POCA 2008

Ariane JACOBS & Peter COSYNS (eds.)

CYPRIOT MATERIAL CULTURE STUDIES FROM PICROLITE CARVING TO *PROSKYNITARIA* ANALYSIS

Proceedings of the 8th Annual Postgraduate Cypriot Archaeology Conference Held in Honour of the Memory of Paul Åström
at the Vrije Universiteit Brussel (Belgium), 27th – 29th November 2008

VUBPRESS is an imprint of ASP nv (Academic & Scientific Publishers nv)
Keizerslaan 34
B-1000 Brussels
Tel. +32 (0)2 289 26 50
Fax +32 (0)2 289 26 59
E-mail: info@vubpress.be
www.vubpress.be

ISBN 978 90 5487 974 9
NUR 654
Legal deposit D/2015/11.161/097

Table of contents

Bibliographic Abbreviations

ABSA	*Annual of the British School at Athens*
ArchEph	*Archaiologikè Ephèmeris*
AJA	*American Journal of Archaeology*
AJPA	*American Journal of Physical Anthropology*
AmerAnt	*American Antiquity*
ANRW	*Aufstieg und Niedergang der Römischen Welt*
Ä&L	*Ägypten und Levante*
ARDA	*Annual Report of the Department of Antiquities*
BAR IS	*British Archaeological Reports – International Series*
BASOR	*Bulletin of the American School of Oriental Research*
BCH	*Bulletin de Correspondance Hellénique*
BibO	*Bibliotheca Orientalis*
Bics	*Bulletin of the Institute of Classical Studies of the University of London*
BMQ	*British Museum Quarterly*
BSA	*British School at Athens*
BSL	*Bulletin de la Société de linguistique de Paris*
ByzZeit	*Byzantinische Zeitschrift*
CahArch	*Cahier Archéologiques*
CBRL	*The Bulletin of the Council for British Research in the Levant*
CCEC	*Cahier du Centre d'Etudes Chypriote*
CorisRav	*Corsi di cultura sull'arte ravennate e bizantina*
CretChron	*Cretika Chronika (=Κρητικά Χρονικά)*
DOP	*Dumbarton Oaks Papers*
ÉtCrét	*Études Crétoises*
ICA	MICHAELIDOU-NICOLAOU, I. 1963-2003. *Inscriptiones Cypriae Alphabeticae*, Nicosia.
ICS	MASSON, O. 1983². *Les inscriptions chypriote syllabiques*, Paris.
IGRR	LAFAYE, G. & GAGNAT, R. 1964. *Inscriptiones Graecae ad Res Romanas pertinentes*, Rome.
IJNA	*International Journal of Nautical Archaeology*
IK	MITFORD, T.B. 1971. *The Inscriptions of Kourion*, Philadelphia.
JAS	*Journal of Archaeological Science*
JEA	*The Journal of Egyptian Archaeology*
JHE	*Journal of Human Evolution*
JHS	*Journal of Hellenic Studies*
JMA	*Journal of Mediterranean Archaeology*
JNES	*Journal of Near Eastern Studies*
JPR	*Journal of Prehistoric Religion*

JRA	*Journal of Roman Archaeology*
Ktèma	*Ktèma: civilisations de l'Orient, de la Grèce et de Rome antiques*
OBO.SA	*Orbis Biblicus et Orientalis, Series Archaeologica*
OGIS	DITTENBERGER, W. (ed.) 1903. *Orientis graeci inscriptiones selectae,* 2 vols., Leipzig.
OJA	*Oxford Journal of Archaeology*
OLA	*Orientalia Lovaniensia Analecta*
OpArch	*Opuscula Archaeologica*
OpAth	*Opusculia Athieniensi Opusucula Romana*
OpRom	*Opusucula Romana*
PPC	MICHAELIDOU-NICOLAOU, I., 1976. *Prosopography of Ptolemaic Cyprus*, Gothenburg.
RAN	*Revue Archéologique de Narbonnaise*
RDAC	*Report of the Department of Antiquities Cyprus*
SCE I	GJERSTAD, E., LINDROS, J., SJOQVIST, E. & WESTHOLM, A. 1934. *The Swedish Cyprus Expedition. Finds and Results of the Excavations in Cyprus 1927-1931, I*, Stockholm.
SCE II	GJERSTAD, E., LINDROS, J., SJÖQUIST, E. & WESTHOLM, A. 1935. *The Swedish Cyprus Expedition II. Finds and Results of the Excavations in Cyprus*, Stockholm.
SCE III	GJERSTAD, E., LINDROS, J. & WESTHOLM, A. 1937. *The Swedish Cyprus Expedition. Finds and Results of the Excavations in Cyprus 1927-1931*, *III*, Stockholm.
SCE IV:1A	DIKAIOS P. & STEWART, J.R. 1962. *The Stone Age and The Early Bronze Age in Cyprus. Swedish Cyprus Expedition Vol IV Part 1A*, Lund.
SCE IV:1B	ÅSTRÖM, P. 1972. *The Middle Cypriote Bronze Age*, Lund.
SCE IV:1C	ÅSTRÖM, P. 1972. *The Swedish Cyprus Expedition IV:1C. The Late Bronze Age. Architecture and Pottery*, Lund.
SCE IV:1D	ÅSTRÖM, L. & ÅSTRÖM, P. 1972. *The Swedish Cyprus Expedition IV:1D. The Late Bronze Age. Architecture and Pottery*, Lund.
SCE IV:2	GJERSTAD, E. 1948. *The Swedish Cyprus Expedition IV:2, The Cypro-Geometric, Cypro-Archaic and Cypro-Classical Periods*, Stockholm.
SCE IV:3	VESSBERG, O. & WESTHOLM, A. 1956. *The Swedish Cyprus Expedition, IV:3. The Hellenistic and Roman periods in Cyprus*, Stockholm.
SEG	*Supplementum epigraphicum graecum*, since 1923
SMEA	*Studi Micenei ed Egeo-Anatolici*
SIMA	*Studies in Mediterranean Archaeology*
SIMA-PB	*Studies in Mediterranean Archaeology Pocket Book*
WorldArch	*World Archaeology*
ZPE	*Zeitschrift für Papyrologie und Epigraphik*

Acknowledgements

Both editors would like to acknowledge a number of people who made the POCA 2008 conference to a success.

First of all, we are grateful to all participants of the POCA 2008 conference who contributed to both a high standard programme and fun socialising moments in a relaxing atmosphere. Special thanks goes to the keynote lecturer, Dr Priscilla KESWANI, who emphasised the need to study material culture before drawing to conclusions.

Scholars in the field chaired on a voluntary basis the seven sessions held, and we wish to thank all of them for their presence and contribution to the programme. Jos VANDENBROECK, university assistant and professional guide, organised a city walk through the historical centre of Brussels and shared a few local legends.

We also wish to thank each one of the many anonymous reviewers, without whom the publication would not have been possible and helped significantly in achieving an outstanding work.

In particular, we wish to thank the POCA organising committee, including Jan COENAERTS for maintaining and updating the POCA website, Dr Peter COSYNS, Ariane JACOBS and Hilde WOUTERS for their assistance in all practical and financial matters. Additional support was granted by Michel DE ROUCK from the Vrije Universiteit Brussel, who advised, assisted and encouraged from start to finish. We also wish to thank the undergraduate students who offered their help during the POCA conference, including Daan CELIS, Karmen MIDDERNACHT, Jemma PONT, Sofie SCHELTJENS, Nelson VANHERLE and Barbora WOUTERS.
All of us are very grateful to Prof. Karin NYS for her continuous involvement, efforts and guidance in the organisation of the POCA 2008 conference.

We also wish to thank Alison SOUTH for providing our publication with a summarizing cover cartoon of the POCA conference.

Finally, we would like to thank all sponsors who made it possible to realize the POCA conference:
Aviabel, Brussels Hoofdstedelijk Gewest, Cyprus Airways, Douwe Egberts, Embassy of the Republic of Cyprus, Equinox, Ever-Art'-Designs, Flachdach Technologie, Jules Destrooper, Knauf, Koninklijke Musea voor Kunst en Geschiedenis, M. & J.M. – J. Eyers & Partners N.V., Renault, Sara Lee, Soprema, Tarkett and *Xella* together with the *Vakgroep Kunstwetenschappen en Archeologie (Vrije Universiteit Brussel), Faculteit Letteren en Wijsbegeerte (Vrije Universiteit Brussel), Vrije Universiteit Brussel*

Preface

Introduction

These are the proceedings of the Postgraduate in Cypriot Archaeology (POCA) 2008 conference held at the Vrije Universiteit Brussel (Belgium) from the 27th-29th of November 2008.

All papers have been peer reviewed by senior scholars in order to enhance and guarantee the quality of the papers. The publication format both presents work-in progress and finished works. We have chosen to organise the papers on a largely chronological basis, since some papers were not included in the final publication. The publication has suffered from a long delay due to a number of practical, editorial and professional reasons. The papers incorporated in this volume represent the research presented in 2008 (and submitted in 2010) and should therefore be read accordingly. The reference lists and affiliations of the contributors have been updated and when relevant the affiliation in 2008 is stated in a footnote. Also referred to in a footnote, and the reference list of the author, is when the researcher has obtained a PhD-title.

In 2008 POCA was held for the first time in Belgium. The conference was organised at the Vrije Universiteit Brussel by the new research team of the Mediterranean Archaeological Research Institute (MARI), which was founded in May 2007 under the direction of Prof. Karin NYS. MARI is a research centre within the department of Art Studies and Archaeology and the Faculty of Arts and Philosophy at the Vrije Universiteit Brussel. The research interest of MARI focuses in particular on Cyprus and the Near East during the Bronze and Iron Ages. By viewing the material cultural of Cyprus and the Levant in relation to the material culture of the entire Mediterranean world, MARI aims at contributing to the elucidation of the socio-economic and cultural history of the Mediterranean world in antiquity. Some of MARI's research projects, however, have a broader chronological and geographical scope as they centre on the study of the *chaîne opératoire* of two particular glass categories in northwestern Europe and the Mediterranean during, respectively, Roman and medieval times.

Our University organises Doctoral Schools in order to offer PhD students the opportunity to develop skills supporting their research as well as their teaching abilities, which at a later stage also can prove valuable outside their discipline and the academic environment. Therefore, we felt privileged to organise POCA 2008 to welcome a gathering of graduate students and young scholars active in the field of Cypriot archaeology, anthropology, history, social science or related subjects dealing with the material culture of Cyprus, without any chronological limits. The yearly postgraduate conference of POCA has proved to be beneficial for many postgraduates, hence their participation to several successive conferences. POCA indeed provides an easy accessible platform for presenting preliminary results and exchange ideas with senior scholars. In some cases, international relations are established between researchers of different universities. Equally important is the fact, that since the last years, the organising POCA committees work hard on publishing the proceedings of the conference. This is of major importance, since young researchers are

more and more encouraged to publish before completion of their dissertation. Many universities and funding agencies require international publications as a critical condition. We were very pleased that the then dean of the Faculty of Arts and Philosophy, Prof. Jean Paul VAN BENDEGEM, accepted to open the POCA conference and to have his notes published in this volume.

Cypriot Material Culture Studies

The call for papers purposely did not contain a conference theme, in order to invite as many as possible participants and attendants. However, the keynote lecture 'Storage and Political Economy in Late Bronze Age Cyprus', presented by Dr Priscilla KESWANI had multiple objectives. Over the years, Dr Priscilla KESWANI has demonstrated her well-established aptitude and quality to thoroughly analyse material culture, and to relate these observations to some of the larger socio-economic and political questions in the Late Bronze Age Mediterranean. Her lecture, which we are very pleased to incorporate in the proceedings, exactly comprises both components: the study departs from material culture, pithoi, in order to reconstruct the political economy in Late Bronze Age Cyprus.

The conference presented a wide variety of research topics related to Cypriot material culture. Young scholars presented twenty papers and two posters in sessions arranged by topic in order to enhance the discussion between the participants who are frequently confronted with similar methodological questions. All papers were of a very high standard and demonstrated that there is a new generation of young scholars keen to challenge long-held assumptions and to raise new questions. Some papers dealt with archaeometric data and interdisciplinary research which allowed to re-evaluate assemblages. Other papers departed from new-collected archaeological data and presented original contributions. Moreover, some papers clearly sought to understand how Cyprus interacted with its neighbours in different time periods.

The first session set the tone of the POCA 2008 conference by presenting a variety of research topics from different periods: we started with a review on cultural heritage in Cyprus during the period of 1963-1974. Next, we went back until Chalcolitic times to examine the health status from the cemetery at Souskiou-*Laona*. A re-assessment of Middle Bronze Age evidence illustrated the need to consider this period preliminary to the opening of the Late Cypriot period, while the fourth paper concentrated on regional exchange in southeast Cyprus in that period.

The second session grouped papers that presented long distance relations between Cyprus and other areas within the eastern Mediterranean: two papers dealt with the connectivity with Levantine areas in the Bronze and Iron Age —respectively Anatolia and Syria— whereas, a third paper concentrated on Cypro-Archaic and Cypro-Classical relations between Marion and Athens.

In the third session, figurine traditions were put in retrospect: the technology of picrolite figurines was explained in order to better appreciate a very specific section within the Chalcolithic material culture. Bronze Age anthropomorphic and zoomorphic figurines were

considered to shed light on how the social and political structure, tradition connections, expressions of individual and group identity changed over time. Specifically, the last paper sought to understand how to interpret the "goddesses with upraised arms" which bear strong similarities to the Cretan examples.

The fourth session continued to explore the previous theme by examining Hathoric figures from Amathous and how this "Egyptian deity" was perceived in the Archaic city of Amathous. Statues of Roman emperors, their inscriptions and context were viewed in order to understand the roles that statues played in the imperial cult and imperial representation. Two more papers contributed by considering sculptural and architectural types of material culture: both the early Christian marble tables and Islamic *Proskynitaria* are significant for their time period.

Pottery was the central theme of the fifth session: four papers dealt with archaeometric data in order to answer larger questions on ceramic production, technology and provenance determination. In addition, a few Cypriot finds from Carthage were presented.

The sixth session grouped inscriptions, linguistic and epigraphical evidence from different periods in order to reconsider some of the long held views on the people and their society.

The last session included the search of the *Gymnasium* of Nea Paphos, whose existence is corroborated by inscriptions. The last paper also concentrated on architecture, more specifically, on the political motivations of water control through a number of public works and aqueducts.

Finally, two posters were briefly commented and again illustrated the variety of research topics: from Egyptian Scarab-shaped seals to archaeological window glass from Cistercian abbeys.

In addition to the 22 presentations, we were very happy with the participation from two of our Belgian colleagues from the Katholieke Universiteit Leuven and the Universiteit Gent. Prof. Joachim BRETTSCHNEIDER (Katholieke Universiteit Leuven, now Universiteit Gent) presented Cypriot material from the excavations at Tell Tweini in Syria, while Prof. Roald DOCTER (Universiteit Gent) contributed by discussing the Cypriot facies found in Phoenician-Punic Carthage.

Ariane JACOBS & Peter COSYNS

Foreword

As Dean of the Faculty of Arts and Letters of the Vrije Universiteit Brussel (VUB, Free University of Brussels), I feel quite honoured to be here among you for the opening session of this conference. I am quite convinced that all of you know on the basis of years of academic practice and experience, that the task of a Dean of a Faculty (not necessarily of Arts and Letters) is not a pleasant one. Sometimes I have the belief that occasions such as this one have been intentionally 'invented' to soften the pain and the agony and to allow the poor Dean to continue on his path of sorrow and misery. Being here means that I am given the opportunity to be among other scholars and to feel reintegrated within the scientific community. Of course, that feeling would be a lot stronger if our fields or domains of expertise would overlap. But, alas!, we all know that a perfect match between a Dean's academic training and the specialty of the members of the conference he is addressing, occurs on an extremely rare basis, very few and far between, as the expression goes. And so it is, I am afraid, in this particular case. By training I am a mathematician and a philosopher (and the latter has become my professional occupation although the subject of my philosophical reflection is the former) and, notwithstanding the existence of mathematical branches in archaeology and some indications of the beginnings of a philosophy of archaeology, it is a hard and challenging task to find direct links and connections. Of course, I could claim that philosophical problems are perennial and that mathematical answers are meant for eternity, so at least in time span, philosophers and archaeologists understand one another, but, nevertheless, we all feel this amounts to no more than a rather weak, if not pretentious defence to establish a connection. However, one failed attempt does not constitute defeat. Fortunately there are many ways to reflect on time and space, so let me try a different approach.

Where are we? Philosophers have spent ages trying to find answers to that tricky question, but my own personal favourite is inspired by the beautiful short movie by Charles and Ray Eames, *Powers of Ten*. As the title indicates, one travels from the largest structure known to us all, the universe, down to the atomic scale, until all vanishes and we are left with a void. Let me consider eight stages in that journey: (1) the universe, (2) the Milky Way, (3) the Sun, (4) the Earth, (5) Europe, (6) Belgium, (7) Brussels, (8) the place where we are gathered here today. I assume that it is very tempting to see in this progression an increase of detail and of locality. True, it is worth noting that of these eight places four are shared by all of us and only the second half concerns places that seem to be more specific. But, at the same time, one must realize that to a certain extent one is no longer tied to a particular place. Wherever an internet connection is available, sphere (4) is always within reach (although I must add here straight away that the density of the connections shows a huge variance that is clearly determined by socio-economic and political parameters). There is thus a strange loop present here, to use Douglas Hofstadter's favourite expression —his latest piece of scientific-philosophical musings is entitled *I am a Strange Loop*— but, wherever I consult the internet, it will always be in a particular location. I will not pursue this philosophically pleasing exploration any further, but instead ponder a few moments on the particularities of topoi (6) and (7).

Let me ask the question one more time: where are we? Perhaps locus (6), Belgium, is a good place to start, but, in all honesty, I have strong hesitations. I have no clear ideas about the perception abroad of this curious country, coming into existence after an opera performance, as common history wants it, counting three communities, each with their own language (Dutch, although some will claim it is Flemish, French and German), counting three regions, that do and do not coincide with the communities, unified by a monarchy (though an idea not shared by everyone), divided by a language barrier (whereof the existence itself is a philosophical conundrum of first order), therefore requiring a staggering six governments (with partial overlaps) and I will not mention the number of ministers apparently necessary to populate them all. The most curious aspect of this staggering complexity is that normally it is supposed to lead to a total and complete immobility but not always so. Occasionally it offers unique opportunities. In particular I am thinking of intellectual environments such as universities and other academic institutions that are subject to so many conflicting rules, coming from equally many different governmental sources, that a certain form of freedom emerges for, let us admit it freely, that we, as intellectuals, are quite well-trained to reason with contradictory and inconsistent data and nevertheless succeed to the most interesting conclusions.

Speaking as a logician and mathematician, it is a well-known and accepted fact that properties of a whole need not necessarily hold for the parts. Although water is wet, a single water molecule definitely is not. However, in the case of the city of Brussels, the capital of Belgium, unfortunately, it does hold. So forgive me if I do not enter into the details of the complexities of this extraordinary place, complexities that are the result of the above mentioned national complexities. Let me just say that it becomes quite understandable why some inhabitants of this country and of this city in particular prefer to leave out place (6) and move straight from (5) to (7) or, in other words, who see Brussels as the capital of Europe. I will not abuse the space accorded to me here in this introduction, but I myself tend to believe that on the one hand the statement "Brussels is the capital of Europe" is strictly speaking false and that on the other hand it is perfectly alright to claim that it is so *de facto*. The evidence that this place is truly an international melting pot is, as far as I am concerned, overwhelming. It offers thereby unique opportunities to the universities and other places of higher education for establishing international networks, as this conference itself demonstrates by its mere existence.

Now that we have come down to the level of Brussels, this is perhaps the perfect moment in my exposé to say a few things about my university that so far was only briefly mentioned in the first paragraph and, to be honest, only to raise your sympathy for my particular situation (known in argumentation theory as a classic rhetorical device, namely the *argument ad misericordiam*). The Vrije Universiteit Brussel was officially erected in 1969-1970. Before that date, there was of course the Université Libre de Bruxelles (ULB), which in English translates as Free University of Brussels as well. The ULB was founded in 1834, quite soon after the independence of Belgium, supported financially mainly from the Freemasons movement in order to create a place where scientific research would be "free" or, as the beautiful French expression states it, where the "libre examen" would be practised. Inspired by the thoughts of Henri Poincaré, the "libre examen" proposes to let the facts do the

talking, as it were, and not accept whatever idea solely on the basis of an authority, whatever its source. It also implies that in principle no topic, no subject is to be excluded from scientific questioning and analysis. This attitude is most clearly reflected in the university's motto, namely "*Scientia vincere tenebras*" ("To conquer darkness through science"). Note that it is not science itself that will drive away the darkness, but rather we ourselves with the help of the sciences. But back to harsh reality. Originally French-speaking, the ULB turned into some kind of bilingual institution but eventually, due to all sorts of political, social and economical developments in Belgium, it would lead to a separation that however never turned into an opposition, although it must be acknowledged that the Belgian present-day situation did not particularly help to reduce tensions. At present thoughts and ideas are circulating to establish a University of Brussels, where VUB and ULB will be partners (again).

The VUB is thus a special university, not only in its specific relation to the ULB, but also among the other universities in the Flemish Community: the University of Ghent, the Catholic University of Louvain, the University of Antwerp and the University of Hasselt. In terms of the subsidies that each of these institutions receives from the Flemish government, based on a complex model that translates into financial parameters the impact of teaching and research, it turns out that all but the VUB receive a sum of money, made up of 55% for the educational part and 45% for the research part. Not so for the VUB however where the sum is composed in exactly the opposite way: 45% for education and 55% for research. So I am tempted to say: welcome at our research university!

So far I have not said much about the specific research done at the VUB in relation to the theme and topic of this conference. I am quite convinced that the choice to organise this meeting here, is no accident, rather the contrary, once one takes into account the following facts and figures:

- In the first half of the seventies my Faculty decided to launch a course on "Archaeology of Ancient Cyprus". Worldwide there were only a few other places that dedicated some attention to the archaeology of Cyprus. So it is right to say that in this case the VUB has played a pioneering role.
- Since then about 22 master theses and 3 PhD dissertations have been presented and defended that focus on different aspects of the material culture of Cyprus. 2 Master theses and no less than 5 PhDs are in preparation that deal specifically with Cypriot archaeology.
- In 1990 the VUB on a suggestion of my Faculty has decided to award Prof. Vassos KARAGEORGHIS, the then director of the Department of Antiquities of Cyprus, the title of *doctor honoris causa*. My University thereby acknowledged the importance of his work as to the pivotal role of Cyprus on the socio-economic and cultural level within the whole of the Mediterranean world during different stages in history.
- Of equal importance, what I should mention as well are the collaborations within the educational field. On the one hand the bilateral Erasmus exchange programs in the area of archaeology and material culture with the University of Cyprus and Sheffield

University should be mentioned. In this connection, I wish to welcome in particular Prof. Demetrios MICHAELIDES (University of Cyprus) and Prof. Patrick QUINN (formerly Sheffield University, now UCL London). On the other hand, I am happy to inform you that in the very near future a new road will be opened for PhD students and researchers, namely to obtain a "simultaneous" PhD diploma from the VUB and another participating university.

As you are all eager to get started with the conference itself, allow me to end my presentation with a philosophical note. The famous 20th century Austrian philosopher Ludwig Wittgenstein defined in his famous treatise, the *Tractatus Logico-Philosophicus*, an object as something equipped with all possible connections it could form with other objects. So any object was "surrounded" by a host of potential relations with the rest of the world. The important term here is "potential". If an object is to be a part of the actual world then at least some of these connections have to be realized. A chair can have many colours, but in this real world it has a particular colour, excluding thereby other possibilities. Although I am going beyond Witittgenstein's intentions here, it is perhaps a nice thought experiment to see a university as an "object" of some kind, with many possible, potential connections. But in order to be perceived as real, some of these connections need to be realized. I think that this conference today and for the days that follow, will make both my university, the research community of which all of you are part and the world surrounding us, preferably up to an including place (4), a bit more real. I thank you.

Jean Paul VAN BENDEGEM

Paul ÅSTRÖM,
The Mentor of Several Generations of Archaeological Students and an Inspiration for Generations to Come

When the MARI team started planning POCA 2008, we could not think of a scholar more appropriate than Paul ÅSTRÖM to reflect on the colloquium's contributions and on Cypriot archaeology in general. Hence, I was delighted that he accepted the invitation to deliver the closing lecture. Alas, his sudden illness decided otherwise.
Thus, I felt very moved and honoured when, on the morning after his passing, his wife, Elisabet, told me that, on his last day, he had dictated to her the text which he wanted to be read at the POCA 2008 conference: "Cypriot Archaeology: A Prospering Story" (see this volume, XXII-XXIII).

One characteristic of Paul ÅSTRÖM was his genuine interest in the research of young scholars. My own career in Cypriot archaeology received a tremendous boost from the moment I met Paul ÅSTRÖM on 17th May 1993 at the *Cypriote Stone Sculptures* conference in Belgium. I was then a master's student preparing a thesis on the use of masks in Cypriot antiquity. Before the start of the conference, everyone was having coffee in the big front hall at the University of Liège. I was very impressed, as it was as if a major part of my bibliography had come to life; there they stood: Vassos KARAGEORGHIS, Antoine HERMARY, Annie CAUBET, Marguerite YON, Robert MERRILLEES, and ... Paul ÅSTRÖM. They were having very interesting conversations with each other, and they were completely ignoring the few students who were standing timidly in a corner... except for Paul ÅSTRÖM! He detached himself from the distinguished researchers and came to us, asking us in his kind way where we were from and what we were studying, thereby showing a real interest in our replies. During the pauses, he came again to talk to us, giving useful advice and references, to me and to my friend, who prepared a thesis on the Middle Comedy in the ancient history department. As we desired to participate in an excavation in Cyprus, we conferred with each other about whom we should approach at the end of the conference. I argued that we should first ask Paul ÅSTRÖM, as, if he replied negatively, at least he would do so in a friendly way. However, the reply we received was not at all negative: "Students who attend a full congress are very welcome at my excavation!". This was the start of my collaborations with Paul ÅSTRÖM at Hala Sultan Tekke.

It is important to stress that Paul ÅSTRÖM's attitude towards these two Belgian master's students was not a unique occurrence. Most archaeologists of my generation can tell similar stories. This story is also corroborated by the praising words which Prof. WEINBERG wrote in his evaluation report on Paul ÅSTRÖM's work as a visiting associate professor at the University of Missouri in 1963-1964:

> *... The many students who studied with him have given a unanimously favourable report on the courses and have expressed much enthusiasm both for the man and the subjects which taught; nothing speaks better for a professor. The one M.A. thesis which he supervised to completion was given very quick publication in a leading archaeological publication in Switzerland. Even the work of one of the undergraduate students in the course in Cypriote Archaeology was published in a Cypriote journal. This is*

indicative of the great attention which Dr ÅSTRÖM gave to his students, and for which they were most grateful...

Prof. WEINBERG's words show that, even as a young professor, Paul ÅSTRÖM attached great importance to encouraging young researchers to publish their work. When Paul ÅSTRÖM started his own publishing house, Paul Åströms Förlag, he offered many young scholars the opportunity to publish their master's and/or PhD work as an article in the *Journal of Prehistoric Religion*, in SIMA-PB, or even as a genuine volume in the red SIMA series – the *nec plus ultra* of archaeological publications.

Paul ÅSTRÖM is well known for the excavations he conducted in Cyprus and Greece: the Middle Cypriot sites at Kalopsidha and Ayios Iakovos (1959), the Late Cypriot harbour town west of Hala Sultan Tekke (1971-2005), and the Mycenaean citadel at Midea (1983-1997), the latter of which he led along with Katie DEMAKOPOULOU. His name will also remain associated with the discovery of a Mycenaean cuirass in one of the chamber tombs at Dendra (1960-1963), which he explored together with Nicolaos VERDELIS. Less well known is that during his time as director of the Swedish Institute in Rome (1967-1969), he excavated the Etruscan settlement at San Giovenale. It is therefore not a surprise that his publication list includes an article on Etruscan material culture:

> ÅSTRÖM, P. 1974. "Un'urna etrusca con iscrizione dipinta e con scena in relieve raffigurante la lotta tra Eteocle e Polinice", *OpRom* 8, 29-32.

Moreover, he even tackled a *conundrum* in Roman studies:

> ÅSTRÖM, P. 1969. "Iter populo debetur ped. tot", *OpRom* 7, 84-88.

As a Mediterranean archaeologist, Paul ÅSTRÖM was particularly eager to solve yet another *conundrum*: the chronology of the ancient Mediterranean world. Although this is still a matter of debate, the archaeological community is grateful to Paul ÅSTRÖM for his contributions to this discussion:

> ÅSTRÖM, P. 1978. "Methodological Viewpoints on Middle Minoan Chronology", *OpAth* 12, 87-90.
>
> ÅSTRÖM, P., PALMER, L.R. & POMERANCE, L. 1984. *Studies in Aegean Chronology* (SIMA-PB 25), Gothenburg.
>
> ÅSTRÖM, P. 1986. "The Middle Minoan Chronology Again", in *Pepragmena tou E' diethnous kretelogikou synedriou* 1, Heraklion, 36-34.
>
> ÅSTRÖM, P. (ed.) 1987. *High, Middle or Low? Acts of an International Colloquium on Absolute Chronology Held at the University of Gothenburg 20th-22nd August 1987* 1-2 (SIMA-PB 56-57), Gothenburg.
>
> ÅSTRÖM, P. (ed.) 1989. *High, Middle or Low? Acts of an International Colloquium on Absolute Chronology Held at the University of Gothenburg 20th-22nd August 1987* 3 (SIMA-PB 80), Gothenburg.
>
> ÅSTRÖM, P. 1992. "Implications of an Ultra Low Chronology", *Ä&L* 3, 19-21.

Obviously, Paul ÅSTRÖM's bibliography comprises many publications on different aspects of Greek and Cypriot material culture. For his innovative investigations on finger- and

palm-prints, he teamed up with Swedish police officers Sven A. ERIKSSON and Karl-Erik SJÖQUIST:

ÅSTRÖM, P. 1972. "Fingerprints on Cypriote Bronze Age Pottery", in *Praktika tou protou diethnous kyprologikou synedriou, Leukosia, 14-19 Apriliou 1969*, Nicosia, 1-3.

ÅSTRÖM, P. & ERIKSSON, S.A. 1972. "Fingerprints and the Indo-Europeans in Greece", in *Acta of the 2nd International Colloquium on Aegean Prehistory "The First Arrival of the Indo-European Elements in Greece", Held in Athens, April 5-11, 1971*, Athens, 72-75.

ÅSTRÖM, P. 1973. "Fingerprints on Middle and Late Minoan Pottery", in *Pepragmena tou G' diethnous kretelogikou synedriou I. En Rethymno, 18-23 Septembriou 1971*, Athens, 13.

ÅSTRÖM, P. & ERIKSSON, S.A. 1980. *Fingerprints and Archaeology* (SIMA 28), Gothenburg.

ÅSTRÖM, P. & SJÖQUIST, K.-E. 1985. *Pylos: Palmleaves and Palmprints* (SIMA-PB 31), Gothenburg.

ÅSTRÖM, P. & SJÖQUIST, K.-E. 1987. "The Scribes and their Helpers in the Palace at Pylos", in R. Hägg & N. Marinatos (eds.), *The Function of the Minoan Palaces. Proceedings of the Fourth International Symposium at the Swedish Institute in Athens 10-16 June, 1984* (*ActaAth*-4° 35), Stockholm, 317-320.

ÅSTRÖM, P. & SJÖQUIST, K.-E. 1991. *Knossos: Keepers and Kneaders* (SIMA-PB 82), Gothenburg.

He also devoted research to ancient textiles and dress:

ÅSTRÖM, P. 1965. "Remains of Ancient Cloth from Cyprus", *OpAth* 5, 111-114.

ÅSTRÖM, P. & GULLBERG, E. 1970. *The Thread of Ariadne. A Study of Greek Dress* (SIMA 21), Gothenburg.

His studies on ancient sculpture include work on the Lion Gate at Mycenae, Archaic statues. He even proposed a reconstruction of the Laocoon group which was much lauded by specialists as a highly plausible hypothesis.

ÅSTRÖM, P. & BLOMÉ, B. 1965. "A Reconstruction of the Lion Relief at Mycenae", *OpAth* 5, 159-191.

THAFVELIN, H. & ÅSTRÖM, P. 1965. "Drawings of the Moschophoros from Photographic Measurements", *OpAth* 6, 165-170.

ÅSTRÖM, P. 1969. "Una nuova riconstruzione del gruppo di Laocoonte" *Archeologia. Problemi, ricerche, scoperte* 8, 54.

ÅSTRÖM, P. 1972. "Suggerimento per una nuova riconstruzione del Laocoonte", in *Colloqui del Sodalizio, Sodalizio tra Studiosi dell'Arte*, seconda Serie 2, Rome, 11-20.

ÅSTRÖM, P., NORDBERG, B. & RENFORS, L. 1978. "An Unfinished Kouros Statue on Naxos", *OpAth* 12, 111-116.

ÅSTRÖM, P. & BLOMÉ, B. 1994. "The Laocoon Group. A Tentative Reconstruction", *Opus Mixtum. Essays in Ancient Art and Society* (*ActaRom*-8° 21), Stockholm, 7-24.

Paul ÅSTRÖM's text for the POCA 2008 conference reflects his keen interest in applying exact science to archaeology. In his bibliography, the variety of topics which he dealt with in this domain is astonishing:

- *Acoustic Research*

  ÅSTRÖM, P. & KLEINER, M. 1989. "Kan krukor tala?", in *Mycket mänskligt* (Humanistisk forskning vid Göteborgs universitet 2), Gothenburg, 28-31.

  ÅSTRÖM, P. & KLEINER, M. 1993. "The Brittle Sounds of Ceramics – Can Vases Speak?", *Archaeology and Natural Sciences* 1, 66-72.

- *Geophysical Prospecting*

  ÅSTRÖM, P. 1967. "Electrical Prospecting at Calatia, Caserta", *Prospezioni archeologiche* 2, 81-83.

- *Palaeobotanical Research*

  ÅSTRÖM, P. & HJELMQUIST, H. 1971. "Grain Impressions from Cyprus and Crete", *OpAth* 10, 9-14.

  ÅSTRÖM, P., ENGELMARK, R. & WENNBERG, B. 1985. "Paleobotanical Investigations at Hala Sultan Tekke in Cyprus", in *In Honorem Evert Baudou* (Archaeology and Envirtonment 4), Umeå, 277-282.

- *Physical Anthropology*

  BORRMAN, H., FJAESTAD-SEGER, M., ENGSTRÖM, E.U. & ÅSTRÖM, P. 197-1998. "A Dental Radiographic Examination of a Late Bronze Age Skull from Kition", *OpAth* 22-23, 53-56.

- *Residue Analysis*

  ÅSTRÖM, P. 1969. "A Red Lustrous Wheel-made Spindle Bottle and its Contents", *Medelhavsmuseet Bulletin* 5, 16-21.

His classical training explains his love of issues in Greek and Latin epigraphy, papyrology and even numismatics:

ÅSTRÖM, P. 1951. "A Greek 'Mummy-label'", *Eranos* 49, 109-116.

ÅSTRÖM, P. 1952. "Roman Amphora Stamps from Monte Testacio", *OpArch* 7, 166-171.

ÅSTRÖM, P. 1955. "Une inscription d'Aigion", *OpAth* 2, 4-9.

ÅSTRÖM, P. 1967. "Two Unguentaria and an Obol", *OpAth* 7, 187-190.

ÅSTRÖM, P. 1968. "L'épitaphe de Vera Clandia", *Latomus* 102, 40-43.

ÅSTRÖM, P. 1968. "Roman Amphora Stamps and a Graffito in the National Museum, Copenhagen", *OpRom* 6, 197-199.

ÅSTRÖM, P. 1968. "Two Inscriptions from Caunus", *OpAth* 8, 167-169.

ÅSTRÖM, P. 1976. "The Coins of Calatia", in *Studia romana in honorem Petri Krarup septuagenarii*, Odense, 38-40.

ÅSTRÖM, P. 1990, "Greek Inscriptions from Seleukeia in Cilicia", in *Greek and Latin Studies in Memory of Cajus Fabricius* (Studia Graecia et Latina Gothoburgensia 54), Gothenburg, 55-58.

ÅSTRÖM, P. 2001. "An Isopsephic Inscription from Iasos, *La Parola del passato. Rivista di studi antichi* 56, 5-8.

Although the ancient Mediterranean world was Paul ÅSTRÖM's preferred study domain, he was also very interested in the history and culture of his home country. As a young scholar he made an unassuming contribution to Swedish history:

ÅSTRÖM, P. 1962. "Om den varbergska kulknappens ursprung", *Varbergs museum – årsbok*, 85-88.

This article actually reads as a detective story, as it reveals another of Paul ÅSTRÖM's predilections: the whodunit. This does not come as a surprise, for every archaeologist is actually a detective:

ÅSTRÖM, P. 1980. *Arkeologiskt detektivarbete* (SIMA-PB 11), Gothenburg.

Undoubtedly, his detective skills helped him trace back the steps of past Swedish travellers in Cyprus:

ÅSTRÖM, P. 1960. "A Swedish Description of Cyprus Written in 1733", *Kypriakai Spoudai* 24, 33-47.

ÅSTRÖM, P. 1961. "Two Swedish Visitors to Cyprus, Truls Kåhre and Johan David Åkerblad", *Kypriakai Spoudai* 25, 75-80.

ÅSTRÖM, P. 1997. "Michael Eneman's Visit to Cyprus in 1713", in *Mélanges Olivier Masson. CCEC* 27, 45-46.

Outside Sweden, it is probably not well known that Paul ÅSTRÖM made a tremendous contribution to the research on Swedish literature with publications on Karin BOYE, Johannes EDFELT, Gunnar EKELÖF, Ellen KEY and Östen SJÖSTRAND. In particular his *magnum opus* on Gunnar EKELÖF (ÅSTRÖM 1992) was highly praised in the Swedish press.

- *Karin BOYE*

  ÅSTRÖM, P. 1994. *Karin Boye, Resedagbok I Grekland. Från Hitlers Berlin til Apollons Olympia* (SIMA-PB 128), Jonsered.

- *Johannes EDFELT*

  ÅSTRÖM, P. 1989. *Johannes Edfelt och antiken* (SIMA-PB 89), Jonsered.

  ÅSTRÖM, P. 1991. "Johannes Edfelt", *Hellenika* 58, 3.

- *Gunnar EKELÖF*

  ÅSTRÖM, P. 1989. "Gunnar Ekelöf och Parthenon", *Hellenika* 50, 12-13.

  ÅSTRÖM, P. 1990. *Gunnar Ekelöf och Gottfrid Walldén. En brevväxling* (SIMA-PB 90), Jonsered.

  ÅSTRÖM, P. 1990. "Ekelöf och Orestes", *Tidskrift för Litteraturvetenskap* 19:1, 59-62.

  ÅSTRÖM, P. 1991. *Brev från Gunnar Ekelöf* (SIMA-PB 102), Jonsered.

  ÅSTRÖM, P. 1991. "Gunnar Ekelöf and the Lascaux Cave", *JPR* 5, 5-6.

  ÅSTRÖM, P. 1992. *Gunnar Ekelöf och antiken* (SIMA-PB 91), Jonsered.

ÅSTRÖM, P. 1994. "Gunnar Ekelöf och Kjell Espmark", *Medlemsblad för Gunnar Ekelöf-Sällskapet* 5:1, 6-8.

ÅSTRÖM, P. 1997. "Ekelöf och Epidavros", *Parnass* 3, 16-18.

ÅSTRÖM, P. 1997. "När Gunnar Ekelöf längtade till ljuset I Grekland. Några okända brev", *Ariel* 79:1-2, 51-57.

ÅSTRÖM, P. 1998. "Två ord hos Gunnar Ekelöf", *Gunnar Ekelöfsällskapets medlemsblad* 9:9, 5.

- Ellen KEY

  ÅSTRÖM, P. 1987. "Ellen Key och Jonsered", *Partillebygden* 4, 2-4.

- Östen SJÖSTRAND

  ÅSTRÖM, P. 1995. *Östen Sjöstrand och antiken* (SIMA-PB 131), Jonsered.

Finally, he also wrote about two of his favourite non-Swedish authors, Rainer Maria RILKE and Joyce Carol OATES, which probably helped to better grasp their work.

- Rainer Maria RILKE

  ÅSTRÖM, P. 1987. "Rainer Maria Rilke och Selma Lagerlöf m. fl.", *Artes* 13:2, 107-111.

  ÅSTRÖM, P. 1987. "Ernst Norlind och Rainer Maria Rilke", *Transit* 15, 3-13.

  RAUSING, B. & ÅSTRÖM, P. (eds.) 1989. *Rainer Maria Rilke. Briefe an ToraVega Holmström* (SIMA-PB 66), Jonsered.

  ÅSTRÖM, P. 1989/90. "Rilke in Schweden: Borgeby und Jonsered", *Blätter der Rilke-Gesellschaft* 16/17, 129-139.

- *Joyce Carol OATES*

  ÅSTRÖM, P. 1999. "Ett antikt ödesdrama I modern miljö", *Medusa* 20:3, 26-29.

The above mentioned publications are only a fraction of the more than 700 titles that Paul ÅSTRÖM authored or co-authored.
May his brilliant career, versatile interests and inspiring mentorship remain an inspiration for many generations to come.

Karin NYS

Cypriot Archaeology: A Prospering Story

In the fifties, there were very few Cypriot archaeologists: DIKAIOS, STEWART, KARAGEORGHIS, CATLING and a few others. When I published *Who is Who in Cypriote Archaeology* in 1971, the number of people mentioned was already about 600, who in one way or another were dealing with Cypriot archaeology. Vassos KARAGEORGHIS's efforts in inviting people from all over the world to carry out excavations in Cyprus had a tremendous effect. At some time nearly twenty foreign missions worked in the island. On many occasions, people asked me to make an update of the *Who is Who in Cypriote Archaeology*. However, by now this would mean a sheer impossible undertaking.

Today, Cypriot archaeology has a leading position in modern archaeological research. It is a pleasure to note that Cypriot archaeology is exercised all over the world from Australia to America. This POCA conference with its so many outstanding papers is a good example.

The old generation of scholars of Cypriot archaeology did not use computers, hence Jim STEWART sat in a German prison camp and composed an awkward classification system of Early Cypriot Bronze Age pottery. When I wrote my thesis in 1957 it was still before the computer. It was David FRANKEL who used the digital possibilities to an extreme extent in his doctoral dissertation *Middle Cypriot White Painted pottery* of 1973[1]. Now we have the digital possibilities to help us enormously.

New Techniques

In the time of the SCE, the technical help from the natural sciences was not available. I started to use the help of natural sciences when I worked with the material from Kalopsidha in 1959. Eight different specialists contributed to the final publication with studies on plant remains, residue analysis, fingerprints, human and animal bones, charcoal analysis, pollen, molluscs and geological determinations of stone fragments.

50 years later, the scientific knowledge has significantly enhanced. So it is exciting to observe that new techniques are developed such as direct dating of pottery from its organic residues published in volume 82 of *Antiquity* by BERSTAN *et al.*[2], and the method of the Belgian archaeological project documented in HST 12[3] for pottery provenance detection by comparing lead isotope signatures in pottery and sediments.

Nevertheless one should also use one´s own senses: one Roman archaeologist was able to date Roman tiles by just feeling them with her mouth.

Younger generations of archaeologists develop new theories and methodologies with the results of the work of the older generations as a basis. Sometimes young archaeologists

---

[1] FRANKEL, D. 1974. *Middle Cypriot White Painted: an Analytical Study of the Decoration* (SIMA 42), Gothenburg.

[2] BERSTANAL, R., STOTT, A.W., MINNITTA, S., BRONK RAMSEY, C., HEDGESA, R.E.M. & EVERSHEDA, R.P. 2008. "Direct Dating of Pottery from its Organic Residues: New Precision using Compound-Specific Carbon Isotopes", *Antiquity* 82, 702-713.

[3] ÅSTRÖM, P. & NYS, K. 2007. *Hala Sultan Tekke 12* (SIMA 45:12), Sävedalen.

express a negative view on the cultural historical approach of the previous generation of archaeologists. Of course their classifications, typologies and chronologies must be refined in the light of new finds. But for the pioneers it was necessary to build up classifications, typologies and chronologies as a basis for future research.

New methods are o.k. but the theoretical approach can go too far. An example of this is to make a new relative chronology of the Cypriot Bronze Age periods. The result is confusing. The present general classification is not perfect, but at the moment there is no better one.

So we must stress: Documentation first – interpretation afterwards.

Paul ÅSTRÖM, 3 October 2008

Land Use and Settlement Patterns in the Kourion Region: a Cross Analysis of the MC-LC Topography and Pottery Evidence

Luca BOMBARDIERI [1*] & Francesca CHELAZZI [**]
[*] *Dipartimento Studi Umanistici - Università di Torino*
[**]*Dipartimento di Chimica - Università di Torino*

Abstract

This study, as a preliminary introduction to the results of the Kouris Valley has been addressed to investigate the development trends within the settlement system of the Kouris valley in the Middle Cypriot (MC) to Late Cypriot (LC) period. A cross-analysis has been outlined, based on two linked research steps: the first one focusing upon the topographical evidence (the localization and inter-relation among the identified sites); the second, upon the technological and typological features related to the pottery production in the area. The summing up of the cross results within a larger framework has been useful to suggest a development in function and use of the sites within the chronological range of interest.

Introduction and Topography

This study aims to develop a preliminary outline of the general population patterns within the Kourion region during the Middle to Late Cypriot (MC-LC) period. An analysis of the results from the survey and trial excavation we carried out in the Kouris area was conducted in order to investigate the development trend within the settlement system of the valley, trying to contextualize the updated evidence with the data coming from previous excavations and survey projects in the area. We aimed for a cross-analysis based on two research steps: the first step focusing on the topographical evidences related to the localization and inter-relation among the MC-LC sites in the valley area and the second step focusing on the technological and typological features of the pottery production in order to outline a meaningful classification of the functional groups from each site. The summing up of the cross results within a larger framework has been useful to suggest a development in function and use of each site within the chronological range.

The area of interest was surveyed during 2007-2008 by a joint expedition of the Universities of Florence and Chieti-Pescara (BOMBARDIERI *ET AL.* 2009b; JASINK

[1] contact: luca.bombardieri@unito.it

ET AL. 2008) (**Figure 1**), within a 9km² transect covering the western as well as the eastern river bank from the northern area of Erimi and Kandou villages to the Kouris Dam, south of the Alassa area.

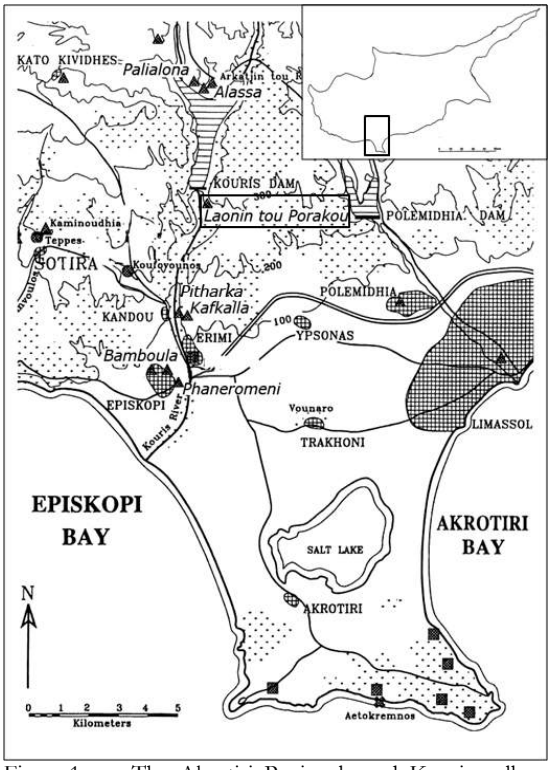


Figure 1: The Akrotiri Peninsula and Kouris valley area

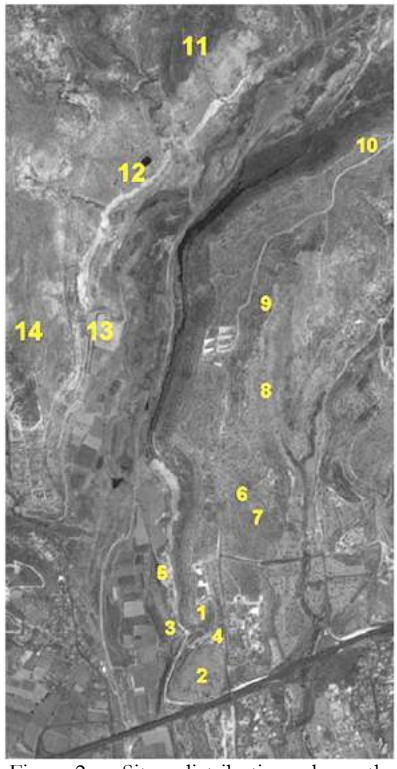
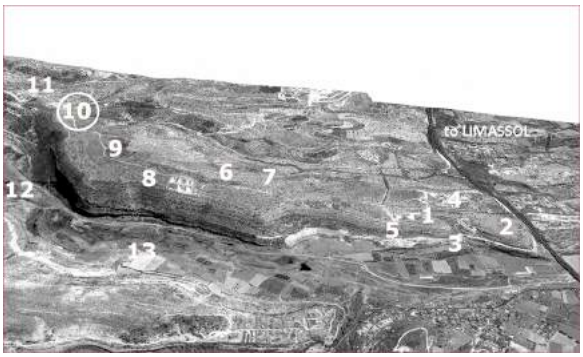


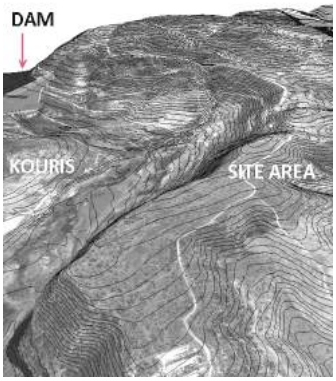
Figure 2: Sites distribution along the Kouris valley banks (sites 1-14). Satellite image (Ikonos II)

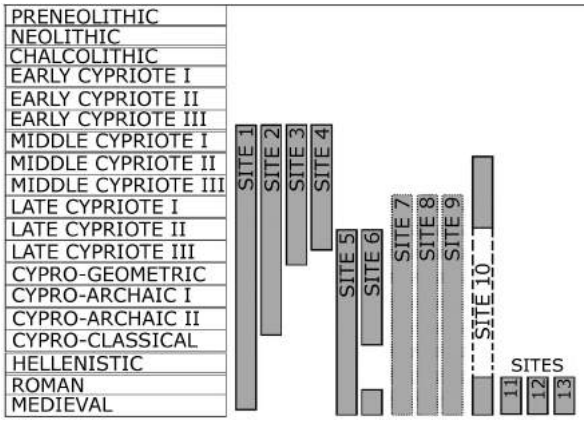
The results of the survey, therefore, have included 14 sites distributed on the two slopes of the upper and lower Kouris valley, showing in the whole an evident differentiation between the two river banks, not only in the topography, but also in the distribution of the sites and in their chronological ranges, as well as uses and functions (**Figures 2-4**). In fact, the eastern bank, which is characterised by limestone upland plateaux, with small inner fertile valleys, shows a generally larger settlement mainly during the chronological phases from the Middle Cypriot to the Geometric-Archaic period, with productive areas and related small cemeteries, always located along the main track of an upper road network.

The western bank, on the other hand, is characterized by wider and more fertile middle river terraces, which were used during the Hellenistic and Roman period for

farming, with sites (like 12 and 13) showing a pottery assemblage that was primarily related to storage activities.







3 | 5
4

Figure 3: Localization and inter-relation among the identified sites within the Kouris valley area. DTM realized by the *isohypses* on topographical map 1:5.000

Figure 4: Chronology and sequence of occupation of the identified sites

Figure 5: Erimi-*Laonin tou Porakou*. The site area on the eastern Kouris river bank. DTM realized by the *isohypses* on topographical map 1:5.000

The 2007 survey season of the north-western river valley terraces had already revealed the peculiar role of the Site 10 area corresponding to the site of Erimi-*Laonin tou Porakou*, which lies just south of the modern Kouris Dam, on the boundary between Erimi and Ypsonas villages (**Figure 5**). The preliminary evidence paved the way towards further investigations on the site area. The 2008 season work on Erimi-*Laonin tou Porakou* aimed to better clarify the sequence of occupation and possibly to understand the function and use of the different areas of the site (BOMBARDIERI *ET AL*. 2009a). The focus was upon the use of differently oriented investigation methods on site.

The 2008 season, therefore, dealt with a series of different topographical and geophysical prospecting (such as the magnetometry of specific areas), an intensive

survey collection of diagnostic materials, and the excavation of small trial trenches on the site area (**Figures 5-6**). The cross-linking of the entire body of evidence outlined a preliminary picture of the site's sequence, highlighting some interesting results.

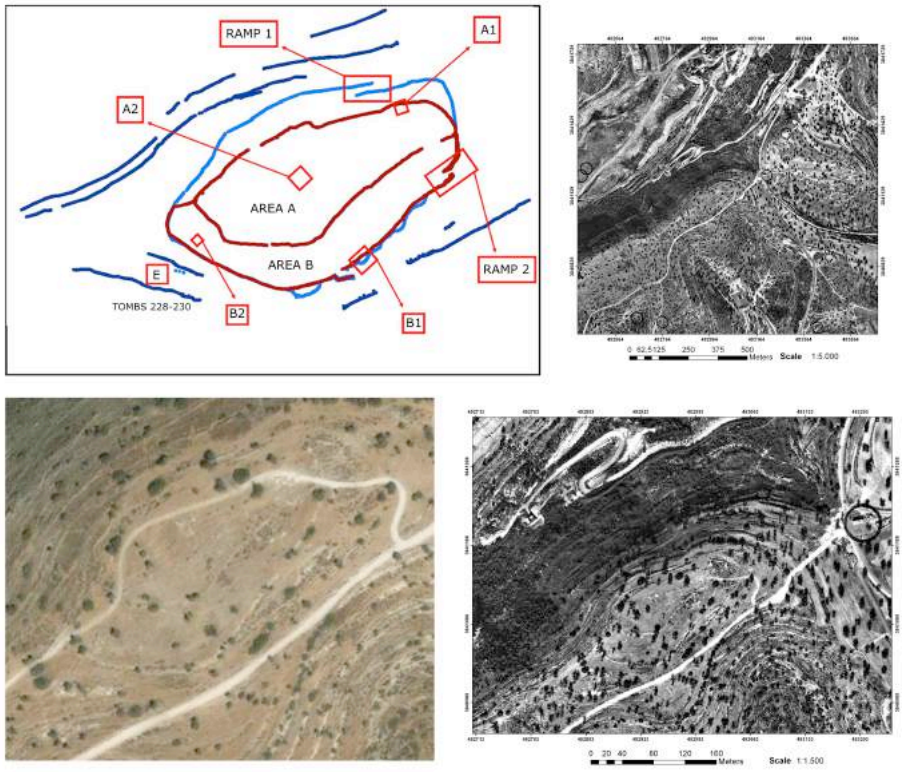


Figure 6: Erimi-*Laonin tou Porakou*. The site area. Aerial view and orthophoto.

MC-LC Pottery Assemblage: Methodology and Preliminary Analysis

The methodology of the research, as is normal in landscape archaeology for intensive field surveys, was based on teams that employed a 40% sampling strategy of the territory. The field survey strategy was carried out in combination with remote sensing of aerial and satellite images, geophysical prospecting, GPS positioning, and an integrated multilayer GIS database (MENOZZI & FOSSATARO 2010).

The MC-LC pottery assemblage within the identified sites could infer some interesting data, in order to clarify the function and the use of the different sites, in

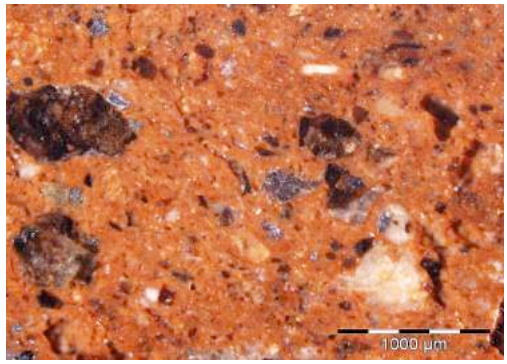
the lower as well as in the upper Kouris valley for the period of interest. Considering the self-evident limits of sporadic materials from survey collections (GIVEN 2004, 13-21), a limited selection of diagnostic sherds have been analysed in this study. Only the rims, handles, bases, spouts, and decorated wall sherds have been recorded as diagnostic.

The selected sherds have been investigated sorting out three levels of analysis: (1) wares; (2) fabrics; (3) types.

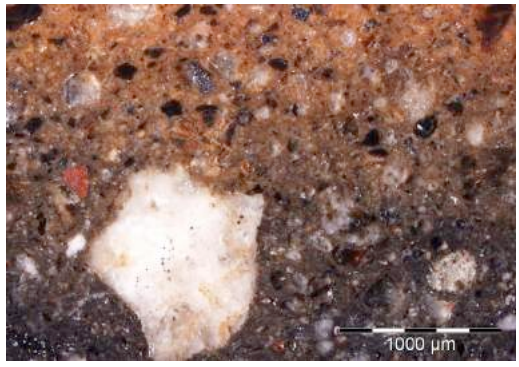
(1) WARES. The first level is represented by the traditional wares' typology. We have distinguished Red Polished ware and Plain ware.

(2) FABRICS. The second level pertains to the fabric's analysis. We analysed the sherds by attributing them a pertinent fabric whose primary attributes were the type, the greatness and the frequency of tempers, the hardness and the consistency of the paste, and the chromatic range (WILLIAMS 1990, 44-48). The importance of the fabrics' definition within the construction of a typology has been more recently pointed out by GIVEN & KNAPP (2003, 14-16; 48-56).

7



8



9

Figure 7: Sample of a *Fine Fabric*, microscope enlargement

Figure 8: Sample of a *Medium Fabric*, microscope enlargement

Figure 9: Sample of a *Coarse Fabric*, microscope enlargement

At this level, three main fabric groups have been outlined with a total of 71 variations. A similar classification system based upon the same three primary fabric

groups has already been suggested by MACLAURIN HELMSLEY (1992). The first main group we classified is *Fine Fabric* (**Figure 7**), which is characterized by a depurated paste that mainly features rare, small quartz tempers; the second group is represented by *Medium Fabric* (**Figure 8**), characterised by a high percentage of quartz and diabase tempers, with a general dimension between 0.2-1mm; the third group is represented by *Coarse Fabric* (**Figure 9**), characterized by raw paste with a high percentage of limestone, quartz, diabase, and organic tempers with dimensions between 1-3mm. We have attributed the pertinent fabric to every find surveyed with the help of a dedicated database in the GIS environment that is able to process statistical data on a territorial scale (GOODCHILD 1996; KVAMME 1990). A deeper analysis of the petrographical and chemical composition of each fabric through the use of SEM-EDS and XRD will offer further data concerning the study of the sourcing areas for clay and minerals related to the tempers (BARLOW 1991; BARLOW & VAUGHAN 1992; WEISMAN 1996) in the Kouris River valley area (CHELAZZI & DAVIT 2010; JACOBS 2008).

(3) TYPES. The third level of our analysis is the morpho-functional attribution; *i.e.*, the inferable functional aspects related to the vessel morphology. At this level we have once again distinguished three groups: *Small open vessels for possible domestic use*, which includes mainly the standard hemispherical deep bowls with pointed rim, with or without knobs or handles, and mainly undecorated; *Small closed vessels for possible domestic use*, which primarily includes medium globular bottles with long necks and everted flattened rims or ovoid body jugs with backward-tilted neck, frequently decorated with incised linear patterns; and *Large closed vessels for possible storage use*, a group of large jars and *pithoi* that mainly features big ovoid jars with simple rim and huge handles, tankards, and short-necked ovoid *pithoi*, frequently decorated with incised linear patterns

Because the limitations of pottery from any survey collection, particularly concerning the variability of the preservation status of sherds (MAGGETTI 1982, 121-130), can strongly thwart a definition of the ceramic repertoire in a functional perspective, we settled on a basic classification based upon only three general types. Furthermore, the overall definition of "possible" uses within two wide functional categories ("domestic use" and "storage use") can overcome such bias toward a prudent approach in the identification of functional groups from survey materials. The possibility of inferring basic functional information from survey materials, with similar cautions, seems to be largely accepted. A proposal to assign a broad range of functional meanings to pottery from the survey collection has brought forward the analysis of surface materials collected by the Sydney Cyprus Survey Project (MEYER & GREGORY 2003, 48; 50, tab.3.7), in relation with the complex definition of chronotypes to support the study of pottery (MEYER 2003, 15). More recently, a

correspondence between type and general function of surface materials has been applied to the pottery collection from the intensive survey project carried out in the area of Arediou-*Vouppes* in 2004 (STEEL & JANES 2005; STEEL & MCCARTNEY 2008). Here the distribution of a ceramic group within the surface collection has been interpreted as an evidence of prevalent use and function of the site area, stating that "[…] the bulk of the pottery recovered from survey is from *pithoi*, which indicates storage of agricultural produce as an important activity at the site" (STEEL & MCCARTNEY 2008, 32). In this perspective, a value-added analysis can also take into account the general functional attributes of a ceramic repertoire from a survey.

Finally, this analysis pattern tried to collect statistical data from the ceramic associations of wares, fabrics, and shape types in order to hypothesize the prevalent function of the pottery assemblage from each site. As BARLOW suggested, "[...] a significant advantage of basing a typology upon wares or fabrics with their accompanying shapes and decoration is the ability to separate easily the occurrence of a ware in time and geographical location from its technological characteristics" (BARLOW 1989, 53).

The MC-LC Period in the Kourion Region

The most important evidence of Middle Cypriot period in the Kouris area, which is the topic of our interest, mainly comes from archaeological investigation that has been conducted within three areas of the river valley (**Figure 1**). The first one is in the vicinity of Erimi-*Kafkalla*, which will be more frequently investigated by the Department of Antiquities as the result of a large series of rescue excavations caused by new houses being built north of Erimi village.

However, the entire area is far from unknown; in fact, it has previously been mentioned by GJERSTAD, who describes the site as a cemetery dating back to the Early Bronze Age (GJERSTAD 1926, 15). In addition, DIKAIOS stressed the relevance of the Early and Middle Cypriot scattered evidences, also publishing a collection of sherds from this site area after his excavations within the nearby Chalcolithic settlement of Erimi village (DIKAIOS 1951). In the following years, CATLING's survey of the area allowed him to collect a great amount of new surface pottery, ranging from the Early to Late Cypriot period (1963, 130). In 1970, the rescue excavations of three chamber rock-cut tombs from this area yielded a rich collection of ceramic vessels, with examples of shallow bowls and jugs in decorated Red Polished IV ware and Proto White Slip ware (KARAGEORGHIS 1972, 1008).

At the beginning of the 1980s interest in this area was renewed, thanks to the work of the Episkopi regional survey. This research, mainly addressed to clarify the Phaneromenis' environment (SWINY 1981, 51), as well as the further territorial studies dedicated by SWINY to the ancient landscape and peopling of the region (SWINY & MAVROMATIS 2000; SWINY 2004), produced very interesting results as to this area. A series of more than two hundred graves has been numbered within an area of 550m^2 along the north-south axis of the *plateau*; on some of the tombs, *dromoi* seemed easily visible, but the topsoil deposit and spread of vegetation at the time of excavation left some of the graves undetected. Furthermore, the survey recorded a huge amount of mortar-like and basin installations directly carved into the *havara*. Both the cemetery area, as well as the domestic and workshop installations, have been largely investigated during last years' excavations carried out by the Department of Antiquities in Erimi-*Kafkalla*, until now largely unpublished. The results of this research could offer additional data to better understand the features of the Early to Middle Cypriot phase of occupation in this area, which was largely settled in the following phases also (Late Cypriot II-III to the Geometric and Archaic period), as the recent excavation of the nearby settlement and workshop area in Erimi-*Pitharka* attests (FLOURENTZOS 2010; VASSILIOU & STYLIANOU 2004).

The rock-cut cemetery area of Alassa-*Palialona* is the second area of the river valley from which interesting Middle Cypriot period evidences come. The rescue excavations here, carried out by the Department of Antiquities of Cyprus in 1984-1988 before the construction of the Kouris Dam, brought to light two Middle Cypriot graves along with scattered evidences of few others from the same area (FLOURENTZOS 1991, 7-15). The richest, Tomb 1, which dated to the late Middle Cypriot period, shows good parallels with the more ancient assemblage from Erimi-*Laonin tou Porakou*.

The third area we can refer to corresponds to the site of Episkopi-*Phaneromeni*. The late Middle to the beginning of the Late Cypriot period was initially documented in this area by a chance find in the locality of Episkopi-*Phinijin*, where a Red Polished Punctured ware bowl associated with mudbrick walls was found in 1964 after a series of construction projects was carried out in the centre of the modern village (KARAGEORGHIS 1965, fig.38; SWINY 1981, 59-60). Afterwards, the Kent State University excavations in 1975-1978 revealed in a nearby area a relevant settlement and series of necropolis dating back to the Middle and Late Cypriot period (CARPENTER 1981; SWINY 1986), demonstrating a complex transitional MC-LC IA sequence of occupation within the settlement district (Area A) (CARPENTER 1981; HERSCHER 1981), which has been until now the point of reference for this chronological phase in the region and is also particularly meaningful compared with

the evidence from Erimi-*Laonin tou Porakou*, as we will show in more detail. Furthermore, additional evidence can be provided as counterparts to outline an overall picture of the Middle Cypriot period in the Kourion area.

In fact, two main areas west as well as east of the Kouris valley produced comparable materials dating from this period. To the west, the most interesting evidence comes from the extended area surrounding Limassol, where this chronological phase has been documented in the industrial settlement area of Pyrgos-*Mavroraki* (BELGIORNO 1999; 2002), as well as in a few cemetery areas mainly identified during rescue excavations by the Department of Antiquities, such as Limassol-*Katholiki*, excavated in 1959-1963 (KARAGEORGHIS 1964, 325), Pyrgos village, Pyrgos-*Kipos*, and Ayios Athanasios (KARAGEORGHIS 1971, 358; 1977, 714; BELGIORNO 2002).

To the east, meanwhile, further evidences of the late MC to LC can be recorded within the Evdhimou and Paramali river valleys, in particular from the cemetery and small settlement areas of Paramali-*Mandra tou Pouppou*, Evdhimou-*Beyouk Tarla,* and Anoyira-*Peralijithias* (SWINY 1981, 67-78).

The MC-LC Period in the Kouris Valley Area: New Sites' Identification

As to the results of our survey and trial excavation project within the Kouris valley area, the sites showing an occupation during the Middle Cypriot period totalled five, all of them located within the eastern riverbank.

First of all, the quite complete absence of MC-LC evidence in the wide area (2.5km) between the southern sites 1-4 and the northern site 10, which corresponds with the mound of Erimi-*Laonin tou Porakou*, is the most relevant evidence to be emphasized (**Figure 2**). Therefore, we can easily distinguish the southern sites (sites 1-4) from the northern site (Erimi-*Laonin tou Porakou*, site 10).

As to the date of the southern sites 1-4, here the materials, until now coming only from the surface collection, show low percentages of Black Slip ware sherds, high quantities of Red Polished wares, and a large diffusion of Plain ware vessels. The assemblage points to a general date to the MC I-II period (BOMBARDIERI 2010). These sites, 1-4, were possibly not settled during the late MC-beginning LC period, but rather only from the LC II-III period and, again, later on during the Cypro-Geometric and Cypro-Archaic period.

Within the assemblage found in sites 1-4, a relevant percentage diffusion of Red-Polished ware of a wide repertoire has been recorded with a possible date to the

Middle Cypriot I-II period. A Red-Polished IV ware rim-to-base hemispherical bowl, with in-turned pointed rim and round base, comes from site 1 (JASINK *ET AL.* 2008, 165; 177, fig.10). As to the Kouris area, a similar example comes from Tomb 1 in Alassa-*Palialona* and has been dated back to the Middle Cypriot II period (FLOURENTZOS 1991, pl.XVII: 50a). Analogous types were previously diffused since the Early Cypriot III period in Marki-*Alonia* (FRANKEL & WEBB 2000, 78, fig.7: P13342); Pyrgos, from rescue-excavated tombs in the village area (KARAGEORGHIS 1965, 250; BELGIORNO 2002, 9, fig.3:3); and Psematismenos-*Trelloukkas*, in the Maroni valley, progressively declining from MC II onwards (Webb *et al.* 2008: 95). A large amount of similar fragmentary bowls, small jugs, and medium-size jars in Red-Polished IV ware have been found in sites 1-4. From site 2, a wider repertoire that also includes fragmentary Red-Polished IV ware large jars, and *pithoi*, mainly with rope-like applied decoration, points to a similar date (JASINK *ET AL.* 2008, 166), as pointed out below (see: *The southern sites 1-4: topography, pottery assemblage, function, and use*).

Concerning the possible late MC-beginning LC gap within the occupation sequence of sites 1-4, some evidences have to be taken into account. In particular, within a general trend to define the Late MC-LC I period in Cyprus as a distinct phase (VOSKOS & KNAPP 2008, 663-664), the presence/absence of peculiar ceramic variations that are typical of the South Coast horizon can also suggest possible elements for a late MC-beginning LC date in the Kourion area. In particular, the diffusion of the variants already identified by ÅSTRÖM as Type VIII B 6e (*SCE* IV:IB, 95), who collected some closely related types with "Punctured" decoration, such as Red Polished Punctured ware (CARPENTER 1981, 61-64) and Red Polished III Metallic ware (FLOURENTZOS 1991, 11), elsewhere defined as Episkopi Ware (HERSCHER 1976; 1991), could be an element in suggesting a date for this period. The absence of any evidence for these variants within the assemblage of sites 1-4 could hint at a possible *hiatus* corresponding to this phase.

As to the following Late Cypriot period, few evidences of White Slip ware small bowls and small closed vessel sherds from a small area located in the north-western slope of the site 2 mound (JASINK *ET AL.* 2008, 166; 178, fig.12), suggest a possible frequenting of the area, at least of site 2, during the Late Cypriot II-III period.

Afterwards, a Cypro-Geometric and Cypro-Archaic period occupation is attested by the diffusion of Black-on-Red and White-Painted wares in the area of sites 1-4. Examples of small jugs and thin-wall bowls in Black-on-Red II (IV) and large amphorae in White-Painted IV ware from site 1 hints at a date from Late-Geometric III to Cypro-Archaic I period (JASINK *ET AL.* 2008, 166; 177, fig.10) and contemporaneous counterparts from the cemetery areas excavated in Kandou

(FLOURENTZOS 1991, pl.XXV:12, Tomb 11) and Alassa (FLOURENTZOS 1991, pl.XXXI:19, Tomb 18). Furthermore, the sequence of sites 1-4, as to this chronological phase, matches well with the evidence coming from the nearby area of Erimi-*Pitharka*, where an occupation during the Cypro-Geometric and Cypro-Archaic period has been recently documented by the rescue excavations carried out by the Department of Antiquities (FLOURENTZOS 2009). This pattern in the occupation sequence seems to be different from the northern site of Erimi-*Laonin tou Porakou* (site 10), which was differently settled also in the late MC- beginning of the LC period, as we discuss below in detail (see: *The northern site of Erimi-Laonin tou Porakou (site 10): topography, pottery assemblage, function, and use*).

The Southern Sites 1-4: Topography, Pottery Assemblage, Function, and Use

Even if sites 1-4 lay in close proximity to each other, it seems possible to consider them as individual sites rather then areas of the same site. In fact, the evidence points to a functional diversity and suggests to possibly consider them as sites that have specific uses for the different needs of a community, to be evaluated on the basis of peculiar spatial relationships (KNAPP 2003, 566-567; 576-577). Such an interpretation can be argued from the data on disposal and will be discussed below, per site.

Concerning the definition, a strict identification of "site" as a discrete area of pottery concentration has been traditionally set up on the basis of the density of materials per analytical unit (PLOG & HILL 1971, 8). Nevertheless the degree of find density accepted as the threshold value to define an area, as a "site" can be extremely variable (GIVEN & KNAPP 2003, 26-28; GIVEN 2004, 15-19; BOLGER *ET AL.* 2004, 108-109). A series of objective aspects (visibility, geomorphology, modern activities such as land use for agriculture purposes) and subjective research choices (intensive field survey or judgemental survey) can influence any definition.

Consequently there are no prearranged thresholds to rightly define a site, but required coincident aspects. We considered two basic aspects:

- Density of the materials: find density greater than 3.5 sherds per 100m^2
- Topography: evident topographical discontinuity from other areas of find concentration

Hence, stating the find density as greater than 3.5 sherds per 100m^2 and the presence of a deep inner valley (the difference in elevation from hilltop sites 1 and 2 and lower terrace site 3 is 40-50m, which corresponds to a maximum tilt angle of 35°) (**Figure 10**), which represents a natural gap; therefore, the four areas are likely to be defined as sites in spite of their relative closeness (400-500m as the crow flies).

A meaningful comparison can be traced with the Late Cypriot site area of Maroni-*Tsaroukkas* (MANNING *ET AL.* 1994; 2006), where adjacent areas of pottery concentration (250-500m from each other as the crow flies) have been considered as four locations that are part of a discontinuous site. This context differs from the evidence we faced, as to the general topographical frame: the discrete locations of find concentration are displayed on an area gently sloping down to the sea. The maximum difference in elevation among the locations in Maroni-*Tsaroukkas* is 16m, which corresponds approximately to a maximum tilt angle of 6° (MANNING *ET AL.* 1994, fig.2). As to the localization and possible function within the river settlement system, the southern sites 1-4 show a clear differentiation (**Figure 10**).

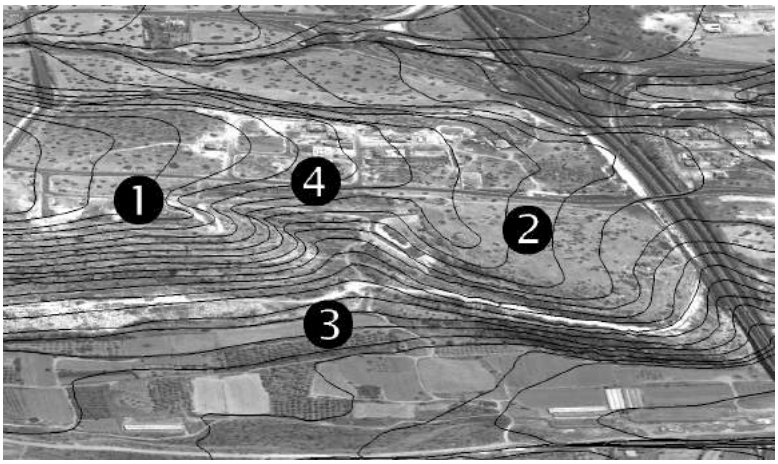


Figure 10: The MC sites 1-4 along the lower eastern Kouris bank

Site 1 (geo-coordinates: 34°41'30.00" N, 32°54'51.50" E) and site 2 (geo-coordinates: 34°41'17.00" N, 32°54'51.50" E) are both hilltop sites. The average distance between the two sites is 450m as the crow flies. Considering the absence of meaningful installations and the topographical position —which guarantees a wider view on the river valley and a good inter-visibility with the other hilltops— we can conclude site 1 was a sighting site. Site 2 has rather to be interpreted as a workshop area, as pointed out by the presence of a huge series of rock-cut basins, other similar work installations, and work tools such as querns and mortars. This area can be considered as the northern extension of the upper limestone *plateau* that has been already preliminarily surveyed by the Department of Antiquities in Erimi-*Kafkalla* (BELGIORNO 2005), identifying the patterns and possible function of these industrial structures. The area was surveyed again by our team in 2007 and systematically mapped with a resulting intrasite GIS (JASINK *ET AL.* 2008, 166; 178, fig.11). As a result a large diffusion of post-holes and squared basins with traces of flow channels directly carved in the limestone bedrock has been recorded. A wide

diffusion of ground stone tools, mainly diabase grinding slabs, pestles, and shallow or deep limestone mortars has also been documented from the same site area (JASINK *ET AL.* 2008, 166), pertaining to standard types that are also well diffused in MC I–II deposits (MOGELONSKY 1996, 143-177; WEBB *ET AL.* 2008, 97). Similar rock-cut basins have been recently excavated by the Department of Antiquities nearby in Erimi-*Pitharka* (FLOURENTZOS 2009). Furthermore, a complex workshop with an advanced system of basins and channels similarly carved into the limestone bedrock and directly connected with a storage area is going to be excavated in Erimi-*Laonin tou Porakou* (BOMBARDIERI 2009, 285-286). The structures are also reminiscent of the Basin Building at Toumba tou Skourou, on Morphou Bay (VERMEULE & WOLSKY 1990, 47-63), which can be dated to a slightly more recent phase (LC Ib). As it is known, the so-called Basin Building is assumed to have been intended for the clay processing related to pottery production. Nevertheless, the similarities within the workshops' devices, such as the waterproof plaster coverings, seems, until now, less evident than the differences, and actually cannot lead us to conclude a similar function for the area. All these structures are likely to be considered as workshop devices, possibly for processing materials related to an agricultural background (BOMBARDIERI 2009, 289).

An occupation of sites 1 and 2 throughout the MC I-II period is attested by the large diffusion within the pottery assemblage of the survey collection of Red-Polished ware sherds, pertaining to a wide repertoire (JASINK *ET AL.* 2008, 165-166). Particularly relevant for site 1 are the presence of small- and medium-size bowls; the high percentage attestation of Red-Polished IV hemispherical simple pointed rim bowls, with horizontal and incised handles, finds good parallels in the surface materials from Psematismenos-*Trelloukkas* (WEBB *ET AL.* 2008, 94-95, figs.4:7-11) and can suggest a MC I-II date. Furthermore, for site 2, the large attestation of Red Polished big jars and *pithoi* with vertical handles and rope-like applied or linear incised decoration seems meaningful. Similar Red Polished *pithoi* are documented from the survey at Psematismenos-*Trelloukkas* (WEBB *ET AL.* 2008, 95-96; figs.5:12-17) in the Maroni valley and were excavated in MC I deposits at Marki-*Alonia* (FRANKEL & Webb 2006, 129-130, fig.4:41), Alampra (Coleman *ET AL.* 1996, pl. 38), and Ampelikou-*Aletri* (MERILLEES 1984, fig.7). The overall pottery horizon from sites 1 and 2 finds good counterparts in the MC I-II production of the Kouris area, in particular from the cemetery area of Alassa-*Palialona* (FLOURENTZOS 1991, 7-15). As with site 1, the statistical analysis of the pottery seems to confirm the function of the site. Despite the difficulty in mapping the ceramic evidence as a consequence of strong erosion of the hilltop surface, during the survey carried out in 2007, 410 sherds (35 diagnostic) have been collected with a density of 3.90 sherds/100m^2 and 1.48 diagnostic sherds/100m^2 (**Figure 11**). Concerning the wares

diffusion, Plain ware and Red Polished ware were documented at nearly the same percentage (**Figure 12**).

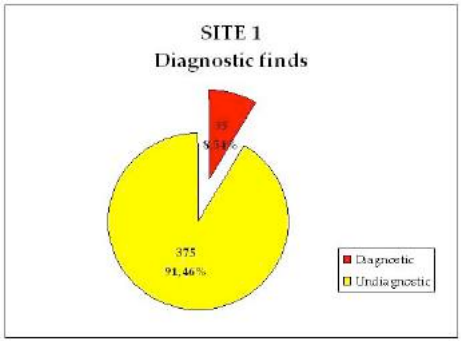


Figure 11: Site 1. Percentage of diagnostic finds from survey

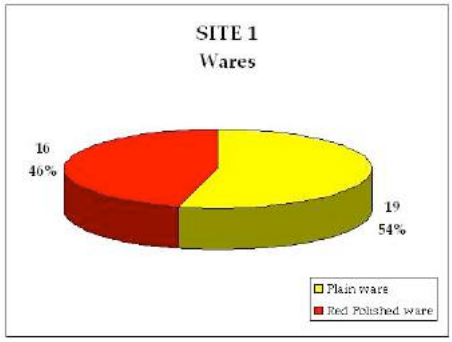


Figure 12: Site 1. Percentage of wares from survey

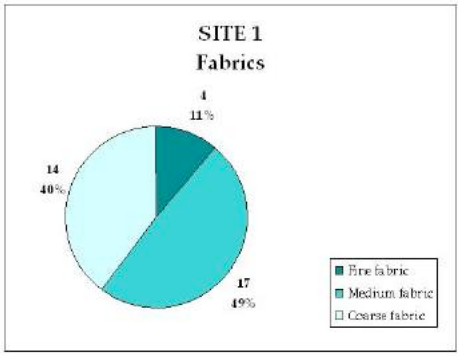


Figure 13: Site 1. Percentage of fabrics from survey

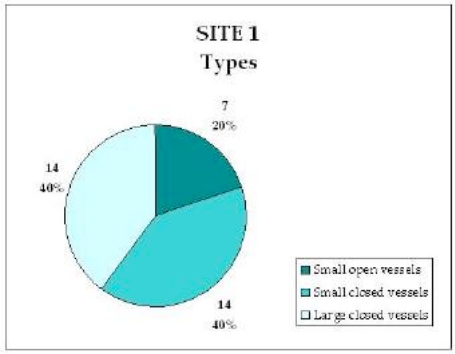


Figure 14: Site 1. Percentage of types from survey

Interesting information seems to come from the cross-analysis of wares, fabrics, and types within the pottery assemblage. As to the types attested, a substantial balance between small closed and large closed vessels can be evidenced, with a smaller presence of small open vessels (**Figure 14**). Moreover, a general correspondence can be evidenced as to the large closed vessels, which recur frequently in Coarse Fabric. Differently from the evidence we expected, we cannot find this strict relationship as to the small open vessels and the small closed vessels. We expected a recurrent relationship between small closed vessels and Medium fabric, from one side, and small open vessels and Fine Fabric, on the other. Differently we have recorded many cases of small open vessels in Medium Fabric and no cases of small closed vessels in Fine Fabric (**Figure 13**). As to site 1, this shift phenomenon within the Fabrics/Types relationships occurs in a higher percentage within the Red-Polished ware assemblage.

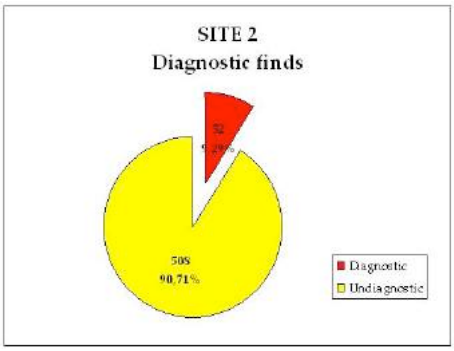


Figure 15: Site 2. Percentage of diagnostic finds from survey

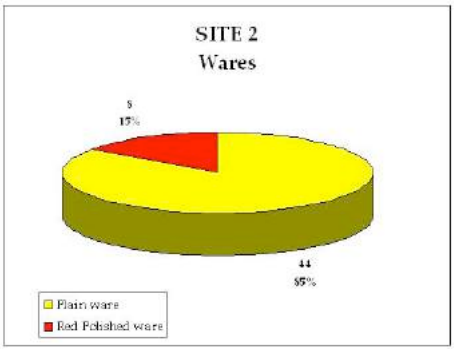


Figure 16: Site 2. Percentage of wares from survey

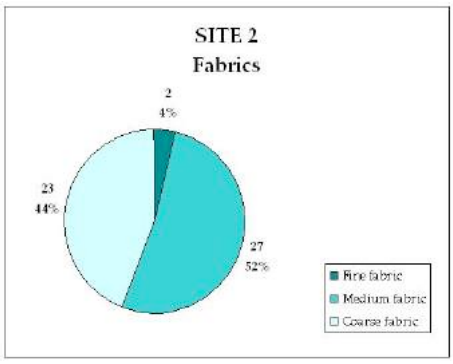


Figure 17: Site 2. Percentage of fabrics from survey

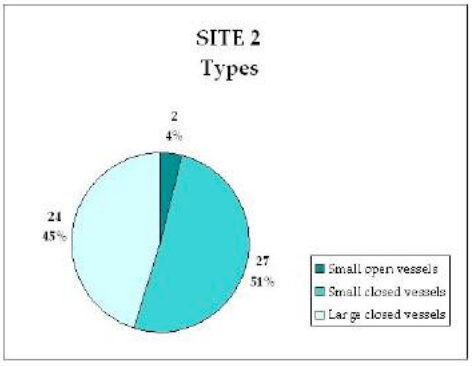


Figure 18: Site 2. Percentage of types from survey

As to site 2, a different situation from site 1 has been evidenced by the pottery analysis. A total of 560 sherds (52 diagnostic) were collected in the 2007 survey (with a density of 4.30 sherds/100m² and 1.62 diagnostic sherds/100m²) (**Figure 15**). As to the wares attested, an evident prevalence of the Plain ware in comparison to the Red Polished Ware is notable, a situation completely different from site 1 (**Figure 16**). As to the fabrics analysis, we record a quite complete lack of the already described shift phenomenon; this evidence seems to be connected to the low percentage presence of Red-Polished ware within the assemblage (**Figure 17**).

As to the types distribution, within site 2 there is an evident prevalence of small closed vessels (51%) and large closed vessels (45%), while the small open vessels are reduced to 4% (**Figure 18**). This interesting evidence seems to match with the presence of a large series of basins and postholes cut in the bedrock, suggesting the possibility of a general use of this site as a workshop and storage area.

Site 3 (geo-coordinates: 34°41'24.00" N, 32°54'45.50" E) lies on the first lower river terrace. The average distances between site 3 and the two hilltop-sites 1 and 2 are, respectively, 300m and 250m as the crow flies. From the evidence of its

topographical position, the reduced area of the scattered surface materials as well as the results of the geophysical prospectings (BOMBARDIERI *ET AL.* 2009b), we can interpret it as a small rural settlement located just along the river, possibly a small fluvial flow. This site most likely corresponds to an area next to the locality of *Balies*, surrounding the remains of a modern water mill, which was already surveyed by CATLING and afterwards identified by SWINY (1981, 64-65; BOMBARDIERI 2010). On the Cadastral Map (Sheet LIII.53; Plots 293-296), the site has been marked as Kandou-*Pelentros*; the toponomy of *Balies*, as a corruption of *Valies* (valley), is probably the name by which the local villagers refer to the area and must correspond to the *Pales* listed by CATLING (1963, 150, no.47).

The cemetery area of site 4 (geo-coordinates: 34°41'27.00" N, 32°54'55.00" E), flanking the small inner valley between the two hilltop sites 1 and 2, is characterized by a series of rock-cut chamber tombs, with short straight *dromoi* that have become partially visible after the construction of a road leading to a modern parking. The area can be rightly considered to partly limit the large rock-cut cemetery on the west (BOMBARDIERI 2010; SWINY 1981, 66, fig.6) now under excavation by the Department of Antiquities in Erimi-*Kafkalla*.

An occupation of sites 3 and 4 throughout the MC I-II period is also documented by the large percentage diffusion of Red Polished ware sherds within the pottery assemblage of the survey collection. From site 3, in particular, a high attestation of Red Polished medium-size handled jar fragments with linear incised decoration has been recorded (JASINK *ET AL.* 2008, 166-167). Few of the Plain ware handle fragments from site 3 could possibly refer to dippers, with or without linear incised decoration, identified by STEWART within Class VIII, Groups B and D, whose dates range from the beginning of EC to MC II (BELGIORNO 2002, 24; STEWART 1992, 168-170;). Similarly, examples dating back to the MC I-II period come from Tomb 2a in Pyrgos village cemetery (BELGIORNO 2002, fig.6:16; figs.8:38-40). A fragment of Red Polished open vessel sherd, reshaped as a rough disk with ground edges, comes from site 3. Similar examples are widely documented from MC domestic contexts in Marki-*Alonia* (FRANKEL & WEBB 2006, fig.5:23), Alampra (COLEMAN *ET AL.* 1996, fig.51), and Psematismenos-*Trelloukkas* (WEBB *ET AL.* 2008, 94-95).

Interesting data come from the pottery evidence at site 3. During the 2007 survey, a total of 256 (18 diagnostic) sherds were collected here (with a density of 5.10 sherds/100m^2 and 1.95 diagnostic sherds/100m^2) (**Figure 19**). A general prevalence of Red Polished ware over Plain ware has been documented (**Figure 20**). As to the attested types, we can record a large percentage diffusion of Small closed vessels

and Large closed vessels (as a whole, 88% of the diagnostic sherds' assemblage) (**Figure 22**).

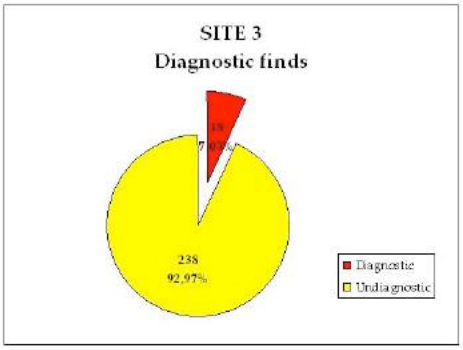


Figure 19: Site 3. Percentage of diagnostic finds from survey

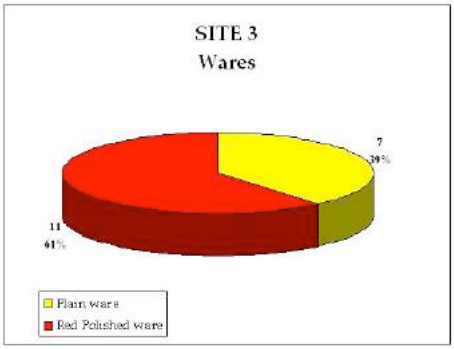


Figure 20: Site 3. Percentage of wares from survey

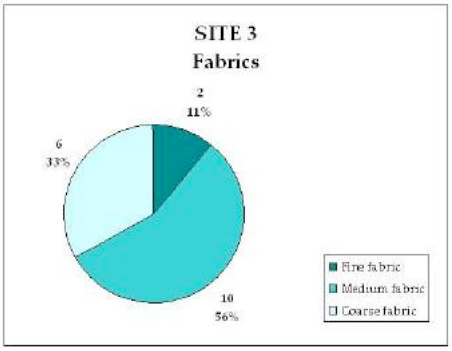


Figure 21: Site 3. Percentage of fabrics from survey

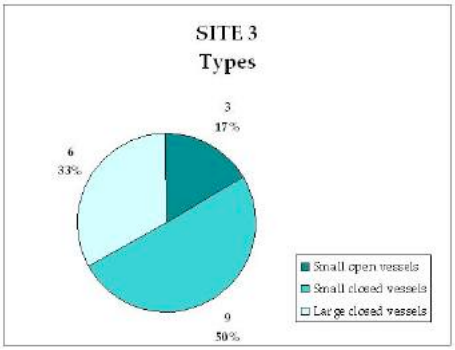


Figure 22: Site 3. Percentage of types from survey

As to the Fabrics/Types relationship, we can record again a quite complete lack of the already described shift phenomenon (only one case). As to site 3, this lack could be a peculiar consequence of the much-reduced quantity of Small open vessel types within the assemblage (**Figure 21**).

The Northern Site of Erimi-Laonin tou Porakou (site 10): Topography, Pottery Assemblage, Function, and Use

The northern site of Erimi-*Laonin tou Porakou* (site 10; geo-coordinates 34°42'43.00" N, 32° 55'23.00" E) can be considered a hilltop settlement area that possibly functioned as a lookout site. In fact, the site of Erimi-*Laonin tou Porakou* lies on one of the highest hilltops of the western Kouris riverbank south of the dam. From the top mound, a wide view of the coastal fringe corresponding to the Kourion gulf area is possible. Furthermore, westward and northward a wide view of the Kouris river valley is guaranteed as well as the visibility of the lower hilltops and terraces on the eastern riverbank.

Through a dedicated Viewshed processing of the DEM, we were able to calculate an interesting visibility parameter related to the westward view on the Kouris valley, whose extension is approximately 5km from the Kandou area (in particular from the area of Kandou-*Marki Laonin* northward the modern village) to the north, beyond the Kouris Dam. These topographic features could suggest the relevance of the site location as a possible sighting point on the Kouris valley as well as on the inner small valleys and possibly the seacoast.

Within the same site area workshop-storage, domestic, and cemetery areas have all been located, highlighting the possibility of a multi-functional settlement (BOMBARDIERI *ET AL.* 2009a) (**Figure 6**). The site is a wide-terraced hilltop area. It is surrounded by a double circuit wall with ramps and entrances within; the inner circuit outlines the hill top area (Area A), where a storage area and a complex workshop that was possibly for industrial activities related to nearby agricultural production (and/or for textiles processing) has been evidenced. A possible domestic area in the first lower terrace (Area B) and a small necropolis in the lower terraces on the southeastern area of the mound (Area E) have been discovered. Within the cemetery Area E, a series of five Middle Cypriot rock-cut chamber tombs have been excavated (Tombs 228-232).

As to the material collected on the surface and coming from the trial excavations, some observations can also be raised up in order to outline a general sketch. As to the date of the materials, the pottery coming from the site area of Erimi-*Laonin tou Porakou* and from the surface collection as well as from the Area E tombs and the trenches on the top mound and the lower terrace can be tentatively dated to a period ranging from MC to the beginning of the LC period (BOMBARDIERI 2010).

A wide diffusion of Red Polished sherds has been recorded. It mainly deals with the range of variants described above as "Punctured," first identified by ÅSTRÖM (*SCE* IV:IB, 95 Type VIII B 6e) and lately described as Red Polished Punctured ware (CARPENTER 1981, 61-64), Red Polished III Metallic ware (FLOURENTZOS 1991, 11), and Episkopi Ware (HERSCHER 1976; 1991) as a typical pottery production of the South Coast regional horizon.

An example of a jug with broad globular body, rounded base, and backward-tilted neck comes from the Tomb 228. The fabric is blackish with small white calcareous temper and thick dark grey core (**Figure 23**). The best counterparts come from Anoiyra (KARAGEORGHIS 1978, 893, fig.38) and especially from Episkopi-*Phaneromeni*. Here similar examples come from the LC IA levels of Area A (CARPENTER 1981, fig.3:16; KARAGEORGHIS 1971, 747, fig.71). Others parallels come from Tomb 1 in Alassa-*Palialona* (FLOURENTZOS 1991, pl.XVI:33), dating back to the late MC period, and from Tomb 2a in Pyrgos (BELGIORNO 2002,

figs.5:9; 7:26). A similar dating is proposed by WEBB, who published two similar jugs from the Sydney University Museum (WEBB 2001, 44-45, nos.70-71).

Another example from Tomb 228 is a small rounded deep bowl, with the same incised and punctured decoration pattern. This one is pierced under the rounded rim and can be dated also to this MC-LC IA phase (**Figure 24**). Even if different for the typology, this one resembles a sort of "tea pot" coming from a tomb in Pyrgos-*Kipos* that was excavated by the Department and now resides in the Limassol District Museum (CHRISTOU 1994, 657, fig.26). Such a date can be also proposed for the spouted small jug found in Tomb 228, similar to one from Episkopi-*Phaneromeni* (CARPENTER 1981, fig.3:17) (**Figure 25**), and for the tankard found nearby in Tomb 230 (**Figure 27**), which finds parallels with Alassa-*Palialona* Tomb 1 (FLOURENTZOS 1991, pl.XVIII:75) and Pyrgos Tomb 2a (BELGIORNO 2002, fig.8:38). This type, even if more recently dated, resembles the Red Polished Plain ware tankards from Marki-*Alonia* (FRANKEL & WEBB 2006, fig.4:46) and the Red Polished B Plain cooking amphoras from Alampra (COLEMAN *ET AL.* 1996, fig.61).

Similar decoration can be found upon a double-handled small jar with a broad globular body and round base (**Figure 26**). For this one we can find similar examples in Red Polished IV ware from Tomb 1 in Alassa (FLOURENTZOS 1991, pl.XVI:39), from Episkopi-*Phaneromeni* (CARPENTER 1981, fig.3:15), from a tomb in Pyrgos village, and from another one excavated in Ayios Athanasios, near Limassol (KARAGEORGHIS 1971, 358, fig.43; 1977, 714, fig.10l). A slightly earlier date is possible for these items. The same is true of the globular jug with backward-tilted neck and rope-like applied decoration on the shoulder, which finds a parallel with an example from the cemetery excavated in the Katholiki area in Limassol (KARAGEORGHIS 1964, 325, fig.53), dating back to the MC II period, and another in Red Polished IV, with a different rim, from Tomb 5 in Katydhata (ÅSTRÖM & FLOURENTZOS 1989, fig.83), similarly dated to MC II.

The analysis of the surface collection from the site area of Erimi-*Laonin tou Porakou* matches well with the evidence coming from the excavated areas as to the general features of the pottery assemblage. During two subsequent surveys, in 2007 and in 2008, a total of 1146 (92 diagnostic) surface sherds were collected on the top mound and on the lower terraces of the site area, with a density of 5.66 sherds/100m^2 and 4.90 diagnostic sherds/100m^2 (**Figure 28**).

23
24
25
26 27

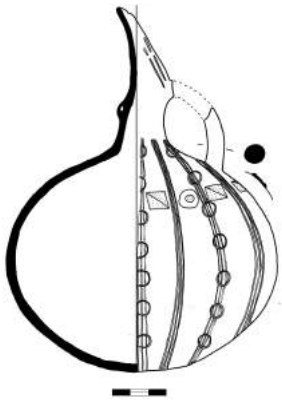
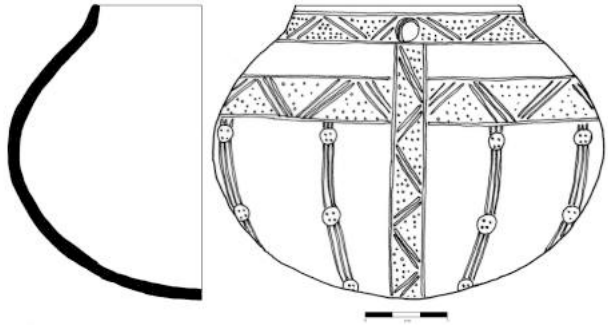
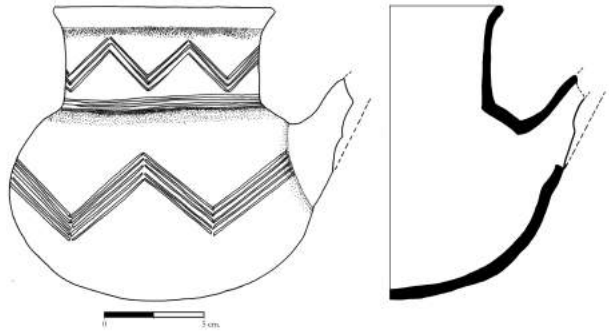


Figure 23: Erimi-*Laonin tou Porakou*. Tomb 228. Jug with punctured decoration
Figure 24: Erimi-*Laonin tou Porakou*. Tomb 228. Small bowl with punctured decoration
Figure 25: Erimi-*Laonin tou Porakou*. Tomb 228. Red Polished ware small spouted jug
Figure 26: Erimi-*Laonin tou Porakou*. Tomb 230. Tankard in Red Polished Coarse ware
Figure 27: Erimi-*Laonin tou Porakou*. Tomb 228. Red Polished ware double pointed handled

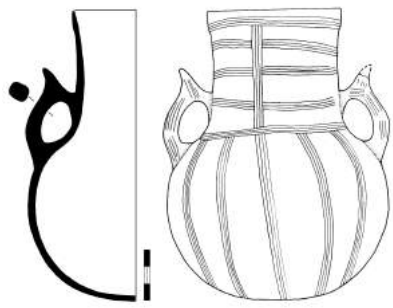
23



24



25



26

27

In order to carry out a proper comparison between Erimi-*Laonin tou Porakou* and the southern sites 1-4, the percentage distributions have been herein processed only from the surface collections on the site area. The pottery assemblage of the site shows a prevalence of Plain ware in comparison to Red Polished Ware (**Figure 29**).

As to the types, the rather equal balance among the selected types is particularly interesting to possibly suggest a multifunctional use of this settlement (**Figure 31**).

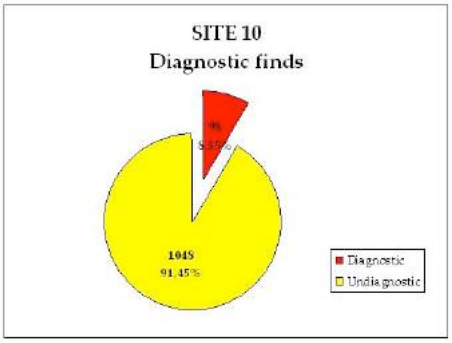


Figure 28: Erimi-*Laonin tou Porakou*. Percentage of diagnostic finds from survey

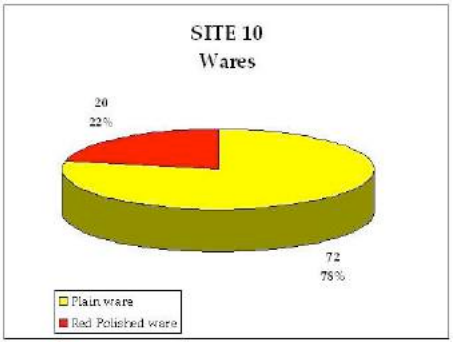


Figure 29: Erimi-*Laonin tou Porakou*. Percentage of wares from survey

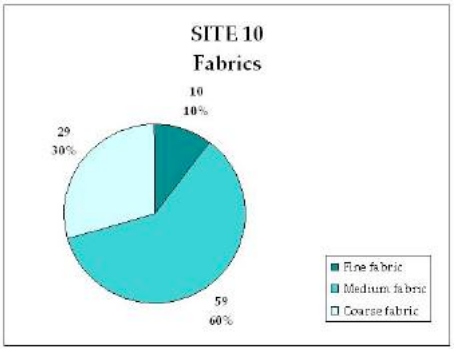


Figure 30: Erimi-*Laonin tou Porakou*. Percentage of fabrics from survey

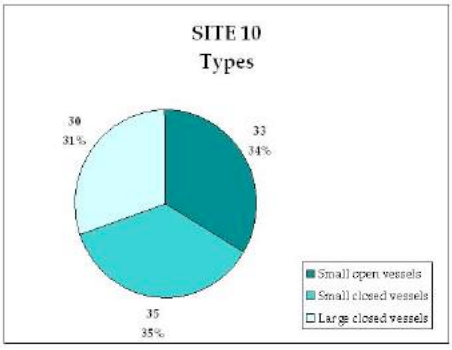


Figure 31: Erimi-*Laonin tou Porakou*. Percentage of types from survey

As to the Fabrics/Types relationship, the already described shift phenomenon has been here widely attested. This evidence could be due to the co-existence of both previously mentioned aspects: a high percentage diffusion of small open vessel types connected with a high percentage diffusion of Red-Polished ware within the type (**Figure 30**).

Conclusions

In conclusion, interesting information seems to come from the cross-analysis of wares, fabrics, and types among the pottery found within the MC-LC identified sites. We can generally record a correspondence between large closed vessel types and Coarse Fabrics, on one end, and small closed vessel types and Medium Fabrics, on the other. However, we cannot record a similar strict relationship between small open vessel types and Fine fabrics, as we initially expected.

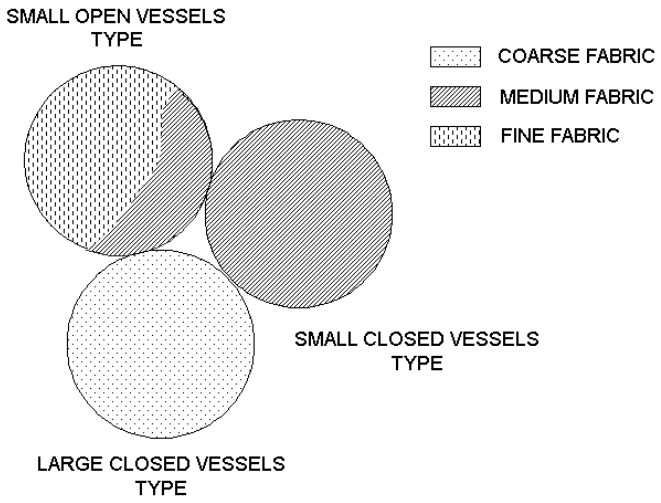


Figure 32:Diagram showing the Types/Fabrics general ratio

A diffused "shift" phenomenon can be evidenced: in many cases we find Small open vessels in Medium Fabric but no cases of small closed vessels in Fine Fabric (**Figure 32**). This phenomenon seems to be mainly relied to the Red-Polished ware, even when it also occurs in the Plain ware assemblage. In addition, the percentage diffusion of different Types within the pottery assemblages of the identified sites can be usefully compared with the topographical features (extension, visibility, proximity with other sites) and with the evidenced structures and scattered finds to possibly suggest meaningful data about the use and function of the settled areas in the MC-LC period.

Site 3 is a small area just along the river, without any possible bedrock deposit. Nevertheless, its types' assemblage reveals a similar percentage distribution as site 2, possibly suggesting a first stage of production activity linked to an agricultural background. Site 2, meanwhile, is a wide plain hilltop with evidence of workshop devices directly carved into its limestone bedrock. Its types' assemblage shows a quite complete lack of small open vessel types and a high percentage of closed

vessel types connected with processing and storage activities, again linked to an agricultural background.

Site 10, which corresponds to the area of Erimi-*Laonin tou Porakou*, is a wide terraced hilltop area with evidence of different functional areas within (workshop on the top mound, domestic area on the first terrace, cemetery on the lower terraces). Its types' assemblage shows a rather evident balance among the three types as possible further evidence of the co-existence of different activities such as processing, storage, and consumption of food. From a chronological perspective, these data suggest a possible development within the use and function of the valley area.

Actually, it seems likely that during an early phase of the Middle Cypriot period, the lower Kouris valley (Erimi-*Kafkalla*, Kandou-*Balies*) has been the most settled area, where a series of sites have been inhabited from hilltop, to inner small valleys, to lower river terraces; each of them apparently with a different function (settlement, rural settlement, sightseeing area, workshop, cemetery).

Afterwards, possibly in a more recent phase corresponding with the late MC period, an increasing occupation of the middle-upper Kouris area can be recorded (contemporary with a development of the coastal Episkopi-*Phaneromeni* area). This is the evidence of the site of Erimi-*Laonin tou Porakou* where, furthermore during this phase, multiple functions co-exist in one site (sightseeing point, workshop, cemetery, domestic area). A system based on two areas, Erimi-*Laonin tou Porakou* in the inner Kouris and Episkopi-*Phaneromeni* on the coast, seems to develop for the first time. Then, in the following LC II-III period, the site of Erimi-*Laonin tou Porakou* lost its relevance, and was definitively deserted. During this phase, within the inner area, the urban centre of Alassa-*Pano Mandilaris* and *Paliotaverna* develops (HADJISAVVAS 1989; 1996) contemporary to the settlement of Erimi-*Pitharka* in the lower valley (FLOURENTZOS 2010; VASSILIOU & STYLIANOU 2004) and possibly Episkopi-*Bamboula* on the seacoast area (BENSON 1972; WALBERG 2003).

References

ALCOCK, S.E. & CHERRY, J.F. 2004. *Side-by-Side Survey. Comparative Regional Studies in the Mediterranean World*, Oxford.

ALDENDERFER, M. & MASCHNER, H.D.G. 1996. *Anthropology, Space and Geographic Information Systems*, New York.

ALLEN, K.M., GREEN, S.W. & ZUBROW, E.B.W. (eds.) 1990. *Interpreting Space: GIS and Archaeology*, London.

ÅSTRÖM, P. (ed.) 1992. *Acta Cypria. Acts of an International Congress on Cypriot Archaeology Held in Göteborg on 22-24 August 1991*, Gothenburg.

ÅSTRÖM, P. & FLOURENTZOS, P. 1989. *Katydhata. A Bronze Age Site in Cyprus* (SIMA 86), Partille.

ÅSTRÖM, P. & HERSCHER, E. (eds.) 1996. *Late Bronze Age Settlement in Cyprus: Function and Relationships* (SIMA-PB 126), Jonsered.

BARLOW, J.A. 1989. "Red Polished Ware: Towards Clarifying the Categories", *RDAC*, 51-58.

BARLOW, J.A. 1991. "New Light on Red Polished Ware", in BARLOW *ET AL.* 1991, 51-57.

BARLOW, J.A. & VAUGHAN, S. J. 1992. "Cypriot Red Polished Ware. A Regional Study in Materials and Technology", in ÅSTRÖM 1992, 6-22.

BARLOW, J.A., BOLGER, D. & KLING, B. (eds.) 1991. *Cypriot Ceramics: Reading the Prehistoric Record* (University Museum Monographs 74), Philadelphia.

BELGIORNO, M.R. 1999. "Preliminary Report on Pyrgos Excavations 1996, 1997", *RDAC*, 71-86.

BELGIORNO, M.R. 2002. "Rescue-Excavated Tombs of the Early and Middle Bronze Age from Pyrgos (Limassol)", *RDAC*, 1-32.

BELGIORNO, M.R. 2005. "Short Report of the First Survey Made at Erimi-*Kafkalla* (October 2004)", *RDAC*, 225-230.

BENSON, J.L. 1972. *Bamboula at Kourion: the Necropolis and the Finds Excavated by J. F. Daniel* (Pennsylvania University Museum Monographs 12), Philadelphia.

BIERS, J.C. & SOREN, D. (eds.), 1981. *Studies in Cypriot Archaeology,* Los Angeles.

BOLGER, D., MCCARTNEY, C. & PELTENBURG, E. 2004. "Regional Interaction in the Prehistoric West", in IACOVOU 2004, 105-123.

BOMBARDIERI, L. 2010. "The MBA-LBA I Period in the Kourion Region: New Evidences from Erimi-*Laonin tou Porakou* (Lemesos, Cyprus)", *Antiguo Oriente* 7 (2009), 281-300.

BOMBARDIERI, L. 2010. "Surveying the Kourion land: Field survey of the Kouris Valley and Preliminary Excavations at Erimi-Laonin tou Porakou (2007-2008 seasons)", in BOMBARDIERI & JASINK 2010, 33-52.

BOMBARDIERI, L., MENOZZI, O., FOSSATARO, D. & JASINK, A.M. 2010. "Preliminary Excavations at Erimi-*Laonin tou Porakou* (Lemesos)", *RDAC* 2009, 131-162.

BOMBARDIERI, L., MENOZZI, O., FOSSATARO, D. & JASINK, A.M. 2010. "The Kouris River Survey Project: 2008 Preliminary Report", *RDAC* 2009, 117-129.

BOMBARDIERI, L. & JASINK, A.M. (eds.) 2010. Researches of Cypriote History and Archaeology**.** Proceedings of the Conference held in Florence (April 29-30th 2009), Firenze.

CARPENTER, J.R. 1981. "Excavations at Phaneromeni, 1975-1978", in BIERS & SOREN 1981, 59-78.

CATLING, H.W. 1963. "Patterns of Settlements in Bronze Age Cyprus", *OpAth* 4 (1963), 129-169.

CHELAZZI, F. & DAVITT, P. 2010. "Archaeometric Applications in the Kouris River Valley: Preliminary Morphological and Compositional Studies on Red Polished Ware from Survey", in BOMBARDIERI & JASINK 2010, 151-164.

CHRISTOU, D. 1994. "Chronique des fouilles et découvertes archéologiques à Chypre en 1993", *BCH* 118:2, 647-693.

COLEMAN, J.E., BARLOW, J.A., MOGELONSKY, M.K.A. & SCHAAR, K.W. 1996. *Alambra.: A Middle Bronze Age Settlement in Cyprus. Archaeological Investigations by Cornell University, 1974-1985* (SIMA 118), Gothenburg.

CZERNY, E., HEIN, I., HUNGER, H., MELMAN, D. & SCHWAB A. (eds.), 2006. *Timelines. Studies in Honour of Manfred Bietak*, Leuven.

DIKAIOS, P. 1951. "Principal Acquisitions of the Cyprus Museum", *RDAC*, 197-202.

FLOURENTZOS, P. 1991. *Excavations in the Kouris Valley. I. The Tombs*, Nicosia.

FLOURENTZOS, P. 2010. "Contributo alla topografia di Kourion durante l'Età del Bronzo: una nuova proposta", in BOMBARDIERI & JASINK 2010, 11-20.

FRANKEL, D. & WEBB, J.M. 2000. "Excavations at Marki-*Alonia*, 1999-2000", *RDAC*, 65-94.

FRANKEL, D. & WEBB, J.M. 2006. *Makri-Alonia. An Early and Middle Bronze Age Town in Cyprus. Excavations 1995-2000* (SIMA 123:2), Sävedalen.

GIVEN, M. 2004. "Mapping and Manuring: Can we Compare Sherd Density Figures?", in ALCOCK & CHERRY 2004, 13-21.

GIVEN, M. & KNAPP, A., 2003. *The Sidney Cyprus Survey Project: Social Approaches to Regional Archaeological Survey,* Los Angeles.

GJERSTAD, E. 1926. *Studies on Prehistoric Cyprus*, Uppsala.

GOODCHILD, M.F. 1990. "Geographic Information Systems and Spatial Analysis in Social Sciences", in ALDENDERFER & MASCHNER 1990, 241-249.

GUMMERMAN, G.J. (ed.) 1971. *The Distribution of Prehistoric Population Aggregates*, Prescott.

HADJISAVVAS, S. 1989. "A Late Cypriot Community at Alassa", in PELTENBURG 1989, 32-42.

HADJISAVVAS, S. 1996. "Alassa: A Regional Center of Alasia?", in ÅSTRÖM & HERSCHER 1996, 23-38.

MACLAURIN HELMSLEY, L. 1992. "Techniques of Pottery Production: MC tombs at Kalavassos", in ÅSTRÖM 1992, 250-266.

HERSCHER, E. 1976. "South Coast Ceramic Style at the End of Middle Cypriot", *RDAC*, 11-19.

HERSCHER, E. 1981. "Southern Cyprus, the Disappearing Early Bronze Age and the Evidence from Phaneromeni", in BIERS & SOREN 1981, 79-85.

HERSCHER, E. 1991. "Beyond Regionalism: Toward an Islandwide Middle Cypriot Sequence", in BARLOW *ET AL*. 1991, 45-50.

IACOVOU, M. (ed.) 2004. *Archaeological Field Survey in Cyprus. Past, History, Future Potentials. Proceedings of a Conference Held by the Archaeological Research Unit of the University of Cyprus, 1-2 December 2000* (British School at Athens Studies 11)*,* Athens.

JACOBS, A. 2008. "What can Pottery Tell us about a Late Bronze Community? An Examination of the Pottery from the LC IIC - LC IIIA Settlement at Alassa-*Pano Mandilaris*", in MCCARTHY 2008, 184-194.

JASINK, A.M., BOMBARDIERI, L., MENOZZI, O. & FOSSATARO, D. 2008. "The Kouris River Survey Project: 2007 Preliminary Report", *RDAC*, 159-182.

KARAGEORGHIS, V. 1964. "Chronique des fouilles et découvertes archéologiques à Chypre en 1963", *BCH* 88:1, 289-379.

KARAGEORGHIS, V. 1965. "Chronique des fouilles et découvertes archéologiques à Chypre en 1964", *BCH* 89:1, 231-300.

KARAGEORGHIS, V. 1971. "Chronique des fouilles et découvertes archéologiques à Chypre en 1970", *BCH* 95:1, 335-432.

KARAGEORGHIS, V. 1972. "Chronique des fouilles et découvertes archéologiques à Chypre en 1971", *BCH* 96:1, 1005-1088.

KARAGEORGHIS, V. 1977. "Chronique des fouilles et découvertes archéologiques à Chypre en 1976", *BCH* 101:2, 707-779.

KARAGEORGHIS, V. 1978. "Chronique des fouilles et découvertes archéologiques à Chypre en 1977", *BCH* 102:2, 879-938.

KNAPP, A.B. 2003. "The Archaeology of Community on Bronze Age Cyprus: Politiko *Phorades* in Context", *AJA* 107, 559-580.

KVAMME, K.L. 1990. "GIS Algorithms and their Effects on Regional Archaeological Analysis", in ALLEN *ET AL*. 1990, 112-125.

MAGGETTI, M. 1982. "Phase Analysis and its Significance for Technology and Origin", in OLIN & FRANKLIN 1982, 121-134.

MANNING, S.W., COLLON, D., CONWELL, D.H., JANSEN, H.-G., SEWELL, D., STEEL, L. & SWINTON, A. 1994. "Tsaroukkas, Mycenaeans and Trade Project: Preliminary Report on the 1993 Season", *RDAC,* 83-106.

MANNING, S.W., CREWE, L. & SEWELL, D.A. 2006. "Further Light on Early LC I Connections at Maroni", in CZERNY *ET AL*. 2006, 471-488.

MANNONI, T. & MOLINARI A. (eds.), 1990. *Scienze in archeologia. II ciclo di lezioni sulla ricerca applicata in archeologia, Certosa di Pontignano (Siena), 7-19 Novembre 1988*, Firenze.

MCCARTHY, A. (ed.) 2008. *Island Dialogues. Proceedings of the Postgraduate Cypriot Archaeology Conference (POCA 2006)* (University of Edinburgh Archaeology Occasional Papers 21), Edinburgh.

MENOZZI, O. & FOSSATARO, D. 2010. "Kouris Valley Project: metodologie, finalità e primi risultati", in BOMBARDIERI & JASINK 2010, 115-134.

MERRILLEES, R.S. 1984. "Ambelikou-*Aletri*: a Preliminary Report", *RDAC*, 1-13.

MEYER, N. 2003. "Pottery Strategy and Chronotypes", in GIVEN & KNAPP 2003, 14-16.

MEYER, N. & GREGORY, T.E. 2003. "Pottery Collection, Pottery Analysis, and GIS Mapping", in GIVEN & KNAPP 2003, 48-57.

MOGELONSKY, M.K. 1996. "Ground Stone", in COLEMAN *ET AL*. 1996, 143-177.

OLIN, J.S. & FRANKLIN, A.D. (eds.) 1982. *Archaeological Ceramics*, Washington.

PELTENBURG, E. (ed.) 1989. *Early Society in Cyprus*, Edinburgh.

PLOG, F. & HILL, J.A. 1971. "Explaining Variability in the Distribution of Sites", in GUMMERMAN 1971, 7-36.

POLLARD, A.M., BATT, C.M., STERN, B. & YOUNG, S.M.M. 2006. *Analytical Chemistry in Archaeology*, Cambridge.

STEEL, L. & JANES, S. 2005. "Survey at Arediou-*Vouppes*, Cyprus", *RDAC*, 231-244.

STEEL, L. & MCCARTNEY, C. 2008. "Survey at Arediou Vouppes (Lithosouros), a Late Bronze Age Agricultural Settlement on Cyprus: a Preliminary Analysis of the Material Culture Assemblages", *BASOR* 351, 9-37.

Stewart, J.R. 1992. *Corpus of Cypriot Artefacts of the Early Bronze Age. II* (SIMA 3:2), Gothenburg.

SWINY, S. 1981. "Bronze Age Settlement Patterns in South-West Cyprus", *Levant* 13, 51-87.

SWINY, S. 1986. *The Kent State University Expedition to Episkopi Phaneromeni* (SIMA 74:2), Nicosia.

SWINY, S. 2004. "The Role of Intuitive and Small Scale Surveys in Landscape Archaeology", in IACOVOU 2004, 55-62.

SWINY, S. & MAVROMATIS, C. 2000. "Land behind Kourion: Results of the 1997 Sotira Archaeological Project Survey", *RDAC*, 433-452.

VASSILIOU, E. & STYLIANOU, E. 2004. "Dropping in on Late Bronze Age Erimi. Erimi-*Pitharka*, Preliminary Excavation Report", *RDAC*, 181-200.

VERMEULE, E.D.T. & WOLSKY, F.Z. 1990. *Toumba tou Skourou: a Bronze Age Potters' Quarter on Morphou Bay in Cyprus*, Boston.

VOSKOS, I. & KNAPP, A.B. 2008. "Cyprus at the End of the Late Bronze Age: Crisis and Colonization or Continuity and Hybridization ?", *AJA* 112, 659-684.

WALBERG, G. 2003. "University of Cincinnati Excavations at Episkopi-*Bamboula*", *CAARI Newsletter* 27, 3-5.

WEBB, J.M. 2001. *Cypriot Antiquities in the Nicholson Museum at the University of Sidney* (SIMA 20:20), Jonsered.

WEBB, J.M., FRANKEL, D., MANNING, S.W. & SEWELL, D.A. 2008. "Early and Middle Bronze Age Occupation in the Maroni Valley, Cyprus: Surface Survey at Psematismenos-*Trelloukkas*", *RDAC*, 87-104.

WEISMAN, R.M. 1996. "Appendix 7: Petrographic Analyses of the Pottery from Alambra", in COLEMAN *ET AL*. 1996, 447-473.

WILLIAMS, D. 1990. "The Study of Ancient Ceramics: the Contribution of the Petrographic Method", in MANNONI & MOLINARI 1990, 43-64.