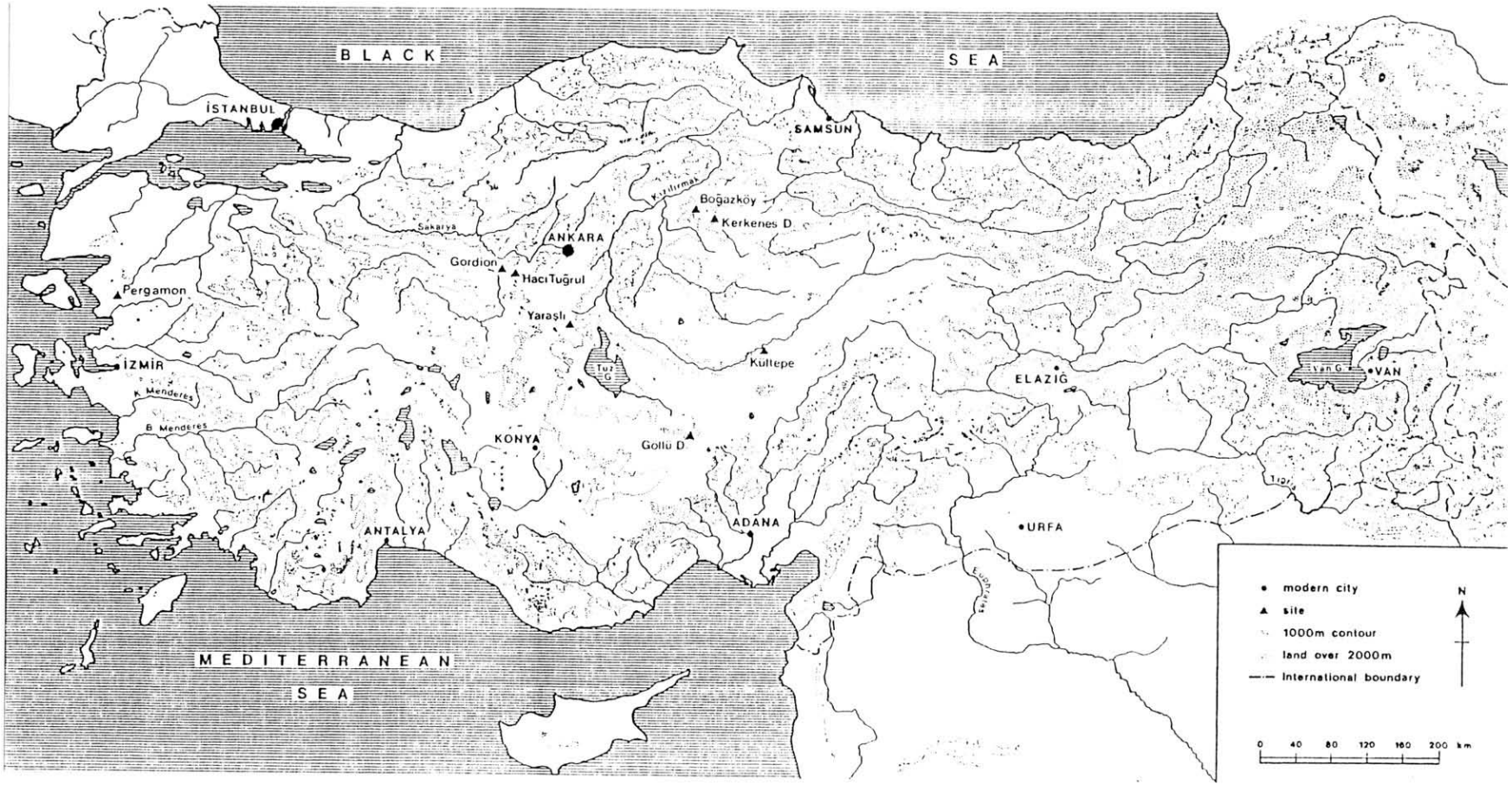
SURVEY OF THE IRON AGE MOUNTAIN - TOP CITY ON KERKENES DAĞ

REPORT ON THE 1993 SEASON

G. D. SUMMERS


BLACK
SEA
İSTANBUL
SAMSUN
Kızılırmak
Boğazköy
Kerkenes D.
Sakarya
ANKARA
Gordion
Hacı Tuğrul
Pergamon
Yaraşlı
İZMİR
Tuz G.
Kültepe
ELAZIĞ
Van G.
VAN
K. Menderes
B. Menderes
KONYA
Gölü D.
Tigris
ADANA
ANTALYA
URFA
Euphrates
MEDITERRANEAN
SEA
modern city
site
1000m contour
land over 2000m
International boundary
N
0 40 80 120 160 200 km

Kerkenes Dag from the Yozgat-Sorgun highway. The prominant hill is the Byzantine Castle, the IA city wall can be seen below on the left and follows the skyline to the right.

LOCATION

Kerkenes Dağ is in the lice of Sorgun, Yozgat Ii (see map). The site is situated on the low mountain (c. 1 ,500m.) just to the south of the main highway. It dominates both the major east-west route followed by the modem main road and the northern end of the Cappadocia plain. It is some 30km east of Yozgat and *25* km west of Alishar Hoyuk.

PARTICIPANTS

The survey took place between the 1st of August and 30th of September 1993. The team comprised Geoffrey Summers (director), Francoise Summers (architect), Richard Bayliss (surveyor), Tugrui çakar (photographer), Yigit Adam, Ayça Akin, Ebru Aksoy and Omur Harmanşah (METU students of architecture), Cem Berkmen, Yasemin Iiseven and Nahide Aydin (Biikent students of archaeology), Buket Can (Hacitepe University student), Lewis Somers, Sean Moore and Meliha Doğan (GEOSCAN). We are extremely grateful to the Vaii of Yozgat Mr Ertu~rui Ersoy, the Sorgun Kaymakan Mr F. Necmi Kurt and the Muhtar of ~ahmuratli Koy Mr Osman Muratdagi, for much hospitality, help and advice. The staff of the Yozgat Museum, and especially Mr Musa Ozcan the Director and Mr Yusuf Demirci the Assistant, provided both encouragement and practical help at every stage; to them our deep thanks. The villagers of ~ahmuratli Koy greeted us with the usual hospitality for which Anatolia is justly famous.

The 1993 season was sponsored by the British Institute of Archaeology at Ankara. Funding was provided by the Leverhuime Trust with contributions from the BIAA and the British Academy. We have been most fortunate to receive help from many other quarters including the British Ambassador Mr John Goulden and the Management Section of the Embassy, Mr Semih Kiri~co~iu and his staff (Sokkia-Seza Ltd. for data processing) and METU Dept. of Architecture (photographic assistance and technical advice).

Amongst the academic colleagues who have provided advice and support we would mention Drs Dominique Collon and **John** Curtis (British Museum), Mr Warren Eastwood (Swansea University), Prof. Ayhan Erler (METU), Dr David French (BIAA), Prof. David Hawkins (SOAS), Prof. Tahsin OzgUc (Ankara), Dr Tony Wilkinson (Chicago) and Prof. Henry T. Wright (Michigan). During the season we were pleased to welcome a number of visitors, especially Dr Peter Neve and his team from Bogaz **Kale,** Dr Ron Gorney and his team from Alishar and **Prof. Wulf** Schirmer and his team from Göllu Dag.

We owe two special debts of gratitude: firstly to the staff of the Genel MudUrlUgU in Ankara, especially Prof. Dr Engm Ozgen, Mr Osman Ozbek and Mr Levent Vadar; secondly to our representative Mr Kazim Mertek, from the **Konya Museum,** without whose enthusiastic involvement we would have achieved far less and at greater cost.

Finally, we would like to thank another British contribution, the Kapadokya Robinson Lodge Balloon Team for

providing a superb flight over the site, the results of which are apparent in this report.

AIMS

There were two aims. Firstly, to begin to make a complete record of the ancient city on the Kerkenes Dağ and of the related monuments. Secondly, to start a limited regional survey in order to put the ancient city into a wider context.

We were completely successful in both objectives.

METHODS

The survey was carried **Out** using the following methods:
(1) Tethered Balloon Photography;
(2) Photography from a Hot Air Balloon;
(3) Planning;
(4) Geophysics;
(5) Field Walking;
(6) Regional Survey.

Dr Lewis Somers downloading the magnetometer and printing out the results on site.

Tethered Balloon Photography

A helium filled blimp, from which a remote controlled camera was suspended, was used to take series of overlapping photographs of the city from altitudes of between 60 and 300 meters. Similar photographs were also taken of a number of sites in the immediate vicinity. These included some of the many burial mounds (mmuli) in the area, the complex at Göz Baba and a small Early Bronze Age site on the edge of the village. Black and white, colour slide and colour print films were used and we tried one roll of infra red film by way of experiment.

The helium-filled balloon with the camera suspended beneath.

Photography from a Hot Air Balloon

One problem was going to be the location of the hundreds of photographs taken from low levels with the helium balloon. The solution was a flight over the site in a hot air balloon through the generosity of the Kapadokya Robinson Lodge Balloon Team, arranged in co-operation with Prof. Wulf Schirmer. The photographs thus obtained provide an invaluable overview of the whole site.

Inflating the hot air balloon.

Planning
A fairly large area at the southern end of the site, including the south gate, was of special interest because it contains many features that are not apparent elsewhere in the city. This area was planned using a Sokkia total station (electronic theodolite). We are now editing the data and expect to be able to produce contour plans and three dimensional terrain models using a computer. This will be done over the coming months. Measured drawings of some individual buildings were also made.

The SOKKIA total station with the Kale and Iron Age terraces and buildings in the background.

Geophysics
A team from GEOSCAN Ltd. used a resistivity meter and a magnetometer over selected areas at the southern end of the site. There were three aims: a) to test the level and usefulness of any results, b) to see if there were buried features, especially buildings or parts of buildings, that could not be seen on the ground or on the balloon photographs, c) to see if evidence for the function of particular areas within the site could be found.

Initial results, produced in the field, were very encouraging. Processing of the data continues and is scheduled for completion towards the end of March 1994.

Collecting data with the resistivity meter.

I

The magnetometer in use.

Field Walking
Most of the territory in the immediate vicinity of the ancient city was walked over and a small number of sites were recorded. Of these only two would seem to be of any importance. (i) Göz Baba, on the highest point of the Kerkenes Dağ comprises a large tumulus of unknown date surmounted by a later tower of the late Roman or Byzantine era. A wide and rather crude dry stone wall embraces the tumulus and extends down a slope to enclose a small perennial spring (the Göz Baba). (ii) Karabağ is a monument close to the confluence of two streams c. 500 m. below and to the north of the northern most point of the ancient city. The main structure is built of huge rough blocks of stone, up to *2.5* by *1.5* by lm.. which are almost cyclopean. In plan the structure appears to be roughly square with engaged towers on each corner. It would appear to be roughly contemporaneous with the city on the evidence of scant surface sherds. It was perhaps a temple or a tomb. There is a central stone lined shaft (recently emptied) which may belong to a secondary use as a tumulus. The monument appears to have been incorporated into a later complex, perhaps a Selçuk caravansary with associated structures or a large konak with out-buildings.

The whole region is littered with tumuli. There is considerable variety in size, construction and date. They are situated in a wide range of locations, high ridges, flat fields, gentle slopes and over the ruins of the ancient city itself. The majority have been robbed, many in the very recent past. Some of these tumuli have been photographed but the task of mapping them has not yet begun.

Göz Baba is a tumulus with a later tower on top. The scale is 10 m.

Regional Survey
Some of the sites in the region that are shown on von der Osten's map were visited and re-recorded. A small number of diagnostic sherds have been placed in the Yozgat Museum. Only one new site was discovered (a small EBA mound on the edge of Şahmurath Köy) and enquiries in the neighboring villages failed to reveal the existence of other sites. There is, however, extensive evidence of seasonal camp sites on the higher ground. The areas to the south and east of Kerkenes Dağ have been fully surveyed, those to the west and north remain for 1994.

PRELIMINARY RESULTS

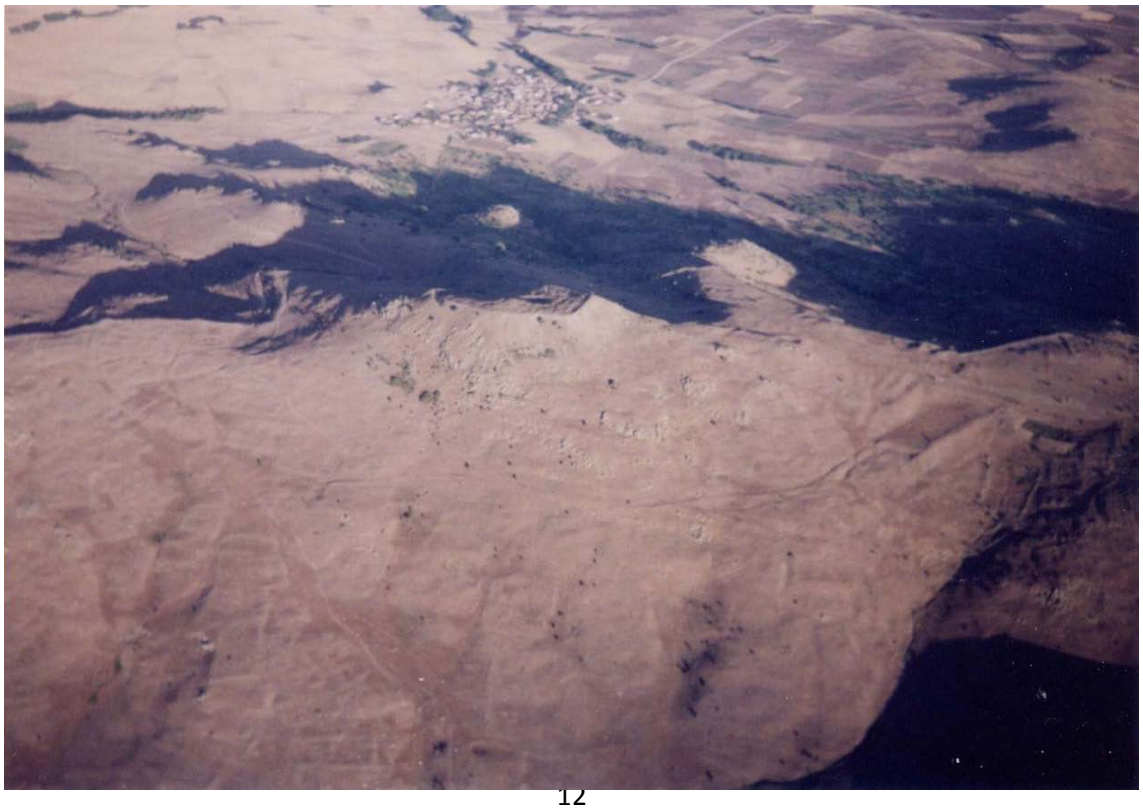
Photographs
Very good photographs have been obtained of the whole ancient city along with details of individual buildings, gates, reservoirs etc. There are, in addition, photographs of sites and tumuli in the immediate vicinity.

Planning
Part of the southern end of the city has been planned using a total station. Computer generated drawings are now being produced. Measured sketches of some structures were also made.

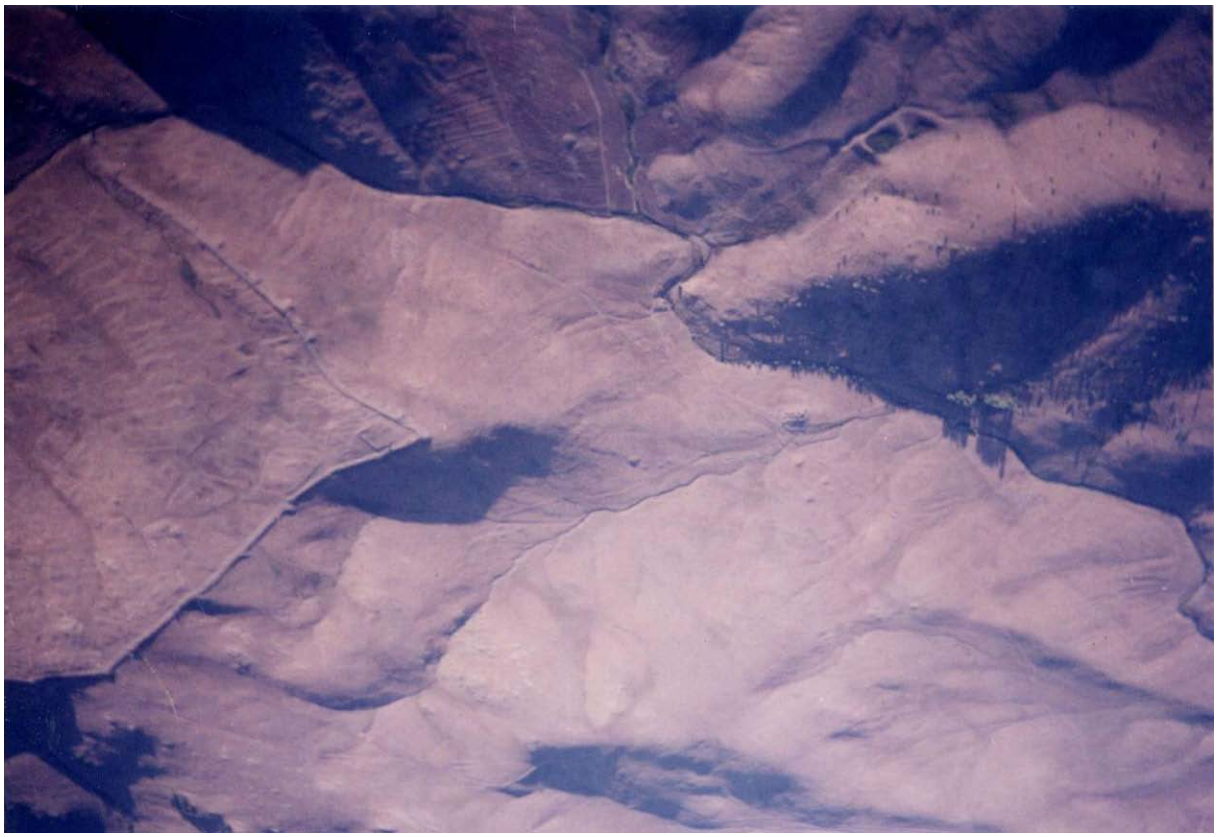
Geophysical Survey
The results were excellent. The most important result is clear evidence that those areas which appear on the ground to have been large open terraces were indeed without buildings. It is also apparent that specialized activities were taking place in some of the courtyards. Final analysis of the results is not yet complete.

PRELIMINARY CONCLUSIONS

(1) The city wall with its gates and towers was conceived, laid out and built as a single enterprise.
(2) The whole of the interior of the city was planned and laid out at the same time as the city wall.
(3) The city was a new imperial foundation.
(4) Later occupation is restricted to two small and unimportant areas.
(5) The city wall did not have the mud-brick superstructure originally intended for it; i.e. the original scheme was not completed. How much of the interior was unfinished remains a problem for future research.
(6) Occupation was very short, less than a generation.
(7) The Median city of Pteria, briefly described by Herodotus, is the best candidate for the site. This was first suggested by von der Osten. Unfortunately we still lack the proof of inscriptions.



An oblique showing IA structures, the Kale and the village of Şahmuratlı



The north end with the external structure at Karabaş and a number of tumuli in the center of the photograph.

The north-west portion of the site with the BuyUk Gol in the center.

Part of the eastern defences taken with the blimp.

Closer view with our survey spots visible.

The north end.

An oblique of the west side.

The whole site as seen from the hot air balloon. It is about 2.5 km from the northern point to the southern limit of the site.

Detail of the north end taken from the blimp. The crosses are 100m apart. A number of white spots will enable us to plan the area to scale.

ONGOING RESEARCH

During the winter of 1993/94 we intend to digitize the photographs, process the total station data and the geophysical data. It should then be possible to draw a plan of the whole site and more detailed plans of specific area within the site. We hope to be able to combine the results of the different methods used at the southern end of the site and we anticipate being able to present some of these results at the May Symposium.

FUTURE WORK

In the summer of 1994 it is intended that the survey will be continued. We hope to be able to do some or all of the following:
(1) further photography of individual buildings within the ancient city using the helium balloon;
(2) more planning with the total station;
(3) geophysical survey specifically designs to determine the functions of selected areas;
(4) taking a number of soil cores in order to determine the depth and nature of deposits;
(5) photography with the helium balloon of as many sites as possible within a 5km radius;
(6) photography with the helium balloon for the Yozgat museum;
(7) to put down a small number of very carefully sited sondages to aid interpretation of the geophysical evidence (in 1994 and/or 1995);
(8) checking drawings and photographs on the ground.

PROTECTION OF THE SITE

The site, primarily the city walls, towers and gates, are beginning to suffer from stone robbing. Tractors from nearby villages and lorries from Sorgun are being used. This has been reported to the Vali of Yozgat, the Kaymakan at Sorgun and the staff of Yozgat Museum. Notices are to be placed on the approaches to the site and the Muhtar of Şahmuratlı is co-operating in the prevention of further damage. Improvements to the present road up to the site from Sahmuratlı will facilitate growing tourism but will also increase the temptation to quarry the city walls. This has been explained to the officials in the province and the Vali, who is very sympathetic and keen to develop the tourist potential of the site, has agreed to postpone further improvement to the road for the time being.

A slide show and talk for the villagers of Şahmuratlı.