig. 17. It is olear from this diagram, that a positive assignment of an individual sherd to either group is not always going to be possible. For the final classification of the Rude Style sherds five categories were formed:
TABLE EXII Classification of fabric compositions

Category

Enkomi Rude Style Peloponesse A)
$A-E$

X

Z

Rogues

Sherds were allocated to those two groups only if they conformed very closely.

This categrory contains sherds with composition similar both to Enkomi Rude Style and Group A.

This category includes all sherds with composition patterns similar to Enkomi Rude Style but with one or two elements differing widely. They are distinctly different from Group A.

This category consists of a small group of RS samples having a distinct composition pattern. It includes vases from Enkomi and other Messaorian sites.

This category contains sherds which differ their chemical composition pattern significantly from Enkomi Rude Style, Group $A$ and all other Bronze Age pottery groups so far established.

The final assionment for individual sherds, except for the Enikomi Rude Style control, is show graphically in TABLE XXIV. The q-values of the computer assigment are civen in TABLES XXV and XXVI for the controls Enkomi Rude Style and Pelononnese average A.

Assignment for individual sherds (Enkomi. RS excepted)


## 1.1

The 29 RS sherds from Enkomi form one group of normal distribution similar to the group M patterns previouriy recognised in Enkorai by Catling and Millett (p.122 and Fig. 16). All sherds were, as a check, individually processed and the computer assignments are given in TABLE XXVI. It can be seen that 25 sherds $89.7 \%$ out of 29 have figures of merits smaller than 1, and so underline the usefulness of this group to represent Enkomi RS fabric. The remaining four have one or more elements outside the set limits.

## 2.1

Twelve RS sherds representing sites in South Eastern and North Eastern Cyprus and notably from Syria conform closely with the Enkomi RS group (see TABLE XXVI). A number of RS sherds, however, differed in their cley composition from the main group and they are discussed individually.
i) Two sherds from Phlamoudhi 45 and 48 resemble both group A and Enkomi RS and it is not possible to attribute them to either. Their figures of merit are 0.79 and 0.89 for Enkomi RS and 0.74 and 0.64 for Group A. It was therefore necessary to classify them separately as A-E.
ii) One sherd from Larnaka 37 and one from Milopetres-Kyrenia 36 cannot be fitted into the Enkomi RS group with certainty. Although their composition is similar to the RS control group 37 is characterised by higher and 36 by lower sodium.
iii) Some sherds could not be compared with any of the Bronze Age clay types so far established. Five such sherds: Aradippo 30 Arpera $\quad 31$ Kition 34 Pyla Verghi 40 and 43
are all of a very distinct composition type and form small grou $Z$. They share the same characteristics with two samples from Enkomi, ie a RS sherd 26, and a crude sherd 69, which is decorated in the RS but in which seem to be of non RS fabric. The composition pattern of group Z is shown in Fig. 18 against the Enkomi RS control group.
iv) Two other sherds Pyla-Verghi 41 and 42 , very similar to each other are unlike all other samples and are labelled as 'Rogues' they are plotted in figure 19.

## 3.1

Kouklia 54 from Karageorghis' phase A, seemingly of standard Mycenaean technique, and decorated with a finely drawn bull eating a plant, was in the first instance assigned to group A. Recently, however, we were able to compare all our analyses with a new composition type, said to be local to Kouklia (type T, Catling and Millett, unpublished communication). It appears now, that the clay composition of 54, and indeed of two Kouklie sherds discussed below, is as close to type T as type A. (13) The element plots in Fit. 20 bear this clearly out.
(13) Local origins for Kouklia 54 are also suggested by a recently published fabric analysis of this vase employing another technique Karageorghis, Asaro and Perlman AA (1972) Heft 2.

Two samples from Kouklia 62 and 60 were as 54 above first assigned to Group A. In the light of what has been said about $T$ and A, 62 must be regarded as possible local product and in fact it is close to 54. 60 had been assigned to A with a figure of merit close to the set limit ( 0.96 against 1.0 ) . Although it is unlike $T$ it seems wiser to set it in the same category with 54 and 62.

Of the remaining nine samples from Kouklia four have been placed into category X. Sample 56, 64 and 63 are similar in their general characteristic to Enkomi RS except fior the element nickel, which is much lower. Sample 64 differs in higher magnesium. Five samples 55, 57, 58, 61 and 62 show widely differing compositions and they have been classified under R .

The clay types encountered in the RS fabrics from Kouklia differsmuch more than those from other sites. This fact is parelleled by Catling and Millett's study of pottery from Late Cypriot of Kouklia (unpublished) comrn.). Tventy samples of Plain White Wheelmade pottery produced no coherent group and they suspect unhomogeneities in clay beds or the use of clay mixtures to be the reason.
5.1

Of the six samples from modern pottery from the neighbourhood of Enkomi four 2, 3, 4 and 6 show a very close agreement with the RS control group (see Fig. 21). Two samples, however, differ slightly in chromium, and element which is known to show wider variation. One clay semple ( $L$ clay) taken from a clay bed near Enkomi shows the same general pattern as the Enkomi RS group, but differs slightly in chromium and aluminium. It has been drawn in Fig. 21 together with the local pottery.

Three crude Late Bronze Age wares from Enkomi 66, 67 and 68 differ significantly in their clay composition from Enkomi RS material (see Fig. 22).

The strange composition of these crude Late Bronze Age wares from Enkomi, which originally were thought to be useful local controls is difficult to explain. As they do not show a common composition we suspect that they were produced using different clay beds. At present, it is not possible to assign them to any known type in Cyprus. 6.1

Of the Piotorial Class examined from Cyprus and Ras Shamra, the majority ie $71,72,76,79,82-88$, conformed with the Peloponnese group A.Of some intesst is this assignment for two crudely finished vases 78 and 86.
i) Some notable exceptions were 77,80 and 81 which conform to the RS Enkomi control group (see Fig. 23).
ii) Samples 73 and 78 cannot be attributed to either group $A$ or to the Enkomi RS group.
iii) Two samples, a bell krater 74, and anEs 8 krater with dull slip and painted with dark brown paint from Aradippo. 70, differed in their clay composition from all known composition types and were classified as "Rogues". They differ from type A, and Enkomi RS in calcium (see Fig. 24).

Spectographic fabric analysis of 29 RS speciments from Enkomi, representing all style and shape groups, shows that they form a fairly homogeneous group (CH IV 1/1.1). They match closely local clay and pottery and are almost certainly local to Enkomi (5/5.1). This result is in excellent agreement with a study recently published by Perlman and Asaro, which was undertaken by Neutron activation analysis and involved the determination of more trace elements than we were able to look ato

A considerable number of RS wares from South/Eastern and North/ Eastern Cyprus and also from the Syrian coast show a close fit to the Enkomi RS control group (CH IV 2/2.1). Even without being able to compare their composition withlocal clay, it seems highly likely that they were produced in Enkomi and traded to these sites.

A number of RS pottery conformed fairly well with the Enkomi RS pattern but due to the high similarity required before assigning a sherd to it, they could not confidently be classified. As least for the sherds from Kouklia in this category, it can be said that they are unlikely to represent local ware as their clay composition is distinctly different from the local type T.

Turning to the sherds which make up group $Z$, there is the intersting question whether they represent the output of a single workshop, whereas the chemical analyses would tend to support this interpretation, it can be contradicted by the stylistic argumentation (see CH V p. 178 ).

None of the RS material from Cyprus or the Syrian Coast shares the characteristic of Peloponaese clay types to such a degree that it could possitively be regarded as Mycensean import. There remains the open
question of the sherds from Kouklia, which in their composition could be either, but it would seem to us unwise to advocate RS import based on the present results.

Most of the Pictorial Class examined was found, in excellent agreement with Catling and Millett (1965) and Perlman and Asaro (1973), to conform to Peloponnese A. Of some intenst are three samples which fit very well the Enkomi RS pattern. Although the presence of a clay bed of identical clay composition to that from Enkomi in the Peloponnese can not be ruled out, this result suggested that fine Pictorial Class pottery was made in Cyprus.

On the other hand, the conformity with group A of some rather sub-standard Pictorial Class wares suggests that substandard wares are not exclusively the product of Cypriot :imitators.

## TABLE XXV

| SAMPLE NO | ENKKOMI | A. (PELOPONNESE) |
| :---: | :---: | :---: |
| 1 | 0.73 |  |
| 2 | 0.65 |  |
| 3 | 1.53 |  |
| 4 | 0.45 |  |
| 5 | 2.01 |  |
| 6 | 0.24 |  |
| 7 | 0.83 |  |
| 8 | 0.40 |  |
| 9 | 0.74 |  |
| 10 | 0.15 |  |
| 11 | 0.68 |  |
| 12 | 0.31 |  |
| 13 | 0.40 |  |
| 14 | 0.28 |  |
| 15 | 0.45 |  |
| 16 | 0.49 |  |
| 17 | 0.63 |  |
| 18 | 0.25 |  |
| 19 | 3.95 |  |
| 20 | 0.30 |  |
| 21 | 0.61 |  |
| 22 | 0.29 |  |
| 23 | 0.35 |  |
| 24 | 0.40 |  |
| 25 | 1.03 |  |
| 26 | 0.61 |  |
| 27 | 0.49 |  |
| 28 | 0.29 |  |
| 29 | 0.75 |  |

Here, as in table XXVI below, A value or figure of merit approaching unity is indicative of a good fit with the group attributed (see above p. 12\$.

## COMPUTER ASSIGNMENT

RS AND OTHER
TABLE XXVI

| SITTE | SAMPLE | ENKOMI | A. (PALOPONNESE) |
| :---: | :---: | :---: | :---: |
| Aradippo | 30 |  | 1.22 |
| Arpera | 31 | 1.95 |  |
|  | 32 | 0.98 |  |
| HST | 33 | 0.43 |  |
| Kition | 34 | 1.35 |  |
| Elavdia | 35 | 0.55 |  |
| Kyrenia | 36 | 1.62 |  |
| Larkaka | 37 | 1.75 |  |
| Maroni | 38 | 1.41 |  |
| Pyla-Verghi | 39 | 0.69 |  |
|  | 40 | 3.71 |  |
|  | 41 | 2.70 |  |
|  | 42 | 1.51 |  |
|  | 43 | 1.77 |  |
| Phlamoudhi | 44 | 0.54 |  |
|  | 45 | 0.79 | 0.74 |
|  | 46 | 0.32 |  |
|  | 47 | 0.71 |  |
|  | 48 | 0.89 | 0.64 |
| Ras Shamra | 49 | 0.25 |  |
|  | 50 | 0.34 |  |
|  | 51 | 1.39 |  |
|  | 52 | 0.11 |  |
|  | 53 | 0.86 |  |
| Kouklia | 54 |  | 0.71 |
|  | 55 |  | 4.69 |
|  | 56 | 0.91 |  |
|  | 57 |  | 2.00 |
|  | 58 |  | 2.53 |
|  | 59 |  | 0.76 |
|  | 60 |  | 0.96 |
|  | 61 |  | 1.37 |
|  | 62 | 1.62 |  |
|  | 63 | 0.60 |  |
|  | 64 | 1.22 |  |
|  | 65 | 2.07 |  |
| Enkomi (Crude) | 66 | 2.96 |  |
|  | 67 | 1.39 |  |
|  | 68 | 7.44 |  |
|  | 69 | 1.90 |  |

TABLE XXVI cont
SITE SAMPLE ENKOMI A.(PELOPONNESE)

Pictorial Class from Cyprus

| Aradippo | 70 |  | 1.08 |
| :---: | :---: | :---: | :---: |
|  | 71 |  | Q. 42 |
| Arpera | 72 |  | 0.93 |
| Enkomi | 73 | 0.71 |  |
|  | 74 |  | 1.15 |
|  | 75 |  | 0.33 |
|  | 77 | 0.40 |  |
|  | 78 |  | 0.66 |
| HST | 79 |  | 0.37 |
| Larnaka | 80 | 0.81 |  |
| Pyla-Verghi | 81 | 0.65 |  |

Pictorial Class from RAS Shamra

| 82 | 0.47 |
| :--- | :--- |
| 83 | 0.41 |
| 84 | 0.74 |
| 85 | 0.82 |
| 86 | 0.35 |
| 87 | 0.42 |
| 88 | 0.56 |

$142$



$145$



$\mathrm{NiO} \quad \mathrm{Cr}_{2} \mathrm{O}_{3} \mathrm{MnO} \quad \mathrm{TiO}_{2} \mathrm{MgO} \quad \mathrm{CaO} \quad \mathrm{Na}_{2} \mathrm{O} \quad \mathrm{Fe}_{2} \mathrm{O}_{3} \mathrm{Al}_{2} \mathrm{O}_{3}$


$150$


## APPEPTDIX I

## CATALOGUE OF VASES ANALYSED

(Unpublished or badly known vases are emphasised by an asterisk)

## 1*

ENKOMI Pl. 17/2 Figs. $2 / 9$ and 15/3, in Enkomi-Alasia storerooms (1966)

RS BELL KRATER, rim and upper body sherds. $13 \times 11$ and $7 \times 12 \mathrm{~cm}$.
Beige clay. Thick buff slip. Feddish in parts. Lustrous bright red paint.

A bull in outline facing to right and eating a plant. This animal has a thick dorsal line, a large eye surrounded by curved lines and three thick curved lines across the neck. The fill-in consists of dots, small and comma-like at the front. Also a stenmed spiral, and two large oval paint brush daubs towards the rear.
cf. Nouv Doc. PL XXIV $/ 1 \& 6$
2
ENKOMI Pl. 3/2 Fie. 2/1, in Enkomi-Alasia storerooms (1946)
RS KRATER FS 8-9, rim and body sherd. $17 \times 7 \mathrm{~cm}$.
Beige clay. Buff slip. Dark brown paint.
The rear half of a bull in outline facing left. Thick dorsal line curve continuing thin but uninterrupted to form the underside. Part of the hind leg and tail are visible. Filled in with irregular patches of paint.
cf. Walters, BMC C418
3*
ENKOMI Pl. 1/1 Fig. 2/3, in Enkomi-Alasia storerooms (1962)
RS BELL KRATER, fragments. $11 \times 9 \times 12 \times 6 \mathrm{~cm}$.
Buff clay and slip. Red-brown to dark brown paint.
A bull reaching down for a plant. This bull is facing left and is probably one of a confronted pair, as in the 6425 fragments (Walters 1912, 88, Fig. C425), which are likely to belong to the same vase. The lower hind quarters of the animal are missing. The upper contours of the bull are rendered by a comparatively thin continuous line, curving up from the hind quarters to the shoulders, and then down along an extended neck, to a square-ended muzzle. Ears, eyes, legs and hooves are finely drawn and attention is given to drawing the bull's dewlap. Fill-in consists of a thick irregular mottle.

4*
ENKOMI Pls. $1 / 2$, $9 / 1$ Figs. 2/1, 4/1, 12/5, in Enkomi-Alasia storerooms (1967)

RS BELL KRATER, reconstructed from fragments. H. 27 cm D. 29 cm .
Reddish fabric. Creamy lustrous slip. Lustrous red to brown paint.
Side I.
A bull in outline facing to right. Head wanting. Finely drawn hind quarters and legs. An effort is made to render the relief of the inner hind leg by short horizontal strokes. Curved lines on sides and waist.
Side II.
A procession to right of two long beaked birds. On the rearmost, the tail and wing are missing. The bird in front is almost intact and has a fan tail and a curved wing. Unlike the former which is filled in with only straight lines at the neck and tail, this bird also has curved line on the wing and breast.
cf. Nouv.Doc. PL. XXIV/5. \& XXVI/6-7.
5
ENKOMI P1. 3/1, 1959/11-26/1 in Cyprus Museum
RS BELL KRATER, neck and upper body sherd.
Yellow clay and dark brown paint.
The front half of a bull reaching down for a plant. Vertical borderlines stylised into a spiral tree of two branches.

Nouv. Doc. 244 PL XXIV/2.

## 6*

ENKOMI Fig. 2/8 in Enkomi-Alasia storerooms (1971)
RS BELL KRATER, body sherd. $6 \times 6 \mathrm{~cm}$.
Yellow white clay and slip. Dark brown paint.
Hind leg of a bull?
Alasia I 72 FIG. 14/19.
cf. Nouv. Doc. PL XXIV/5.

7*
ENKOMI Fig. 2/11, in Enkomi-Alasia storerooms (1965)
RS BELL KRATER Body sherds $6 \times 5.5 \mathrm{~cm} 5 \times 3.5 \mathrm{~cm}$.
Buff clay. Heddish-buff lustrous slip and lustrous red paint.
I'wo legs of a goat? and the lower parts of two leaves.
cf. Nouv. Doc. PL. XXIII/7.
8
ENKOMI, in Enkomi-Alasia storerooms (1963)
RS BELL KRATER? Body sherd $6 \times 5.5 \mathrm{~cm}$.
Fabric red in centre. Slip buff-red. Dark brown paint.
Mottle fill in of bull?
Alasia I FIG. 25/4
9
ENKOMI Pls. 10/1, 14/2, A2020 and A2021d in Cyprus Puseum
RS BELL KPATER, partly reconstructed. D. 23 cm .
Pink-buff clay. Buff slip. Lustrous red to brown paint.
Side I.
Confronted birds with stylised tree between thern.
Side II.
Spiral tree motif of six symetrically antithetic stemmed spirals on Central metope of vertical wavy lines. To the left the hind quarters of a goat' facing to left. On to this vase appears to join a sherd decorated with the forequarters of the same goat or deer (now in Medechavmuseet, Stockholm).
C.V.A. C.M. 16 PL. 15/1-2.

Nouv. Doc. 245, 247, 255, PLS, XXI/4, XXV/4.

10*
ENKONI Fig. 4/6, in Enkomi-Alasia storerooms (1962)
RS BELL KRATER body sherd. $11 \times 17 \mathrm{~cm}$.
Buff clay and slip. Paint red-brown to dark brown.
The neck and breast of a bird in outline (facing to right). Two vertical borderlines.
cf. Walters, BMC 87 FIG. 152
11
ENKOMI Pl. 10/4 Fig. 4/5, in Enkomi-Alasia storerooms (1966)
RS BELI KRATER, body sherd. $15.5 \times 7.5 \mathrm{~cm}$.
Hard reddish fabric. Lustrous yellow - عreen slip (finger print visible). Paint is matt brown.

The speckled breast of one bird the rear and part of the wing of another. Both facing to right. The wings of this bird are cross hatched and the tail has the shape of a fish's.
cf. Nouv. Doc. PLS. XXV/5 and XXVI/4.
12*
ENKOMI Pl. 10/2, Figs. $4 / 7$ and $15 / 2$, in Enkomi-Alasia storerooms (1965)
RS BELL KRATER, rim and body sherds with handle. $14 \times 24 \mathrm{~cm}$ and $12 \times 7.5 \mathrm{~cm}$. Diam. 21 cm .

Soft chalky reddish fabric and lusterless reddish slip. Dull red to black paint.
i. Fan tail and curved wing of bird facing to right. Vertical line between the handle roots and a stemmed spiral as vertical borderline.
ii. Head and breast of bird facing right. A large triangular head with a straight beak and a mottle-filled breast.

13*
ENKOMI P1. 9/2 and Figs. 6/2, 14/9 in Enkomi-Alasia storerooms (1949)
RS BELL KRATER, rim fragment. $7 \times 5.5 \mathrm{~cm}$.
Gritty reddish-buff fabric a slightly whiter lusterless slip and faded red paint.

Elongated fan tail and rectilinean wing of bird facing right. Thick contour and fill-in lines. Wing is filled with six spots and short brush strokes.
cf. Nouv. Doc. PL. $\times X V / 5$.

## 14*

ENKOMI PI. 10/3 Fig. 6/3, in Enkomi-Alasia storerooms (1962)
RS BELI KRATER, rim fragment. $14 \times 6 \mathrm{~cm}$.
Yellow fabric. Cream-yellow slip. Dark brown peeling paint.
Fantail of bird drawn in very thick outline.
15
EINKONI Pl. 12/1 Fig. 6/6 in Enkomi-Alasia storerooms (1970)
RS BELL KRATER, handle and rim fragments. $30 \times 13 \mathrm{~cm}$. Diam: 30 cm .
Ked to pink fabric and lustrous cream-white slip. Dark brown paint, red at the rim.

Part of the head and horns of a coat facing right. Goat is reaching up to the leaves of a plant, whose stem runs horizontally across a cross hatched group of borderlines, and the handle area.
16*
ENKOMI Pl. 12/3 Fig. 6/9, in Enkomi-Alasia storerooms (1969)
RS BELL KRATER? body sherd. 8.5 x 8 cm .
Reddish white flecked clay and buff slip. Bright red paint.
A goat? Hind legs and head not preserved. Part of one long curved horn super-imposed on body, and forelegs visible. Body filled-in with short curved lines. Parts of another creature and a circle visible in the background.
cf. Ugaritica II FIG. 91/11.
17
ENKOMI Pl. 12/2 Fig. 6/8 in Enkomi-Alasia storerooms (1963)
RS BELL KRATER. Rim sherd. $6 \times 4 \mathrm{~cm}$.
Fink clay. Thick yellow slip and dark brown paint.
Neck and parts of head and horns of a goat facing right.
Alasia I 109 FIG. 25/5.

18
ENKOMI Fig. 6/10, in Enkomi-Alasia storerooms (1963)
RS Beill krater, body sherd. $6 \times 25 \mathrm{~cm}$.
Reddish clay. Buff slip. Paint dark red to brown.
Thick dorsal line and six curved fill-in lines of a fragmentary goat.
Alasia I FIG. 25/7
19*
ENKOMI Fig. 8/1, in Enkomi-Alasia storerooms (1966)
RS BELL KRATER, rim and body sherds. Actual height 19 cm. Diam. 12 cm .
Yellow clay, fired hard. Thin dull slip. Dark brown paint, partly red at rim.

Floral spiral motif. Two small stemmed spirals antithetically suspended on apex of stroke-filled triangular central column. Four other longer stemmed spirals rising obliquely from base of same.
cf. Nouv. Doc. PL XXVIII/5.
20
ENKOMI P1. 16/1 A2020d and A2021d in Cyprus Nuseum
RS BELL KRATER, rim body and handle sherds. Actual height 16.5 cm . Diam. 18.7 cm .

Reddish clay, cream white slip and light brown to red paint.
Two large thick spirals antithetically suspended on the apex of a stroke- filled triangle.

Nouv. Doc. 259 and PL. XXVIII/5.
21*
ENKOMI Pl. 15/1 Fig. 8/9, in Enkomi-Alasia storerooms (1963)
RS BELL KRATER, body sherd. $11.5 \times 11 \mathrm{~cm}$.
Red clay. Semi lustrous, buff-red slip and bright red paint.
A spiral tree and part of a spiral triangle which contains two horizontal leaves, between the two spirals.
cf. Nouv. Doc. PL XXVIII/4.

22*
ENKOMI FiE゙. 8/7, in Enkomi-Alasia storerooms (1962)
RS BELI KRASER, body sherd. $9.5 \times 8.2 \mathrm{~cm}$.
Pink clay. Thick creamy slip. Dark brown paint.
Two thick stemmed spirals from floral spiral motif.
cf. Dikaios PL 93/23-25
23
ENKOMI PI. 15/2 Fig. 13/1, A2034 in Cyprus iuseum
RS BELL KRATER. Reconstructed H. 16.5 cm. D. 18.7 cm .
Buff clay and slip. Semi-brilliant orange paint.
Face I: two triangular floral motifs.
Face II: one spiral tree antithetic spirals.
Fouv. Doc. 255 PL. XXVIII/4 Fis. 51/4.
24
ENKOMI Fig. $8 / 4$ in Enkomi-Alasia storerooms (1961)
RS BELL KRATER, rim and body sherd $12 \times 5.4 \mathrm{~cm}$.
Reddish clay. Thick lustrous beige slip. Dark brown to red, faded paint.

Part of one spiral triangle. Fill in of three thick vertical lines joined by many thin horizontal lines.
cf. Walters, BMC 87 FIG. 152
25*
ENKOMI P1. 15/3 and Fig. 8/5, in Enkomi-Alasia storerooms (1949)
RS BELI KRATER rim fragment. $6.4 \times 4 \mathrm{~cm}$.
Fine pink clay. Creamy white lustrous slip. Paint light to dark brown.

A hanging row (F.M. 51/23) of 4, small inverted, stemmed spirals below the rim of the krater.

26*
ENKCMI Fig. 8/2, in Enkomi-Alasia storerooms (1949)
RS BELL KRATER, rim fragment $10 \times 5.5 \mathrm{~cm}$.
Pink clay. Lustrous buff slip paint. Light to dark brown.
One hanging stemmed spiral at rim part of similar motif? lower down on the panel.
27*
ENKOMI Fig. 8/3, in Enkomi-Alasia storerooms (1969)
RS BELL KRATER? body sherd $10 \times 10.7 \mathrm{~cm}$.
Red clay. Yellow-green slip. Red-brown paint.
Spiral band decoration.
cf. Nouv. Doc. PL XXVIII/\&.
28*
ENKOMI Pl. 16/2, in Enkomi-Alasia storerooms (1963)
RS AMPHOROID KRATER, long neck and body sherds reconstmucted. Actual height 15.5 cm . Diam. 26 cm .

Red clay. Lusterless yellow slip. Pale red paint.
Running spiral band with dotted interior.
cf. Nouv. Doc. PL. XXVIII/9.
29
ENKOMI Fig. 8/10, in Enkomi-Alasia storerooms (1947)
RS BELL KRATER, frasment with vertical upper sides some of rim and one horizontal loop handle survives. $15.4 \times 11 \mathrm{~cm}$.

Reddish clay. Thick lusterless reddish slip. Paint dark brown to black.

Mound effect (cf. Walters, BMC 87 Fig. 152), created by the superposition of joining, parallel, dot-filled semi-circles extending up to the rim, in four "storeys".

Essai. 17 Pl. 2/7.

## 30

ARADIPPO Pl. 22/2 Figs. $3 / 6$ and 12/6, AN 679 in Louvre Museum, Dept. des Antiquites Orientales.

RS BELL KRATER. H. 24 cm. D. 27 cm .
Buff-pink clay and slip. Paint in red.
RS bulls, one on each side facing right. The bulls have a very thick curved dorsal line and large eyes which are surrounded by curved lines. The fill-in consists of thick blotches and vertical lines at the waist. Both bulls are eating plants. One bull has three curved lines across the neck.

Stubbings, BSA (1951) 171-172 FiE. I
ECH XXXI 230, Fig. 6.
31
ARPERA CHIFLIC Pl. 19/4 and Fie. 2/13, 1953. 346 in Ashmolean fíuseum.
RS BELL KRATER? body sherd. $6.3 \times 5 \mathrm{~cm}$.
Greenish buff clay. Reddish buff slip. Dark brown paint.
A bull? Drawn in outline facing to right. The breast, forelegs and one hind leg survive. The upper legs are drawn in a manner similar to F.M. 5/4.

32*
ARPERA CHIFLIC Pl. 19/3 and Fig. 2/10 1953. 340 in Ashmolean Museum.
RS BELL KRATER body sherd. $7.5 \times 5 \mathrm{~cm}$.
Buff clay. Yellow buff slip. Paint dark red to brown.
The hind legs and rear underside of a bull moving to right. Dotted fill-in.
cf. Nouv. Doc. PL XXIV/6.
33
HALA SULTAN THKKE PI. 19/2 1934/1-28/1 in CyFrus Museum
RS BELL KRATER body sherd $18 \times 14 \mathrm{~cm}$.
Buff-pink clay. Smooth cream coloured slip. Orange-red semi lustrous paint.

The hind quarters of a goat to right filled-in with paint (with the exception of the hooves).
cf. Nouv. Doc. . 245 , PL. XXV/8 PL.XXIII/7.

## 34*

KITION 1963 P1. $18 / 2 \mathrm{in}$, Cyprus Museum
RS BELL KRATER, rim and body sherds. Restored but largely incomplete.
Reddish buff clay and slip. Bright red paint.
Upper parts of bull facing right with heavy dorsal line. Hind legs and parts of forelegs preserved. Head is missing. Filled in with dots at the forelegs, small comma-like curves, thick mottle and spirals in the body and vertical lines at the waist. Fragments of similar bull on other side.

```
cf. Nouv. Doc. PL. XXIV/1
```

35
KLAVDIA PI. 18/1 and Fig. 14/1, C421, in British Museum
RS BELL KRATER, restored from fragments. H. 28.5 cm . D. 87.9
A bull on each side facing right and eating a plant. Bulls have heavy dorsal lines, and large eyes surrounded by curved lines. Fill-in consists of dots and small comma-like curves. Vertical lines are drawn across the neck and waist. One of the bulls has a stemmed spiral motif as a fill-in element. On one panel the customary borderlines are replaced by plant motif.

$$
\text { Walters, BMC } 17
$$

MP 466
Stubbings BSA 40 (1951) 171
Nouv. Doc. 239-240 PL. XXIV/6
36
KYRENLA-MYLOPETRES P1. 23/1-2, 1746 in Cyprus Survey Collection
RS BELL KRATER H. 26 cm. D. 28 cm .
Reddish buff fabric. Buff slip. Paint red to brown.
Side i
A portly bull with a thick dorsal line, small head. Carefully drawn legs and hooves. Faces right while reaching for a plant. Fill-in consists of sparce heavy mottling, thin curves behind the neck and forelegs, as well as three large curves across the mid section.
Side ii
Two floral spiral motifs. The first consists of eight symetrical antithetic spirals on either side of a central column of two vertical lines, enclosing an undulating vertical line. The second spiral motif to the right consists of two pairs of asymetrically and antithetically stemmed spirals, on either side of a central two line column filled with oblique strokes. Two long hanging stemmed spirals, their sterns joined

36 (contd)
by vertical lines, hang down obliquely from the left of the column. Two similar spirals rise obliquely from its base to the right.

BCH. (1970) 207 FIG. 21-2/no 4
37
LARNAKA Pl. 17/1, 1958/vI - 20/9 in Cyprus Nuseum
RS BELL KRATER fragments.
Reddish-buff clay and slip. Red̉ paint.
One sherd is decorated with a thick dorsal line and head of a bull facing right and eating a plant. The bull has large eyes surrounded by curved lines. The fill-in consists of comma-like small curves. The lower hind quarters and legs of another bull filled-in with a spiral survive on the second fragment. On the third fragment, the forehead and horns of a similar bull and similar plant.
cf. Nouv. Doc. 240 PL. XXIV/I
Nouv. Doc. PL. XXIV/6
38*
MARONI PI. 19/1, Fig. 6/7, C426 in British Museum
RS BELL KRATER rim and body sherd. 13 x 9 cm .
Buff clay. Cream slip. Red to brown paint.
Heads of two long horned stags?, facing right in procession. Horns of a third animal visible to the left.

Walters, BMC 8
39
PYLA VERGHI Pl. 21/1 in Larnaka Archeological Museum
RS BELL KRATER reconstructed from fragments. H. 27 cm .
Buff pink clay and slip. Orange-brown paint.
Bull with thick dorsal line, facing right towards plant. Curved lines across neck and around large eyes. Lines across waist. Stemmed spiral on hind quarters.
Similar bull on side two.
Vertical border lines enclosing thin undulating lines.
Dikaios 917 Pl. 233/3
cf. Nouv. Doc. PL. XXIV/6

40
PYLA-VERGEI P1. 20/1 in Larnaka Archaeological liuseum
RS A BELI KRATER reconstructed from fragments $H .24 \mathrm{~cm}$.
Reddish clay and slip. Paint is bright red.
Side I: A bull facing to right eating a plant. Thick dorsal line, curved lines across neck and around large eyes. Filled in with dots and at the back, four curved lines. Vertical lines across the waist. Bull is eating a plant. Similar composition on side II.

Dikaios 917 Pl. 233/1
cf. Nouv. Doc. PL. XXIV/6
41
PYLA-VERGHI in Larnaka Archaeological Museum (Fl. 20/2)
RS BELI KRATER reconstructed from fragments.
Buff-red clay, cream coloured slip, orange brown paint.
Tree motifs on both sides. On side I also a triangular mound of joining and superimposed semi circles. (FN 42/21)

Dikaios 917 PL.233/14
cf. Walters BMC 87
Nouv. Doc. PL XNVIII/7

## 42

PYLA-VERGHI PI. 22/1 in Larnaka Archaeological Museum.
RS BELL KRATER reconstructed from fragments $H .31 \mathrm{~cm}$. Base missing.
Reddish-pink clay. Buff slip. Red paint.
A continuous spiral band with two smaller spirals between each of the two horizontal handles.

Dikaios 917 PL 234/1
cf. Nouv. Doc. PL. XXVIII/8
43
PYLA-VERGHI PI. 21/2 in Larnaka Museum
RS BELI KRATER reconstructed from fragments H. 30 cm .
Buff reddish clay. Buff slip. Red paint.
Side I an elongated bull drawn in outline with a comparatively thin dorsal line. Facing to right. Filled in with sparce dots or short strokes. Bull is eating plant. Behind the bull a large tree. Similar composition on side II.
Dikaios 917 PL. 233/2

## 44*

PHIAMOUDHI PI. 30/1, from Columbia University Excavations
Bell krater? Body sherd $5.5 \times 8.7 \mathrm{~cm}$.
Reddish clay and reddish-buff fabric. Paint dark red.
Parts of a spiral.
45*
PHLAMOUDHI PI. 30/2, from Columbia University Excavations RS BELI KRATER Eody sherd. $10 \times 5.5 \mathrm{~cm}$.

Dark pink fabric. Buff slip. Dark brown paint.
Three horizontal, interspaced, space filling lines. Traces of vertical parallel lines of metope.
46*
FHLAMGUDEI P1. 30/3, from Columbia University Excavations
RS BELL KRATER body sherd $5 \times 3 \mathrm{~cm}$.
Reddish buff clay. Buff slip. Orange paint.
Two? stemmed spirals.
47*
PHLAMOUDHI P1. 30/4, from Columbia University Excavations
RS BELL KRATER body sherd. $4.5 \times 5.3 \mathrm{~cm}$.
Reddish buff clay. Buff slip. Dark brown paint.
One mycenean space filling horizontal line. Part of spiral.
48*
PHIAMOUDHI P1. 30/5, from Columbia University Excavations
RS BELI KRATER Three body sherds
$4.5 \times 3 \mathrm{~cm}$.
$4 \times 3 \mathrm{~cm}$.
$4 \times 3 \mathrm{~cm}$.
Red fabric and slip. Dark red paint spirals.

## 49

RAS SHAMRA, Fig. 7/3 in Musée du Louvre, Dept. des Antiquites Orientales

RS BELL KRATER, rim and body sherd. $21 \times 17.7 \mathrm{~cm}$.
Reddish clay. Pink slip. Bright faded red paint.
A long horned, elongated goat facing to right (orieinally intact save for one foreleg. Now, only head survives in Louvre). Thick neck and dorsal line. Fill-in consists of nine curved lines across the body and some dots.

Ucaritica II 218 Fig. 91/11
Nouv. Doc. 238
50
RAS SHANRA Pl. 25/2 and Fig. 3/10, in the Reserves of liusee de St. Germain en Laye, France

AS BELL KRATER, largely reconstructed from fragments.
Reddish buff fabric. Thick buff slip. Paint red to brown.
Side I two confronted winged sphynxes. Between them a plant motif. Sphynx facing to left is fragmentary only part of the head, breast and forelegs surviving. The other sphynx, also drawn in outline, is filled in with irregular strokes, with the exception of the breast which is painted-in. The wings are thickly cross hatched.
Side II a bull facing right. Head is not preserved. Dorsal contour line varying in thickness. Finely drawn legs and hooves. Fill in consists of short strokes at the shoulder and neck, and three curves across the neck.

Nouv. Doc. 239-240 PL. XXIV/4,5
cf. Ucaritica II FIG. 59/46, 60/18
51*
RAS SHAMRA PI. 8/5, No. 76833 in the Musée de St. Germain en Laye, France
RS BELL KRATER, rim and body sherd. $7.5 \times 11.5 \mathrm{~cm}$.
Reddish buff clay and slip. Paint dark brown-red.
A large carelessly drawn stemmed spiral.

52
RAS SHAMRA Fig. 4/3, No. 76882 in Musée de St. Germain En Laye, France
RS BELL KRATEP, rim and body sherd.
Reddish clay. Buff brown slip. Red-brown faded paint.
The head, breast and vertical wing of a long beaked bird facing to right. Drawn in outline, and filled in with oblique and vertical brush strokes in the body, and horizontal strokes in the wing. Behind the bird, superimposed on the wing; there survive two leaves of a tree. The bird
representation is therefore likely to belong to a heraldic composition of jucsta posed animals.
Two vertical border lines visible in front of bird.
cf. Nouv. Doc. PL XXVI/?
53
RAS SHAMRA Pl. 25/1 and Fig. 15/1, No. 76721 in Musée de St. Germain En Laye, France

RS BELL KRATER, reconstructed from fragments $H .27 .8 \mathrm{~cm}$. D. 27.5 cm .
Pink paint, cream slip. Bright red paint.
Side I: A bull drawn in outline while reaching up for a plant. Thin dorsal line doubled at the shoulder. Small head. Fill-in consists of sparce mottle and four vertical curves at the narrow waist. A stemmed spiral in the foreground and below the bull, five semi-circles joined together side by side.
Side II. An antithetic spiral motif. A central narrow vertical column, filled with oblique strokes.
Two long stemmed spirals hang obliquely on either side of column. Two others also oblique, rise up from the sides to touch the column near its centre. On each side of the column the stems of the two spirals are joined by strokes.

UG.II FIG. 60/22, 23
Nouv. Doc. 237.238
Benson, AJA (1967) 316
54
KOUKIIA P1. 26/5, KD. 202 in Kouklia Archaeological Museum
RS BELL KRATER, rim and body sherd.
Reddish buff clay. Thick white slip. Lustrous dark brown paint.
The head, breast and foreleg of a bull finely drawn in contour, facing right, and eating from a three branched plant, which is thickly covered with leaves. A large triangular eye and ear. The fill-in consists of curved lines used to express the third dimention.

54(contd)
Nouv. Doc. $2364 \& 5$ PL XXIII/5
AJA (1967) 317
AA (1972) HETT 2/188-197
55*
KOUKLIA Fig. 2/4, TE III 130 in Kouklia Excavation storerooms
JUG, neck and body sherd. $5.8 \times 4 \mathrm{~cm}$.
Reddish fabric. Buff slip. Red-brown paint.
Part of the back of a bull in outline facing to right. Thin dorsal line, traces of three curved lines across neck. Ear filled with oblique strokes. Traces of curved horns. Fill-in of irregular dots and strokes.
56
KOUKIIA Pl. 26/1, TE III 35 in Kouklia Excavation storerooms
RS BELL KRATER, upper body sherd. $9.8 \times 10 \mathrm{~cm}$.
Reddish clay and slip. Red paint.
The side, breast, neck and part of forelegs and head of a lion? facing to right.
Thin dorsal line rising sharply to form the neck. One tooth visible in lower jaw. Filled in with vertical curves across the body and along the neck. One large paint splotch on shoulder. Legs contain circular curves and straight lines.
Although drawn in contour, an effort is made by fill-in, to express relief.

RDAC (1969) 42 PL IV . 2 (number wrongly given as ITE III 39)
57*
KOUKLIA P1. 29/2, TE III 39 in Kouklia Excavation storerooms
RS BELL KRATER, rim and upper body sherd. Rim is long and oblique.
Gritty, yellow clay. Buff slip. Dark brown paint.
Three horizontal mycenean filling lines, unusually situated immediately below rim. Plant motives. Two plants made up of vertical branches with oblique strokes on each side. To the left of these, a tree with long branches rising obliquely from the vertical trunk, three on each side. These branches then curve round and then down again parallel to the trunk. The top-most of these have similar small oblique strokes as on the proceeding two plants.
On either side of these, traces of two verticallines, similar to the more customary RS borderlines, but many times wider, with oblique crosshatching.

58*
KOUKIIA PI. 27/2, TE III 126 in Kouklia Excavation storerooms
KRATER FRAGMENT? $3.2 \times 3 \mathrm{~cm}$.
Chalky buff clay. White slip. Red-brown paint.
Plant motif on possibly legs of a quadruped.
59*
KOUKLIA Pl. 27/1, TE III 132 in Kouklia Excavation storerooms
A BELL KRATER? body sherd. $5.3 \times 3.5 \mathrm{~cm}$.
Reddish clay. Buff red slip. Red-brown fabric.
Fish-like creature? Also, two vertical lines containing five horizontal concentric curves.

60
KOUKLIA P1. 26/3, TE III 36A in Kouklia Excavation storerooms JUG neck and body sherds. Reconstructed di mentions: $12.4 \times 12 \mathrm{~cm}$.

Yellow fabric and slip. Dark brown paint.
A bird with up curved beak and large round eye facing right. Drawn with thick contour lines and filled in with cross-hatching. Wing painted brown, part of the wing and tail of a similar bird to the right.
Neck of jug painted with series of parallel wavy curves.
RDAC 1969: 40, 42, PL III 6
BCM 1969: 535 FIG. 173
61*
KOUKLIA P1. 27/3 and Fig. 2/7, TE III 128 in Kouklia Excavation storerooms

KRATER? Boày sherd with carination $5.4 \times 2.4 \mathrm{~cm}$.
Reddish buff clay. Thick white slip. Dark brown paint.
The underside of a bull facing left?

62
KOUKLIA Pl. 26/4, TE VIII 9 in Kouklia Excavation storerooms.
BOWL Rim and body sherd. $11.8 \times 8.3 \mathrm{~cm}$.
Buff fabric. White slip. Dark brown paint.
The front half of a long necked bird with an upward curving beak. Drawn in contour and facing left. Fill-in consists of dots on the breast and back, and curved lines across the S curving neck.

RDAC 1969: 40, 42 PL. 4/3
cf. Tarsus II PL. 335/1323, 1324
63
KOUKLIA Pl. 27/4, TE III 33 in Kouklia Excavation storerooms
BELL KRATER Rim and body sherd. $14.9 \times 14.5 \mathrm{~cm}$.
Greenish buff fabric and slip and dark brown paint.
Parts of two stemmed spirals from a spiral band.
RDAC $40 \mathrm{n} 3,42 \mathrm{PL}$. IV/4
cf. Nouv. Doc. PL. XXVIII/8
64
KOUKLIA Pl. 26/2, TE III 34 in Kouklia Excavation storeroom
BELL KRATER? body sherd.
Reddish buff fabric white slip and red paint.
A fish moving to right. The tail is not preserved. Head is drawn in contour, body and fins are painted in. In the foreground the tail of another fish?

RDAC $40,42 \mathrm{PL}$. IV/ 1
(publication gives number as TE III 38)
65
KOUKLIA PI. 28/1-2 and PI. 29/1, KAPI 33 in Kouklia Archaeological Museum

SIDE-SPOUTED JUG. FS. 43 reconstructed from fragments. H. 22.2 cm circular splaying lip. Concave - sided neck one vertical handle extending from lip to shoulder. Body globular in shape. Immediately above the broadest part of body, and vertically opposed to hande (but rather off centre towards the handle), there are traces of an open spout of circular section. Inside this spout the body is pierced by twenty small holes, which presumably served to act as a strainer for the contents. Base is ringed.

65 (contd)
Reddish buff clay and slip. Paint is orange. The outer face of the handle is painted and the paint extends up on to the lip, which was painted inside and out with a band of about 1 cm 's thickness. A similar band of paint is situated at the base of the neck.

At the broadest part of the body there are three horizontal space filling lines of mrcenaean type. Above these, the pictorial decoration of a procession (to right) headed by a bird preceding two bulls. On the back of the hindmost bull sits a second bird, a third bird stands behind this bull.
This composition extends from the left side of the spout, to the vicinity of the vertical handles root and covers nearly three quarters of the upper half of the vase.
Drawn from the base of the neck to the horizontal lines below, two vertical borderlines delimit its horizontal extent.
One is situated to the left of the spout. The other is beside the handle. A third group of borderlines is symmetrically situated on the other side of the handle to the right of the spout.
Each of the borderlines consists of four vertical lines, the inner two being filled by another widely zig-zacging line.
Between the borderlines on either side of the handle a thin stemmed spiral rising from the base of the lines to the right.
Above the spout, a triangle of parallel lines extending to the neck's base. Triangle filled in with dense, oblique cross hatching. The birds which resemble goats are drawn in outline and have large oval bodies with miniscule fan tails and long thick necks.
The fill in consists of horizontal strokes across the neck.
Their bodies are divided in two equal parts by a group of vertical lines.
The foremost bird is filled-in with groups of five concentric semicircles, based on the contour and waist lines.
Both halves of the hindmost two birds, whose necks and are turned to
look behind, are filled in with oblique cross hatching.
The two bulls, also in outline, have thick long bodies, their dorsal
line is thinner than is customary in the RS, and curves up to emphasise
the back at the shoulders, before curving down to the head which has an
oval shaped eye.
Unusually an effort is also made to render the upper calves of the forelegs.
The relief of the inner hind leg is moreover expressed by thin horizontal lines.
Each bull's body is divided into three parts, by two sets of vertical lines, behind the forelegs and in front of the hind legs respectively. The central section so formed is in each case filled with an $S$ shaped curve.
Aside from the upper part of the forelegs, and the ears which are filled in by oblique strokes, sections of the bulls bodies are filled in with an irregular mottle of small dots. There are also curved lines across the neck.

```
cf. Dikaios 847, PL 75/18
    RDAC 1967: 30, PL. VII/3
```

66*
ENKOMI Pl. 31/1, in Enkomi-Alasia storerooms (1967)
BOWL sherd with a spreading rim and globular body. Thin section.
8.9 x 9.9 cm . D. 10 cm .

Reduced buff-grey clay with white grits. Burned on outside.
67
ENKOMI P1. 31/2, in Enkomi-Alasia storerooms (1967)
BOWL, rim and body sherd with one vertical handle. Rim is spreading
and body globular. Handle is of flattened ridged section. $11.7 \times 23.2$
cm . Max. internal diameter 28 cm .
Soft yellow fabric and yellow slip.
68
ENKOMI Pl. 31/3, in Enkomi-Alasia storerooms
BOWL? sherd with spreading rim and globular body. One short vertical
loop handle of flattened, rectangular, but slightly concave section immediately below rim.

Reduced buff-grey clay. The outside is pitted and burned black.
69*
ENKOMI Pl. 31/4, in Enkomi-Alasia storerooms
KRATER? Body sherd $6.9 \times 4.9 \mathrm{~cm}$. Thick gritty section.
Yellow clay and slip, dark brown paint.
Part of one spiral and apex of a horizontal spiral triangle.
cf. Walters BMC FIG. 152
70*
ARADIPPO Pl. 34/1, AM. 677 in Musée du Louvre. Département des Antiquités Orientales

## KRATER FS 8

Light pink clay, beige slip and dark red-brown paint.
Pictorial panels
Side I: Chequers in the centre occupying approximately one third of the panel. On each side of chequers a pucranium FM $4 / 2$.
Side II: Similar composition.

71
ARADIPPO PI. 34/2 AM. 676 in Musée du Louvre. Département des Antiquités Orientales

KRATER FS 8
Feddish clay. Dull reddish slip. Red-brown paint.
Side I Two processions.
A. I-R Two men cf. FM $1 / 4$ and one FM $1 / 25$ man, armed with spear, advancing to the right towards an FM $1 / 4$ man seated on a throne facing left (a bird sitting on back of seat).
B. Three other axmed FIT $1 / 25$ warriors facing right towards another seated figure facing left. Backeround of isolated circles of sea anemone type.
Side II which is fragmentary is divided into four small panels, by three thick parallel chevron bands F M 58/10.
Panel A: Two men cf. FM $1 / 25$ facing right.
$B$ and $C$ : legs of similar man.
D: lower half of a robed figure.
Isolated sea anemone fill-in, isolated pairs of quirks.
Myc III A: 2 - Myc III B.
Greece in the Bronze Age 206 FIG. 36
72
ARPERA PI. 35/1 Fig. 11/4, AM 678 in Musée du Louvre. Département des Antiquités Orientales.

BELL KRATER H. 26 cm D. 28.4 cm .
Buff fabric. Lustrous buff slip. Dark brown paint.
Three rings on inner walls and another near rim.
Pictorial decoration
Side I: A bull in outline facing left. Bull in profile save head which is painted in, and is drawn full face. cf. FM 3/4.
Bull is divided into three sections. The forelegs and neck are filled in with dotted circles containing small circles. Along the insides of the centre body contour lines, two rows of superimposed small circles and semi-circles forming a scale or net pattern. Two parallel rows of joining circles along the middle of the centre body. On the bulls circular rump; five groups of parallel radii made up of short dashes having a wheel-spoke effect. The inside of the upper hindleg is filled with short horizontal strokes. Two palm trees behind bull in the background. Fore and aft of bull, a lozence.
Side II: Similar bull facing to right. Fore and aft of bull, background motifs of concentric circles, in place of Lozences.

## 73

ENKOMI Pl. 35/2, AM 2089 in Musée du Louvre. Département des Antiquités Orientales

AMPHOROID KRATER, fully reconstructed from fragments H. 36
Yellow fabric. Lustrous yellow slip. Dark brown to black paint.
Side I: Antithetic lone legged bulls cf. FM $3 / 1$, in a heraldic scene of confrontation. The bulls are back to back with heads tumed back facing each other. Between the bulls a rosette. One rosette also in front of each bull and two others under the bull to the right. Above and below bull to the left mycenaeanrock work. Rock work also on the ground between the bulls. Background also filled in with one papyrus plant FM 41/9, and isolated potted circles.
Side II: Similar bulls in procession to the right. Background filled with papyrus tufts. One rosette and isolated circles of sea anemone type and curved stripes.

Enkomi-Alasia FLs. XVII and XVIII
74*
ENKOMI? PI. 36/1 Fig. 11/2, AM 2663 Cyprus in Musee du Louvre Département des Antiquites Orientales

BELL KRATER reconstructed from sherds. Iuch restored. H. 29 cm D .32 cm .
Reddish fabric and beige-red slip. Paint red to dark brown.
Pictorial decoration
Side I: A procession of three long legged goats cf. FM 6/2 to right, except for face which is in outline. The contours are filled in with paint. Background decorated with isolated circles FM 41/13 and larger circles containing a quatre-foils and rosettes. Side II: Similar composition Myc III B.

Missions 74 PL. XXXIII/5 Fig. 371
75
ENKOMI P1. 36/2 Fig. 12/1, AO 18591 in Musée du Louvre. Département des Antiquités Orientales

BELL KRATER, reconstructed from fragments. H. 27 cm D. 30 cm .
Reddish fabric and reddish buff slip. Faint dull red-brown.
Pictorial decoration.
Side I: At the centre of panel a large scale pattern, contained by a pair of four vertical parallel lines. On each side, bull protomes FM $3 / 17$ facing to right. Two sea anemone FM $27 / 18$ motifs fore and aft of bull to lef.t. Similarly situated, two rosettes with bull to right.

75 (contd)
Unusually, this pictorial class composition has six borderlines near one of the handles at left. These are wider apart than in the RS and the inner two lines are joined by eight groups of short parallel horizontal strokes, rather than oblique strokes as in the RS.
Side II: A procession to right of four similar protomes (head missing on bull to right).
In front of each bull a sea anemone or a rosette.
Myc III B.
Missions 79 FIG. 37
76
ENKOMI Pl. 37/1, A 20231 in Cyprus Museum
AMPHCROID KRATER, neck and upper body sherd. $12 \times 19 \mathrm{~cm}$.
Pink fabric, Oream slip. Orange paint.
The hind quarters and part of the tail and one leg of a mycenaran III $B$ bull, in outline facing to right. Mottle fill-in of mycenalan lozenges. 77*
EHKOLI Pl. 37/2 in Enkomi-Alasia storerooms (1948)
KRATER Body sherd. $7 \mathrm{~cm} \times 5 \mathrm{~cm}$.
Reddish clay and reddish buff slip. Red-brown paint.
Tentacles of a Pictorial Class Mys.III B cuttlefish. 78*
ENKOMI 1949 in Enkomi-Alasia storerooms (Pl. 37/3)
ARPHOROID KRATER? body sherd. $4 \times 3.8 \mathrm{~cm}$.
Yellow clay. Yellowish slip. Dark brown paint.
Part of the head and body of an FM 1/5-6 man. Breast of similar man to the left.

79
HALA SULTAN TEKKE Fig. 2/12, 1953. 423 in Ashmolean Museum, Oxford JUG, neck and upper body sherd $7.5 \times 4.5 \mathrm{~cm}$.

Pink clay. Buff slip. Red-brown paint.
Thick paint stripe on body and neck at their junction. Pictorial composition of two confronted bulls. Bull to right only horns remain. Bull to left in outline has similar upward curving horns. A triangular head with large round eye, bent downwards. Fill-in consists of thin lines in the shape of the accent circumflex.

## 80

IARNAKA P1. 37/4 1958 VI - 20/7 in Cypmus Museum
AMPHOROID KRATER, neck and upper body sherd. $14 \times 8.6 \mathrm{~cm}$.
Pink clay. Cream slip. Orange paint.
Breast, neck and head of a FM $3 / 2$ bull drawn in outline facing to right. Filled in with patches of trefoil outline. Bull is berding down and has lines across the neck in a manner reminiscent of the RS. In front and bending down over bull, a stylised papyrus tuft.

CVA CM: 4-5 PL 5
BCH 1959: 339 FIG 3
81
PYIA-VERGHI P1. 38/1, in Larnaka Archaeological fuseum

BELL KRATER, reconstructed from fragments. H. 32 cm.
Buff clay and slip. Lustrous orange paint.
Side I: Bull with very elongated body facing to right. Bull is drawn in outline and is divided into three sections by vertical lines aft of the forelegs and before the hind legs. Central section filled-in with dotted single or double circles enclosing ring. Fore and aft sections filled in with right angled U shapes. Behind the bull a man filled in with paint, touches bull with left hand. In the right hand a staff. Side II: Similar bull facing right.

Dikaios PL. 234/3
cf. CVA CM PL. 11/1-6
82
RAS SHAMRA PI. $38 / 2$, AO 20376 Musée du Louvre Département des Antiquités Orientales.

AMPHCROID KRATER.
Light coloured clay beige-red slip. Paint, red to dark brown. White paint used to render detail on horses.

Side I: A chariot composition facing right. Three FM $1 / 18$ men on a chariot with FM $2 / 4$ horses. In the foreground, facing left and confronting chariot, an FM $7 / 25$ bird. Below horses, a palmette motif. Behind chariot two FM palm II motifs and whorl shells. outlines in background.
Side II: Similar with the exception that the chariot carries only two men, and that instead of bird, there is an FM $1 / 25$ man facing right. Mycenean III A: 2-III B.

Ugaritica II 214, 216 FIGS. 89-90 PL. XXXV

83
RAS SHAIRA PI. 39/1, AM 625 from Musée du Louvre. Département des Antiquités Crientales.

AMPHOROID KRATER, restored from fragments. H. 32.5 cm .
Pink fabric. Beige slip. Red-brown paint.
Side I: A chariot (FM 39/20), drawn by FM 2/24 horses and carrying three FM $1 / 20$ men. One FM $1 / 25-26 \mathrm{man}$ fore and aft of chariot (facing to right).
Side II: Similar composition except for second $\operatorname{HNT} 1 / 25-6 \mathrm{man}$, aft of chariot.

Syrie XXXIV (1957) 81-92
84
RAS SHAMRA Pl. 39/2, AO 13143 in Musée du Louvre, Département des Antiquités Orientales.

ATPHOROID KRATER, neck and body sherd. $20 \times 18 \mathrm{~cm}$.
Light beige clay. Beige red matt slip. Dark red-brown paint.
Two FM $1 / 3$ warriors in procession facing to left. Behind the second warrior, the hind quarters, tail and legs of a dot-filled quadruped. Fore and aft of warriors parallel, chevrons FM 58/22. Background fillin of small circles with dot in the centre.

Syrie XII (1931) PL. III/2
Ugaritica II FIG. 124/9
85
RAS SHAMRA Pl. 40/1, AO 18641 in Musée du Louvre. Département des Antiquités Orientales.

SHALLOW BOWL with convey sides and two symmetrically opposed handles H. 6 cm D. 24 cm .

Reddish fabric. Slip, beige outside and reddish inside. Paint redbrown outside, bright red inside.

Two dofphins to right, painted-in. Thin curved tails. Small curves and stemmed spirals on rim.

Ugaritica II 150 FIG. 57/8

86
RAS ShamRa Pl. 40/2, A $0 \quad 18748$ in Musée du Louvre, Département des Antiquités Orientales.

MYCEMAEAN PLATE, two symuetrically opposed handles at rim, convey sides. H. 6.7 cm D. 2.3 cm .

Reddish clay. Beige red slip. Bright red paint.
Circular lines inside and out. On the inside, below the rim, a procession to right of five bulls. Frotomes separated by dotted circles. Four bulls FM $3 / 20$
One bull FFM $3 / 19$
Myc III B
(1933) PL. X (bottom left)

Ugaritica II 154 FIGS. 59/34, 61/A
87
RAS SHARRA Fig. 7/6, 76714 in wusée de St. Germain en Laye
BELL KPATER Rim and upper body sherds. Rim is thick and sides are globular. The horizontal handle is unusually long and pointed at the centre.

Buff fabric. Creamy slip. Red-brown paint.
A fragmentary composition in handle zone depicting a procession to right of men mounted on FM $2 / 5$ stallions. Painted-in with brown paint, save for riders head and the horses neck and face, which are left in outline. One of the men is armed with a sword.
In the background, lozences and a dotted circle.
Ugaritica I 105 FIG. 96/E
Ugaritica II 224 FIGS 94/E 61/A, C
88
RAS SHAMRA Fig. 4/5, 76695 in IJusée Nat. de St. Germain en Laye
RHYYON incomplete. Actual height 27 cm .
Reddish clay. Beige slip. Red paint on upper half of the vase.
A horse (head wanting) drawn in outline and facing to right. Fill-in consists of dots with thin curves at the rump. Back to back with this mare? A foal (back and head wanting), rearing up. Similar fill-in.

Ugaritica II 218 FIG. 9/5, 16.

## CHAPTER V

## HISTORICAL CONCLUSIONS: THE COLLATING

OF RUDE STYLE SHAPE, STYLE AND FABRIC
GROUPS AND THEIR CHRONOLOGY

This chapter begins with an attempt to compare and correlate the style groups drawn up in Chapter II with the shape groups of Chapter III.

Coherent Style/Shane groups which emerce, are then compared to examples of RS found stratified in excavations in Cyprus and the Levant. The object here is to discover the relative chronology of the RS vases examined.

These archaelogical conclusions are then compared with the guidance from the physical examination of RS's febric composition, described in Chapter IV.

Finally, the question of the RS's absolute chronology will be considered and an attempt be made to evoke the political and economic factors which gave birth to the RS in LC IIC and then brought about its demise in LC III.

## STYIE X SHAPE

There is considerable agreement between the Style Grouns of Chapter II and the Shape Groups of Chanter III. On the whole, vases which have a family likeness of style are also alike in share. I

The vases of Style Groups 2 and 6 are an example of this. We have seen that these two groups appeared to be inderendent of all others (and of each other), and it is interestine that they again stand out on the basis of their shape. The only whole bell krater of Style 6 ie. Enkomi PI. E/1-2, Fis. 12/4, and the only two bell kraters from Group 2 available for drawing in Europe (1) ie. Klavdia Pl. $18 / 1$. Fig. $14 / 1$ and Aradippo PI. 22/2, Fic. $12 / 6$, all have the shape of Group A (see Fię. 26).

II

Another group of corresponding style and shape consists of Style Groups 3, 4 and 7 , which appear to include the works of a single painter (see Fic. I) and Style 5, which is apparently related to Style 4 (2). These four groups all use the proportionally lower handled and often more biconical $B$ shape bell krater (see Fif. 26).
(1) It has not been possible to obtain profile drawings of other whole bell kraters decorated in Style 2. An examination of these vases does however, make it clear that they have a curved profile and horizontal handles, which are situated high on the outer face of the vase.
(2) See above p. 54.

An examination of the shapes used by Groups 3, 4, 5 and 7, moreover confirms the suppositions arrived at by an examination of their style. Thus the association of the Style 3 groats with the style 7 birds and spiral motifs, (see above p.62) is confimed by the similar rims of; Ras Shamra Fig. 7/3, Fie. 15/5; Enkomi? Fig. 8/12, Fig. 14/3; Enkomi? Fig. 4/2, Fig. 14/5; in Shape Group B iii (Fig. 26). The same is true for the association of Group 5 with groups 3, 4 and 7, Enkomi Fig. 3/4, Fig. 13/1 from Group 5, having the same E i Shape as Myrtou Fig. 5/6, Fig. 13/2 from Style 7 (Fic. 26). Moreover, drawings which appear to be by the same hand, ie. Enkomi Fie. 3/2 and Enkomi PI. 5/12 from Group 4 (see above p.104and Fig. 26), can sometimes be shown to have an identical shape. cf. Fiss. $13 / 4$ and $13 / 5$ respectively.

Does this mean that the painters of the vases were also the potters who fashioned them? This does not appear to be the case.

With only few exceptions, it is difficult to attribute with confidence vases to one painter, even when these come from the same group. Yet, even granting that Style Groups could represent the work of individuals, the fact that vases of Style 7 can for example use two or more different shapes of Group B (Fig. 26), suggests that each painter made indiscriminate use of all the Shape $B$ variants. Within the limits of stylistic studies, it certainly is impossible to subdivide Style Groups further in accordance with peculiarities of the shapes used.

Also, as was shown above (Fig I), the birds of Style 7 are frequently associated with the bulls of Style 4. That the Style 7 bird of Myrtou Fig. $5 / 6$, Fis. $13 / 2$ should use an identical Ei shene as the Style 5 bull on Enkomi Fis. 3/4, Fig. 13/1 (Fig. 25), would certainly suggest that two different painters used the same shape, which presumably, was made by a third individual.

It might also be areued that these links existine between Style Groups 3, 47 and $c$, and the shanes of Grour $B$, are due to their being the product of one workshon. III

Less clear cut is the corres ondence of Shepe $C$ with the bird drawings of Styles $\mathcal{E}$ and 9.

The difficulty of drawire a line hetween the birds of Styles 7,8 and 9 will be recalled (see above P .58 ), while Group $C$ which consists of only one whole vase is less well defined than any of the other shape grouns.

If all the Group $C$ vases are in fact decorated with birds of Styles 8 and 9 , it must be mentioned that Enkomi Pl. 11/3, Fig. 15/4 of Style 8 appears to be of Shape B (see Fie. 26). We have seen that Shape C is unlikely to be made by the same man or men as Shape $B$. However, in view of the fact that both shape groups may be decorated in Style 8 , it might be plausibly argued that the two shapes are related.

Given the possibility that the birds of Styles 8 and 9 are evolved from those of Style $7^{(3)}$ the vases of Group 8 and $9 / C$ mifht perhans be later than Group 3, 4, 7 and $5 / B$.

There is, however, insufficient evidence available on which to base such assertions, and the questions posed by the correspondence of Styles 8 and 9 and Shape 0 must remain unanswered, until the stratigraphical evidence has been considered.

[^3]
## RELATIVE CHRONOLOGY

The rarity of stratified sequences of RS sherds adds to the difference involved for proposing a relative chronology of these three groups. It is only the excavations of Dikaios in Enkomi, which provide such a sequence.

If the archaeological short period of the RS's currency makesit difficult to discern typological differences, the introduction of Myc III C:i pottery into Cyprus during this period makes it possible to draw a line between the vases found before this time in Dikaios' Level III B, ${ }^{(5)}$ and the RS vases from later levels.

Of the four vases from Level II $B$, three bell krater sherds are decorated with thick spiral designs similar to those of another fragment (unpublished), from Schaeffer's excavations in Enkomi (Fig. 8/7). Unlike the palmette, which is frequently associated with the birds of Style 7, (7) these sherds cannot be associated with any of the Pictorial vases considered in Chapter II. The bright paint and creamy lustrous slip of these vases prompted Dikaios to attribute them to Karageorghis' phase A. (8)

```
(4) Dikaios 843-844
    Ibid.
    See above p. 59.
    Ibid.
```

The only Pictorial RS sherd from Level II B, is the bell krater sherd (9) (see P1. 4/3). This is decorated with a finely drawn bull filled-in with speckles, which as the excavator remarked appear to imitate those of bulls from the earlier Myc. III A:2 style.

This vase also is compared to the vases of Karageorghis' phase A. (11) The Enkomi sherd, bears by far a closer resemblence to the bull on Enkomi P1. $8 / 1-2$ Fig. $12 / 4$ and to two other drawings, with which it makes a stylistically homogeneous group 6. (12)

Of these four Style 6 vases, only Enkomi Pl. 8/1-2 Fig. 12/4 of Shape Ai is whole. Group A, as was demonstrated above (p. 102), stands out from the great majority of RS bell kraters by virtue of its rounded, elongated profile and the markedly high location of its horizontal handles comparable with F.S. 281 of the Pictorial Class.
(9) Ibid. 249 PL. 67/26
(10) Ibid.
11) Ibid. 843-844
(12) Sée above p. 56.

Enkomi PI. 8/1 is moreover decorated with confronted sphinxes having distinctly Mycenaean head dress.

Of the remaining RS sherds, from Dikaios' later levels assimilable with the groups drawn up in Chapter II; (13) Enkomi Fig. 5/2 is decorated with a Style 7 bird; Enkomi PI. $15 / 4$ with a palmete of style 7 type; and Enkomi Fig. $5 / 5$ bears a Style 8 bird. The former two ie Enkomi Fig̃. 52 and Enkomi Pl. 15/4, were discovered in Level III A and Enkomi Fig. 5/5 was found in Level III B.

The preceeding study would lead us to suspect that these three vases should have type $B$ or $C$ profiles. Indeed, as far as can be gauged from Dikaios' photographs of Enkomi Fig. $5 / 2$ and Enkomi PI. 15/4, (14) these two vases have the long, rather horizontal rim of Shape $B$ iii, typical of Style 7 vases (see Fig. 26). Shape B as we have seen (p. 100 ) is reconcilable with the later FS 202 krater form.
(13) Tbia. 266-267 PLS. 73/18, 28 and $80 / 18$.

Four other RS sherds from Levels III A and III B pp. 266, 284, 311, PLS 75/25, 80/17, 23 and 91/26, are either non pictorial, too fragmentary, or simply not assimilable with the vases grouped together in Chapter IV.
(14) $\because \quad$ Ibid. PLS $80 / 18,73 / 19$.

From Level III B, Enkomi Fig. 5/5 decorated in Style 8, suggests that shape $C$ which is often associated with this Style Group (p182-183), may in turn be later than Style 7 and Shape B from Level III A. In this regard,it is interesting to note that Style 8 birds seem to be derived from the birds of Style 7 .

It is likely, however, that RS vases found in Level III B might be strays, (15) elthough it seems significant that Enkomi Fig. 5/5, in the destruction layer of Level III B,is separatea from Enkomi Fig. 5/2 by all of Level III B.

It would therefore gypear that thereis a measure of agreement between the internal evidence of the RS's style and shape and the only chronological sequence at present available. Enkomi PL. 4/3, the only representative of Style 6 and the early-looking A Shape Group (similar to Fos. 281), is stratified below Enkomi Fig. 5/2 and Enkomi Pl. 15/4 which represent Style 7 and associated Styles 3, 4 and 5 with B shapes. (Similar to F.S. 282). These two sherds are themselved stratified below Inkomi Fig. $5 / 5$ which represents the birds of Style 8 and 9, (perhaps evolved from those Style 7), and Shape C.

Yet, the speculative nature of these suggestions, which are based only on the evidence of one stratified sequence, cannot be overstressed.

There do however, exist isolated examples of stratified RS vases from tombs and settiement sites. These present us with the difficulty of having to equate them chronologically with the vases of the sequence.
(15) Ibid. 843-844

One important dated sherd is Kition Fig。 $3 / 1$ of Style 1 . Like Enkomi Pl. $4 / 3$ from Style 6 above, it too has been found in layers earlier than Myc III C:i. (16) Unfortunately, we haven't been able to obtain a profile drawing of Kition Fig. 3/1, which is in any case too fragmentary to be diagnostic. It is interesting, however, that Karageorghis in describing the shape of Kouklia Pl. 26/5, a near identical vase from our Style 1, finds that "its sharply angular out-turned rim, is characteristic of the rude style and its initial stages". (17)

Later, in Myc III C:1 layers, we have Myrtou Fig. 5/6 of Style 7 and Shape B; found in room 23 in the layers of Periods VI-VII of the Late Cypriot sanctuary of Myrtou-Pigades.

Myc III C:i pottery was found in the courtyard of this building at Period VI (19) and it seems clear that Period VI could be assigned a Myo III C:i date ${ }^{(20)}$ and that this vase might therefore be later than 1250-1240 BC attributed to it "very approximately".(21)
(16) Nouv.Doc. 258.
(17) AA (1972) Heft 2189.
(18) Myrtou-Pigades 42-44 Fig. 20/191.
(19) Tbid. 22-23.
(20) Du Plat-Taglor in PEQ (1956) 37.
(21) Myrtou-Pigades Op. Cit.

Another interesting sherd is Enkomi Pl. $4 / 2$, a Mycenaean III $C: i b$ jug from Level III A of Dikaios' excavations. (22) This and a whole vase of similar type from Kouklia ie Pl. 28/1-2 decorated with bulls (but also with Myc III G:i birds), appears to be related to group 5, thus suggesting a Myc III C:i date for the group. (23)

If these vases apyear to confirm that Styles 7 and 5 of Shape B are later than Shape $A$ and Styles 1, 2 and 6, the evidence of the tombs is equivocal. When we examine the contents of Dikaios' tomb 1 at Pyla Verghi, which includes two Style $2^{(24)}$ vasesiee. Pls 20/1 and 21/1, and which is no later than Level II B, (25) the contemporaneity of Groups 2/Ai and A ii and Group 6/A, in A pre Mycenaean III C:i period, appears to hold good. This early date is also indicated for Byblos Fig. 2/5, again of Style 2, from Levée 2, Niveau I, (26) which translates into Schaeifer's Ugarit Recent III. (27)
(22) Dikaios 267 PL 75/8.
(23) See above p. 54-55.
(24) Dikaios 918. The only other pictorial vase in this tomb PL $233 / 2$ is not assimilable with any of the bulls from the other groups. See Pyla Verghi Pl. 21/2 p.65.
(25) Ibid.
(26) Fouilles de Byblos 102 PL. 157/1543.
(27) Stratigraphie Comparée. Synoptic Tables I and VII.

On the other hand, Ras Shamra Fig. 7/3 of Style 3 and Ras Shamra Pl. 25/2 of Style 4 from Minet El Beida tomb VI are also dated to this period. (28) Again, tombs 13 and 19 of the Swedish Cyprus Excavations in Enkomi, which respectively include Enkomi Fig, 5/3 of Style 7 and Enkomi Fig. 3/4 of Style 5 (29) are known to contain no Myc III C:i pottery, (30)

It might however be felt, since Mycenaean III C:i pottery is virtually non existent in Ras Shamra, and Mycenaean III C:i burials rare in Cyprus, that the evidence of tombs in this instance, is of lesser value than that of finds stratified in settlements. Clearly then, with the dated material at present available, our proposal for the chronological order of RS Style/Shape groups oan only be tentative. Without confirmation from other excavations, the agreement existing between the Enkomi sequence and our subdivision of the RS might easily be fortuitous.

This might well appear to be the case when we consider all the vases of shape A. If it seems reasonable to suggest that finely painted vases of group 6, with group A profiles, reminiscent of Pictorial Class F.S. 281 krater shapes, can be earlier than other equally fine drawings from. Styles 4 and 7, with Shape B profiles, the same is not true of all the kraters of Shape A.

Of the remaining two whole kraters of Shape A reproduced here;
(28) Schaeffer in Syria XIV (1933) 105 ff.
(29) SCE I 529, 563.
(30) Problems 122.

Aradippo Pl. 22/2, Fig. $12 / 6$ has the same high handles and elongated, narrow form as Enkomi Pl. 8/1-2 Fig. 12/4 of group 6. Klavdia Pl, 18/1, Fig. 14/1 bears an even closer resemblence to Enkomi Pl. 8/1-2 Fig. 12/4, having an identical BD/AG figure (see TABLE XVII), as well as a very similar base and rim shape.

Both these vases are decorated in Style 2. (see Fig. 26) To suggest that Style 2 bulls, too are earlier than some of the relatively fine Style 4 bulls seems inadmissible, particularly in terms of the work of Karageorghis', who proposes a scheme for the relative dating of the RS compositions, wherein fine drawings are earlier than crude ones.

Yet, despite appearances to the contrary there are stylistic reasons also for suggesting that the association of Groups 6/A on the one hand, and $2 / A$ on the other, might after all be valid. The only set of vertical border lines visible on a Style 6 vase ie Enkomi Pl。8/1-2 Fig. 14/1, are of a type generally found only on vases of Group 2 (see above p. 57), and are present both on Klavdia Pl. 18/1, Fig. 14/1 and Aradippo Pl. 22/2 Fig. $12 / 6$.

A possible explanation for the apparently early date attributable to Group 2/a might be that Shape $A$ represents the work of a different centre of production. This explanation moreover, accords well with the fact that with only one exception, all of the bell kraters from Group 2, were found on sites other than Enkomi. Indeed, a large percentage of all Messaorian RS examined here, from sites other than Enkomi, belongs in Style 2. It might therefore be surmised that Style 2 represents an early imitation by outsiders of Enkomi's Style 6 which is exclusively found in Enkomi.

If however we confront the evidence of archaeological study with the results of a physical spectrographic fabric analysis of chosen RS vases, a considerably more complex picture emerges.

## PHYSICAL FABRIC ANALYSES

As has a.lready been pointed out (31) the large majority of RS vases found in Eastern Cyprus and RAS Shamra, conform with the Enkomi RS Fabric Control Group and are likely to have been made in Enkomi.

Amongst the few exceptions to this, are the seven vases which make up group $Z$ (32) while two of the five figurative paintings, in the group. Arpera Chiflik 31 Pl. 19/4 and Pyla-Verghi 43, Pl. 21/2 cannot be attributed to any Style Group (33) Pyla-Verghi 40 Pl 。20/1, Kition 34 Pl. $18 / 2$ and Aradippo 30 Pl . 22/2 are all of Style 2. (34) Also, the shape of this later vase, for which we have a profile drawing ie Aradippo Fig. $12 / 6$ is of the high handled type A, (Fig. 25).

If this appears to confirm the separate identity of Group 2/A vases, the fact that other vases with the same characteristics of. Enkomi1Pl. 17/2, Arpera 32 Pl. 19/3, Klav dia 35 Pl. 18/1, Pyla-Verghi 39 Pl. 21/1 and one sherd fron Larnaka 37 Pl. 17/1 (described in Chapter IV 2/2-1 ii) are recognised to be of similar clay as the Enkomi RS Fabric Control Group, presents serious problems of interpretation.


With some of Style 2 having Enkomi type fabric, it becomes difficult to maintein that Group 2/A constitutes an imitation by outsiders of the earlier Group 6/A, particularly as it appears that the vases of Style 6 have the fabric of Enkomi. (35) The question is therefore raised again, that at least some of Group 2/A might be earlier than vases from Groups 3, $4,7 / B$, which are frequently more finely decorated.

The A shapes of Style 2 are however divisible into Groups A and Aii. In Group Ai apart from Enkomi Pl. 8/1-2, Fig. $12 / 4$ of Style 2, there is Klavdia $35 \mathrm{Pl} .18 / 1$, Fig. $14 / 1$ of Style 2. (Fig. 26). As pointed out above (\$ee p. 97 TABLE XVII), both these vases have their handles situated exceptionally high, while a visual examination of their rims, bases and general profile shows these to be very similar indeed.

In Shape Group Aii the only vase is Aradippo 30 Pl. 22/2, Fig. $12 / 6$ its handles are not as high as those of the former two (36) and despite a similar profile, its base and rim are unlike those of Enkomi Plo 8/1-2, Fig. 12/4 and Klavdia 35 Pl. 18/1 Fig 14/1 (Fig 26).
(35) Enkomi 3. Pl. $1 / 1$ from Style 6 is not a very good fit for the $R S$ control group, to which it is attributed, having a figure of merit which is greater than unit. On the other hand, Enkomi 2. Pl. 3/2, also of Style 6 , has a small figure of merit and fits well into the Enkomi RS control group(cf. TABLE XXV)
(36) See TABLE XVII

The fabric of Klavdia 35 Pl . 181, Fig. $14 / 1$ of Shape A, and Style 2 conforms, as we have seen, with the Enkomi control group, and thus with Enkomi 3 Pl. 2/2 Fig. 14/8 of Style 6 and Shape Ai . On the other hand, Aradippo $30 \mathrm{Pl} .22 / 2$, Fig. 12/6, admitedly the unique example of Shape Aii, belongs with Group Z.

Yet it should be repeated that similarities between the decorative border lines of Enkomi Pl. 8/1-2, Fig. 12/4 from Group $6 / \mathrm{A}_{\mathrm{i}}$ and Klavdia 35 Pl, 13/1, Fig. $14 / 1$ from Group 2/Ai apply to all the Style 2 vases, including those which like Aradippo 30 Pl. 22/2, Fig. 12/6 (37) have the fabric of Group $Z$.

It seems dengerous to take the evidence of such secondary features as border lines too far. The possibility however, remains that Group 6/Ai, 2/Ai and 2/Aii are related, even if Fabric Group Z does represent the output of another workshop.

This could in turn imply that Groups $6 / \mathrm{Ai}$ and $2 / \mathrm{Ai}$ were made in the same workshop, and raise again the problem of having to defend the contempraneity of the Style 6, and Style 2 artists.

It should however, be remembered that an early date is only indicated for Enkomi Pl. $4 / 3$ of Style 6 (38), and that Style 2 might be a later product of the same atelier using Shapes Ai,with Group 2/Aii as a satellite.
$\left(\begin{array}{l}37) \\ 38) \text { see additional drawing of this vase Fig. } 3 / 6 \text {. } \\ \text { See abo, p. } 185-186 \text {. }\end{array}\right.$

To conclude then, if several concurrent productions of the RS are envisaged, the stylistic discountinuity of the KS might be explained. Groups 6/Ai, 2/Ai and 2/Aii (an outside imitation?) minght represent one tendency perhaps begining earlier than Groups $3,4,5,7 / B$ and $8,9 / \mathrm{C}$, which could pepresent one or perhaps two other workshops.

Amongst other fabrics, which like Group $Z$ are of a composition distinct from that of the Enkomi RS, is Kouklia 54 Pl. 26/5 of Style 1. This vase, together with an almost identical sherd, Fig. 3/1 from Kition also constitutes the finest vases from Karageorghis' phase A.

The Kition fragment is closely dated by Karageorghis to the period immediately before the Myc III C:i layers of Kition. (40) In view of the signilicance which is attached to these vases with respect to the RS origins, (41) the suggestion, at first, that Kouklia 54 Pl. 26/5 and two other fine vases ie Kouklia 59 Pl. $27 / 1$ and Kouklia 60 Pl. 26/3, decorated in the RS, might have the same fabric as the Peloponnese Pictorial Class group was of considerable interest.

The similarity of these Kouklia sherds with fabric group $I$ of Kouklia, makes such an attribution seem doubtful.

```
\(\binom{39}{40}\) See above \(p: \begin{aligned} & 21, n .16 \& n .17 . \\ & 188:\end{aligned}\)
See p. 135 The fabric of Kouklia 54, Pl. \(26 / 5\) has recently been tested, using another method, and found to conform with the fabric of Myc C:i wares, held to be local to Kouklia (AA (1972) Heft 2. 188-197)
```

The fact however, remains that fine RS vases such as Kouklia 54 Pl. 26/5, which are held to be precurssors of the RS, are of a fabric other than that of Enkomi.

The date of the Kition sherd corresponds well with that of Enkomi Pl。 $4 / 3$ of group 6, the earliest of Dikaios' pictorial RS finds. Both vases are earlier than the Myc III C:i layers. (43) The bulls of Style 1 are moreover, rather similar to those of Style 6, notably in the shape and fill in of the muzzle. Given their contemporaneity and stylistic similarity, their apparent relationship is of some interest.

We have seen that Enkomi 3 Pl. 1/1, Fig. 2/3 and also Enkomi 2 Pl. 3/2 of Style 6 were made in Enkomi, while two independent fabric studies suggest that Kouklia 54 Pl . $26 / 5$ was made in Kouklia. If as it seems certain, the RS was produced both in Eastern and in Western Cyprus before Myc III C:i where did the RS originate?

This is a difficult question to answer. On the one hand, the fact that Kition Fig. 3/1, an identical vase to Kouklia 54 Pl . 25/5 was found in Eastern Cyprus suggests that these vases were traded throughout the island and were perhaps known in Enkomi. On the other hand, the remaining Kouklia vases sampled, proved to be of a very complex composition.Most of the sherds sampled had a fabric unlike that of any (44)
other and were olassed as roguest. .
(43) See above p. 185.
(44) See above p. 135.

There are however, four RS types from Kouklia, which while conforming well with the Enkomi RS fabric pattern for most of the elements examined, varied sharply in one element (Chapter IV 4/4-1). Of ( 45 ) these, Kouklia 56 Pl. $26 / 1$ is decorated with a lion which is a ratity in the RS, although the fill-in of the neck here, is reminiscent of Kouklia 54 Pl . $26 / 5$ of group $1^{(46)}$ also rare, is the fish decorating Kouklia 64 P1. 26/2, while Kouklia $63 \mathrm{Pl} .27 / 4$, is also difficult to compare with the Enkomi as compositions, being decorated with a common spiral band. Only Kouklia 65 Pl. 28/1-2, a Myc III C:i side spouted jug decorated with birds and RS bulls, has its counterpart in Enkomi Pl. 4/2 of Style. 5, a jug from Myc III C:i layers in Enkomi . (47) This is decorated with bull protomes so similar to the bulls of Kouklia 65 Pl 。 $28 / 1-2$, that the two vases are almost certainly painted by the same man.

It therefore seems possible that despite its higher magnesium content, Kouklia Pl. 28/1-2, might indeed belong with the Enkomi RS Fabric Group and might represent export from Enkomi to Kouklia, albeit at a later date than the vases of Style 1.

When we come to examine the Pictorial Class pottery tested, it is interesting to note that while the majority of vases was shown to have Peloponnese fabric, three such vases conformed with the fabric of the Enkomi RS. (48)
(45) See p. 135.
(46) See above p. 48
(47) Dikaios 267, 847 PL. 75/18
(48). See above p. 136.

Two of these Pyla-Verghi 81 Pl. $38 / 1$ and Enkomi 77 Pl. $37 / 2$, bear Myc III $B$ decoration. The first, is a bell krater pairited with elongated bulls and a man. The second, is a sherd of a krater? Decorated with the tentacles of a cuttlefish. A third vase, Larkaka 30 Pl . 37/4, decorated with a Myc III A:2 bull, suggests that Cyprus was manufacturing such vages at this early date.

The attribution of Larnaka 80 Pl . 37/4 to the Enkomi RS fabric group, is also interesting on a second count. The bull shown here, is bendine downwards and has stripes drawn across the neck, in the manner of RS bulls.

Dikaios: as we have seen, remarked that Enkomi Pl. 4/3 the earliest figurative RS vase from Enkomi, of Style 6, was in some respects comparable with Myc III A: 2 Pictorial Class paintings. (49) Style 6 is moreover, associated with the high handed shape A RS bell krater which resembles F.S. 281 of the Pictorial Class (50)

It might then be argued that a workshop in Enkomi, which began by imitating imported Pictorial Class pottery, went on to produce the local RS.

This not to say that RS decoration originated in Enkomi. Indeed, this would imply that Kition Fig. $3 / 1$ and Kouklia $54 \mathrm{Pl} .26 / 5$ of Style 1, made outside of Enkomi are imitations.This, given the high quality and finish of these vases which have been compared to Pictorial vases, of standard technique, (51) would seem unwise.


However, that a transition from Pictorial Class krater shapes, style and fabric is discerrable in Group 6/A of Enkomi, would seem to us not to be at odds with the possibility that the RS's decoration was developed outside. Enkomi potters who began at imitating Pictorial Class pottery and who went on to produce RS vases, could reasonably be expected to display Pictorial Class influence in their earlier works.

To conclude, there seems to be a measure of agreement between out subdivision of the RS on the basis of style shape and fabric respectively.

The association of Style 6 and Style 2, on the basis of similarities in shape is confirmed by fabric analysis, which shows them both to have been made with Enkomi clay.

On the other hand, Style/Shape Groups 3, 4, 5, 7, 8/B and $8 / \mathrm{C}$ share this same fabric. Two explanations may be offered for the distinct identity of Groups 2/A and 6/A. These vases may be earlier than Groups 3, 4, 5, $7,8 / B$ and $9 / C$, as the stratigraphical evidence would suggest. Alternatively, they may represent the output of a second workshop in Enkomi using the same clay,

From the material at present analysed, the relationship of Style 2 vases of Fabric Group Z, with other Style 2 vases having the fabric of Enkomi remains unclear. Thetwo groups do appear to differ, however, in shape, Shapes Ai and Ail having the Enkomi and Z group fabric respectively.

Also unclear, is the relationship of the RS vases of Kouklia, with those of Enkomi With the possible exception of vases in Fabric Group X, no Kouklia pottery could be definitely shown to have the fabric characteristics of the Enkomi.

The stylistic similarity of Kouklis, 65 Pl. 28/1-2 from Fabric Group X with the vases of Style 5 and notably Enkomi Pl. 4/2. does suggest however, that exchanges may have occured between these two sites.

## ABSCLUTE CHRONOLOGY

## AND HISTORICAI CONCLUSICNS

We have seen that the only complete stratified sequence of RS pottery at present available for study, comes from Dikaios's publication of his excavations in Enkomi. Here, the RS first anpears in Level II F , and is represented in the proressively later Levels III A and IIIB (see above p.184).

Together with the RS, Level II B also produced the first Mycenaean III B pottery found by Dikaios in Enkomi. Indeed, Jycenaean IIIB pottery is the predominant Aecean ware throughout this level which in Cypriot terms, represents the LC IIC period (52).

However, the erection of a wall of fortification, just prior to the town's violent destruction, divides Level II Binto two phases. The RS which does not appear until the second phase, (53) is clearly later.

In Level IIIA when the site is açain rebuilt, the percentace of Myc. IIIB and even of local nottery diminishes, displaced by Myc. III C:1b pottery. The RS however, continues to be found. Indeed, most of the RS vases discovered by Dikaios come from this and later levels (54).
(52) Dikaios. 843-844.
(53) Ibid. 840.
(54) Ibid. 843-844.

In accordance with the Mycenaean pottery which it contains, Dikaios dated the beginnins of Level II B at approximately 1300 BC. (55) A re-examination of Myc. IIIE chronology however, shows that Myc IIIB pottery was made from as early as $1340 \mathrm{BC}{ }^{(56)}$ and it is likely that Dikaios date of 1300 BC is excessively late.

The violent end of Level II B, coincides with the destruction of Kition (57) and Sinda (58) in Cyprus and seems to be nart of a widespread catastrophe towards the end of Myc. IIIB, but prior to Myc. IIIC: i Ras Shamra and other Syrian and Palestinian sites are destroyed, (59) as are Mycenae, Tiryns and Midea on the Greek mainland (60).

The archaeological evidence, and also the mytholocical tradition, suggests that the catastrophe was initiated by new peoples who through invading Greece and Anatolia from the north, caused a series of population movements into the Mediterranean basin (61).

The date proposed by Furumark for the end of Myc. IIIB and the beginning of the LC IIIA period is $1230 \mathrm{BC},{ }^{(62)}$ a date which is also accepted by Dikaios for the end of Enkomi's Level II B. (63) New evidence would now suggest a date of around 1200 BC to be more accurate. (64)

Level II B thus appears to have began earlier, and to have continued for a longer time, than Dikaios estimated.
(55) Ibid. 847.
(56) Wace in BSA (1957) 220; Hankey in International Simposium Nicosia in 1972; SCE IV 761.
(57) Karageorghis in RDAC (1963) 8.
(58) Op.Ath. VI (1965) 101, 109 ff.
(59) IMS 221 ff.
(60) Ibid. 207-208.
(61) SCE IVid776-777.
(62) Furumark in Op.Arch. III 262.
(63) Dikaios 487.
(64) SCE IVi, d:761.

The second phase of Level II B appears to have been very short, because the detritus of the fortification in all lies on its construction layer. (65) Dikaios accorded twenty years to it, and surgested a date of 1250 BC for the erection of the walls. (66)

This date would however, be too early, if we take account of postFurumark studies in Mycenaean IIIE chronology with the end of Myc. III B, and hence Level IIE, now dated at around 1200 BC , Level IIB/Phase 2 cannot have begun, until 1220 IC . Cn the other hand, as the whole of Level II B seems to cover a longer period of time than Dikaios had anticipated, it is nossible that Level IIB/Phase 2 micht have lasted loncer than the twenty years attributed to it. The RS in Phase 2 might therefore have appeared rather earlise than $1220-1210 \mathrm{BC}$.

In Greece these closine years of the thirteenth century, seem to announce the widespread destruction which is to follow. The improvement of military works in numerous Mycenaean towns, and the destruction or abandonment of some others, shows that these were troubled times.

These conditions , result in a recession of trade between Greece and her neighbours. In Cyprus, there is a worsening in the quality and a reduction in the number of Mycenaean shapes found. (67) It has been suggested that these cruder wares were made by Cypriots to fill the vacuum created by a recession in foreign trade, (68) and this certainly would appear to be the case with the majority of RS bell kraters.

[^4]Other shapes which gain in nopularity late in Myc. III B include various shapes of dish or howl. Iike much of the RS, many of these vases are of inferior quality and it is thought that they too may be of local manufacture. (69)

In Enkomi, these shallow bowls are found together with other Mycenaean III B pottery in Level II B/Phase 2, which preceeds the town's destruction. (70) Like the RS, these dishes continue to be found in Level III A of the LC III A period when lycenaean III B pottery becones very scarce. Similar dishes or bowls, of apparently locel manufacture, are also found in the latest IC IIC levels of Kition, Myrtou, Apliki and Kouklia-Mantissa. (71)

Changes in popularity of shape at the close of Myc. III $B$ are not however, restricted to Cyprus. A change of emphasis is also apparent in the pottery of the Peloponnese. The LH III R: 2 pottery from the destruction layers of III B Mycenae consists of large numbers of bowls, kraters and other open forms, and a similar pattern is recorded in Tiryns. (72)

To the extent that the RS and the local dishes on the one hand, and IH III B: 2 pottery on the other, are the last manifestations of Myc. III B in Cyprus and the Feloponnese respectively, these two groups may be said to be analogous. Both are a phenomenon of a break up of the Mycenaean Koine.
(69) Dikaios. 249-250.
(70) Ibid.
(71) Nouv. Doc. 180-184.
(72) French in BSA (1969) 71-93.

However, while shallow bowls or dishes are a feature of LH III B: 2 mainland pottery, the laree numbers of deef howls which characterise this mainlend grour, are absent in inkomi, until the appearance of dyc. IIIC : 1 b pottery and the arrival of Greek colonists. ${ }^{\text {(73) }}$

This suggests that durine LH III $\mathrm{B}: 2$, Cypmus was indeed cut off, to some extent, from developments in Greece. It micht moreover explain the continued use of rictorial pottery and the production of substitutes like the RS, at a time when such nottery is no lonser found in Greece.

The oriental origins of some of the RS's decoration mirht then be indicative of direct borrowings from the east at this time of Mycenaean recession. Indeed, Furumark has suacested that the RS's "Bull-eating plant" theme itself may originate as an abbreviation of the orient inspired "Tree of Life" theme. (74) In this regard, it is interestine to note that single animals eatins a plant occur on palestinian vase paintings. ${ }^{(75)}$

Karageorghis has also remarked that the bull and plant theme is ruch in evidence on thirteenth century ivory carving from the Levant. (76) Furthermore, as he notes, rightly, that there is a stylistic connection between the better RS drawings and the technique of ivory carving. (77)
(73) Dikaios 260-262.
(74) MP. 269.
(75) Ibid. n. 1.
(76) Nouv. Doc. 236 n. 2.
(77) Ibid. 234-236.

Criental influence is also apparent on some of the RS vertical border lines, which are similar to the Palestinian Trigliph. These lines, drawn vertically from the rim to the uppermost waist line of the bell krater, are usually a feature of Style Group 2 and also Style Group 6 (see above p.56).

On the other hand, bell kraters of Style Groups 2 and 6 (probably the earliest RS vases in eastern Cyprus) are of Shape Group A, and thus more closely comparable with the earlier FS 281 bell krater of the Pictorial Class (see above po 185).

A Style 6 sherd appears in the second phase of Leve]. II $E$, tosether with Mycenaean III B pottery of standard fabric. Also, Wycenaean pottery is known to have been imitated by local potters and some Mycenaean pictorial pottery has been shown to have been imitated in Enkomi. (7E) Style Groups 2 and 6 might therefore renresent an attempt to capture some of the market for imported Mycenaean pottery, which was perhaps becoming scarcer. This phenomenon need not be restricted to Enkomi. There is good reason to suspect that RS vases were also produced in Kouklia prior to Myc. IIICi.

With the arrival of the achaeans, at approximately 1200-1190 BC in Level IIIA RS pottery and local shallow bowls are found in increasing numbers while Myc. III B pottery is replaced by Myc. III C: 1 b . This may constitute as much as $90 \%$ of all pottery found. (79)
(78) See above p. 136.

Dikaios. 518.

The RS vases of Level III A consist of Strle 7 birds, showing Cretan influences. These, as we have seen, are related to Styles 3, 4, 5, 8 and 9. The forecoine study moreover, sugeests that the Shape B kraters of these style groups have evolved to the biconical FS 282 lrater of Myc. III C: i.

By this time, the RS must have becone a substitute for the pictorial vases of liyc. III E. Indeed, if we judee from the numerous Myc. III C:i b shapes bearin६ $R S$ decoration ie. Enkomi Pl. 4/2 and Enkomi Fig. E/11, it would appear that RS decoration had become a part of the Cyoriot pictorial ceramic tradition and that it influenced the makers of Myc. III C: i b pottery.

Level III A, the first Level of the LC III period is itself brought to a close by a violent destruction which has been attributed to the Sea Peoples. Cther Cypriot settlements are also destroyed at this time. (80) The defeat of the Sea Feoples by Ramses III at 1190 BC , suggests that Level III A was itself a very short period. It should, however, be mentioned that a date of 1174 BC has also been proposed for this event. (81)
(80) Ibid. 522-523.
(81) SCE IVi d 762.

The town is soon rehuilt in level III $B$, the second phase of the LC III A period, and rircenaean civilization persists into level III C when Enkoni is abendoned. Isolated examples of fine RS pottery are found in Level III E cf. Enkomi Fis. $5 / 5,{ }^{(82)}$ as are some late Myc. III B bowls of locel fabric. (83) These however, nay be accidentals.

By far the most frequent pictorial vases at this time are bell kreters decorated with birds and other naturalistic motifs cf. Fies. 6/4 ${ }^{(84)}$ which first appear late in Level III A. The style of these birds is part of the $\Gamma^{\pi y}$ y III C: ib rerentory, and Dikaios believed that they have been used to fill panels left vacent on geonetrically decorated vases. (85)

Their outline and fill-in is unlike that of the RS birds. The contours are generally filled with dots or speckles. Alternatively, some have their body contours divided into sections, which are either painted-in or filled with wavy lines or concentric semi-circles. Also, they usually have one smaller wing raised and may be shown to be attacking a fish.
(82) See also Dikaios 284 .
(83) Dikaios 288 .
(84) See also Dikaios. 286-287 PLS. 81/26, 27, 28, 30, 32, 34, 35, 36. (85) Ibid. 286.

This theme is known from earlier Syro-Palestinian pottery. (86) Other oriental elements of decoration within this group include the "Tree of Life" scheme cf. Enkomi Fic. 6/5, and birds with heads turned back as in Philistine pottery. (87) on the other hand, the "Bird-attacking-fish" theme is also known on the Greek mainland $(\varepsilon \varepsilon)$ and on I/inoan pottery of the fourteenth century. Dikaios, ${ }^{(89)}$ moreover, discerned a stylistic connection between some of these Mrc. III: ib vases and the vases of the earlier Pictorial Class. (90)

It would seern safe to say that by this second phase of the LC III A period, these vases heve replaced the RS pictorial kraters of Cyprus. Yet, if vases of the RS are scarce in Level III E, RS decoration persists on some crude pictorial kraters of this period. (91)

An interesting sherd here, is Enkomi Fl. 13/3, from Dikaios excavations which is decorated with a rudimentary goat of RS type. On closer examination this sherd was seen to belone to the same vase as Enkomi Fig. 6/5, decorated with a bird of Myc. III C: ib tyne in "Tree of Life composition".

However, the most frequent bell krater forms are decorated with Close Style spirals of mainland inspiration which underline the strone connection existing between Greece and Cyprus. (92)
(86) Ibid.
(87) Ibid. 287 PL. 81/35
(88) Ibid. 286.
(89) Higeins Minoan and Mycenaean Ant (Iondon 1967) PL. 139
(90) Dikaios. 286.
(91) Ibid. 281 PL. 78/7, 311 PL. 91/26, 323. PL. 101/28.
(92) Ibid. 528.

The Level III $B$ town is destroved, perhaps by natural causes (93) during LC. III B. Later in this period when the town is rebuilt, Dycenaean III C: i b open kraters have degenerated in quality and RS decoration is totally absent. The nost characteristic ware now, is mainland-inspired Myc. III C: i c of Granary type ${ }^{(94)}$ pictorial pottery such as the RS, inspired by mainland Iyc. III B proto types, have been displaced by later develoments in the meinlend.
(93) Ibid. 530
(94) Ibid. 532.

## RIDEIOMDPY

Genemal

```
Cascon, %
    Angiont Tyma-(Ionion, 1237)
Dikrios, P
Immergar, z.a.
Manameresis, Y
Schamerem, S.T....
Stement, T.\.
and otines.
AM, Ma to the grumus Mosur (wiscoin, 1061)
```



```
    Mrycenaean Trade and Colonization' in
    Arolyozovil? (1050) 1-13.
```



```
    manore of the figholson Wreme (avner, 1948)
```


## Buanter I

Penson, J. D. 'Observations on Invoncean Vase Dainters' in AJL
(1961) 337-47

Eenson, J.i. 'Book Review of Touv. Joc.' ir tit (1967) 316-31?.

In ortrines ( $\quad$ (100~ia 1772) E-13

 $58(1963) 91-115$.


monagem $4(1251) 31-33$.

Provenenod in Anopanmetri (1953) 1-9.
Cationg, Tore and wilett, A. 'S Study in tie Composition Pettome of Jサoenaean Zictorial Potiorr from Comrus in DSA $50(1065)$ 212-22.

moniene i' myomi 1946-1947 (Peris, 1951)
Sourtois, I. Description ahsion-chyniage de le céramigue ancienne
Io cergmiac de Dipore au brone nésont. Doctoral thesis
at the Tniversity of Jlamont (1971)
Purumant, A. The ixoencean Potterr (Stocholm, 1961)
Tmmernahr, S.f. 'me Protome Panter anl Some Contemporanies' in

Karaceorghis, T. Touvear Docunents nou I', Utude du ronze Récent a Chyore (nemis, 1965)
Earacoorghis, V. 'Comms and Larnala District Tuseum GVA Fs.i (Niconia, 1963).
Purray, A.S. Bmith, A.T. and Talters, H. B. Excavations in Cynrus (Iondom, 1900).
Treiex, T. 'Evovations At Kourlis: The vells of Erreti'in PDS (1969) A0n. 2 \& 4

Ponham, M. 'Two Sypriot Therde from Crete' in 28A (1963) 28-93.
Shepard, Arre Seramics for the arcireolosist hazington 1963.


 KYTPIOMOTIKON EYNEAPION ( $\Lambda \in Y K \Omega \sum 1 A$ 1972) 163-166
$\xrightarrow{\square 1,01}$



Astrom, P. SCE IV i c ' The Late Uypriote Bronze Age: Architecture and Pottery ' (Lund 1972).






$\qquad$
-23 (1, 21 (10)

na 5\% (190) $\because 4-1150$

 $(1965)$ ? $212-224$.

 Sogmonimion sots 33 (1950) 31-120.

 Diotorizl Snorls Fron "oul ie' in Lik 1972
Ieft 2 133-197.
 Dottory =rom Athors ant South Itely: Anoltionl
Tenhniques and Imntiontion' in ancacoomotrar (anthoomina)
 Pomano-ritiah onturig' Amehoometry (1959) 23-24

## Yentom

Astrom，P．$\underset{\text { SCi IV }}{ } \mathrm{i} d$＇The Late uypriote Bronze Age：Relative and Absolute Chronology，Foreign Relations，Historical Conclusions＇（ Lund 1972）
ネセロッコ，コ・，
?
Iovan Monton ativeson

$2-250$

フッチンが，二。


 in P．A7 v1（1965）99－115．

Yiwins，R．Finoen at vorgean Art（Iondon，1967）．
Estor，F．J．＇Tvory Jarvins in tie Joonsemperiod＇in Archacologr， 13 （1960）11－25．
Tersgermis，V．Youveaux Jooumente Pur I＇Itode iu Jronze Bécent a
Curare（3aris，1965）．
 Eisturial Sherde from Koujial in iA（1972）Jeft 2 188－107．
Taragecrgis，V．＇Grosvatons ir rition i963 in 20ac（1963）3－15．
Schaeffer，C．F．A．in Syria XIV（ 1933 ）Les Fouilles de Minet el Beida et Ras Shamra＇（Quatrième Campagne）93－127．
Schaefeer，C．F．A．Stratigraphie Comparée Shronolorique de l＇Asie Cocidentale（icndon，1948）。
Sjoquist， 3. Probloms of the Late Cymiote Fronze Age（ 2 tocholm，1940）。
Stubince，ㄱ．＇Some Foencean Artiets＇in 364 46（1951）168－76．


Furumark，A．＇The Myc．III C Pottery and its Relation to cypriote rabrics＇in Op．Arch． 1 II（ 1944）194－265．

219

LIST OF PLATES

P1. 1.

1. $\operatorname{ENKOMI}=\mathrm{Fi}$. $2 / 3$.

Sample 3.
See pages 24, 56-57, 123, 133, 194n. 35.
Schaeffer Excavations (1962).
2. ENKOMI $=$ FI. $9 / 1$, Figs $2 / 1,4 / 1$ and $12 / 5$.

Sample 4.
See pages 53, 62-63. 123, 133.
Schaeffer Excavations (1067).

Pl. 2.

1. ENKOMI $=$ Fiと. $13 / 6$.

See pages 27, 54-55。
BMCC 418; CVA BM PI. 7/7; Excav 33 FIG. 6 (1205)
2. ENKOMI $=$ Fig. $14 / \varepsilon$.

See pages 30, 56-57.
BMC C425; Excav FIG. 62 (1235).

Pl. 3.

1. ENKKOMI

Sample 5.
See pages $26,54-55,123,133$.
CM 1959/11-26/1
Nouv. Doc. 244 FL. XXIV/2
2. ENKOMI $=$ Fig. $2 / 2$.

Sample 2.
See pages 33, 56, 123, 133, 194 n. 35 .
Schaeffer Excavations.
3. ENKOMI?

See pages $21,65$.
CM A1758.
CVA CM PL. 14/1-2; Nouv. Doc. 250 PL. XXVII/5-6

Pl. 4.

1. ENKOMI

See pages 21, 65-66.
CM T. 19/66.
Problems. FIG. 21/3; MP 246;
Nouv. Doc. 238 PL. XXIII/1-2.
2. ENKOMI

See pages 24-56, 189, 198.
Dikaios. 845, 847 EL. 75/18
3. ENKOMI

See pages 56-57, 185.
Dikaios. 249 PL. 67/26.
4. ENKOMI

See pages 23, 33.
Dikaios. 318-319 PL. 99/30.

P1. 5.
1-2. ENKOMI $=$ Fig. $13 / 5$
See pages $26,53-54,56 \mathrm{n} .18$.
BMC C420; CVA BM PL. 7/9;
Excav. 45 FIG. 71 (933);
Nouv. Doc. 249 PL. XXVII/1-2.

PI. 6.

1. ENKOMI

See Pl. 5/1\&2.
2. ENKOMI $=$ Fig. 2/14.

See pages $30,54$.
Schaeffer Excavations + BMC C427.
Nouv. Doc. 252 PL. XXVIII/1

P1. 7.

1. MARONI

See page 50.
BNLC C405; CVA EM PL. 11/11;
Nouv. Doc. 244-245.
2. ENKOMI

See pages 28, 65.
BMC C419; CVA BM FI. 7/3; Stubbines,
BSA 46 (1951) 173 PL. 19/B
MP. 466; Nouv. Doc. PL. XXVII/3.

P1. 8.
$1 \& 2$ ENKONI $=$ Fig. $12 / 4$.
See pages $30,80,107,180,184,186,194-196$.
BIIC. C417; CVA BM PL. 10/1;
Excav. 49 FIG. 76 (1260);
Stubbines, BSA 46 (1951) 171;
Nouv. Doc. $240-24.1 \mathrm{~N} 2 \mathrm{PL} . \mathrm{XXV} / 1$.

P1. 9.

1. ENKKMI. See above Fl. 1/2.
2. ENKOMI = Figs. $6 / 2$ and $14 / 9$.

Sample 13.
See pages 60, 123, 133.
Schaeffer Excavations (1949).

P1. 10.

1. ENKOMI \& KALOESIDA $=$ PI. $14 / 2$

Sample 9.
See pages 30, 52, 123, 133.
CM A2020 \& A2021 \& Medelhavsmuseet.
Nouv. Doc. 245, 247, 255 PLS. XXI/4, XXV/4,
XXV/7; MP. 466
2. EnKOLI = Figs. $4 / 7 \& 15 / 2$.

Sample 12.
See pages 59, 123, 133.
Schaeffer Excavations (1965).
3. ENKOMI = Fig. 6/3.

Sample 14.
See pages 60, 123, 133.
Schaeffer Excavations (1965).
4. ENKOMI = Fis. $4 / 5$.

Sample 11.
See pages 59, 123, 133.
Schaeffer Excavations (1966).

PI. 11.

1. ENKCMI? = Fig. $14 / 6$.

See page 59.
BM 1938.11.20.1
Benson, AJA 65 (1961) 342 ff
PL. 106/FIG. 27; Nouv. Doc. 246 PL XXV/6.
2. ENKOMI = Fig. $13 / 7$.

See page 60.
BMC C422; CVA BM PL. 8/1;
Excav 45 FIG. 71 (931).
3. ENKOMI = Fig. 15/4.

See page 60.
CVA Brussels FS. 3 11C PL 3:12,
Cinquantenaire 1251; Benson, AJA
65 (1961) 342 ff; Nouv. Doc. PL XXV/5.

P1. 12.

1. ENKOMI $=F i \xi \cdot 6 / 6$.

Sample 15.
See pages 52, 123, 133.
Schaeffer Excavations (1970).
2. ENKOMI = Fig. $6 / 8$.

Sample 17.
See pages 52, 1く3, 133.
Alasia I, 109 FIG. 25/5.
3. ENKOMI $=$ FiE. $6 / 9$.

Sample 16.
See pages 52, 123, 133.
Schaeffer Excavations (1969).

F1. 13.

1. $\quad$ MARONI $=$ Fig. $7 / 1$.

See pages 49.
MBC C389; Stubbings,
BSA 46 (1951) 174; Nouv. Doc. 239 FL XXIII/7.
2. ENKOMI

See page 65.
CM A2020 C.
CVA CM PL. 14/4; Nouv. Doc. 245 PL. XXV/3.
3. ENKOMI

See page 210.
Dikaios 284 PL. 80/17

PI. 14.

1. ENKOMI

See page 49.
Problems PL. 36/7, FIG. 21/4; SCE I PL. 118/7;
MP. 466; Stubbings, BSA 46 (1951) 174
FIG. 2; Nouv. Doc. 238
2. ENKOMI KALOPSIDA. See above Pl. 10/1
3. KAZAPHANI.

Karageorghis BCH CXVI (1972) PL. 10/1. See pages 30, 65-66.

Pl. 15.

1. ENTMMI =Fig. 8/9.

Sample 21.
See pages j0, 123, 133.
Schaeffer Excavations.
2. ENKOMI? = Fic. 13/3.

Sample 23. See pages 123, 133.
CM A2034.
3. ENKOMI = Fig. 8/5.

Sample 25.
See pages 123, 133.
Schaeffer Excavations.
4. ENKOMI

See page 186.
Dikaios. 266 PL. 73/19.

P1. 16.

1. ENKOMI.

Sample 20
See pages 123, 133.
CM A2020D.
CVA CM PL. 15/4; Nouv. Doc. 254.
2. ENKOMI.

Sample 28.
See pages 33, 123, 133.
Schaeffer Excavations.

P1. 17.

1. Larnaka.

Sample 37.
See pages. 49,123-123, 133.
CM 1958/VI-20/9.
Nouv. Doc. 240 PL. XXIV/1.
2. ENKOMI $=$ Figs. $2 / 9 \& 15 / 3$.

Sample 1.
See pages 41, 1<3, 153.
Schaeffer Excavations

Pl. 18.

1. KIAVDIA = Fig. $14 / 1$.

Sample 35.
See pages 49, 123, 133, 193-196.
BMC C421; $\mathbb{M P} 466$; Stubbings,
ESA 46 (1951) 171; Nouv. Doc. 239-240 PL. XXIV/6.
2. KITION

Sample 34.
See pages 49, 123, 193,
Karageorghis Excavations.

Pl. 19.

1. MARONI = Fig. 6/7.

Sample 38.
See pages 52, 123, 133.
BM C426.
2. hala suitan tekie.

Sample 33.
See pages 52, 123, 133, 193.
CM 1934/1-28/1.
Nouv. Doc. 245 PL. XXV/8.
3. ARPERA CHIFLIK = Fig. $2 / 10$.

Sample 32.
See pages 52, 123, 133, 193.
Ash Mus 1953, 340.
4. $\quad$ ARPERA CHIFLIK $=$ Fig. $2 / 13$.

Sample 31.
See pages 123, 133, 193.
Ash Mus 1953, 346.

P1. 20.

1. PYIA-VERGHI.

Sample 40.
See pages 123, 134, 193, 52.
Dikaios. 917 PL. 233/1.
2. PYLA-VERGHI.

Sample 41.
See pages 123, 133.
Dikaios. 917 PL. 233/4.

Pl. 21.

1. PYIA-VERGHI.

Sample 39.
See pages 52; 123, 133.
Dikaios. 917 PL. 233/3.
2. PYLA-VERGHI.

Sample 43.
See pages $26,65,123,133,193$.
Dikaios. 917 PL. 233/1.

P1. 22.

1. PYLAA-VERGHI.

Sample 42.
See pages 25, 123, 133.
Dikaios. 917 PL. 234/1.
2. $\operatorname{ARADIPPO}=$ Figs. $3 / 6,12 / 6$.

Sample 30.
See pages 49, 123, 134, 194.
Louvre AM 679.
Stubbings, BSA 46 (1951) 171-172, FIG. I:
Nouv. Doc. 250 N4.

P1. 23.
$1 \& 2$ KYRENIA-MILOPETRES.
Sample 36.
See pages 25, 64, 123, 133.
Cyprus Survey 1746.
ARDDA (1969) 19 PLS. 56-57; BCH 1970207.
No. 4 FIG. 21-22.

P1. 24.

1. BYBLOS.

See pages 33.
Fouilles De Byblos I 94 PL. 157/1444.
2. ?

Ash Dus 1960. 646.

P1. 25.

1. RAS SHAMRA $=$ Fig. 15/1.

Sample 53.
See pages 65-66, 123, 133.
Ugaritica II FIG. 60/22-23; Nouv. Doc. 237-238 PL. XXIII/3-4.
2. RAS SHAMRA = Fig. $3 / 10$.

Sample 50.
See pages $53,62,123,133$.
Ugaritica II FIGS. 56/46, 60/18; Nouv. Doc. 241-242 PL. XXII/3-4.

Pl. 26.

1. KOUKLIA

Sample 56.
See pages 124, 135, 198.
Maier, $\underline{R D A C}(1969) 40,42 \mathrm{PL} . \operatorname{IV} / 2$.
2. KOUKLIA

Sample 64.
See pages 124, 135, 198.
Maier, $\mathrm{RDAC}(1969) 40,42 \mathrm{PL} . \operatorname{IV} / 2$.
3. KOUKLIA

Sample 60.
See pages 23, 124, 135.
Maier, RDAC (1969) 40-42 PL. III/6;
Karageorghis, BCH 93 (1969) 535 FIG. 173.
4. KOULKIA

Sample 62.
See pages 23, 124, 135.
Maier, RDAC (1969) 40-42 PI. IV/3.
5. KOUKLIA

Sample 54.
See pages 21, 48, 124, 134-135, 197.
Nouv. Doc. 236 IN. 4 PI. XXIII/5; Benson, AJA 71
(1967) 317, Karageorghis, Perlman, Asaro,

AA (1972) Heft 188 ff.

P1. 27.

1. KOUKLIA

Sample 59.
See pages 124, 135.
Maier Excavations.
2. KOUKlia

Sample 58.
See pages 124, 135.
Maier Excavations.
3. $\mathrm{KOUKLIA}=$ FiE. $2 / 7$.

Sample 61.
See pages 124, 135.
Maier Excavations (TE III 128).
4. KOUKLIA

Sample 63.
See pages 124, 135, 198.
Maier, RDAC (1969) 40 N. $3,42 \mathrm{PL}$. IV/4.

Pl. 28.
$1 \& 2$ KOUKLIA
Sample 65.
See pages 23, 54-55, 124, 135, 198.
Maier, RDAC (1967) 30 PL. VII/3.

P1. 29.

1. KOUKLIA. See PL. 28/1-2.
2. KOUKLIA

Sample 57.
See pages 124, 135.
Maier Excavations.

P1. 30.

1. PHLAMOUDHI

Sample 44.
See pages 123,135.
Columbia University Excavations.
2. PHLAMOUDHI

Sample 45.
See pages 123,133.
Columbia University Excavations.
3. FHLAMOUDHI

Sample 46.
See pages 123,133.
Columbia University Excavations.
4. PHLAMOUDHI

Sample 47.
See pages 123,133.
Columbia University Excavations.
5. PHLAMOUDHI.

Sample 48.
See pages 123, 133.
Columbia University Excavations.

P1. 31.

1. ENKOMI

Sample 66.
See pages 124, 135-136.
Schaeffer Excavations.
2. ENKONI

Sample 67.
See pages 124, 135-136.
Schaeffer Excavations.
3. ENKOMI

Sample 68.
See pages 124, 135-136.
Schaeffer Excavations.
4. EIVKOMI

Sample 69.
See pages 124, 135-136.
Schaeffer Excavations.

P1. 32.
1\&2 ENKOMI
See page $\cdot 33$.
BMC C697; MP 466-467; NOuv. Doc. 237. N.2.

P1. 33.

1. BERBATI

See pages $17,23$.
Acts of the Archaeological Symposium NICOSIA 1973
"The Myceneans in the Eastern Mediterranean" Stubbings, 209 PL. XXVII/3.
2-3 SAIAMIS
See page: 23.
Vermeule, CJ 59 (1964) 194-195; Benson; AJA
(1967) 317.

Pl. 34.

1. ARADIPPO

Sample 70.
See pages 124, 136.
Louvre. AM 677.
2. ARADIPPO

Sample 71.
See pages 124, 136.
Louvre. Air 676.
Greece in the Bronze Age 206 FIG. 36.

P1. 35.

1. $\operatorname{ARPERA}$ CHIFLIK $=$ Fig. $11 / 2$.

Sample 72.
See pages 124, 136.
Louvre. AM 678.
2. ENKOMI

Sample 73.
See pages 124, 136.
Enkomi-Alasia 134 FLS. XVII - XVIII.

P1. 36.

1. ENKOMI = Fig. $11 / 2$.

Sample 74.
See pages 1<4, 136.
Missions 74 PL. XXXIII/5 FIG. 371.
2. ENKOMI = Fig. 12/1.

Sample 75.
See pages 24-26, 124, 136.
Missions 74 FIG. 37.

PI. 37.

1. ENKOMI

Sample 76.
See pages 124,136.
CM A2023C.
2. ENKOMI

Sample 77.
See pages $\quad 124,136,198-199$.
Schaeffer Excavations.
3. ENKOMI

Sample 78.
See pages 124,136.
Schaeffer Excavations.
4. LARNAKA

Sample 80.
See paces 124,136, 198-199.
CVA CM PL. 5/2; Karageorchis, BCH (1959)
339 FIG. 3.

P1. 38.

1. PYIA VERGHI

Sample 81.
See pages 24,28, 124, 136, 198-199.
Dikaios 917 PL. 234/3
2. RAS SHAMRA

Sample 82.
See pages 124, 136.
Ugaritica II 214, 216 FIGS. 89-90 PL. XXXV.

PI. 39.

1. RAS SHAMRA

Sample 83.
See pages 124, 136.
Schaeffer, SYRIE XXXIV (1957) 81-92.
2. RAS SHAMRA

Sample 84.
See pages 124, 136.
Schaeffer, SYRIE XII (1931) PL. III/2;
Ugaritica II FIG. 124/9.

P1. 40.

1. RAS SHAMRA

Sample 85.
See pages 124, 136.
Ugaritica II 150 FIG. 57/8.
2. RAS SHAMRA

Sample 86.
See pages 124, 136.
Ugaritica II 154 FIGS. 59/34, 61/A.

Corrigendum: Pl. 36/1: Photograph laterally inverted.

2.


PI. 2


PI. 3


PI. 4






PI. 9


PI. 10


PI. II


PI. 12


Ps. 13



PI. 15




PI. 18


PI. 19

1.

2.



PI. 22



PI. 24


Pl. 25



PI, 27



PI. 29


PI. 30




268

PI. 33







1




P!. 40

Fig.25. (cf. Table xul)


Fig. 26.


Fig. 26.

|  |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| - |  |  |  |
|  | $=\left(\frac{10}{\sqrt{0}}\right.$ |  |  |
| , |  | $x=1$ | , .... - |
|  |  |  |  |
|  |  |  |  |


[^0]:    for each unit of base diameter.

[^1]:    (9) Richards Archaeometry 59 23-24.
    (10) Catling, Richards and Blin-Stoyle Op. Cit.
    11) Prag, Schweizer, and Williams, in Archaeometry (forthcoming).
    (12) Flanagan, Geochimica et Cosmochimica Acta 33, (4969) 81-120.

[^2]:    *' F'ne recultas of this croup orrived toplate to be jncluded in the conmuter pro.. eraminc.

[^3]:    (3) See above p. 61.

[^4]:    (65) Dikaios. 486.
    (66) Ibid. 487.
    (67) Nouv. Doc. 233.
    (68) MPL 37-44.

