

Troodos Archaeological Survey Project

Report on Preliminary Season, June-July 2000

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Introduction (Michael Given)

The Troodos Archaeological Survey Project (TASP) carried out its first season of fieldwork from 25th June to 14th July 2000. The main goals of this preliminary season were (1) to establish our field methodology and database system for the next three full field seasons, (2) to explore the new survey area and finalise its boundaries, and (3) to carry out some preliminary survey. The TASP survey area (Figures 1, 2) covers 67 sq km on the northern edge of the Troodos Mountains. It includes the fertile Kargotis valley, part of the Mesaoria alluvial plain, the pillow lava zone which contains the main ore deposits, and the slopes of the main Troodos mountain range. Elevations range from 200 to 800 metres.

TASP is co-directed by Michael Given (University of Glasgow), Vasiliki Kassianidou (University of Cyprus), A. Bernard Knapp (University of Glasgow) and Sven Van Lokeren (British School at Athens). It is an interdisciplinary, international project, with participants from Australia, Belgium, Canada, Cyprus, Denmark, England, Germany, Greece, the Netherlands, Scotland and the USA. Funding for this season was provided by the Council for British Research in the Levant (London) and the Curtiss T. Brennan and Mary G. Brennan Foundation (Santa Fe, New Mexico, USA), to whom we are very grateful. The Cypriot Department of Antiquities granted us a survey permit, and we thank its Director, Dr Sophocles Hadjisavvas, for this and other invaluable logistical help. Further assistance and support was provided by Dr George Constantinou (Cyprus Geological Survey), Constantinos Xydias of the Hellenic Mining Company, the Cyprus American Archaeological Research Institute (in particular its Director Dr Robert Merrillees), the Cyprus Geological Survey Department, and the Civil Affairs Team of the United Nations San Martin Camp at Skouriotissa.

We are also grateful to the people of Katydhata, Linou and Phlasou who have given us help, support and hospitality, particularly Angelos and Antigone Ioannides, Skevi Loizidou, Achilleas Nikodimou, Panikos Stylianou, Panikos Theodorou, Charalambos Tsitseklis and Andreas Yeoryiou. Above all we thank Eleni Papapetrou and Jean Humbert, without whose constant help and generosity we could not have carried out this field season.

TASP is an interdisciplinary project, and a major aim of the preliminary season was to bring together the various specialists and so to enable them to discuss their aims and approaches together with a view to fuller integration in the following field seasons and in the eventual publications. This season was marked by the specialists' determination to share information and ideas, to carry out open and often enthusiastic discussion, and to maintain good humour in the face of regular water cuts and temperatures rising to 43° C. The team consisted of Ian Evans, Erin Gibson, Michael Given, Mike Haustein, Vasiliki Kassianidou, Tracy Ireland, A. Bernard Knapp, Michael Malamos, Carole McCartney, Ernst Pernicka, Helen Saunders, Luke Sollars, Neil Urwin, Peter van Dommelen, Kristina Winther Jacobsen and Sevina Zesimou. Jay Noller, Chris Parks and Stelios Stylianou also visited to discuss future collaboration. Annie Evans served up her usual brilliant fare each day.

Methodology and Data Management

Field Methodology (Michael Given)

The core of our field methodology consists of transects of survey units across the entire survey area. Within each survey unit five fieldwalkers spaced 5 m apart count artefacts, collect a representative

sample and record artefactual and ecological data. These data, and the data from the subsequent analysis of the artefacts, are entered into the project database and exported to the GIS for spatial analysis. As well as systematic transects, clusters of contiguous survey units serve to examine a broader area known to be important ('Special Interest Area' or SIA); and a variety of grids and other sampling, mapping and recording techniques are used for the intensive investigation of particular focuses of human activity ('Place of Special Interest' or POSI). We aim to have a 12% coverage of the survey area at the survey unit level of intensity.

This methodology is essentially derived from that used and developed by the Sydney Cyprus Survey Project (SCSP) between 1992 and 1998 (Knapp *et al.* 1992: 323-28; Knapp and Given 1996: 297-303). This gives us the great advantage of having a sophisticated and appropriate system which is in place right at the beginning of the project, so the data from all field seasons will be fully consistent and compatible. That said, we used the TASP preliminary season to develop, test and put in place several refinements:

- 1) fuller geomorphological control of the placing of survey units by having a Geomorphological Intern ('GI') on each survey team (this was developed by Jay Noller and Lisa Wells for the Eastern Korinthia Archaeological Survey, directed by Timothy E. Gregory, Ohio State University, USA);
- 2) a more extensive programme of experiments to test the efficacy of surface survey in general and our methodology in particular (see next section);
- 3) the development of a more robust method of assessing and compensating for the effects surface visibility and background confusion (Nathan Meyer is acting as consultant for this work);
- 4) the refinement of the process of pottery analysis, based on the 'chronotype' system developed by Timothy E. Gregory and Nathan Meyer for SCSP, but with more emphasis on light and heavy utility wares and greater use of fabric analysis (see Pottery section below);
- 5) a system of chipped stone analysis which is more fully integrated with the project database and GIS, and focuses on changes in tool type, technological organization, and raw material exploitation across the landscape (Carole McCartney);
- 6) experimentation with conducting survey in mountainous regions with difficult access and poor visibility; the TASP Central survey area in the Asinou valley will be reserved for this.

Seeding Experiments (Erin Gibson)

Systematic survey of Mediterranean landscapes is heavily dependent on ground visibility of materials such as pottery and lithics. The TASP survey area encompasses a wide region that is currently subject to intensive agricultural practices. Therefore TASP has decided to incorporate an experimental component that will provide insight into the effects of the plough and the effectiveness of ground survey. This study will provide a context for the discussion of survey techniques and the meaningful interpretation of survey results.

We chose two fields within the survey area which had suitable surface visibility, frequency of plough action, and slope. Both fields are currently under olive cultivation and have a small amount of pottery distributed across their surface. We purchased commercial bathroom tiles, cut them into approximately 4 x 4 cm squares, and then incised them with sequential numbers from 1 to 550. Stakes of rod iron were placed at the field boundaries where they would not be disturbed by the plough, serving to mark the ends of the lines of seeded sherds. Within Field 1, 125 tiles were seeded sequentially 1 m apart and placed just beneath the soil surface (less than 3 cm deep). In Field 2, 332 sherds were seeded 50 cm apart at the same depth, and in both cases details concerning the positions of the numbered sherds were recorded on a map.

Both Fields 1 and 2 will be ploughed approximately three times per year over the next three years. Information concerning plough timing and frequency will be provided by two colleagues (Eleni Papapetrou and Jean Humbert) who reside next to both of the test fields and know the owners; they also have knowledge of survey archaeology and the goals of this experiment. We will visit both test fields every year for the three full seasons of TASP, in order to track sherd movement due to plough action and the proportions of sherds visible on the surface at any one time.

Database (Luke Sollars)

Prodigious amounts of wide-ranging data will be produced by TASP personnel during the lifetime of the project. These data will need to be stored efficiently and manipulated easily if the task of interpreting them is to remain manageable. To this end all data collected in the field will be entered into a relational database constructed in *FileMaker Pro 5*. A well-constructed database which avoids intimidating its users will encourage the interdisciplinary communication and knowledge-sharing that is such an important element of TASP.

We never intended to construct the database this season but rather, in consultation with each specialist, we aimed to establish precisely what was to be recorded and how it would be recorded. The first task therefore was to establish a structure into which all these data could be placed. We settled upon four tiers of progressively more detailed recording: the goal at *reconnaissance level* is a broad picture of an area; the *survey level* requires a detailed collection of data in the field; the *finds level* is an initial identification and recording of artefacts removed from the field; the *inventory level* is for detailed recording of items which were identified as important. It became clear that there were methods of recording used at all these levels and so the *ancillary level* was created to incorporate information on factors such as photography and drawing.

Paper forms are still the most economical and effective method of recording data in the field and, having established the structure, the creation of TASP recording forms was the next essential task. Twenty-one such forms were designed in consultation with specialists and survey personnel and with frequent reference to forms used in earlier survey projects (especially SCSP); these were refined during the period of preliminary fieldwork undertaken during TASP's 2000 season.

With the recording structure and paper forms in place, work on the database can commence; all aspects of the database will be finalised and ready for use by the beginning of TASP's 2001 field season.

Aerial Photographs and GIS (Helen Saunders)

176 individual vertical photographs, taken on seven flight sorties in 1963, cover the TASP survey area. Four of these sorties were taken at 6000 feet, and the remaining three were taken at 8000 feet. The consecutive photographs from individual sorties, taken on an approximate East-West orientation, form stereo images with a 60% overlap, which we will use for the creation of Digital Elevation Models. During cataloguing of these photographs they were checked for possible sites of archaeological interest and the identifiable villages were recorded. On many of the photographs there was evidence for potential archaeology, including field boundaries, enclosures and possible crop marks. This is unusual as it is often difficult to detect crop marks on vertical photographs, as the scale is too small and detailed information limited. We visited two such features (TP001 – Ayios Epiphaniou *Apatoes* 1; TP003 – Phlasou *Kourtellolaona*), which were both somewhat enigmatic but clearly not natural. Hopefully systematic comparison with other such features across the survey area will provide some measure of explanation.

Once the photographs had been catalogued they needed to be scanned so that they could form the base maps for the GIS, and be used in the field for locating and recording survey units. We began the scanning of selected areas which we were investigating during the season; the rest will be done in Glasgow before the first full field season in summer 2001. We then began registering these aerials to the UTM grid in MapInfo Professional 5.5. Initially this was done using the 1:50,000 topographic maps, which had already been scanned and registered; it was hoped that by identifying points on both the map and the aerial that accurate grid references could be used to register the aerial. Because of changes in the landscape since 1963, however, it was very hard to establish the necessary five control points evenly located around the aerial, and therefore we experienced some difficulties in registering them, even with checking control points using a GPS. One aerial was successfully registered with an accuracy of 2m (which was considered extremely good). One of the main tasks of preparation for the next field season is to complete the scanning and registration of these aerials. Meanwhile, we started the digitising of basic topographic features such as roads and rivers, based on the registered 1:50,000 map.

Survey Results

Archaeology: Prehistoric (A. Bernard Knapp)

The TASP area has long been known as a region that witnessed prehistoric occupation and exploitation of mineral resources. Within or near the villages of Katydhata and Linou, earlier archaeologists (Ohnefalsch-Richter, Markides, Flourentzos amongst them) excavated hundreds of tombs ranging in date from at least the Middle Bronze Age to the Hellenistic period. The notebook of Markides is now in the Cyprus Museum; it was copied entirely by Åström and used in his publication on the Bronze Age tombs at Katydhata (Åström 1989), but contains much other valuable information on the area as well. One of our aims is to locate precisely the various cemeteries that have been excavated over the past century and to consider the variables that might have dictated the location of these mortuary deposits. Can they, for example, provide any clues to the location of the settlements with which they were associated, and which have never been found?

The area from Ambelikou *Aletri* (about 6 km northwest of Skouriotissa), through Skouriotissa and on to Xyliatos *Ayios Kyriakos* (TASP East) has been exploited for its copper resources from at least the Middle Bronze Age onward. Many tombs in the area contained metal objects and one (from Katydhata) also revealed a hoard of bronze weapons (as did Linou *Ayii Saranta*). It is not unreasonable to assume that some of the people who worked in extracting or smelting copper ores would have lived in the villages within this region. Based on our work in the SCSP area, we might also expect that the small agricultural villages of the prehistoric period provided subsistence and support for the miners and smelters who worked on producing Cyprus's primary prehistoric export, copper. We have begun work by defining sections at the area's major slag heaps (Skouriotissa, Xyliatos), and in the coming seasons will look more closely at the entire area around them.

Archaeology: Historic (Michael Given and Kristina Winther Jacobsen)

One of the most striking topographic features of the northern Troodos is the rich and fertile Kargotis valley running from Lefka to Kakopetria, whose central section lies within our survey area. Rescue excavations by the Department of Antiquities have revealed a series of rich tombs from the Classical to Roman periods, particularly along the line of the new Linou-Evrykhon road which is currently under construction. Our aim is to investigate the settlement and land use patterns that accompanied these tombs.

Two units were surveyed immediately northwest of the main slag heap at Skouriotissa (SU0002, SU0008). SU0002 was striking for its large Early Roman component, in contrast to the usual dominance of Late Roman in the area. The visibility was poor at the north end, but a considerable concentration of tiles and amphora fragments appeared at the south end. At least five different amphora bases were identified, of which one is a Hellenistic-Early Roman button toe from a Koan or Sub-Koan amphora. Three large uncorrugated stemmed bases are more likely to be Early Roman. Of the very few table ware sherds there is one Eastern Sigillata A fragment and no obvious Late Roman red slips. The range of tiles is noticeable and mixed clays dominate which seems unusual from the limited material we have collected so far.

We also surveyed six units in a ploughed field and a large olive grove separated by a dirt track below the church of *Panayia Kousouliotissa* in the Phlasou area (SU0001, SU0003-0007). SU0001 had a large concentration of ancient red tiles, probably Late Roman, which were less obvious in the olive grove. Otherwise the material was a mixture of Hellenistic to Early Roman, Late Roman and a large amount of Modern pottery. The base of a Hellenistic to Early Roman *unguentarium* base was not surprising, as this is the area of the Roman tombs discovered during the road works.

Preliminary architectural survey of the surviving structures at the abandoned village of Kato Koutraphas *Mandres* (Figure 3; see below) was accompanied by the survey of three units (SU0009-0011). These provided a good collection of recent pottery, mostly dating to the last two centuries. Further pottery was collected from one of the structures (BU020). This Special Interest Area (TS07), with its preserved houses and threshing floors, is of great importance for studying agricultural production and the role of seasonal settlements (Ionas 1988: 20; Given 2000: 218), and will be documented in detail in the 2001 field season.

We carried out more general exploration in the Asinou valley, round the Byzantine church of *Panayia Phorviotissa*. Our aims in this area are to examine the settlement history of the valley, which is known in part from historical sources, to experiment with conducting archaeological survey in mountainous terrain with poor access and ground visibility, and to collaborate with the team from Dumbarton Oaks (directed by Professor Annemarie Weyl Carr, Southern Methodist University, Dallas, Texas, USA) which is currently working on the publication of the church and its frescoes.

Archaeometallurgy (Michael Given and Vasiliki Kassianidou)

One of the main aims of the archaeometallurgical component of the preliminary season was to refine and finalise the recording, sampling and analysing strategy. In the first instance this was done by developing a series of paper forms that record data for archaeometallurgical POSIs, finds, inventoried finds and samples. As with the rest of TASP forms, these will be identical to their equivalent tables in the database, and will allow quantitative analysis and export to the GIS for spatial analysis. As happened on the Sydney Cyprus Survey Project, samples of slag and refractory material will be taken for microscopic and XRF analysis, and charcoal samples for radiocarbon dating. We were visited for several days by Prof. Dr Ernst Pernicka and Mike Haustein (Institute of Archaeometallurgy, TU Bergakademie, Freiberg), who took slag samples for thermoluminescence dating. In future seasons they aim to continue this work, and to carry out systematic geological ore prospection, followed by lead isotope and elemental analyses of ores, slags, umbers etc., in an attempt to establish the isotopic and elemental signatures of the copper sulphide ores within the survey area.

We carried out preliminary investigation of two major archaeometallurgical sites: the vast slag heap at Skouriotissa *Vouppos* (TP007); and the smaller slag heap at Xyliatos *Ayios Kyriakos* (TP006). The former is the largest ancient slag heap in Cyprus, and our preliminary survey showed that it measures some 330 m long, is 50 m wide at its widest, and rises to heights of over 17 m. We identified seven separate exposed sections ('Archaeometallurgical Units' or AU) for detailed recording. A preliminary examination showed that AU1 at the northern end contained some six apparent floors, as well as several lines of deliberately placed slag cakes, as well as two sherds in the section (one of them a Late Roman cover tile) and fragments of furnace lining. A slag sample was taken for thermoluminescence dating. At the south end of the slag heap, AU5-AU6 (Figure 4) contained two main layers of crushed gossan and earth between the slag cakes, as well as fragments of furnace lining and evidence of careful stacking of slag cakes. Pottery from the talus at the base of the sections and on undisturbed upper surfaces of the slag heap were consistently Late Roman. We aim to draw, record and sample this slag heap in detail in the 2001 season.

We carried out a similar preliminary survey of the smaller slag heap at Xyliatos *Ayios Kyriakos* in the TASP East survey area, 1 km northwest of the village of Xyliatos and immediately northwest of the modern mine of Memi. This is approximately 30 x 45 m, and up to about 4 m high, though most of the central section has been removed. The exposed section showed distinct layering with areas of different sizes of slag fragments, ranging from a few complete cakes to finely crushed particles. There were several layers of crushed gossan and furnace material, and one area of furnace lining fragments. There had clearly been recent dumping in the central bulldozed part of the slag heap, which had brought in extraneous pottery. In the section itself, however, was a Late Roman cover tile, and there was other Late Roman material in the talus which had collapsed from the section, including a lamp stand, an amphora foot and another cover tile.

Pottery (Kristina Winther Jacobsen)

The 2000 season of TASP was dedicated to establishing a system for processing and analysing the pottery. The strategy for processing the pottery is based on that of SCSP (Given *et al.* 1999: 24-25), but the sorting of pottery has been refined. Instead of the traditional separation of Cypriot pottery into fine, plain and coarse wares developed by E. Gjerstad (1948: 48-91), the focus of the TASP pottery processing will be *utility*, a general categorisation of the original function of each sherd. The bulk of survey pottery consists of an enormous amount of so-called undiagnostic plain and coarse ware body sherds, a group relatively little known. Describing the coarseness of the fabric is not meaningful culturally when dealing with undiagnostic sherds, as the fabric is only related to the utility of the pottery in a very general sense. Decorated Archaic table wares and Late Roman African Red Slip wares, for example, are traditionally defined as fine wares, but the fabrics show different degrees of

coarseness. The sorting of the pottery according to utility serves the general aim of TASP to identify land use and land use changes in the TASP area.

Apart from the general aim of reducing the pottery to a set of representative types in order to date and identify human activity in the landscape, we have established two further research goals. The first is the *Tiles Project*, which is interdisciplinary in nature and involves pottery experts from all the historical periods, historical archaeologists and architects: they will attempt to answer social questions on local production methods and scales of production by means of fabric analysis and the classification of tiles from different periods up to modern times. One result of this project will be a set of tile chronotypes useful to other archaeological projects working on Cyprus.

The second is the *Trade Pattern Project*, which is linked to current research on trade routes and trade patterns in the Eastern Mediterranean. Studies of pottery from the Roman period have demonstrated diverging distribution patterns determined by regional differences (Lund 1999). Western Cyprus was closely connected with Cilicia, while southeastern Cyprus was oriented towards northwestern Syria. There have been virtually no studies of pottery from this area of Cyprus, and the research could add valuable information to the general discussion. Depending on the types and amounts of prehistoric and early historic (Archaic-Hellenistic) pottery recovered, these too could be included in this study, which would be of immense value for Mediterranean archaeology more generally.

Geobotany (Neil Urwin)

Geobotanical work during the preliminary season consisted of assessing vegetation patterns across the survey area, constructing a series of shared goals with other specialists, and planning the geobotanical contribution to the project, which falls into four main components:

1) Developing a land cover / land use map for the TASP area

The land cover / land use map will be developed using patched SPOT panchromatic and multispectral data. This will combine the spatial resolution of the panchromatic with the spectral resolution of the multispectral data. The latter is important in order to distinguish between different agricultural crops and varying densities of natural vegetation. This map will be used as a layer in the GIS for future geographic modeling exercises and as a spatial base for the historical archaeology component of TASP. In 2000, a thematic map of a region was produced using the supervised classification of the panchromatic satellite image based upon ground truthing. The lack of distinguishing ability within some land use classes confirmed the need for additional multispectral imagery.

2) Detailed botanical data collection of areas on and adjoining POSIs

Botanical data collection on POSIs is part of the central activity of the geobotanical component of TASP. It will build on the methodology developed in the SCSP area, whereby changes in the vegetation communities (predominantly batha and garigue) associated with archaeological features will be examined by the statistical analysis of the percentage cover of dominant species within sampling units. Those areas showing statistically significant and detectable change will be further examined for their potential for remote indicators using the satellite imagery. Extending the methodology from SCSP, any candidate areas identified from the satellite imagery will be further developed by modeling with other environmental layers in the GIS data set.

Field reconnaissance in 2000 indicated limited opportunities for this methodology in the major valleys, including the Skouriotissa area, because of long term agricultural use. However the area centred upon Xyliatos *Ayios Kyriakos* is largely naturally vegetated and would be suitable.

3) Detecting potential fuel and flux resources for past smelting operations

From estimates of the amount of slag in specific localities within TASP, indicating some concentration of smelting activity, estimates will be made of wood requirements, in terms of species and quantities used. The three candidate species are pine, olive and oak. The theoretical natural and agro-forestry ranges of these species in the local area will be mapped using data on soils, terrain, microclimate, drainage and elevation. Using these areas and a set of options for silvicultural management, we will suggest a range of timber yields over time which could have provided a resource to the smelting industry. Where particular species have been identified by wood or charcoal samples, the range, growth requirements and silvicultural practices of these species will be examined in detail. Initial data collection and library research on the ecology of candidate species was undertaken in 2000.

4) Field assessment of olive tree ages

Olive trees, either singly or in plantation, are important elements of the TASP landscape, especially along the major river valleys. The longevity of olive trees provides an opportunity to characterise the age of agricultural use of land, land surfaces, and land elevation. It may be particularly informative of the age of terracing practices. Accordingly, it will be useful to develop a field methodology for assessing the age of standing olive trees, even as rough estimates. During this season we collected data on dendrochronology, trunk morphology, competitive growth distances and other environmental factors governing growth. Cut stumps of olives are rare, but five 'readable' cut stumps of varying ages were found and studied. In addition, 12 living trees for which there was historic/anecdotal record of ages were measured (circumference and spacing).

Architecture and Historical Archaeology

Architectural Survey (Ian Evans)

An important aim for future seasons of TASP is a detailed study of pre-1970 buildings throughout the survey area. Preparations for the study commenced in May 2000 with preliminary examinations of various types of buildings in several villages in the survey area. Buildings studied included churches, schools, water mills, houses and associated structures such as hamams. The objective of this study is to provide information on the pattern of human habitation and activity in the survey area from the late 20th century as far back as the extant building stock can provide. The archaeological field survey will provide information on earlier structures and human activity.

In preparation for the survey, a system of recording essential data for each building was devised and tested in the field. Information to be gathered includes dimensions, type of structure, materials, form, condition, history and ownership. This information was recorded in the field on a 'Building Unit' form, and will be directly entered into the project database. This database will be an important source of information for examining regional and chronological trends and the social context of architectural structures, and will link in closely with the project's studies of water rights and the archaeology of the recent historical period (see below).

This study will also create a permanent inventory and record of a significant group of building stock in an important rural area of Cyprus at a time of major social change to village life and associated agricultural activity. The stock of traditional buildings is steadily diminishing, especially in terms of the ordinary village house of mud-brick construction. Every village has a significant proportion of these buildings, many of which are unoccupied, abandoned and in a state of ruin. Although very common today, the probability is that these structures will in time become rare. The inventory created by TASP during the years 2001-2003 will constitute a historical and architectural resource which will become progressively more valuable with the passage of time.

Water Rights (Sevina Zesimou)

The TASP survey area contains one of the last communal irrigation systems still functioning in Cyprus. Previous to the war of 1974, such systems had been in existence from the medieval period onwards in the now occupied area of Kythraea. Such irrigation systems have become obsolete for a number of reasons, of which re-direction of water flows and new technologies are but a part. A section of this irrigation system has been blocked due to the cease-fire line of 1974, leaving this specific area as one of the last to continue irrigating through a social and structural network deriving from the medieval period. In light of the above, the irrigation network is one of the most significant issues in the history of this area.

A description of the water irrigation process spread as a network over the survey area will link closely to other fields of the TASP project, in particular to the historic architectural programme and its detailed inventory of building units and other sites of interest, the historical archaeology programme, and the sociological and anthropological research. It will also supplement the archaeological field survey. We will develop a GIS layer of the entire water system, showing the network and its territory, key nodes and important structures.

One major focus of interest is the sharing of water between the two communities, Greek and Turkish Cypriot, which is seen as a dynamic process not just between individuals but within institutional structures and systems. This examination will not just be made through an analysis of either/or binaries between the two communities, a polarity deriving from Western metaphysics (and modern politics) which tends to privilege one side at the expense of the other. We aim to arrive at an understanding of differences in a way that does not immediately break down into binary opposites. Both differences and similarities will be studied and validated at the same time, so as to highlight both the individual human agency and structural patterns that would delineate conditions, settings and motivations through which water sharing becomes salient in everyday life. If the tendency towards either/or binaries is an artefact of patriarchal social structure, water-sharing will be examined, with power relations as a basic aspect of social transactions, and how social agents are differently constructed in differing socio-cultural milieux.

Historical Archaeology (Tracy Ireland)

The historical archaeological program closely interrelates with other aspects of the TASP project (the detailed archaeological survey, the geobotany and geomorphology, sociological, architectural and pottery research), to ensure that the contemporary landscape is richly contextualised in terms of its many layers of social, cultural, political and historical meanings. To this end an innovative methodology has been designed to integrate historical, material and anthropological information into a geographic format to promote diachronic comparisons as well as assisting in the analysis of temporal and geographic cultural and landscape patterns.

The major task for the preliminary season was the refinement of the research design, in consultation with other team members and in the light of initial data surveys. To this end, the corpus of historic maps for the study area was reviewed, and initial historical research on village history and historical toponymy undertaken. Building Unit forms were developed in conjunction with other team members, and a comprehensive Building Type key developed. We will use these forms to record the majority of the survey data for the historical archaeology programme. Forty-three Building Unit forms were then completed in the field, in association with the project architects. This involved the examination of industrial and agricultural structures in Phlasou and Linou. Thirty-eight Building Units were surveyed in the abandoned village of Kato Katrouphas *Mandres* (TS07; Figure 3), a village seasonally occupied, it is estimated, from the 18th to the 20th centuries. We made a detailed sketch plan, assisted by the use of aerial photographs, and recorded all structures in summary form. Three distinct house 'styles' were delineated, and it is hoped that further analysis may link building styles to other material or historical data or spatial patterns observed in the village.

During future seasons, four sets of data will be developed:

- 1) Land use / land cover map. This map, to be developed using satellite imagery, aerial photos and ground survey, will form an important baseline of information about the current form and ecology of the area and about present landuse categories and activity areas.
- 2) Historic context. Demographic, political and social historical data will be compiled both as GIS layers and as thematic reports drawing out themes and issues in the history of the area.
- 3) Recording agricultural, industrial and sacred features. The field survey and recording in the historical archaeological component will focus on three specific material aspects of the recent past: agricultural structures and features; industrial remains; and evidence of sacred and ritual use of places such as shrines and votive offerings. Recording will include ethnographic and oral historical interviews.
- 4) Cultural mapping. This technique, developed in social and cultural planning, uses interviews and workshops to map a range of cultural information about place, in a way which reflects people's lived experience of the contemporary landscape. Cultural mapping will be a meaningful way of providing at least some aspects of an 'emic' perspective about living in and understanding a place. Life experience and understandings of place necessarily have an historical dimension, so the cultural map will also provide some clues about people's relationship to the past and the way the past is understood as manifest in their natural and built environments.

Conclusions (Michael Given)

Even from the limited investigations of our preliminary season, it is clear that the TASP area is rich in evidence of farming, mining, living and travelling from at least the Middle Bronze Age to today. Two areas within the Kargotis valley chosen more or less at random for sample survey units carried dense concentrations of pottery from various historical periods, especially Roman. The slag heaps at Skouriotissa, the largest on the island, have plentiful material in section which will enable us to date their different stages and to assess archaeometallurgical processes and organisation. The same holds true for the smaller slag heap at Xyliatos *Ayios Kyriakos*. Add to this an extensive Middle Bronze Age cemetery north of Katydhata, rich tombs from the Classical to Roman period between Linou and Evrykhrou, a series of Medieval and Ottoman estates and villages in the Kargotis valley with an intriguing pattern of intervisible churches, the abandoned seasonal settlement at Kato Koutraphas *Mandres*, and a wealth of architecture from elaborate town houses to field shelters and water mills: it is clear that the much-neglected TASP area has the same potential as any other in the island for revealing the rich remains of the Cypriot past.

Just as importantly, we made use of the preliminary season to develop and refine our interdisciplinary survey strategy, so that the final results of the project will be not a series of site descriptions but an analysis of human activity across the landscape at all periods. At the core of the project is an intensive survey methodology based on consistency of operation, close analysis of geomorphological context, systematic testing and experimentation, and a recording and analytical system using a relational database and GIS. The database, whose 5-level structure was developed during this season, integrates all aspects of the project's fieldwork, research and administration, for greater integration of sub-disciplines and easier sharing of information among our international team of specialists.

Our first full field season will take place in summer 2001, with three field crews and a total team of approximately 30 fieldwalkers and specialists. Initially we intend to focus on the central Kargotis valley round Phlasou, the slag heaps at Skouriotissa and their vicinity, the Asinou valley, and the arable land round the abandoned settlement of Mandres. These foci will be combined with transect survey of the entire area, which we intend to cover with a 12% sample. Specialist teams will investigate the Skouriotissa slag heaps, the water system in the Kargotis valley, the communications network and the settlements of Katydhata and Mandres, as well as working on geobotanical and geomorphological surveys of the entire survey area. A published preliminary report will appear after the 2001 season, and we are planning two further full field seasons (2002, 2003) and a study season (2004), followed by prompt publication of the entire project (2005).

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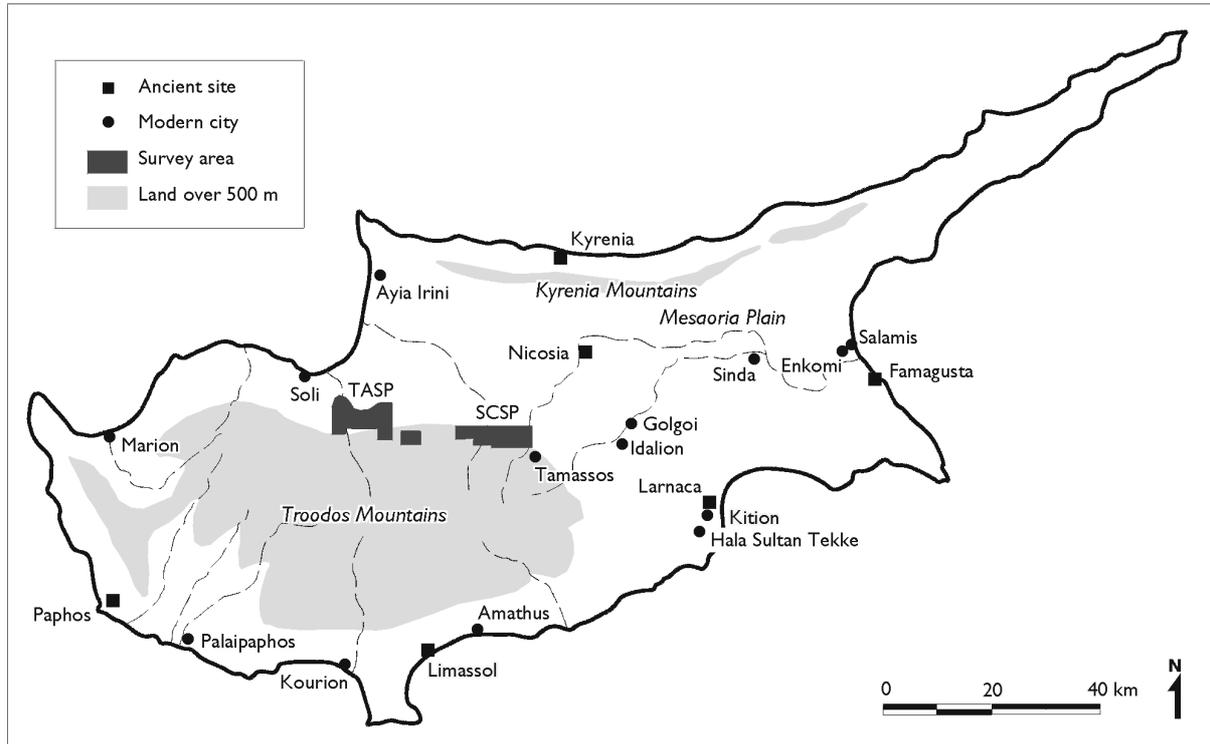


Figure 1. Cyprus, with the TASP and SCSP Survey Areas

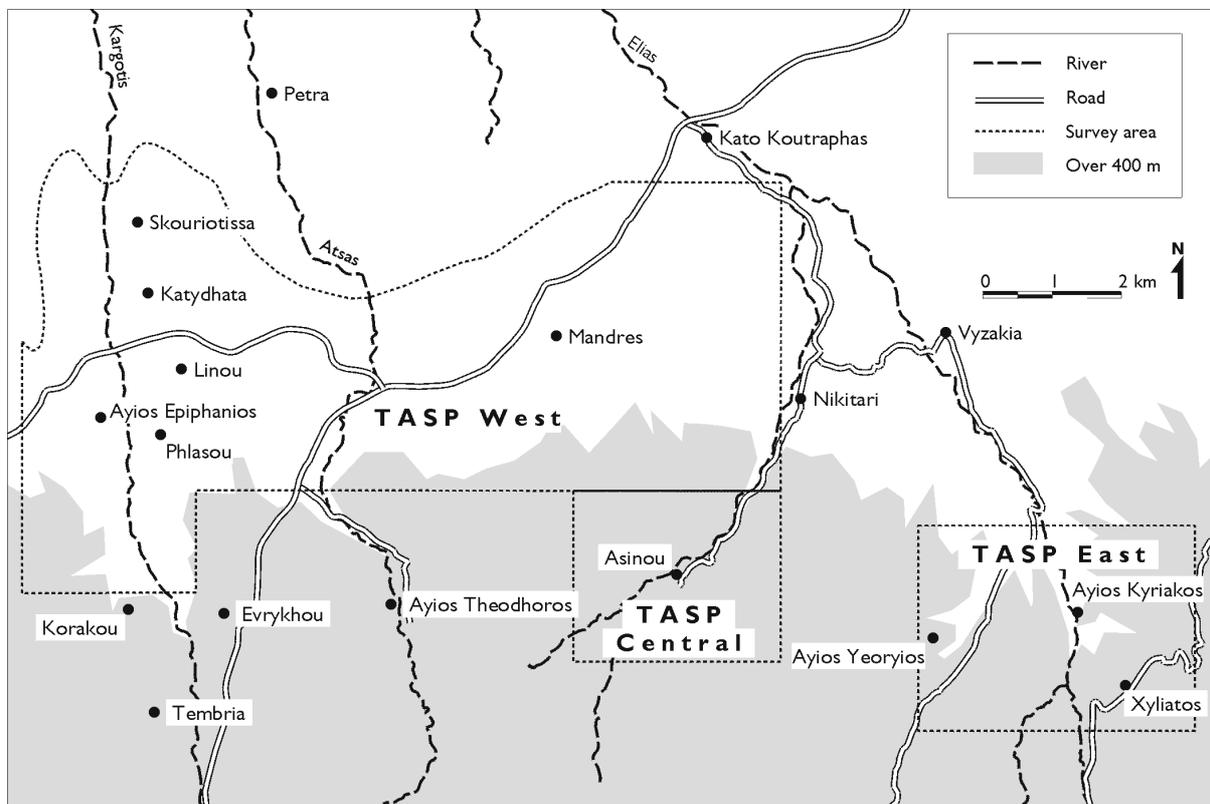


Figure 2. Map of TASP Survey Areas



Figure 3. Settlement at Kato Koutraphas *Mandres* (TS07), from the southwest.
Photograph by Tracy Ireland



Figure 4. Slag heap section AU5 at Skouriotissa *Vouppos* (TP007).
Photograph by Michael Given