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DU Team 2 Final Report, 2000

Eastern Korinthia Archaeological Survey

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355 Discovery Units have been recorded by Team Frappé (recorded rather than walked because a 11 of those units were unsurveyed[1]). The DUs break down by toponym and date thusly:

Table 1. DUs surveyed by date and region.

Toponym[2]	**DU numbers**	**Dates**
Rachi Boska (training)	1501	6/26/00
Kesimia : Kromna	1502-1614	6/27/00 - 7/7/00
Boulberi : Kromna	1615-1628, 1855	7/10/00
Yiriza	1629-1639, 1650-1698	7/11/00 - 7/17/00
Agios Athanasios	1640-1649, 1699-1723	7/11/00 – 7/18/00
Gonia	1724-1793	7/18/00 – 7/24/00
Kyras Vrysi	1794-1844	7/25/00 – 7/28/00
Agios Kosmas : Kyras Vrysi	1845-1854	7/28/00

The number of DUs covered in the field each day averages out to 14.75, though it ought to be taken into account that the pace increased significantly after the first week, in which we averaged 10.75 DUs per day. Taking the first week out of the calculation, we arrive at a figure of 15 DUs per day (or, more precisely, 15.05). In the Kyras Vrysi region, the size of DUs increased markedly, mostly due to the fact that the size of geomorphological units increased, as did the size of the fields (clearly, these last two variables are not independent of one another). In general, we were able to cover 17-20 DUs per day in the area around Agios Athanasios (including Yiriza and Gonia), but this number dropped to 13-16 once we began work in Kyras Vrysi.

[1] Unsurveyed DUs: 1525, 1526, 1621, 1636, 1649, 1655, 1698, 1719, 1788, 1790.

[2] For clarification on where these toponyms are, see the document prepared by Dimitri and David on toponym designation.

Week One (6/27/00 – 6/30/00)

In the first week of the season, shortened to four days, Team Frappé recorded 43 DUs, all in the area of Kesimia, so named because the local Turkish lord Kesimbeïs apparently lived in the area. We worked to the north and east of Team Rondo, using the saddle between the two Kromna hills as our east-west boundary. In the first week, however, we expended most of our energy in the east, using the Kromna ridge (which extends to the southeast from the eastern Kromna hill) as our northern boundary.

In the first day or so, there were problems with field walkers not clicking on tiles, but this problem was quickly corrected. Tom Tartaron was with the team in the field on Wednesday 28 June and helped orient the team with regards to artifact identification and filling out the DU forms.

As we moved to the southeast, we began to notice much more cut stone in our fields (in all, we had 8 fields with cut stone in week one). The occurrence of cut stone did not always correspond to high artifact counts, however., and this was mostly to do with issues of visibility. For example, consider the following three consecutive DUs:

Table 2. DUs 1529-31

DU	Artifacts	Sherds	Tiles	Lithics	Other	Visibility	Walkers	Comments
1529	101	77	24	0	marble	90	5	cut stone, *in situ*
1530	39	26	13	0		10	4	cut stone
1531	135	94	41	0		100	5	

Indeed, as we moved further southeast, we were told by Tom and Tim that a large olive grove to the south of the dirt road which was acting as our southern boundary seemed full of material. Given our encounters with large blocks of cut stone, some of which seem to be *in situ*, we decided to move south of the road to explore these fields. The end result is that we declared the whole area a LoCA which we were calling "the Pantheon."

In a very real sense, Team 2 benefited from the presence of a number of the specialists in the field at this time. I alerted Lita to a number of the farmers with whom I spoke by mobile phone, and she was able to interview them at greater length than was practicable for me. One farmer in particular insisted on the presence of the palace of Kesimbeïs in the area, as well as a temple of Poseidon. Certainly neither of these turned up, but we were alerted to the idea of such a possibility. Daniel's processing team was examining our cut stone, and noted that one stone might be located *in situ*. That same day, Tim and Tom were in the field with us and noted the fields to the south of road while the team continued to survey to the east of the LoCA, where Latitia found a figurine. In a single day, then, we were able to make a number of inferences (perhaps too impressionistic, it seems, given the results from Rob's investigation of the LoCA) about the potential function of the area.

Week Two (7/3/00 – 7/7/00)

At the beginning of the second week, we finished up the LoCA which we called "the Pantheon," and filled out the forms to declare it as such, recommending that Rob investigate it further. We then moved to the northwest in order to survey units close to the edge of the boundary between our team and David's, near the eastern hill of Kromna. Surprisingly, the units just to the south of the eastern Kromna hill yielded nearly no artifacts, but to the north and east of the hill, artifact counts were high enough to merit LoCA designation. Investigation of the hill itself revealed a number of quarry faces and a dump of cut stone. A young olive grove to the east of the hill (1555/6) was full of material, and the farmer had apparently dumped out a number of cut stones to the east of his field. As we moved to the north of the Kromna ridge to survey up to the dirt road to the north, we surveyed the slope of the ridge and found a great deal of material, much of it dumped, probably from the olive field above. This material was particularly interesting because of the size of the pieces and the fact that a number of them were diagnostic. Also worth noting were a number of cut blocks, one of which had a moulding on two edges, both top and bottom.

Continuing into the olive groves to the north, material continued to turn up in large quantities. Interesting artifactual finds include a blue glass tessera by John Glover and what seem to be a number of miniature (votive?) vessels. The fields surveyed by Team 1 to the west of this area also had significant counts, and ought to be considered part of the same LoCA.

Once we had "rounded the corner" of Kromna, then we were free to survey to the north of the ridge, making our way to the east. We moved into the lowlands below the ridge, in which GUs increased markedly in size. This allowed us to cover a fair amount of territory, and we covered the total north-south extent of the area between the two dirt roads as far east as the "Pantheon." On the last day of the week, we then attempted to move as far east along the northern road as we could, only going about 50 m in from the road. We managed to do so, stretching our transect as far east as the intersection between two dirt roads which was our original idea at the beginning of the season.

In this entire area, there was relatively little anomalous in the way of artifact density, except for the fields around 1574. In 1574, 904 artifacts were found, half of which were found in the eastern half of the DU. The field to the east, 1583, had low (20%) visibility, but yielded a fair number of artifacts. The area will be nominated as a LoCA, but it is unlikely that Rob's LoCA investigation team would find much profit in a thorough re-investigation, though it ought to be reexamined at some point, perhaps in a less systematic (i.e., less time-consuming) way.

Week Three (7/10/00 – 7/14/00)

On Monday the 10th, we moved to the west in order to help Team 1 complete the area west of the ancient quarries of Kromna. A local farmer who constantly yearns to speak in German told me that the area was called Boulberi. We began work near a modern trash dump which is at the intersection of a modern asphalt road and a dirt road which runs eastward. We surveyed along the east road. Almost immediately, we came across bedrock outcroppings which had been cut back in straight lines. These outcroppings, which we had observed earlier, seem to

have been cut to accommodate an ancient road, for the passage of which the bedrock was cut back. We plan on declaring this area a LoCA and recommending that a specialist examine it.

Otherwise, the fields were devoid of much anomalous cultural activity. One large DU, 1618, yielded a relatively high number of artifacts, but perhaps not anomalous enough to be declared a LoCA.

On Tuesday the 11th, the team moved to area around Gonia and Yiriza, beginning near Yiriza. Tom substituted as team leader for Tuesday through Thursday because of the flu that I caught. The plan was, however, to extend coverage 150 meters on either side (north and south) of Yiriza, surveying up to the edge of the hill but not on it because of its status as a declared archaeological site.

We began in the area of the Mycenaean chamber tombs, but found very little in their vicinity. This is at least partly to do with low visibility in these fields, which are quite overgrown. Moving towards the church of Agios Athanasios, the team found a great deal of material around the church, but very little of late antiquity (Byzantine, Turkish, etc.). The fields just to the north of Yiriza hill were particularly rich. Not surprisingly, the team began finding a number of lithics in these fields (41, 89% of the total lithics found at that time), and in general the pattern shifts from that which obtains in Kromna. More lithics and groundstones are in evidence, and a greater range of prehistoric pottery was being found (Neolithic, MBA, and Mycenaean pottery). There were, however, no LoCAs that were declared in this area.

Thursday's work began to the west of Yiriza hill, where chert cores were found in several fields (1664, 1667), including some rather large specimens. These lithic finds are quite interesting because the chert cores imply some kind of tool production going on to the north of the hill. Based partially on the recommendation of Daniel Pullen, I plan on declaring LoCAs in the fields to the northwest of Yiriza, where the chert cores were found. The prehistoric pottery from these fields is EH and may shed some light on the earliest settlement(s) at Yiriza. Friday we began work towards the southwest of Yiriza hill and moved towards the east.

Week Four (7/17/00 – 7/21/00)

By 9 am on Monday, the team had finished surveying all of Yiriza and began working on the other side of the asphalt road which splits Gonia and Yiriza in the middle. This road marks the boundary of Yiriza and Agios Athanasios. As we surveyed to the south and east of the church of Agios Athanasios, we encountered a long, thin citrus grove (DUs 1703 and 1704) that yielded incredibly high concentrations of lithics. It was fortunate that Andrew Davis was with us on Monday, because he has a good eye for lithics. The number of non-stone artifacts found in these fields was actually quite high as well, and an initial LoCA designation form was filled out. Rob's team gridded and investigated this LoCA (9009) and his report should be consulted for more precise data.

This LoCA and the data collected by the LoCA team may go some way to answering some basic questions about the way in which Yiriza and Gonia may have interacted, as well as providing some data about the fields just adjacent to Agios Athanasios, and how the existence of the church materially impacted the archaeological landscape around it.

By noon on Tuesday, we had completed our coverage of the Agios Athanasios area and we were approaching the western corner of the Gonia hill, where a dirt road passes just below the edge of the hill. It was only once we were adjacent to the modern road that artifact densities picked up at all. In fact, the Agios Athanasios area is conspicuously bereft of artifacts, other than the LoCA just mentioned.

Wednesday morning we began by surveying an olive grove (DU 1726) that had been plowed just 5 years ago (so I was informed by a local farmer) which yielded quite high artifact densities. Its location, just west of the gentlest slope of the Gonia hill, is strategic in the sense that it occupies a position nearly as high as the hill, and the areas to the east and west of it slope downwards. Despite moderately good visibility (60%) and soil compaction since plowing, we found 701 artifacts, most of which (81%) were pottery. Artifacts collected in DU walking were almost all prehistoric, from (Final?) Neolithic to Late Helladic III. We also declared this a nominated LoCA, and it was investigated by Rob's team. We considered the area important because part of our interest in Gonia is to understand the extent of settlement off the hill. Gonia is quite large, and we would probably not expect much settlement on the slopes below, so dense artifact scatters perhaps strikes one as rather remarkable.

The large almond grove (DUs 1746-1748) further to the east also yielded rather large amounts of material, particularly large sherds. The soil in this area was rather compact and there was no evidence of plowing whatsoever, the presence of so many artifacts is quite notable. This area is just to the southwest of the hill, and directly west of a ramp which ascends the southwestern slope of Gonia. This ramp may have existed in antiquity, and provided access to the hill from the east, where the slope is most steep. It is interesting to note that the olive groves just to the south of the almonds, which all have high visibilities and are recently plowed, have very low artifact densities. Cultural activity thus seems to decline abruptly as one moves south from the hill.

Moving along the eastern slope of Gonia and keeping west of the Hexamilia-Korinthos asphalt road, sherd densities were generally high. This is not unexpected, since the settlement of Gonia excavated by Blegen was situated on the east side of the hill. Some standing remains are of interest. A cistern complex was found cut into the bedrock. It consisted of a rectangular cistern, cut into the rock, and lined with roof tiles which had been cemented together. To the east, a channel had been cut into the bedrock which ran north from the cistern, but the rock ends and it is unclear what the channel's use was. To the north of the cistern was a rectangular floor for which the rock had been cut back. The floor consisted of apricot-sized chunks of tile, cobbled and cemented together. This floor is not nearly as well preserved as the cistern.

East of the cistern was an unused road which ran up the slope and provided some access to Gonia through a break in the ridge. This road shows up quite clearly on the aerial photos. It is unlikely that it provided access to the top of the hill, because the slope just below Gonia is quite steep. However, the entrance is still used by shepherds, who drive their flocks up to Gonia through the break. Along the ridge to the north of the road were a number of rock shelters which were used as animal pens, but they showed no signs of use in antiquity.

Just adjacent to the road, one DU yielded high artifact counts. It was a plowed olive grove with loose soil. It is difficult to know how meaningful the density of this DU is, since all of the fields to the west of it (upslope) are weedy fields with compacted soil. To the north, the field continues but with a much different soil type (looser and of a lighter color), and artifact

densities drop rapidly. In the very southwestern corner of this DU is what appears to be a round cistern which has been filled in.

We ended the week by turning the northeastern corner of Gonia and doing DUs along the northern ridge of the hill. The northeastern corner of Gonia had very little in the way of artifacts, partially due to the low visibility of grain stubble fields in the area. Artifact densities to the north of Gonia were not very high, despite relatively good survey conditions in most of the fields. One DU, 1774, had relatively high artifact counts (olive grove with 100% visibility, heavy sherd crusting and background disturbance). Nearly all the artifacts analyzed by the processing team from this field were Bronze Age (no Neolithic, but EH – LHIII are represented), with very little Archaic-Classical and 1 Roman sherd. The field has a very strong Mycenaean signature, with nearly all finds being Late Helladic. One interesting find is a single Medieval sherd found in 1776, which is a long olive grove just to the north of the Gonia.

Week Five (7/24/00 – 7/28/00)

We began the week finishing up the area north of Gonia, since we hadn't done enough on Friday to really claim to say anything about cultural activity around Gonia. Artifact densities generally remained low with the exception of some fields just north of the central part of the hill, and it seems that cultural activity to the north of Gonia is concentrated in the center. All of the fields in this area have the same periodization: a strong Mycenaean component with some EH-MH and LH III (all kylikes).

Tuesday we joined David in Kyras Vrysi, beginning from the intersection of the two asphalt roads which enter Kyras Vrysi from the north and west and working our way to the west, staying north of David's team and 300 meters north of the Hexamilia-Kyras Vrysi asphalt road. In general, the DUs were much larger than they had been at Gonia, enabling us to cover much more ground.

Artifact counts remained more or less low with the exception of 1796, which yielded relatively high densities of sherds. Once we passed a small gully which ran through some manured olive groves, we began encountering quite high sherd densities, especially in an open field with low weed cover and relatively fine unplowed soil (Open field: 1823, 1825-1828, Olives: 1829, 1830). Due to the high artifact densities we were encountering, we decided to break the field into quarters (of about 40 x 80 meters) in order to get more spatial control of what artifacts were where. It seems to have been a good decision, because the data clearly show that the eastern half of the field have rather lower artifact densities. To the north of this open field were two olive groves, one of which had trees with trunks painted white. These groves had artifact densities comparable to the open field. All the fields seem to have similar artifact types: mostly kitchen wares, Classical to Roman, with a smattering of Geometric-Archaic (note: 1 LH III sherd, 1 Medieval).

Further west, two fields (1834, 1836) had relatively high densities, and in fact they border a field of Team 1's (1258) which has comparable artifact densities. As expected, these fields have a fair amount of Roman material in them, but there is also a quite strong Classical signature as well, especially in 1836. Functionally, there is a fair amount of kitchen ware, though the Classical sherds seem to be mostly finewares. These fields are to the north and east of the West

Foundation, which (curiously) had relatively few artifacts in the fields around it. David and I plan on declaring these three fields as an n-LoCA; it's proximity to the West Foundation makes it an attractive candidate for more intensive investigation in the 2001 season.

After surveying up to the modern settlement of Agios Kosmas, we moved past the settlement where Team Rondo had found a linear feature. In the field to the north, a depression in the center of the field may represent the continuation of the linear feature, and so was surveyed separately.

Methodology and Logistics

The problems which we encountered this year are much less serious than those of last year, and there was great improvement from last season, so the problems outlined here aren't very severe at all.

There are clearly problems with the DU forms. One the main problems is that changing them too much at this point just makes the old data unworkable. This is mostly only a problem with the features form, which seems to be designed to be as unspecific as possible on those checkboxes which are constantly being ticked and as specific as possible on those checkboxes which are *never* going to be ticked. For example, we are constantly encountering cut stone which is not *in situ*. A check box for this would be valuable, especially since cut stone is generally a marker of cultural activity, and such data could supplement the data on artifact density nicely. Another important feature are quarried faces. Tim has made it clear that the ephoreia is very interested in them, and it would be worthwhile to have a searchable check box for quarries. There is a quarry field in the land use section, but this refers to modern land use and not to ancient quarrying (I imagine, since all of the other fields in the section all refer to modern use).

The visibility section is a big problem in several respects. The sections on surface clast, for example, are going to produce meaningless data, since most DUs are going to have rocks and organic surface clast, and probably "coarse gravel" in size. It's not clear to me why it might be significant if the surface clast is a fine gravel in a particular DU. This is, of course, a problem, because it is difficult to record data if one has no idea what the data is for in the first place. This same problem holds for the plowed check box. Does plowed mean that the field is recently (last 2-3 years) plowed, or are we recording whether a plow has turned up artifacts at all in the past decade? One could imagine both being interesting and relevant things to record. I was made to understand that Rob wanted to know which fields were recently plowed, and so that's how I understood the field. We surveyed a field (DU 1726) which, I was informed, was plowed 5 years ago and it was quite compacted and has rather low (60%) visibility for an olive grove due to dense weed cover. Rob agreed that it doesn't qualify as "plowed" in his conception of the field, but it is obviously interesting and worth knowing that it was plowed at all. This latter variable is how David understood the field of "Plowed?" and accordingly this is the kind of field for which he would have ticked the box. This is *not* a problem which can be solved by describing each of the fields – we need to know *why* we care about the data at all and how it might be used.

In a similar fashion, the whole line in the visibility section with "Plowed?" "Soil loose?" and "Soil compacted?" is nonsense. Looking at the form, one gets the impression that these are

three different questions which are not necessarily linked. That is to say, it seems very possible that one could check none of the boxes, since there are lots of fields in the Korinthia which are neither plowed, loose, or compact. If, as Rob made me understand, these represent some kind of crude approximation of what is in actually a continuum, then it should be made clear. In the end, it became clear that Rob was most interested in whether or not the soil was compacted. It is fortunate that David and I (independently) came to the same conclusion and were selective in our use of that box, so that data is useful.

To be more positive, I imagine that it is worth knowing if a field has been plowed at all, and how recently, if that can be estimated by the teams (I think that it can). So I would consider collecting information such as "Plowed recently (0-2 yrs)", "plowed 3-10 yrs ago," and "plowed 11+ yrs ago." And I imagine that if we are attempting to understand the compactness of the soil as a kind of continuum, then we ought to have a more reasonable way of collecting that data (such as: "Soil compaction – none, light, or heavy").

There are some problems with the computers. As far as DU teams go, downloading digital images is a must every evening, and with only one computer devoted to the task, all the work could not get done in the allotted time (4-6 pm). Bringing the laptops to Isthmia was, in my opinion, a waste of time because two hours is more time necessary for downloading one set of digital images but not enough to download two sets. It's also quite risky to bring computers out into the field.

The more serious computer problem is that of human error when entering data. There were an incredible number of mistakes in the DU database at the end of the season. Working full days with the DU forms and the computers, it took me three days to fix all the mistakes (assuming that I haven't missed the odd one here and there), even with the help of John Glover for a day. Either we need more responsible people doing data entry, or those that do data entry require more supervision. I would personally be willing to do data entry myself in the afternoon, but tasks such as mapping would probably get in the way.

In general, I would also prefer it if field teams could all be in the same place in the afternoon. This is mostly because a number of tasks require scarce resources, such as the aerial photos drawn on in the field. Taking center elevations and digitizing DUs both require the regular use of the aerial photo, for example. It would also be easier in that case for team leaders to supervise the field walkers. Inevitably, when doing afternoon work, questions crop up which (usually) only the team leader can answer, and his or her presence wherever data entry (say) is taking place could avoid huge problems at the end of the season.

Naturally, it's quite difficult to supervise afternoon tasks while mapping new DUs in the field. I considered the possibility of sending the team's geomorph into the field with a field walker, but a number of the decisions made when mapping DUs require consultation with the team leader. In the second half of the season, Stella began to map ahead while we were walking DUs, which worked well as long as the geomorphology was not overly complex. For example, this system worked very well in Kyras Vrysi. If we did some mapping in advance, before the field season began, it would be much easier for the geomorphs to map ahead in the morning.

On a related note, I think that the geomorphs need to consult with Jay's maps more often. Jay has done quite a bit of work already on the geomorphology of the area in which we are surveying, and it seems a waste not to use his work. For example, Jay's map for Agios Kosmas :

Kyras Vrysi (which I can't find at all right now, which is also a rather large problem which seems to recur) showed an area of quarrying, for which we found no evidence. I'm not sure whether our surveying actually covered that area, but it doesn't matter: that's the kind of information we need to know before we go out there.

As far as field methodology goes, we need to be better at LoCA designation and decision-making. That is to say, we need to involve more people in the deciding what should and shouldn't be called a LoCA. I would also be more comfortable using the GIS to determine what can and can't be called LoCAs. Density figures, displayed in the GIS, are much more helpful than whatever impressionistic notion we might have about sherd concentrations. I would personally prefer that we use the GIS to determine might be anomalous cultural deposition. We also need to consult with the processing teams more fully, since they know better than we what kinds of materials the field is bringing forth. Some of the LoCAs that were investigated this year were interesting but it seems in hindsight that the team's time could have been used more profitably elsewhere.