# Appendix III: Analysis of the survey results; the distribution of the total surface record in the second survey area

App III.1 The field survey and the analyzing procedures

Little was changed from the method of fieldwork applied in the first survey area. Nevertheless these modifications carry important implications, which are important to consider. The survey consisted of two principle parts: a block by block survey aiming at a general quantification of the surface finds, followed by a regular grid survey and collection of finds, focused on field blocks featuring higher densities of surface material. In principle it is a combination of a site-less and more intensive, intra-site surveys[1]. As in the first survey area the field blocks mostly coincided with the existing agricultural parcels. This greatly facilitated the field survey. Parcels were easily identified on an updated satellite image and were basically ready to survey. Naturally in return field blocks were of unequal size, but because of the hedges and terraces separating most fields in the area, field walking would have been awkward, if not impossible otherwise. Although most fields were physically separated from each other, there was a great deal of continuity in the quantity of surface finds across neighbouring fields; much more than in Sopot where often the quantity and the quality of the finds changed drastically from field to field. Parcels larger than 4 000 square meters were divided along the shorter or the longer axis and those smaller than 1 000 square meters were joined with neighbouring fields. In total the area was divided into 613 field blocks, on average measuring 1850 sq meters (map 1).

Depending on the width, each field block was surveyed by 2, 3 or 4 people. The distance between two neighbouring field walkers varied between 7 and 10 meters. Every participant in the survey kept records on prepared forms. A count was taken of the number of ceramic finds (both pot fragments and building ceramics), the presence or absence of building remains and earthworks and of modern debris. Also each field walker was supposed to grade ground visibility conditions for every field walking unit. The same method was applied as in the Sopot survey. Basically an account was taken of the percentage of the surface covered with vegetation. Excellent ground visibility meant that 0% of the field walking unit was covered with vegetation, while worst ground visibility meant 100% vegetation cover. In between are three other categories, higher than average or 25% vegetation cover, average visibility or 50% and low visibility or 75%[2]. Only a few very overgrown parcels were excluded from the survey. The number of ceramic fragments for every field walking unit was then increased by the corresponding percentage of vegetation cover. As discussed in chapter IV except for abandoned fields,

[1] Multi-stage planning has been one of the more prominent features of survey methodology since the early stages of its application in the Mediterranean; J.F. Cherry, Frogs around the pond: Perspectives on current archaeological survey projects in the Mediterranean region, 383-417, eds. D. R. Keller, D.W. Rupp, *Archaeological survey in the Mediterranean Area*, Oxford 1983; J.L. Bintliff, A. M. Snodgrass, The Cambridge/Bradford Beotian Expedition: the first four years, 123-161, J.F.A. 12-2, 1985; J.F. Cherry et al, Archaeological survey in an artifact-rich landscape: A Middle Neolithic example from Nemea, Greece, 159-176, *American Journal of Archaeology* 92-2, 1988.

[2] Cf. B. Erdoğu, *The Prehistoric Settlement of Eastern Thrace,* Oxford 2005.

on most other parcels visibility conditions were average or above average. For the entire survey area, a mean value of 35% vegetation cover was estimated (map 2).

As we know there are factors other than the vegetation cover that affect ground visibility conditions. Among other things, visibility also depends on the type of ploughing and the amount of recent debris on the surface. Unlike in the Sopot survey the latter never presented a problem in the second survey area, but the harrowing of the soil before the sowing season was an important visibility factor. Little can be done in terms of estimating this factor and correcting the pottery counts. The only way to minimize its effects is to try and time the field survey correctly. This condition was somehow met for the large block survey, but the collection by grid units had to be extended into the winter months of the following year and resumed during the new ploughing season, in the autumn. In a number of cases we encountered visible changes in the amount of surface material. Most commonly field blocks on which the large block survey recorded artifact densities higher than the average offered only rare fragments of recent material upon revisit. But there were also rare instances where field blocks featuring low or very low artifact density were found littered with surface finds[3]. Nevertheless compared to the first survey area, there was less discrepancy between the large block and the grid survey.

One important improvement in the method of fieldwork in the second survey area was the instruction to limit the counting of ceramic fragments to 1.5 meters on both sides of the surveyor's trajectory, regardless of the ground conditions. In the Sopot survey some participants were counting all finds within their sight range. This was possible because of the relatively small number of surface finds, but in some cases it resulted in uneven survey coverage. Namely the sight range of individual surveyor could change dramatically depending on visibility conditions and the density of surface finds. In conditions of good visibility and a small number of surface finds, the sight range can reach several meters on both sides of the surveyor; while in conditions of lower visibility and higher artifact density it narrowed to the standard 1 to 1.5 meters on both sides of the surveyors' trajectories.

As in the Sopot survey, both the field blocks and the individual field walking transects were labelled; the former with a number, the latter with the personal name of the field walker and the number of the field block. The field block records were simply the sums or the averages of the records of individual field walkers, but they were used as basic quantitative units in the analysis. However the records for the individual transects were kept separate, for the experience from the Sopot survey has shown that they were often very accurate indicators of variations within the limits of a single field block. Corrections for the visibility factor were made on the level of individual transects, rather than correcting the sum of individual counts within single field blocks.

In the field sketches were made of every field block and of the individual transects. These were then drawn on a geodetic map at a scale of 1: 2 500, using a GIS program for personal computers. For every drawn field walking unit the recorded data were entered in

[3] This was observed in some of the earliest survey projects in the Mediterranean, J.Lloyd, G. Barker, Rural settlement in Roman Molise, 289-304; eds. G. Barker, R. Hodges, *Archaeology and Italian society: Prehistoric, Roman and Medieval studies*, Oxford 1981; after J.F. Cherry, 398-399, eds. D.R. Keller, D.W. Rupp, 1983. One is always seeing only a portion of the potential surface record, even when coverage is 100%, J.L. Bintliff, The concepts of site and off-site archaeology in surface artifacts survey, 200-215, eds. M. Pasquinucci, F. Trement, *Non-Destructive Techniques Applied to Landscape Archaeology*, Oxford 2000.

a common table, structured after the forms used in the field survey (table 1). One table was created for the individual transects and another for the field blocks. The degree of coverage of the field blocks was fairly equal and there was no need for further corrections of the field records. Extra table fields were added only for the size of the field blocks' areas, which enabled us to estimate artifact density. As in the Sopot survey, artifact density was expressed as the number of counted fragments divided by the area actually covered by field walking or about 30% of the field block area. Analyzing the density of surface finds was found more appropriate than absolute numbers, because of the different size of the field blocks. But in essence either way the results were similar, the difference being in a smaller number of field blocks. When compared by the number of finds, few larger field blocks were put into the categories of higher quantity of surface finds and vice versa; when compared by the density of finds, some smaller field blocks were moved to an upper category. Field blocks were grouped into five categories regarding the quantity of surface finds using the Natural Break method. Because of the local geography it was possible to analyze the distribution of finds for the integral survey area, using a single statistical method.

Table 1: The field walking forms for individual transects used in the second survey area

| Unit n. | Sherds | Tile | Ruins | Modern | Visibility | Area |
|---|---|---|---|---|---|---|
| III | 12 | N | n | n | 100% | 1 437 |

The tactics of collecting surface finds were also slightly changed. As in the first survey different methods of surface material collection were applied depending on the quantity encountered. In the second survey however it was decided to gather finds during the quantification campaign, using individual transects as collection units. On field blocks where the number of surface finds was evidently low, field walkers collected all finds within their individual transects. These were then counted on the spot and duplicate specimens, mostly small format tiles were thrown back on the fields. A few diagnostic finds were also gathered from field blocks with higher quantities of surface material, but these were to be revisited for total collection using regular grids. Thus not only a lot of time was saved, but we also had some idea of the character of the finds on field blocks with higher artifact densities prior to the regular grid survey. In the Sopot survey all collection was done separately after the quantification results were analyzed, with the result that the entire survey area was basically resurveyed. The relatively large number of field blocks featuring only a few artifacts on the surface made such an effort absolutely unnecessary in the second survey area. None the less it sometimes proved very difficult to draw a line between field blocks with low and average quantity of finds only on the basis of the first hand impressions. Therefore a great number of field blocks with average or lower than average quantity of finds were to be revisited for a more thorough survey.

The second phase of the survey consisted of the total collection of finds on field blocks with higher quantities of surface material and of basic documentation of the building remains discovered. Total collection of surface finds was done using regular grids. One important lesson from the Sopot survey was the realization that on field blocks with a high quantity of finds, there are larger discrepancies between the number of counted and gathered artifacts. Here regular grid survey and total collection are necessary

for revealing the distribution of finds on a site-level and for establishing the chronology and the basic character of the sites. The grids consisted of equal rectangular units, measuring 10 by 15 or 10 by 10 meters, depending on the quantity of finds and the size and the shape of the site. They were laid out within the limits of the given field block and extended until the quantity of finds on the surface diminished significantly. Again it is often very difficult to draw a clear line, especially in constantly changing surface conditions. In the field all artifacts visible on the surface were to be collected; duplicate material was discarded only after the collections were weighed and counted. Only specimens were taken from very large tiles and they were counted on the spot. Because of the character of the surface material in the second survey area, the weight to number ratio or the average weight of an individual artifact was even less indicative than in the Sopot survey. Many of the sites discovered in the Sopot survey had few or no building ceramics and it was possible to get an idea of the degree of preservation of the finds on the basis of the weight to number ratio. Better preserved finds presumably come from site cores, while in the off-site the majority of the finds were very small and worn. This didn't quite work for both survey areas and especially for the second, because of the predominance of brick and tile. Even if completely worn, tiles and bricks weighed much more than the best preserved pottery fragment.

The grids were drawn on the same geodetic layer and data were entered for every grid unit in a common table. The table for the grids mostly consisted of the same fields as the field blocks and individual transect tables, plus the two columns for the weights of the collections and for the weight to number ratios (table 2).

Table 2: The field walking forms for grid collections used in the second survey area

| Unit. num. | Shards | Tile/brick | Recent | Visibility | Weight | Weight/sherds |
|---|---|---|---|---|---|---|
| I A1 | 23 | 14 | n | 25% | 1, 550 gr. | 67.39 |

In general in the second survey the differences between the number of counted and gathered finds were far less pronounced than in the Sopot survey. This is contrary to what one would expect, because in the second survey the counting of finds was strictly limited to three-meter wide belts. In fact there were more instances of overestimating than underestimating the quantity of surface finds. This could be naturally related to the slightly greater experience of the surveyors, but as will be shown during the analysis of the survey results, it is far more likely conditioned by the overall quantity of the material, its distribution pattern and its quality. Particularly decisive was the latter factor. Most of the ceramic finds in the second survey area were of reddish or pale brown fabrics and there was a considerable amount of glazed pottery. As argued in Chapter II these fabrics are much more visible on the surface than the darker brown or gray fabrics[4]. The large amount of tile could also contribute to a more accurate quantification of the surface finds. Finally, in the second survey area there were no cases of large amounts of surface finds buried in the top soil layer. In all cases where total collections were carried out, the

[4] M.B. Schiffer, A.P. Sullivan, T.C. Kringle, The design of archaeological survey, 1-27, *World Archaeology* 10-1, 1978; J.B. Rutter, Some thoughts on the analysis of ceramic data generated by site surveys, 137-142, eds. D.W. Rupp, D.W. Keller, 1983.

surface material was completely exposed on the surface. Only individual fragments were seen half buried in the soil. On the other hand this was very typical for the environs of Sopot and was probably one of the main reasons behind the great underestimate of the true amount of surface finds during the quantification campaign.

App III.2: Overall distribution of the total surface record by field blocks

Because the second survey area is a far more compact topographic entity, the preliminary results of the field survey will be presented by artifact categories, not by sectors. As we saw in chapter IV there are subtle differences between the various micro-locations that comprise the second survey area, but sectoring in this case is unnecessary and impractical.

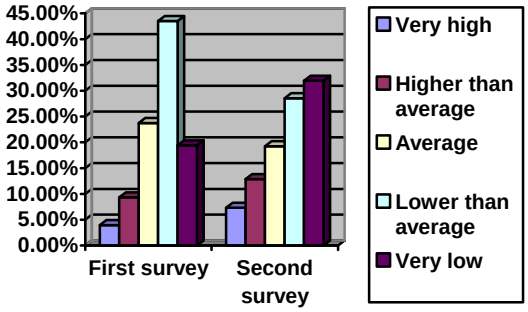
The contrast in topography and land use between the two survey areas is complemented by the contrast in the distribution patterns and the quantity of the surface record. About 9300 shards were counted on the surface of the second survey area or nearly 11 500 when corrected for the visibility factor (table 3). This is twice the number of finds recorded on the surface of the first survey area. But the mean density of finds recorded by the large block survey is roughly equal: 31.5 fragments per 1 000 square meters were recorded in the Sopot survey, 34.8 fragments per 1 000 square meters in the Montenegro survey. It has to be admitted that this was to a large degree counterintuitive. During the second survey, the general impression was that there was much less material on the surface compared to the first survey area. Nevertheless this fact accurately reflects the differences in statistical distribution of the finds in the two survey areas. Less than 4% of the field blocks in the Sopot survey belong to the zone of highest artifact density, while in the Montenegro survey, they comprised nearly 7.5%. At the other end of the scale, only 6% of the field blocks have zero artifacts on the surface, compared to over 19% in the first survey area. But the real scale of the differences comes to light only when the absolute values are considered (graphs 1, 2). In the first survey area, the zone of highest artifact density featured between 180 and 408 fragments per 1000 sq meters, while in the second survey, it features between 90 and 240 fragments per 1000 sq meters. Similarly the group of lowest artifact density in the first survey area almost exclusively comprised field blocks with 0 artifact density, while in the second survey it includes field blocks where up to 12 fragments per 1000 sq meters were recorded. In other words the difference between the zones of highest and lowest artifact density in the first survey is considerably greater. To further illustrate the disparity, only four field blocks from the second survey would fall within the zone of highest artifact density in the first survey area. In fact the majority of field units featuring artifact densities between 90 and 240 fragments per 1000 sq meters will fall in the second category in the first survey area. Going to the next zone of artifact density, only 9 field blocks from the second survey area rank higher than the zone of average artifact density in the first survey. In the former the group of field blocks with higher than average artifact densities can feature between 48 and 90 fragments per 1000 sq meters, while in the latter, this zone is defined by the values of 72 and 180 fragments per 1000 sq meters. As one might expect, the absolute values for the zones of average and lower than average artifact densities become more equal. Nearly 60% of the field units in the second survey would rank average in the first survey area. In fact there is a reversed tendency, as the zone of lower than average artifact

density in the Sopot survey is defined by the values of 3 and 18 fragments per 1000 sq meters, while in the Montenegro survey field blocks of this zone can feature between 12 and 27 fragments per 1000 sq meters. As mentioned earlier the zone of lowest artifact density in the Sopot survey consisted of field blocks featuring between 0 and 3 fragments per 1000 sq meters, while in the Montenegro survey, this zone included field blocks with artifact density ranging from 0 to 12 fragments per 1000 sq meters. In the first survey area there is not only a wider gap between the zones of maximum and minimum artifact density, but the ranges defining the zones of average or higher than average density are also wider. In the second survey area these fluctuations are less dramatic and this surely affected the recognition of larger concentration of finds during the field survey.

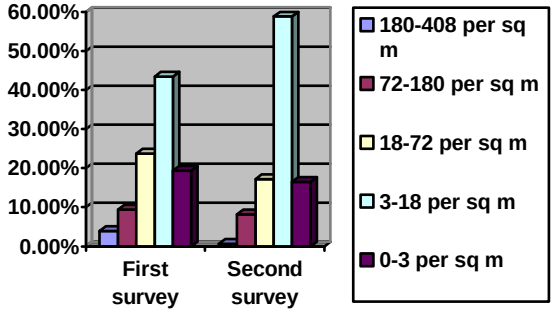
Table 3: Comparison of the size and the artifact density in the two survey areas

| | First survey | Second survey |
|---|---|---|
| Size of surveyed area | 900 000 sq. meters | 1 100 000 sq. meters |
| Field unit area | 2 500 sq. meters | 1 850 sq. meters |
| Total number of finds | 5 883 | 11 500 |
| Min/Max shards per unit | 0/250 | 0/142 |
| Mean density | 31.5 per 1 000 sq. meters | 34.8 per 1 000 sq. meters |
| Min/Max densities | 0/407 per 1 000 sq. meters | 0/240 per 1 000 sq. meters |

Graph 1: Distribution of the field units across the basic density ranges in the survey areas



Graph 2: Distribution of the field units across the density ranges recorded in the first survey area.




Equally contrasted is the spatial distribution of the overall surface record (maps 3 and 4). In Sopot we had a strong concentration of the bulk of the material in the western part of the area and a sharp decrease in the eastern and northern parts. To be sure this was not a regular linear tendency: there were field blocks with low artifact densities in the western part of the survey area and there were also field blocks that clearly stood apart by the number of finds in the rest of the survey sectors. In general however, the amount of surface finds decreases along a west-east and along a south-north axis. In the second survey area it is possible to point only to a very faint overall tendency. Of the total 116 field blocks belonging to the categories of higher than average and very high artifact density, only 24 are situated in the southern half of the survey area. In addition there is approximately one third of the category featuring average artifact density, roughly 50 field blocks and one half of the field blocks belonging to the categories of low and very low artifact density. This decline in the amount of surface material on a north-south axis is evident and equally pronounced on both the western and the eastern ridge. It is somewhat less pronounced along the valley floor, although here too the field blocks to the north evidently feature larger amounts of surface finds. The mean density of surface artifacts in the southern half of the survey is less than 73 fragments per 1 000 square meters, while in the northern part it rises to over 108 fragments per 1 000 square meters. Although the difference is nearly 50%, compared to the strong contrasts revealed in the Sopot survey, this is a fairly steady decrease.

At a first glance it is impossible to point to any other general tendency in the distribution of surface artifacts. The 45 field blocks ranked highest by the density of surface finds are dispersed into more than 20 separate locations; except for two, all are situated in the northern part of the survey area. They mostly appear in pairs or groups of 3 or 4. Only in a few cases do we see them isolated and even then, they are usually bordered by a field block belonging to the second category of higher than average artifacts density. In one case in the northeast corner of the study area, there is a larger cluster of 9 field blocks belonging to the group of highest artifact density.

Although fairly dispersed the spacing of these clusters is not totally random. On a further level the great majority of these field blocks belong to one of the three principle topographic components of the survey area. Predictably they are most numerous on the eastern ridge and on its slope, which covers nearly half of the survey area. 26 field blocks

featuring very high artifact density are dispersed into 13 different clusters or isolated field units. Five of these are situated on the upper section or the very top of the ridge, the other eight on its lower section. The largest cluster of field blocks with highest artifact density in the survey area is situated in the northeast corner, just below the summit of the eastern ridge. Further down the summit are the four smaller clusters or individual field blocks. They are situated at roughly equal intervals, varying between 90 and 150 meters; somewhat more closely spaced are the southernmost groups. Except for the largest group of 9 field blocks that stretches over an area of approximately 1.5 hectares, the rest are not larger than a few thousands square meters.

On the lower slopes of the eastern ridge, the field blocks featuring highest artifact density are much more dispersed and appear in pairs or individually. Only one cluster is larger, stretching over at least four field blocks. The distance between two neighboring clusters varies considerably: the two northernmost are less than 100 meters apart, but the next one to the south is more than 250 meters away, while the centrally positioned cluster of four field blocks is 380 meters south of the latter. They are nonetheless still within a distance of 100 to 150 meters from the neighbouring clusters on the upper portions of the ridge or at its foot, on the basin floor.

As said during the description of the survey area it is very difficult to draw the limits of its separate topographic components and particularly to distinguish the floor of the basin from its sides or the slopes of the ridges. The latter is very roughly defined by the asphalt road Skopje-Kučevište and a converging dirt road linking the village Pobužje with the fields. A very high density of surface finds was revealed at six separate locations, mostly pairs or individual field blocks. The one situated in the northern end is possibly larger, consisting of four field blocks with very high artifact density or two pairs separated by the above-mentioned dirt road. As on the summit of the eastern ridge, the clusters in the northern part of the basin floor are closely spaced and larger. Only the southernmost one lies isolated in the southern half of the survey area, nearly 300 meters from its closest neighbours.

The last topographic component where clusters of field blocks with very high artifact density were encountered is the summit of the western ridge. There are only four such clusters, three times less than on the eastern side of the basin. Two are situated at the very summit of the ridge and the other two on its eastern slope. All of them are minor clusters, consisting of pairs or individual field blocks. They are regularly spaced at intervals of 150 to 200 meters.

Most of the field blocks with highest artifact density are surrounded or coupled by field blocks ranked second by the density of surface finds. This category includes field blocks featuring between 48 and 87 fragments per 1 000 square meters. Recall that by the standards of the Sopot survey, this amount of surface finds is way below the site threshold. In the second survey area they constitute 13% of the total number of field blocks or nearly twice the number of field blocks falling under the category of the highest artifact density. Analyzing their distribution across the survey area, it becomes evident that they closely follow the groups of field blocks with the highest artifact density. Thus isolated field blocks of the latter category are often joined by one or two field blocks with a higher than average artifact density, while larger clusters are often surrounded on more than one side by field blocks of this category. As the groups of field blocks with very high artifact density are often so closely spaced, they are usually separated by field

blocks of the second category. Thus larger continuous stretches of higher than average artifact density emerge on the map. By far the largest one stretches over a length of 560 meters across the eastern slope (map 5). It spreads between the group of high density field blocks in the southeast corner of the survey area, on the summit of the eastern ridge and the group of four high density field blocks situated in the central part of the eastern ridge's lower section. Another larger agglomeration was revealed in the northern end of the basin's floor, where three groups of field blocks with very high concentration of surface finds are separated by several field blocks featuring higher than average artifact density (map 6).

In a number of cases field blocks of the second category appear isolated or in pairs and are surrounded by larger zones of average or lower than average density of surface finds. These naturally appear on locations where there are no field blocks of the first category. We see them on several locations in the southern half of the survey area, mostly along the basin floor, but there are also a few incidences in the lower sections of the eastern ridge.

Field blocks featuring very high or higher than average density of surface finds constitute less than a quarter of the surveyed area; on the rest of the field blocks, an average or lower than average artifact density was recorded. These field blocks have a maximum density of 48 fragments per 1 000 square meters. The computer program has divided them into three categories: field blocks with an average artifact density, featuring between 28 and 48 fragments per 1 000 square meters; field blocks with lower than average artifact density, featuring between 12 and 28 fragments per 1 000 square meters; and field blocks with very low artifact density or between 0 and 12 fragments per 1 000 square meters. These are very slight and probably insignificant differences; the fragments of a few discarded tiles can make the difference between a field block belonging to the lowest ranking category and a field block with an average density of finds. However our experience from the Sopot survey showed that even these differences can in some cases indicate the existence of archaeological remains, traces of minor sites that are almost submerged below the local off-site thresholds. Especially at this level of survey intensity, differences in absolute numbers can often be misleading. One of the main reasons behind the decision to collect surface finds on low density field blocks during the quantification campaign was the urgent need to probe the character of this material before deciding where to continue with total and systematic collections.

There is no single compact zone of very low density of surface finds in the second survey area. We already pointed to its southern part, where the artifact density recorded was half the amounts recorded in the northern survey sections. The line that separates the two parts is marked by the southernmost groups of field blocks featuring very high artifact density on the eastern ridge. In addition the northern part has a greater number of field blocks with an average density of surface finds. On the other hand, field blocks with very low artifact density are mostly concentrated in the southern part and particularly in the southwest quarter of the survey area (map 6a). It is thus plainly evident that the quantity of surface finds dwindles in the southern 40% of the survey area, more rapidly on the western than on the eastern ridge. At the same time however, it is difficult to overlook the relatively wide stretches of low artifact density in the northern part of the survey area. Here too they occupy roughly half of the field blocks, separating and articulating the zones of higher than average artifact density. It would be too impetuous

to jump to the conclusion that the survey area has captured the transition from the inner surroundings of the modern villages to their outer peripheries, where even off-site material is scarce. Larger zones with low artifact density appear along the lower portions of the eastern ridge, across most of the western ridge and even along the northern boundary of the survey area where if we adopt the assumption suggested, one would expect to see at least average artifact densities.

In fact a closer look at the distribution of the field blocks with an average artifact density will reveal that similar to the distribution of the field blocks of the second category, they tend to cluster around zones of higher concentration of surface finds. In some cases they even neatly envelope larger stretches of field blocks with very high or higher than average artifact density. Their apparent larger concentration in the northwest quarter of the survey area on the map showing artifact density is merely due to the smaller size of these field blocks (map 6). Although as the study of the gathered material will show, there is a considerable input from the large villages situated at Montenegro's foot, the revealed general distribution of surface finds definitely indicates that other, equally powerful factors are involved. The overall distribution pattern is typically focal, rather than linear and consists of one, possibly two larger and a dozen smaller zones of very high artifact density, surrounded by roughly concentric stretches of higher than average and average density. There are furthermore, minor clusters or individual field blocks with a higher than average density of finds, surrounded by field blocks with low or very low artifact density, such as the two small field blocks along the southern border of the area on the western ridge. On the background of the densities recorded on the total survey area, these appear as minor concentrations, but one has to remember that relative to their immediate surroundings, they sometimes feature 5 to 10 times higher quantities of surface finds.

But although seemingly there are articulate cores of high artifact densities, in absolute terms the contrast between the site and the off-site is not as sharp as in the environs of Sopot. Spatially too the transition from field blocks with very high artifact density to field blocks featuring lower than average artifact density is usually gradual. Clusters of field blocks featuring very high artifact densities are bordered by field blocks with average or higher than average artifact density, at least on one side. In some cases it was possible to follow a certain cluster even across field hedges and dirt roads, something rarely possible in the Sopot survey. But the gradual dissipation of the finds made it much more difficult to identify the potential sites on first hand impressions. Later in the text the distribution of surface finds within the limits of these clusters and the transition to the zones of lower than average artifact density will be discussed in greater details. For now it remains to make an observation on the topographic positioning of these clusters, mostly in order to investigate the possibility of post-depositional dislocations. It has to be remembered that these are still very vague entities. They are in fact cumbersomely referred to as zones of higher artifact density, because we are still ignorant of what they actually represent. The true amount of surface material on these locations and their inner structure will only be revealed after the regular grid survey, systematic collection and study of the material.

The majority of field blocks featuring higher artifact density are positioned on gently sloping ground. To be sure probably as much as 90% of the survey area is gently inclined terrain; except for the western slope, it is entirely tilted towards the south-southwest. Only a few groups of field blocks with high artifact density were found on the flat

sections, on the summits of the ridges or on the valley floor. All were minor clusters, pairs or individual field blocks. Three were found on the summit of the eastern ridge, one or possibly two on the summit of the western ridge and three individual field blocks on the flatter section of the valley floor. On the other hand, all larger clusters were found on the gently sloping sides of the basin, most likely on their original locations. As said during the description of the survey area, the local ground configuration doesn't provide favourable conditions for large erosive episodes. One also notices that some of these groups of field blocks on the eastern slope tend to align along the contour lines. This tendency becomes more visible when two or more groups of field blocks of the first category are separated by field blocks of the second category, creating narrow and elongated stretches of higher artifact density. The largest of these, briefly mentioned earlier stretches almost across the entire width of the eastern slope, roughly following the contour line of 480 meters above sea level (map 5). Three isolated clusters in the northeast corner of the survey area including the largest cluster of 9 field blocks are all aligned at a height of approximately 520 meters above sea level. In both cases the groups of field blocks appear in rows, closely following the theatrical shape of the terrain. To a certain degree, this pattern is simply a result of the overlapping of the field blocks and the agricultural fields; the latter present the basis of the actual ground configuration of the surveyed terrain. Agricultural fields certainly abide to the character of the relief, but they also modify it, by creating artificial terraces. The elongated shape of some of the clusters of higher artifact density could potentially be the result of these minor interventions in the relief. If the material was originally spread over a wider section of the slope, the levelling of the ground and the bounding of the parcels could in effect bring the bulk of it within the limits of the newly created terrace, deforming the original shape of the cluster and probably increasing the density of finds. These are nonetheless hypothetical interventions of a relatively minor scale and they'll be discussed during the analysis of the regular grid survey results. Their effect is limited to individual clusters of finds and can hardly affect the general distribution of the surface material.

The described alignments of field blocks with higher artifact densities are thus, in all probability truly reflecting the original locations of archaeological sites. They partly confirm the assumption stressing the importance of the terraced structure of the relief in the broader study area. They also concentrate roughly within the belt of 480-520 meters above the sea, though not exactly along the 500 meters contour line. Contrary to what was expected, the largest zones of high artifact densities were not discovered on the flattened summits of the ridges, but on their slopes. Somewhat greater densities were recorded at the foot of the basin, but again, not on the expected micro-location near its southern end, but on the opposite northern end, at the very head of the basin.

Total regular grid survey and collection of surface material was to be carried out only on a smaller portion of the surveyed area. As in the Sopot survey this was reserved for the category of field blocks featuring the highest artifact densities, as well as on samples from the categories featuring average or higher than average densities. However survey of such an intensity is not always necessary. The counts for the individual field walking units are often illustrating the distribution of finds within the limits of individual field blocks very accurately. Apart from the individual performance of the surveyors, the accuracy and usefulness of these data depend on the quantity of the surface finds and ground visibility. In conditions of relatively good ground visibility and average or low

quantity of surface finds, the records for the individual field transects should be reliable. The analysis of the regular grid survey results showed that even on fields with very high artifact densities, the pottery counts of individual field walkers were mostly accurate.

In general when the individual transect records are analyzed there are no major deviations from the map showing the density distribution by field blocks (map 7). This means that variations within the limits of individual field blocks were neither frequent, nor very extreme. We see however that the differences in the number of surface finds across the survey area are even less pronounced when the pottery counts for individual field transects are analyzed. This is merely due to the fact that the discrepancies between the records of individual surveyors are relatively limited. Of the nearly 1 900 individual field walking units, the pottery counts varied between 0 and 39 on all but 12 transects. Only on 96 individual field transects did the number of counted shards exceed 20 and only on 15% were 10 or more shards counted. The mean count for the individual field walking unit is less than 6 ceramic fragments. Consequently the boundaries of zones of larger concentration of surface finds become even more blurred when the counts for individual field walking units are analyzed.

In a number of cases however the differences in the records for individual field walking units within the same field block were more drastic. In the zones of lower artifact density, especially in the southwest quarter of the survey area, there are isolated individual transects where 20 or more fragments were counted, while on the neighbouring units the number of shards counted didn't exceed the average for the survey area (map 8). Despite the relatively high number of artifacts recorded on some of the individual field transects the sum for the relative field block remained below the area's average. These minor concentrations are often generated by recently discarded tile, but in certain cases they can represent a distinct category of very small sites, like the ones discovered in the eastern periphery of the first survey area.

Greater variations between individual field transects within the limits of a single field block also occur in the northern part of the survey area (map 9). Here though usually the opposite happens: a series of individual transects featuring a greater number of finds is suddenly interrupted by one or two transects featuring lower than average artifact density. In many cases this is caused by a sharp decline in the ground visibility conditions, but there were also many instances where the number of counted artifacts sharply declined, while the visibility factor remained stable. Other potential factors behind such variations in the records for contingent, individual field transects are the relative position of the field walking unit in the field block and the surveyor's personal experience and dedication. For example, on certain field blocks despite the greater quantity of surface finds, little material can be seen along the field block's edge. On other field blocks, the opposite happens: the bulk of the material is concentrated along one of the edges of the field block. The latter usually indicates secondary dislocation of the finds, most commonly as a result of periodical cleaning of the fields[5]. The varying individual performances of the surveyors normally resulted in lesser discrepancies.

Finally, the distribution of the surface finds on a field block level like their distribution over the total survey area is to a great extent focal and irregular. True,

[5] Identical situation was encountered in the Ager Pharensis survey, on Hvar in the northern Adriatic, B. Slapšak, The 1982-1986 Ager Pharensis Survey. Potentials and limitations of "wall survey" in karstic environments, 145-19, eds. J. Chapman et al. *Recent developments in Yugoslav archaeology*, Oxford 1988.

compared to the distribution patterns revealed in the Sopot survey, there is evidently more continuity on a field block level, but as the regular grid survey will demonstrate, surface finds usually tend to appear in minor clusters, even within the limits of a single grid unit. On an average collection unit, one usually finds groups of several or a dozen shards separated by almost sterile areas. Even on the site cores, only exceptionally are the finds evenly dispersed across the surface[6].

The block by block survey revealed the total amount of material visible on the surface and its general distribution across the survey area. Although larger quantities of surface finds were recorded than in the first survey, they were more evenly distributed, both spatially and statistically. As a result the mean density of surface finds was considerably higher than in the first survey area. There was no single major concentration of artifacts, but a number of minor high density cores, sometimes appearing isolated, sometimes agglomerated into wider stretches of higher than average artifact density. As in the first survey area, there was an overall decreasing tendency in the quantity of the surface material. In this case along the north-south axis, but because of the character of the local distribution pattern, it was far less pronounced than that revealed in the Sopot survey. Bearing in mind the important differences in topography and land use between the two survey areas, this was to a certain degree expected. The second survey area like the valley of Sopot presents a separate hydrographic entity. However in the present-day settlement pattern, it is but a part of the hinterlands of two other settlements. The featureless relief, along with the intensive agricultural exploitation contributes to its radically different appearance from the first survey area. Assuming continuity in the local settlement pattern, one would logically expect to see a smaller quantity and less variety of surface finds in these conditions: a thin carpet of off-site finds, gradually or suddenly disappearing towards the southern end of the survey area and possibly, smaller concentrations marking the locations of isolated farmsteads or seasonally inhabited sheds. Although still very little is known about the character and the significance of the zones of higher artifact density and even less about the chronology and the character of the finds, the revealed pattern of artifact distribution suggests that the local history of habitation was slightly more complex. The discovered layer of surface finds was indeed thinner than in Sopot, clearly declining from north to south, but this was one of the least visible aspects of the surface material distribution in the second survey area. The dozen separate zones of high artifact density played a far more prominent role in the shaping of the surface record. In fact they are the more likely reason behind the general declining tendency in the amount of surface finds along the north-south axis, rather than the proximity of the modern day settlements. The size of some of these clusters and particularly their spatial arrangements don't concur very well with the assumed ephemeral, agricultural installations built at the periphery of some larger settlement's territory. It is rather very possible that these are the remains of a long since perished and completely forgotten landscape, very different than the current one.

The principle aim of the regular grid survey and the total collection of surface finds was to reveal the total amount of material visible on the surface of field blocks with higher artifact density, to determine the structure of its inner distribution and its exact spatial limits or the real quantitative difference between zones of high and low artifact

[6] This is the parameter of clustering according to M.B. Schiffer, A.P. Sullivan, T.C. Kringle, 4-6, 1978.

density. But even these observations will only present a step further in the study of the local history of human settlement. The clusters of surface finds barely identified by the block by block survey, then defined and located more precisely by the regular grid survey are still merely quantitative phenomena. More often than not, they are the result of a long-term accumulation of artifacts, produced in different historical periods. Only after establishing the temporal dimension through the study of the gathered finds will it become possible to draw the actual limits of the phenomena discovered and determine their cultural and socio-historical meaning and significance[7].

App III.3 Other categories of surface finds

Before turning to the results of the regular grid survey, let us briefly comment on the distribution of the rest of the categories of surface material. Taught by the experience of the Sopot survey, only the general category of ceramic fragments was quantified. Metal and glass artifacts, along with bones and modern building rubble were all subsumed under the category of recent debris and were not counted separately. Total artifact collection by regular grids confirmed the near absence of these categories of finds amidst ancient ceramic assemblages. As in the first survey area, the presence of modern debris was recorded only when found in greater quantities on the surface. As one might expect, in smaller quantities modern debris appears on almost all field walking units. Large piles of modern rubbish were mostly located by the asphalt roads and the main dirt roads linking the villages with the fields, but rarely on the surface of the field walking units. Only on a few deserted parcels were larger amounts of modern debris recorded. It was further noticed that on some field blocks, this category of surface finds appears dispersed in evidently greater quantities than on others. Assuming that the debris in these cases accumulated gradually, its appearing in greater quantities could be related to the frequency and intensity of modern usage and accessibility of the fields. Surprisingly despite the near proximity of the two modern settlements, easy and motorized communication and the small size of the survey area, larger quantities of modern debris are clearly concentrated in the parts of the survey area closest to the present day settlements (map 10). In fact the distribution of modern debris roughly follows the overall distribution of ceramic finds, with nearly a hundred percent of the field blocks with this category of surface material located in the northern part of the survey area, the majority of which are in the northwest quarter. This corner of the survey area lies closest to the largest neighbouring village, Kučevište. The opposite northeast corner has also direct access to the neighbouring village Pobužje, but this village is smaller and situated slightly further away.

Building material basically consisted of fragments of brick and tile. Stone rubble was impossible to distinguish from natural rock and stone is in general very rare in the second survey area. Because small samples of finds were gathered from all field blocks during the quantification campaign, it was quickly realized that a large portion of the ceramic finds were fragments of bricks and tiles. During the block by block survey only presence/absence of building ceramics was recorded. As expected a great majority of the field blocks or approximately 80% have fragments of brick or tile on the surface. On field

[7] J.F. Cherry, et al. 159-160, 1988; J.L. Bintliff, A.M. Snodgrass, 137, 1985; E. Neustupný, 49-51, 1998 J.L. Bintliff, 208-209, eds. M. Pasquinucci, F. Trement, Oxford 2000; .

blocks with low or very low artifact density, this category of finds often constituted 100% of the ceramic finds. The 20% of the field blocks that lacked building ceramics on the surface usually featured a very low density of finds, though they aren't concentrated in the southern part of the survey area, as one would expect. In two or three cases we failed to notice fragments of brick or tile on field blocks with average or higher than average artifact density. This could indicate concentrations of finds dating to the pre-Roman Era. It has to be noted though that most likely, the quantity of brick and tile will increase after a closer inspection of the finds gathered.

Apart from the field terraces, no building remains were recorded in the second survey area. Considering the local topography and the land-usage, this is hardly a surprise. Even if there were building ruins on the fields in the past, their importance was forgotten and they were probably removed for the need of arable land. One isolated cross stands at the edge of a field by the Skopje - Pobužje road, perhaps marking the location of an earlier chapel or sacred place or commemorating an event from local history. It is made of porous, grayish stone and by craftsmanship it recalls the crosses from the old cemeteries in the region. According to an ethnographic study these crosses, usually carrying a poorly carved symbol in the middle, became very popular among the locals towards the end of the 19th and the beginning of the 20th century (photo 1)[8].

As mentioned during the description of the survey area apart from smaller chapels or individual crosses, the vast sea of agricultural land is interrupted by small groves. In the recent centuries, up until several decades ago, access to these groves was restricted. Cutting from these trees or even resting in their shade was considered to be a significant sacrilege[9]. Some of these have survived to this day, although their original significance and meaning are completely forgotten. One such grove marked the northeast corner of the survey area. It occupies a small hillock on the area's eastern ridge, coinciding with point 540 on the topographic maps (photo 2). The small grove attracted our attention because of its prominent place in the monotonous surroundings, as well as the larger amount of stone on the surface. The field blocks at its southern foot featured a very low density of surface finds, but when the grove was checked for eventual building remains, we were surprised to discover relatively extensive stretches of fortification walls. The larger amount of stone on the surface that drew our attention to this site was partly fallen from these walls, partly torn from the bed-rock. At first it was thought that these are simply the remains of more massive terrace walls; what seemed as the contours of two fields were seen amidst the dense trees and bushes. Possibly in the past, this location was also cultivated and only later abandoned and turned into a sacred grove. However along its western perimeter, we discovered a longer section of a wall, between 2.5 and 3 meters tall and 1.30 meters wide (photo 3). Most of its mass consisted of small to medium sized, unfinished stone rubble and rare insertions of small tile. Incidentally larger and roughly cut stone blocks were seen. These are doubtlessly the remains of an ancient fortification wall. The large amount of stone rubble found in heaps or aligned in longer stretches is all that remains of this fort. The walls were most likely built of broken stone bounded by poor mortar. Roughly cut stone blocks could have been used to strengthen the corners or as facing for the more prominent parts of the walls. The tile fragments found were both

[8] J. Trifunovski, Cimetière et pierres funeraires dans la règion de Skopska Crna Gora, 123-131, *Glasnik Etnografskog Instituta* XXIII 1974 (in Serbian).
[9] S. Tomić, 431-432, 1905; J. Trifunovski, 129-136, 1975.

too small and worn to play any major role in the construction. They could've been simply inserted in the cemented mass to fill in the gaps or used to create decorative patterns on the façade.

It is possible to follow the perimeter wall almost in its entire length (map 11). However its unusual shape and the position of the neighboring fields indicate that it has most probably suffered considerable dislocations in the recent past. It looks as if the neighbouring fields have impinged on the fortification perimeter, particularly on the eastern and northern sides. The eastern wall running parallel to the neighbouring fields was most probably pushed several meters to the west. On the northern side two fields have penetrated into the centre of the fortification, bending the wall into a perfect arch. The entire western end of the northern wall is missing; probably dislocated when a third agricultural parcel was established in the northwest corner of the fort.

Larger sections of the perimeter wall have perhaps survived intact on the southern and western sides. As mentioned before, the most massive ruins are preserved on the western side. This is somewhat unusual as the southern and the western approaches to the fort are slightly steeper. Instead one would expect to find traces of a stronger wall precisely on the northern and eastern sides, where the ground is on an equal or higher level. It could mean that a large portion of the construction had been rearranged into support walls for the agricultural fields. Alternately it could've been used as shed for the flocks during the winters. In any case it wasn't a deliberately created grove as was initially thought, but simply fields abandoned long ago.

Two lines of stone rubble enclose the perimeter from the south. The first one is wider and more massive. It joins the western wall at a straight angle and stretches towards the southeast for about 50 meters, before gently turning eastwards. Little is preserved of this eastern half of the southern wall. It fully overlaps with the hedge of the neighbouring field, joining the southern end of the eastern wall after 66 meters. Both southern walls were later used as supports for terraced fields. Approximately 40 meters to the south from the point where the western and southern walls meet, traces of an outer wall emerge on the surface. It is drawn almost parallel to the first one, but from the point where it's supposed to turn eastwards, its traces completely disappear on the surface. Instead it seems as if the two walls have been connected by a low, partition wall on the east, enclosing a small forecourt in the southwest corner of the fort. This is another characteristic of the Late Roman fortification planning in the region. In fact a very similarly planned fort was discovered 3 km north of Kučevište on the top of a steep ridge, deep into the mountainside[10].

The interior of the fort is thickly overgrown. On some locations there are larger piles of stone rubble and occasionally tile. It is almost impossible to follow any definite pattern, though there seem to be further inner partitions. As mentioned earlier, the inner part of the fort is divided into two field terraces; the agricultural divisions in the surroundings continue uninterrupted across the fortified area. In addition traces of a platform built of modern concrete were found next to the northern wall. Clearly the original plan of this fortification is almost completely lost, both its outer perimeter and the eventual inner divisions. It can only be guessed by comparison with other documented forts in the region that it had an irregular rectangular shape, with a pointed

[10] N. Čausidis, pl. 5 1989.

southwest angle[11]. It measures roughly 115 by 60 meters, with a longer east-west axis, plus the area of the small forecourt in the southwest angle, measuring 58 by 35 meters. The fort occupies an area of about 1 hectare, which by the wider region's standards puts it in the category of small to medium-sized forts. Compared to other forts from the Late Roman Period, its location is quite exposed. Positioned over a low hillock barely raised from the surroundings, it doesn't rely at all on natural defenses. In return it oversees the entire survey area and the wider central part of the plain and controls one of the main local roads, linking the foothills with the mountain side. There are only a few, similarly positioned examples in the region of Skopje that date to the Late Roman Period[12].

The discovery of this fort came as a great surprise. Forts are usually found at the corners of micro-regional units, away from the agricultural land. The other three forts known from the wider study region were found on the mountain slopes, at least 3-4 kilometers into the mountain interior[13]. Even when occupying lower hillocks, they are usually built at the peripheries of plains and valleys, not in their central parts. In fact recalling the earlier analysis of the local micro-topography, one sees that even the fort discovered in the second survey follows this general rule. It is located at the opposite end of the ridge on which the village Pobuzje was founded and in the northeast corner of the small basin that runs across the centre of the wider study region. In principal it occupies a location analogous to the location of the female convent of St Paraskeva, on the western ridge opposite the village Kučevište. Thus it neatly fits into the web of small chapels and sanctuaries, surrounding the present day settlements.

An almost identical location was fortified between the villages Ljubanci and Ljuboten, in the eastern half of the region. This fort occupies the tip of the ridge that separates these two villages, less than a kilometer from the centres of both villages. Like the described fort near Pobužje, it doesn't occupy the very highest point, 631 in this case, but the lower tip, 200 meters to the west (map 12). The fortified area is almost completely covered by an old oak grove. The principle quality of this location is emphasized by the local toponomy. Both the tip of this ridge and the tip of the neighbouring ridge to the south are called *pudarnica.* This is an archaic word roughly meaning guard-house. It was the place where the guardian of the fields was stationed and looked after the agricultural property of the village. Until the early 20$^{th}$ century every larger village or a few neighbouring hired a person to guard the fields from intruding people and animals[14]. The location was not chosen accidentally. The ends of these ridges reach deep into the agricultural land, offering full visual control over the area and quick access even to the most distant fields. The local rural societies made the optimal use of these locations, but obviously it was absolutely unnecessary to invest such efforts only to keep watch over their agricultural property. The amounts of building rubble discovered certainly belonged to some earlier construction, almost completely erased from the landscape of the last few centuries and transformed into a component of the new settlement pattern. The question arises if there were similar transformations on locations marked with small groves or isolated chapels. At present the survey area is a seemingly barren hinterland of the large settlements at the foot of Mt. Montenegro, but the general distribution of the surface finds

[11] Compared to examples published in I. Mikulčić, pl. 35, 40, 42, 1982.
[12] Ibid, 68-70, 86-87.
[13] N. Čausidis, 185, 193, 1989.
[14] A. Petrović, 402, 1907.

and the discovery of a small fortification in the midst of the agricultural fields suggest different settlement arrangements in the more distant past.

App III.4 The regular grid survey results

The purpose of the regular grid survey is twofold. As a survey of a greater degree of intensity, it produces a more accurate record of the total amount of material visible on the surface of the surveyed locations. It has to be remembered that only a portion of the area was covered with the block by block survey or approximately, between a third and a fourth of the field blocks. This is one of the reasons behind the often large discrepancies between the records of large block and regular grid surveys. As in the first survey area in order to integrate the records of the two surveys on the same map, the total counts by regular grid units were decreased by a factor of 2.5.

The regular grid survey is also a tool for the systematic collection of surface finds; as a total collection of surface finds was made, it won't be an exaggeration to call it a total survey. All material visible on the surface is collected using regular grid units, then counted, weighed and washed. Understandably it would be nearly impossible and unnecessary to carry out regular grid surveys over the entire survey area. As in the Sopot survey, this was reserved for field blocks belonging to the category of very high artifact density and their immediate surroundings and to field blocks with a density of finds several times greater than their surroundings. On most of the grids the total collections confirmed the findings of the block by block survey, though on a number of field blocks the number of finds barely justified their collection using regular grids. These "blank" grids were nevertheless found useful, for they revealed the true amount of finds and their distribution pattern on field blocks featuring average or lower than average artifact density. In certain cases field blocks singled out for a total survey were found nearly sterile upon revisit. As in the Sopot survey material was also collected using the individual field walking transects as collection units.

The first grid was laid over the largest cluster of field blocks featuring higher than average artifact density. It is situated in the northeast corner of the survey area, on the gently sloping fields immediately below the summit of the eastern ridge and 275 meters southeast of the fortification (map 13). The cluster consisted of 9 neighbouring field blocks featuring very high or higher than average artifact density. Except on the west and south, it is surrounded by field blocks of average or lower than average density of finds. The grid covered almost 100% of the surface of the cluster and was slightly extended to the west, over the field blocks with average or higher than average artifact densities. It measured approximately 110 by 110 meters and the grid units, 10 by 15 meters. Both during the block by block survey and the regular grid survey, visibility conditions were good or very good.

The regular grid survey confirmed the results of the block by block survey (map 14). The density of finds on the surveyed cluster increased not by 6 or 7, but nearly 15 times compared to the neighbouring field blocks, north and east of the grid. Nearly 2 400 fragments were gathered on 93 grid units or on average, 25 fragments per grid unit. The average density of finds was over 16 fragments per 100 square meters, but on certain grid units it reached to over 56 fragments per 100 square meters or 0.5 fragments per square meter. As one might expect, the distribution of this material was far from even. Artifact

densities higher than the grid's average are concentrated on units in the centre and the southern parts of the grid. Along most of the periphery, the number of gathered finds doesn't exceed 10 or a density of 6.6 fragments per 100 square meters. If we provisionally take the limit of 16 fragments per 100 square meter as the site threshold, the discovered site stretches over 80% of the gridded area or about 8 700 square meters. Even within these limits there is a considerable fluctuation in the gathered number of finds. On three separate locations the survey revealed densities greater than 26 fragments per 100 square meters or more than 40 fragments per grid unit. One is an isolated grid unit in the eastern part of the grid, while the other two consist of several grid units. Similar to the findings of the Sopot survey they align in rows: the smaller one consist of four grid units in the northern part of the grid stretching in a northeast-southwest direction; the larger consists of two perpendicular rows of 8 grid units, in the central and the southern parts of the grid. In between these cores the artifact density is mostly around the grid average of 16.6 fragments per 100 square meters, though on some grid units it almost falls below this threshold. Surprisingly these findings are rather close to the findings of the transect survey. Comparing the two one sees that the rows of grid units where over 40 fragments per unit were collected roughly coincide with the individual field walking transects where the greatest number of surface finds were counted.

A slightly different picture emerges when the amount of gathered material is expressed in terms of weight (map 15). The overall spread of the site remains almost unchanged, but five instead of three separate cores appear on roughly the same locations. The core in the southern half of the grid is split into a larger southern and smaller central part and a new core emerges in the western end of the grid. In addition the cores lose their pronounced longitudinal shapes and stretch over more than one row of grid units. The core in the southern end of the grid remains the largest. These minor deviations between the distribution maps showing the number of finds and their weight is primarily related to the amount of brick and tile on the surface of the collection units and their state of preservation. Tile is normally heavier than vessel fragments and hypothetically should move less when exposed on the surface; but as in the Sopot survey, larger fragments were often found piled up in the corners of the fields or thrown along the edge. Local farmers confirmed this practice of occasionally cleaning the fields from rubble by simply throwing rocks, recent debris and archaeological material by the edge of the field. Larger pieces of tile and brick were naturally the first to be noticed and removed.

In the case of the cluster on grid 1 there are no traces of significant post-depositional dislocations. Fragments of tile littered the larger portion of the fields, which explains the small expansion of the cores on the maps showing weight distribution. Even on units with a smaller number of finds, a few larger fragments of tile can increase the weight of the collection above the area average of 900 grams. If we analyze the distribution of units by the mean weight of individual finds, it is difficult to miss the fact that many of the units with the highest weight per count ratio are to be found along the edges of the fields. These collections often consist of several larger tile fragments, discarded by the edge of the field. It would therefore be rather futile to look for a site threshold expressed in terms of weight. Not only are tile fragments much heavier than other shards and more likely to be dislocated, but the weight of various types of tiles is also greatly variable. The weighing of finds would yield more information on sites with little or no building ceramics on the surface, like a few of the sites discovered in the Sopot survey.

Nevertheless in the second survey area this was still considered a good measure of the amount of surface material.

A total of 142 kg of surface finds were collected from the first grid. This is nearly 40% of the material gathered from the eastern half of the survey area. 17 of the 20 grid units with collections weighing over 2500 grams and 25 of the 57 grid units "weighing" between 1500 and 2500 grams come from the first grid. Between a quarter and a third of the grid units' collections weighed below the mean value of nearly 900 grams. It is a very plain illustration of the size of this site compared to its neighbours on the eastern ridge; it is almost as large as all the other sites on the eastern ridge put together. The difference is still larger, though less pronounced when the number of finds is compared: of the total of 7600 gathered finds, 2400 or about a third of all finds collected by regular grids on the eastern ridge came from grid 1.

The possible cluster on grid 1 occupies one of the most dominant and highest points in the survey area. Only one much smaller site is situated at the very summit of the eastern ridge, above the contour line of 520 meters above the sea. "Site 1" is barely several meters lower on the gently sloping, but more spacious slope of the ridge. Unusually it is not situated directly below the small fort, but below the opposite tip of the eastern ridge, about 250 meters to the southeast. It belongs to the group of installations situated along the flattened summits of the ridges. On the opposite western ridge, at roughly the same height lies the monastery of St. Paraskeva. On the next ridge to the west, again around the altitude of 510 and 520 meters above the sea lies the village of Mirkovci. Understandably larger sites, like the village Mirkovci spread over the summit and the upper sections, while isolated chapels and forts are confined to the very summit. As discussed earlier, these locations offer excellent visual control over the wider region. They are also very close to the local north-south roads that usually follow the summits of the ridges. At the same time, these locations normally have the thinnest soil layer in the surroundings and are impossible to irrigate; at present mostly vines are grown on the upper sections and the summits of the ridges. But what was said about the location of the nearby fort is also true for the cluster on grid 1 and of all other installations occupying similar locations: they reveal little or no concern for natural protection and seclusion, typical for such a great number of sites in the wider region. These are the most dominant and the most exposed locations in the gently rolling terrain at the foot of Mt. Montenegro. Even the smallest construction there can be seen from virtually every corner of the foothills.

To the west the concentration of finds on grid 1 terminates with a low terrace wall. The fields on the terrace below featured lower than average artifact density. But the zone of higher than average artifact density continues on the south; it was recorded on two field blocks, adjoining the southern corner of grid 1 (map 13). One field covers the same terrace as the fields covered by grid 1, while the other is on the terrace below. Although adjacent to grid 1, a separate grid was laid over these two fields and extended both north and south, partly covering the neighbouring fields on the lower terrace. The grid survey revealed that this is a separate, smaller concentration. Its core is situated on the field at the lower terrace, around 80 meters south of the edge of grid 1 and 10 meters lower. It is possible that this is a mere continuation of the concentration on grid 1, as it consisted of several, physically separate cores, but these stood at a distance of not more than 30

meters from each other and were roughly at the same height. In contrast, the cluster on grid 2 appears relatively detached.

The number of finds gathered from the second grid is almost twice as low as on the first grid. 1277 fragments were gathered from an area about 25% smaller than the area covered by the first grid. The size of the grid units was the same, with the exception of the northernmost row and the row by the western edge of the field. Predictably the average number of finds per grid unit is also smaller. On average slightly less than 20 fragments were gathered per grid unit. In terms of density, this is about 13.3 fragments per 100 square meters. The inner distribution of finds is again fairly irregular (map 14). Clearly the greater portion of the finds is concentrated on the lower terrace, in the central part of the grid. However the majority of the grid units with the largest number of finds belonged to two separate rows in the central part of the grid. The southern one is larger, stretching over four units and across the field boundary. At this point the eastern part of the site is cut by the agricultural terrace, exposing a larger amount of material on the surface. The zone of highest artifact density stretches over a few units from the next two rows on the south. As on the first grid, the shape of the core is pronouncedly longitudinal. The second northern core likewise consists of a pair of neighbouring grid units from the same row. It is located about 30 meters to the northwest from the larger core, separated by a row of grid units with very low artifact density. Though the maximum density was recorded only on two grid units, almost the entire row features a density higher than 16.6 fragments per 100 square meters. In fact the zone of higher than average density on this grid continues on a number of field blocks from the neighbouring row on the north. In the northern core the highest density recorded was 25.3 fragments per 100 square meters, while on the surface of the second core it reached to 36.7 fragments per 100 square meters. On five contingent grid units approximately 50 fragments per unit were collected, revealing a larger zone of roughly 30 shards per 100 square meters. From an overall perspective there is a clear decrease in the quantity of surface material, both north and south from the central row. “Site 2” is thus better understood as consisting of a single core, spreading over the central part of the grid or exactly over field block 34, where the large block survey recorded a density of roughly 90 fragments per 1000 square meters. Following the threshold of 13.3 fragments per 100 square meters, it occupies an irregular, polygonal area of about 5500 square meters. The main concentration of finds stretches from the grid’s central rows to the last pairs of rows on the north and south. Its core is in the east corner of field 34, near the terrace wall. The sharper decline of artifact density in the centre of the site area could equally indicate secondary dislocations or authentic subdivisions. On the peripheral grid units the density of finds gradually falls below 10 fragments per 100 square meters.

Perhaps in this case a much clearer picture emerges when the weight of the gathered finds is distributed on the map (map 15). Here one sees more clearly the area of the “site’s” core and its outer zone. The decline in the number of surface finds in the centre of the site is less pronounced, the dubious northern core blending with the outer zone of this cluster. The decline is also sharper towards the southeast, where the weight of the collections drops below the survey’s average or 850 grams. The 11 grid units covering the site core yielded collections weighing between 1 500 and 2 500 grams. The grid units on the site’s outer zone gave less than 1.5 kg of finds per unit, though some counted as many as 30 fragments per unit. This is not determined by the size or by the presence of

building ceramics in the collections, for the heaviest fragments were picked from exactly those grid units where both the number and the weight of gathered finds were low: on the peripheral grid units and on the row of low artifact density splitting the site in two. This concentration of brick and tile on certain portions of the site was observed in a few other occasions in this survey area and in the Sopot survey. If not caused by secondary dislocation it can present an important insight into the structure of the site. These suspicions will hopefully be tested once the material is studied in a greater detail.

By the number or finds and their amount and by the area it occupies, the concentration on grid 2 is considerably smaller than its neighbour on the north. It occupies nearly two times a smaller area and yielded far less surface material. As said in the preceding paragraphs, the two clusters are positioned very close to each other and if they were contemporary, they are perhaps better treated as a single site. In terms of the location it occupies, there is little to be added to what was said about the cluster(s) on grid 1. It is practically situated on the same slope and about 10 meters lower, enough to make it less visible from afar.

Still smaller was the concentration on grid 3, discovered on the summit of the ridge along the eastern border of the survey area and by the Skopje-Pobužje asphalt road (map 13). It is situated 115 meters due east from the edge of grid 2. On two neighbouring field blocks we recorded higher than average artifact densities ranging between 90 and 120 fragments per 1000 square meters. Together the field blocks occupy an area of 2500 square meters. On all sides except on the east, they are surrounded with overgrown stretches. The southern edge of these fields, marked by a taller terrace coincides with the contour line of 520 meters above the sea. This is the flattened summit of the eastern ridge. On the eastern edge of the fields, facing eastwards to the road is the cross described earlier, crudely carved in local stone. Older inhabitants of Pobužje have only vague ideas about the sacred character of the location.

Because of the character of the samples collected, the complete area of the field blocks was gridded. To the north and south it is bounded by tall hedges and on the west, there is a fallow field with extremely poor visibility conditions. Because of the size and the shape of the area, the grid unit was a square measuring 10 by 10 meters, except for the last rows on the north and the south. Almost 500 fragments were collected from 29 grid units or about 16 fragments per grid unit. But as the collection units are smaller on this grid, the average yield of 16 fragments per unit gives the same artifact density as on the first grid or 16 fragments per 100 square meters. The zone of over 16.6 fragments per 100 square meters occupies the southern part of the grid; only the last few rows on the north feature lower than average artifact density, but even here, it is close to 10 fragments per 100 square meters. Thus defined, the cluster occupies an area of about 1333 square meters (map 14).

There is a sharp difference between the amount of surface finds on the core and on the periphery of this cluster. The single core is confined to two grid units on the southern edge of the grid. Here a density of around 70 fragments per 100 square meters was recorded, higher than on the core of “site 1”. Eastwards and westwards, the amount of surface material suddenly dwindles. On the next grid unit to the north, it first drops to 40 fragments per 100 square meters and then to the grid’s average of 16.6 fragments per 100 square meters. In other words, the artifact density recorded on the site core is 5 times higher than on the grid’s periphery. As in the previous two cases, the main concentration

bears a longitudinal shape: the three grid units featuring the greatest number of surface finds are aligned next to each other, in the same row.

The total weight of the gathered artifacts was only 27.6 kilograms. Its distribution on the gridded area produces a slightly different map (map 15). The grid units constituting the earlier defined core are still marked by a higher than average load of material weighing between 1.5 and 2.5 kilograms, but the heaviest collection came from a unit on the eastern edge of the grid, consisting of only 23 fragments. In addition the small collection of 11 fragments from a grid unit on the northern edge of the grid weighed above 1500 grams and was put in the same category as the grid units from the "site" core. In both cases the discrepancy is very likely caused by secondary dislocations of the surface finds. Both groups of grid units are positioned on the edge of the field and both feature the greatest weight per individual find. This is clearly a result of the mentioned practice of occasional clearing of the fields from rubble. It is no accident that the largest fragments of building ceramics were found at the very edge of the field.

So far the concentration on grid 3 is the smallest in the survey area. Its total area is actually smaller than the core of "site 1". Judging by the size of the area and the amount of surface material, these are most likely the remains of a single building. Nevertheless it occupies one of the most imposing locations in the survey area. As already mentioned, this is the very summit of the eastern ridge. The cluster on grid 3 is located at exactly 520 meters above sea level, a few meters higher than its neighbour on grid 1 and at the same height as the southern half of the small fort, 425 meters to the northwest. It is the highest of the potential sites discovered on the eastern ridge of the survey area. This particular location is slightly better protected than the locations of the previously described sites, thanks to the relatively steep slopes on the east. While the rest of the discovered sites on the upper section of the ridge are positioned west of the ridge's crest on sloping ground facing southwest, this cluster rests exactly on the watershed line that separates the surveyed basin from the steep valley of the Pobuški Stream.

200 meters south of grid 3, along the eastern boundary of the survey area, another pair of field blocks stands out by the density of counted surface finds (grid 11, map 16). The two fields cover a triangular area, bounded by the asphalt road Skopje-Pobužje on the east and a converging dirt road on the west; the point where the two roads meet is the apex of the triangle. As on the rest of the gridded fields, visibility conditions were good and relatively stable. The intent was to lay out the grid over the eastern field block and then expand it to the north and west. It quickly became evident that it was unnecessary to extend the grid over the neighbouring field block on the west. Although the block by block survey revealed a higher than average density, upon revisit the number of finds on the surface were too low to merit a total grid survey. Instead the grid had to be extended over the field blocks to the north, where the block by block survey recorded lower than average artifact density. This was only one of the incidences of discrepancy between the block by block and the regular grid survey and in this case it is probably related to the character of the surface finds, as both surveys were carried out during the same season.

A total of 695 shards were gathered from an area of nearly 3000 square meters (map 17). On average 33.5 fragments were collected per grid unit, giving a mean density of 22.3 fragments per 100 square meters. This is nearly twice the density recorded on grids 3 and 1. The difference in the quantity of finds gathered from the core of the site and its outer limits is probably the sharpest in the survey area. By far the highest density was

recorded on a single grid unit in the eastern part of the grid, where exactly 100 fragments were collected or in terms of density, 66 fragments per 100 square meters. To the south and west the number of gathered finds falls below the grid's average already on the neighbouring units, but to the north the zone of high artifact density continues for about 50 meters, across the neighbouring field unit. It is two times lower than on units in the southern part of the grid, varying between 30 and 42 fragments per 100 square meters, which is still well above the survey's average. Only on the northernmost row of the grid does it drop below this limit. Here 15 to 17 fragments were collected per grid unit. The cluster occupies an area of approximately 1800 square meters, only slightly greater than the area of the cluster of surface finds on grid 3.

As on grid 3 a very different picture emerges when the weight of the collections is compared (map 18). The discrepancy is even greater here because the grid unit counting the greatest number of artifacts is ranked average by the weight of the gathered collection. When comparing the weight of the collections, the core of this cluster moves to the northern end of the grid, towards its periphery. In general the total amount of gathered finds from grid 11 weighs little, only 16.100 kilograms and the maximum weight per collection doesn't exceed 2 kg. As an illustration, the 100 fragments gathered from the "site" core weigh barely over 1 kilogram. There is a slight increase in the weight of individual shards towards the northern periphery of the site, but this is still below the area's average. The low overall weight per number of shards ratio could indicate that brick and tile fragments participate in very small amounts in the gathered collections.

Like the concentrations on grids 1 and 2 this cluster is situated not on the top of the eastern ridge, but slightly lower on the gentle western slopes. These locations are a little bit less exposed to the northerlies and this could be the main incentive behind the positioning of the sites away from the summit of the ridge. The "site" on grid 11 is on a lower altitude than the previously discussed sites; its core lies just above the line of 500 meters above sea level.

Further down the crest of the ridge, 140 meters south of the core of "site 11" are two field blocks featuring higher artifact densities or around 120 fragments per 1000 square meters. They are positioned one against the other, at roughly the same altitude on the opposite sides of a local dirt road. These field blocks are in fact the northern tip of a larger zone of higher than average artifact density, stretching across the entire slope. On this portion of the eastern ridge, its slope faces south-southwest. Despite the relatively gentle relief, there is no direct visual communication with the slopes to the north or with the summit of the ridge.

Because the fields were not perfectly aligned, they were gridded separately (map 16). Grid 4 covered the triangular area bounded by a dirt road on the west and the asphalt road Skopje-Pobužje on the east. It is a mirror image of grid 11. According to the block by block survey, only on one field block did we record a density of over 120 fragments per 1000 square meters. The grid was nonetheless extended on parts of all neighbouring fields and to the north it covered the entire area between the roads to the point of their convergence. Nearly 5800 square meters were gridded, completely covering three and partly two field units. Most of the fields are separated by terrace walls, but there is a great deal of continuity in the distribution of finds across the fields' boundaries. Visibility was excellent, except for the northernmost triangular field, which was one of the rare uncultivated surfaces in the survey area.

Only 404 fragments were collected from grid 4 or on average, 9.8 fragments per grid unit. As on the previously described grid the collection units measured 10 by 15 meters, except for the last row on the east. It gives a mean artifact density of 6.5 fragments per 100 square meters, way below the provisional threshold of 16.6 fragments per 100 sq meters. However on two locations the density of surface finds reaches above the limit of 16.6 fragments per 100 square meters or 20 fragments per grid unit (map 17). One core appears in the central part of the grid, on the field where the large block survey recorded a density of over 120 fragments per 1000 square meters. It consists of a single grid unit featuring an artifact density of over 16.6 fragments per 100 square meters and a ring of grid units, each counting between 15 and 18 shards. The other core was discovered in the northern part of the grid. On three grid units aligned by the terrace wall that separates the triangular field from its neighbour on the south, between 20 and 25 fragments were collected per unit. In this case, the grid units on neighbouring rows featured average or lower than average artifact density. Grid units on the periphery yielded between 0 and 7 fragments.

When the weight of the collections is analyzed, the results are surprisingly similar in this case (map 18). In total 20.5 kilograms of surface material were collected from grid 4. This is still a relatively small load for an area of nearly 6000 square meters, but unlike on grid 11 the weight of individual shards is closer to the survey's average. The heaviest collections were gathered from almost the same grid units that gave the greatest number of finds. Only the central, larger core is shrunken to four grid units, the increase from the neighbouring grid units being less drastic when the weight of the finds is compared. The weight of the gathered collections from these grid units varies between 850 and 1500 grams, which is the average for the entire survey area. On the other hand the collections from the smaller northern core weighed over 2500 grams, more than twice the weight of the collection from the southern core, although the number of finds on the two grid units was exactly the same. This could be related to the location of the northern core; positioned between two agricultural parcels, it was cut by the scarp directly exposing material from archaeological layers. On the grid unit where the heaviest collection of artifacts was gathered, almost a complete tile was found poking out of the terrace wall.

Before studying the gathered material in greater detail, it is practically impossible to decide if this is a single site with several dispersed cores or two separate sites. As will be shown further in this discussion, this pattern of very small and physically separate concentrations of surface finds continues throughout most of the eastern side of the surveyed basin. When put together, the area of the two cores discovered on grid 4 measures about 1500 square meters. This is about the same size as the cluster on grid 3 or the minor cores on grid 1.

The hypothetical site on grid 4 is still very close to the summit of the ridge. It is situated between 490 and 500 meters above sea level or about ten meters lower than the cluster on grid 11. But as said in an earlier paragraph, this section of the eastern slope is turned more to the south and steadily falls towards the basin floor. Though still high relative to its surroundings, the location of these clusters is not as dominating as those occupied by the previous group of sites. They are further away from the road that runs along the summit of the ridge and have no visual control over the upper parts of the foothills.

Immediately across the dirt road that delimits grid 4 from the west on a narrow elongated field, the block by block survey revealed a density of nearly 120 fragments per 1000 square meters. The field is limited to a 20 meters wide terrace separated by one meter tall scarps, both on the north and south. Like all agricultural parcels on this section of the slope, it is orientated east-west. Not more than 25% of the surface was covered with vegetation at the time of the grid survey. It was initially planned to grid both the narrow terrace and the neighbouring field to the north, featuring a higher than average artifact density. But after the completion of the grid survey on the narrower terrace, it became evident that the increased density of finds on these field blocks sprang from a minor core, situated by the northern terrace wall. The field on the neighbouring, upper terrace featured a density barely higher than the area's average and finds were collected by individual field walking transects. Likewise the grid was not extended over the entire length of the narrow terrace, because in its western half artifacts almost disappeared from the surface.

This was one of the smallest grids in the second survey area (grid 8 on maps 16 and 17). It consists of two rows of 7 units, measuring 10 by 15 meters. A total of 188 finds were gathered or roughly 13.5 fragments per grid unit. This yield gives an average density of 9 fragments per 100 square meters, 50% higher than the artifact density recorded on the neighbouring grid 4. In practice only two neighbouring grid units from the northern row contribute to this increase. They counted 38 and 31 pottery fragments or expressed in density, between 20 and 25 fragments per 100 square meters. Density higher than the threshold of 13.3-16.6 fragments per 100 square meters was recorded only on two other grid units, contiguous to the first pair. On the rest of the grid the amount of surface finds dropped below 6.6 fragments per 1000 square meters.

Almost nothing changes when the weight of the collections is considered (map 18). The grid units with the greatest number of finds were also ranked highest by the weight of the collections. Only 11.5 kilograms of surface finds were collected from grid 8, almost 40% of which came from the two grid units featuring the greatest number of finds. As the distributions of weights and number of finds are in greater accord on the last two grids, the average weight of individual shards is also slightly greater on grid units with larger amount of surface finds.

Unless it presents a part of a larger dispersed site, the cluster of finds discovered on grid 8 is as small as the northern core on grid 4 or barely a few hundreds square meters. It is positioned on the same altitude, immediately above the line of 490 meters above sea level and only 100 meters to the west of both clusters on grid 4. The only significant difference between this and the neighbouring clusters is the considerably greater amount of surface finds on the former.

The zone of higher than average artifact density continues almost uninterrupted on the lower terraces. Between the lines of 480 and 490 meters above the sea, there stretches a nearly compact group of 7 field blocks. Four field blocks are situated east of the dirt road, the other three on the opposite western side. Because of the dense hedge circumventing the first field situated west of the road, separate grids were used for the field blocks on both sides of the dirt road. The prime target of the grid survey was the above-mentioned field block by the western side of the dirt road. Here the block by block survey revealed a density of 237 fragments per 1000 square meters, which was the highest in the second

survey area. During the grid survey visibility conditions on most of the gridded area were either excellent or very good.

Grid 6 covered an area of about 1700 square meters (map 16). It completely covered the area of the field block featuring the highest artifact density in the survey area and smaller parts of the neighbouring field blocks to the south and west. According to the results of the block by block survey, the next two field blocks on the west also feature higher than average or very high artifact densities, but even so, the amount of surface finds drops by nearly three times. When revisited for material collection and grid survey, it was discovered that the true amount of surface finds on these fields was only slightly greater than that recorded during the block by block survey.

Exactly 300 fragments were collected from the surface covered by grid 6. The mean yield was 20 fragments per grid unit or a density of 13.3 fragments per 100 square meters (map 17). This figure is slightly below the average density range for the second survey, but it doesn't reflect the true distribution of surface finds on the gridded field. The difference in the quantity of finds gathered per unit on this grid is much greater than on the previous two. Almost one half of all finds were gathered from three grid units in the centre of the grid, roughly positioned along the line of the individual field transect counting the greatest number of finds on this field block. On one of these units, 59 fragments were collected, giving an artifact density of 39 fragments per 100 square meters. Except on the south, on all other sides it is bordered by grid units featuring between 30 and 45 fragments or artifact densities ranging between 20 and 30 fragments per 100 square meters. On the next ring of grid units, the number of finds gathered suddenly drops below the area's average of 20 fragments per grid unit. This small zone of density higher than 20 fragments per 100 square meters occupies an area of about 1000 square meters. As on the clusters on the upper section of the ridge, the difference between the core of the "site" and the neighbouring survey units is very sharply pronounced.

The sharp difference in the number of finds on grid 6 is less dramatic when the weight of the collections is compared (map 18). As on the previous two grids, the most numerous collections were also the heaviest, but there is less variation between neighbouring grid units. For illustration, the central grid unit and the next one to the north counted 59 and 31 fragments respectively, but although nearly twice as numerous, the former is heavier by only a few hundred grams. Likewise some units on the grid periphery, although featuring 5 to 6 times lower quantities of material than the central grid units, they weigh barely half the latter. Consequently the finds gathered from the peripheral units individually weigh more than those collected from the "site core". The total collection from grid 6 weighs 17.3 kilograms, close to the loads gathered from the neighbouring grids. Grid 6 is however as small as grid 8 and the mean weight of the collections is considerably higher.

In terms of size and number of surface finds, the cluster on grid 6 is identical to the clusters on grids 3 and 11. It occupies an area of around 1000 square meters and consists of a core of very high artifact density stretching over one or two contingent grid units and a periphery of several grid units featuring smaller amounts of surface finds than the core, but still 3 to 4 times the quantities recorded on units outside the site limits. The cluster on grid 6 gave a somewhat heavier load of surface material than the clusters on grid 3 and especially the one on grid 11. Regarding the weights of the collections, it is in fact closer to the clusters on grids 1 and 2. Although it belongs to the upper section of the ridge, like

the smaller hypothetical sites on grids 8 and 11, it has little or no visual contact with the summit of the ridge. From these locations it is impossible to see beyond the limits of the small basin.

On the other side of the dirt road opposite grid 6, there are four field blocks featuring higher than average or very high artifact densities. These are narrow and elongated fields, orientated east-west and bordering the road with their shorter sides. Because of its length, the last field on the south was split into two along the shorter axis. A very high density of surface finds was recorded on its smaller, eastern part. There are no significant boundaries between these fields and it was possible to cover the entire area using a single grid. Although the amount of finds visible on the surface was not very promising, this time it was decided to grid at least a portion of the area and determine the amount of surface material more accurately.

Grid 7 covered the full surface of two field blocks and the smaller parts of the neighbouring pair of field blocks (map 16). Total collection was carried out over an area of around 3000 square meters. 217 ceramic fragments were collected from all grid units or nearly 11.5 fragments per grid unit. In terms of density this is less than 7.7 fragments per 100 square meters, way below the threshold of 13.3-16.6 fragments per 1000 sq meters. But the inner distribution of this material is far from even (map 17). More than one quarter of the finds were found on a single grid unit in the western half of the grid; the collection from this unit counted exactly 60 fragments, giving a density of 40 fragments per 100 square meters. On the next grid units to the east there is a threefold decrease in the number of finds: between 17 and 20 fragments were collected per grid unit. In terms of artifact density this is close to the threshold of 13-14 fragments per 100 square meters. Further away, the number of surface finds drops below the grid average of 11 fragments per grid unit. The zone of low artifact density continues into the easternmost field block of the group, where the large block survey revealed a density of over 150 fragments per 1000 square meters. It is possible however that the very high density of finds on this field block is mainly caused by its small size, for it barely measures 1000 square meters. On the other hand the block by block survey missed the very high concentration of surface finds on one of the field blocks with higher than average artifact density. Confined to a very small part of the field block, it was most likely left in between the individual field walking transects. The findings on grid 7 warn us that high artifact concentrations bounded on very small portions of the field walking unit can potentially lurk even on field blocks with average or lower than average amount of surface finds.

The total weight of the material collected doesn't suggest that this is a site location (map 18). Only 8.5 kilograms of artifacts were collected from the entire surface of the grid. A similar amount was gathered from a few units on grid 1. On average 450 grams of surface material were collected per grid unit. As might be expected, the heaviest collection came from the unit that gave the greatest number of artifacts, but it weighs only 1 kilogram, slightly more than the survey area's average. In fact the small collection of 7 fragments gathered from one of the peripheral units weighed 1.1 kilogram. As on site 4, this could indicate that building ceramics are probably completely absent from the most numerous collections on the grid.

The discovered cluster is only 56 meters to the east-southeast from the cluster on grid 6. If this is a separate installation, it is in the rank of the hypothetical sites on grids 4 and

8, also situated within a distance of 100 meters. Including the neighbouring grid units with an average quantity of surface finds, the site on grid 7 occupies an area of 620 square meters. However regarding the quantity and weight of the material collected, it is very different. Such a low ratio of weight to number of the finds is only matched by the slightly larger cluster on grid 11, 230 meters to the north near the summit of the ridge.

Field blocks featuring very high artifact density appear only once south of grid 7. Probably in this case too, the small size of the field block rather than the greater amount of finds contributes to the increased artifact density. The zone of very high artifact density mostly continues west of grids 6 and 7, at roughly the same altitude of 470 to 480 meters above sea level. 50 meters to the southwest of grid 6 lies a very long and narrow terrace. It stretches for over 250 meters, roughly following the contour line of 480 meters above sea level. It is on average 35 meters wide, bounded by tall terrace walls along most of its length. Only at the western end does it gently merge with the neighbouring fields. The field blocks covering this terrace fall into the category of higher than average artifact density, but this is again to a large degree related to their size. When the number of counted artifacts is considered, these field blocks rank in the highest category for the second survey.

Almost the entire surface of the terrace was gridded and at its western end, the grid was extended over the neighbouring fields on the north, west and south (grids 9 and 10, map 16). Total surface material collection was carried out over an area of 7350 square meters, using the standard grid unit of 10 by 15 meters. In total 997 pottery fragments were collected on 49 grid units. The mean number of fragments collected per grid unit is 21 fragments. Expressed in density, this coincides with the threshold of 13.3-16.6 fragments per 100 square meters (map 17). 64% of this material was gathered from the eastern half of grid 10. Here the mean number of collected fragments rises to nearly 30 per grid unit. The concentration of finds is particularly evident on the row along the southern edge of the terrace. On more than half of the grid units from this row, between 33 and 49 fragments were collected. But the maximum number of finds gathered per grid is much greater; 84 fragments were collected on a single unit in the southeast corner of the grid. Along most of this row the artifact density ranges between 20 and 30 fragments per 100 square meters, briefly reaching a maximum of 56 fragments per 100 square meters on the easternmost unit. Somewhat smaller quantities were recovered from the next row of units, covering the middle portion of the terrace. On five consecutive grid units, the number of gathered finds varied between 26 and 44 fragments per unit or a density of roughly between 17 and 27 fragments per 100 square meters. On the next row to the north by the northern edge of the terrace, the number of gathered finds suddenly dropped below 15 fragments per grid unit. Equally drastic is the decrease on the lower terrace, where grid survey was even deemed unnecessary. No artifacts were seen on the terrace wall, clearly suggesting that the southern edge of the terrace is also the southern limit of the cluster. The decrease in the number of finds is slightly gentler along the east-west axis, where after a unit or two it tapers off below the grid's average. Only on one grid unit in the northwest corner of the grid does the amount of surface finds rise again above the limit of 20 fragments per grid unit. But as the analysis of the weight of the collections will show, this is very likely a result of secondary dislocation and piling up of surface artifacts. Thus, as on a number of other clusters discovered by this survey, the shape of the cluster covered by grids 9 and 10 is pronouncedly longitudinal. It measures

160 meters in length and only 20-22 meters in width. By the area it occupies, just over 3000 square meters, it is the third largest cluster on the surveyed territory, behind the concentrations on grids 1 and 2.

A total of 38.3 kilograms of surface material was collected from this grid (map 18). As on most of the previously discussed clusters, the weight distribution doesn't follow the distribution of individual finds. The collections from grid units covering the site area weigh more than collections outside this area, but the difference is less dramatic. The core of the cluster has moved to the central units of the southern row where the number of artifacts is still very high, but twice as low as on the unit in the southeast corner of the grid. The weight of the gathered material on the latter is a bare 1.2 kilograms, putting it in the same category as the small cluster on grid 7 or the one on grid 11. The maximum weight of the collections from grid units from the site area doesn't exceed 2 kilograms, but this is consistent with the majority of the grid survey findings. The heaviest load of finds was gathered from a grid unit in the northwest corner of the grid. It is an average collection of 25 fragments, but it weighs 2.7 kilograms. As on grid 3, this was an obvious case of recent piling up of larger tile fragments. Grid units in the western half of the terrace feature low amounts of surface finds, especially units in the northwest quarter of the grid. On average individual finds are heavier than on the grid units in the areas of higher artifact concentration. This was the case on the majority of the gridded clusters, clearly running contrary to the assumption that larger and heavier finds will more likely occur nearer the cores. But in this survey area, the main factor contributing to the weight of the collections is the presence or absence of tile. The plain increase of the weight of individual shards outside the site territory has to be related to the amount of architectural ceramics in the grid and field block collections.

115 meters west of the edge of the surveyed terrace, there is another group of field blocks featuring very high artifact density. It consists of four adjacent field blocks or two pairs of perpendicularly positioned fields. To the north and east on the upper sections of the slope spread a series of field blocks with higher than average artifact density. Together they form the largest continuous cluster of field blocks with higher than average artifact density. This is the western end of the large zone of high artifact density that stretches over the entire slope, from the summit of the eastern ridge to the bottom of the basin, situated some 244 meters from the easternmost field block in the group. The grid survey was to be focused on two particular locations: on the outer, southern pair of perpendicular field blocks featuring very high artifact density (fields 302a/b and 286), and on field block 295, 120 meters to the north, where on one of the individual field walking transects the number of counted artifacts was suddenly more than doubled (map 19).

We began with the group of field blocks with very high artifact density. Grids 12 and 13 were laid over the outer pair of perpendicular field blocks, completely covering the field block orientated east-west (grid 13) and the southern half of the north-south oriented field block (grid 12). If necessary the grid was to be extended to the north, over the inner pair of perpendicular field blocks (field blocks 288 and 303a/b). At the time of the survey up to 50% of the surface was found covered with tall vegetation, but ground visibility didn't have a particular effect on the collection of finds. Approximately 6300 square meters were gridded, covering only portions of the inner pair of field blocks. Even on the field block where the highest density of surface finds was recorded during the block by

block survey, the number of gathered artifacts per grid unit was mostly lower than the survey's average. Surface finds were only becoming scarcer as one climbed the slope, on the field blocks with higher than average artifact density according to the transect survey (field blocks 294, 295).

488 fragments were collected from 44 units on grids 12 and 13. The mean number of artifacts per grid unit is slightly below 11 (map 20). Expressed in density, this is about 7.3 fragments per 100 square meters. Unlike on the majority of the grids, the distribution of the surface finds is fairly even. Only on three grid units in the southeast corner of the grid is the number of finds gathered above the survey's average: twice, 28 fragments were collected and in one instance 31. In terms of artifact density, this equals between 18.5 and 20 fragments per 100 square meters. On the rest of the grid units the number of finds gathered varies between a few and 20 per unit. Closer to the average of 20 fragments are grid units surrounding the small core in the southeast corner of the grid and several grid units in the western half of the grid. The slight increase in the number of finds in the southwest corner of this grid is almost identical to the small concentrations discovered on grids 4 and 8, both by the size of the area and by the number of finds collected. It occupies less than 500 square meters and the density of surface finds is barely twice that recorded on the neighboring units. At this point it is very difficult to argue if these are the remains of very small, isolated constructions or unusual variations in the off-site zone.

As on grids 8 and 4 and as on the grid units outside the narrower site zones, the weight distribution is in accord with the distribution of the individual finds (map 21). In total 18.5 kilograms of surface finds were collected, which is twice as little as on the previous grid. The mean weight of the collections is 420 grams. The collections from all grid units, except the group in the southeast corner of the grid weigh between 0 and 850 grams. On the latter the weight of the collections varies between 1200 and 1400 grams. Consistently with the findings on the other grids, the heaviest fragments were collected from grid units with the smallest amount of finds.

A somewhat similar situation was revealed on grid 5, back on the upper portions of the ridge, near its summit (maps 16 and 17). Here the grid survey covered a narrow field featuring higher than average artifact density. It is situated only 30 meters to the north of grid 11, by a long terrace wall. On the profile revealed on the escarpment, it was possible to observe scattered piles of rubble at a considerable depth of nearly 2 meters below the surface. Because of the small size of the field block measuring only 16 by 50 meters, the grid units were also smaller and measured 8.5 by 12.5 meters. 167 fragments were collected from 8 grid units. The mean number of collected artifacts was almost 21 fragments per grid unit. Considering the smaller size of the grid unit, this gives a density of 19.8 fragments per 100 square meters, well above the provisional threshold. In fact on two grid units the artifact density reached to over 30 fragments per 100 square meters. There is a sharper difference in the number of finds gathered from the northern and the southern row. Grid units in the northern row, by the terrace wall have 3 to 4 time's more finds than units in the southern row.

The weight of the gathered collection is as low as on the previously discussed grid (map 18). Less than 4 kilograms of finds were collected from all grid units. The mean weight of the collection was 490 grams, only slightly higher than on grid 12. The

maximum weight is only 1.1 kilograms, but this is still 5 to 10 times the grid's minimum weight. As on grids 12, 8 and 4, the more numerous collections also weigh more.

By its size, the concentration of finds on grid 5 belongs to the same category as those discovered on grids 12-13, 4 and 8. It occupies less than 400 square meters. There is a slightly greater concentration of finds on grid 5, but they are also tinier. Together they barely weigh few kilograms. In this aspect the concentration of finds revealed on grid 5 is very similar to the cluster on grid 7 or to the neighbouring cluster on grid 11. As mentioned before, the two potential sites are situated very close to each other, at roughly the same level below the summit of the eastern ridge.

Towards the northern border of the survey area 120 meters southwest of the small fort, the block by block survey revealed a pair of field blocks featuring very high and higher than average artifact density. In absolute terms, the amount of surface finds is similar to the one recorded on field blocks covered by grid 12-13, 560 meters to the south. However the increase from the surrounding field blocks was considerable and this concentration of finds was closest and most directly related to the nearby fort. Its location at the flattened foot of the small, fortified hillock makes for an ideal "lower town".

The focus of the grid survey was the field with the highest artifact density, orientated northwest-southeast and bounded by tall hedges on both sides (maps 22 and 23). The grid was then extended, both on the east and on the west. Around 2200 square meters were surveyed, using grid units 10 by 15 meters large. In total 194 fragments were collected from 18 grid units. The mean number of finds per collection was 10.75. Only on one grid unit by the northeast edge of the grid did the number of gathered finds exceed the threshold of 20 fragments per grid unit. The average artifact density on the grid was 7.1 fragments per 100 square meters, reaching to 16.7 fragments per 100 square meters on the grid units with the greatest number of finds collected. Average artifact densities varying between 10 and 13.3 fragments per 100 square meters were recorded on almost half of the grid units. They are distributed into two perpendicular rows, stretching across the greater portion of the gridded area. There is however, a zone of very low artifact density on several contiguous grid units in the eastern half of the grid.

Like on the previously discussed minor concentrations of surface finds, the weight distribution mostly coincides with the distribution of individual finds (map 24). The most numerous collection is almost two times heavier than the second largest collection. This is probably the only case in the survey area where finds from the site zone individually weigh as much as finds from the peripheral grid units. Indeed on this grid the difference between the amount of finds on grid units from the site and the off-site zone is more sharply pronounced when weight is compared. In total, nearly 10 kilograms of surface material were gathered from grid 14. One fifth of this volume was found on the grid unit featuring about 12.5% of the total number of finds from the gridded area.

By the size of its area, the cluster on grid 14 is in the same category as those discovered on grids 12-13, 8 and 4. There is a particular similarity with the northern core on grid 4. On both sites there is a greater increase in the mass of the collections than in the quantity of the surface finds. Regarding its location in the survey area, the site on grid 14 stands seemingly isolated from the group of sites along the summit of the eastern ridge. Its closest neighbour from this group is the cluster on grid 1, situated 340 meters to the southeast. Nonetheless, this location is on the same section of the eastern ridge as the clusters on grids 1, 2, 3 and 11. It is the highest section of the surveyed basin, the belt

stretching between the contour lines of 500 and 520 meters above the sea. The cluster on grid 14 is basically situated above the head of the basin, where the eastern ridge slowly merges with the neighbouring ridge to the west.

On nine field units situated between grids 12-13 and 14, the large block survey revealed densities ranging between 48 and 87 fragments per 1000 sq meters (field blocks 47a, 52, 72a, 292, and the group of field blocks 294-296) and on field block 49, over 140 fragments per 1000 sq meters (map 25). Total grid survey was planned at least on the latter, especially because Roman material was evidently present among the individual transect collections. Not surprisingly when the fields were revisited the following year, there were but a few fragments of Early Modern material on the surface. Visibility conditions considerably worsened on field block 49, the one with the highest artifact density among the group. But even on ploughed fields, the amount of surface material was all but promising. Knowing the size of most of the clusters documented during the campaign of the previous year helped us better understand the changing circumstances in the surface record over a period of one agricultural cycle. The increased density on most of these field units was chiefly contributed by small, but relatively dense clusters limited to small areas within the field block's limits. Most of these concentrations occupied areas between a few hundreds and 1000 sq meters. The clusters on grids 3, 4 and 8 are particularly good examples. Consisting of several dozens fragments they can easily disappear into the soil matrix, even within the period of one agricultural cycle. Hopefully clusters measuring 1000 sq meters or more will present a more stable fraction in the surface record, although the actual amount and appearance of the finds can doubtlessly change from season to season.

Similar situation was encountered on a couple of field blocks into the central part of the basin (map 26). Very little material was encountered on the surface of field blocks 109a and 109b, mostly finds datable to the last two centuries. A very similar situation was encountered 100 meters to the south of the latter pair, on field blocks 96a and 97b. However immediately to the west of field blocks 109a-109b, on a larger field that featured poor ground visibility and very low artifact density, we accidentally discovered the remains of at least two clusters of typical Roman to Late Roman material. The case of field blocks 102a/b and 103a/b clearly indicated that potential sites were not only disappearing from the surface record, but were also emerging on seemingly sterile fields. These fields were left fallow during the first year's campaign and ploughed during the second year, when it was planned to complete the total grid surveys on the floor of the basin and on its western slope. The fields were bounded by terraces and hedges on all four sides. Almost the entire area of over 6000 sq meters was covered by grid 27, although it quickly became clear that material was limited to the western half of the fields. Closer inspection of the surrounding fields showed that it was unnecessary to extend the grid.

In total 842 fragments were collected from 42 collection units or less than 20 fragments per grid unit (map 27). Compared to the amounts collected from other grids, this is a considerable load of material and it is surprising that it went completely unnoticed during the field block survey, despite the poor ground visibility. The highest density recorded on field block 103a reached a mere 15 fragments per 1000 sq meters. The following year, the total grid survey revealed a mean density of over 13 fragments per 100 sq meters! The inner distribution pattern is a near replica of the cluster on grid 2.

The zones of very high artifact density were concentrated on a pair of three contiguous grid units along the southern and northern edge of the field, in its western half. Here the artifact density recorded ranged from 22 to 38.6 fragments per 100 sq meters and on one grid unit in the northern row, it rose to over 53 fragments per 100 sq meters. Both cores were limited to a single row, bearing the characteristic elongated shape. Moreover they are separated by rows of grid units featuring between 13.3 and 22 fragments per 100 sq meters, further underlining the elongated shape of the entire cluster. Following the threshold of 13.3 fragments per 100 sq meters, the cluster on grid 27 occupied an area of about 3000 sq meters. In terms of size, it is in a similar rank to the clusters on grids 9-10 and 2.

A similar pattern emerges when the distribution of the collections' weight is analyzed (map 28). The two cores continue to figure on the same locations, perhaps indicating that brick and tile present a considerable portion of the collections. The northern core has moved slightly to the west, to the northwest corner of the grid. As discussed in preceding paragraphs, this could very well result from the secondary piling up of larger artifacts. The limits of the cores are also slightly sharper, because the collections from the intermediary zone featuring between 13.3-22 fragments per 1000 sq meters rarely weighed over 850 grams. The core collections on the other hand, weighed between 1 and 2.8 kilograms. The complete collection from grid 27 weighed about 24.6 kilograms.

The cluster on grid 27 is situated in the central northern part of the surveyed basin, 150 meters to the southwest of the cluster on grid 14 and 350 southwest of the small fort. At this point, the two ridges that define the survey basin are merged into a gently sloping terrain. Although it is positioned at the same altitude as the cluster on grid 11, bounded by the contour line of 500 meters above sea level, it lacks visual control over the entire basin. The advantages of this location and its surrounding are the spaciousness, the richness of the soils and the high water-table. At present the majority of these fields are turned into gardens and orchards. It is a perfect setting for an early prehistoric, agricultural community.

The cluster on grid 27 lies immediately to the east of a more extensive zone of very high or higher than average artifact density. It consists of several field blocks, mostly confined to the area between the Skopje-Kučevište asphalt road and a converging dirt road coming from the north. To this zone we also added field blocks 96a and 97b, situated to the east of the dirt road. On these field blocks the large block survey recorded artifact densities ranging from 60 to 150 fragments per 1000 sq meters (map 25). As the total grid survey was scheduled for the following year, we anticipated drastic changes on the surface. However on the majority of the field bocks, the results of the large block survey were confirmed, although there were considerable discrepancies on certain fields. Most notably, field blocks 134 and 137 on which we recorded 150 and 100 fragments per 1000 sq meters gave very little material the following year, although they were partly covered by the total grid survey. Field blocks in the southern half of this zone, featuring between 60 and 90 fragments per 1000 sq meters appeared nearly sterile when revisited for total collection (field blocks 118 and 119). Only small amounts of Early Modern tile could be seen on the surface and they were left out of the total grid survey. As in the previous cases, this cannot be attributed to a fault in the large block survey, but to genuine changes in the surface record over the course of the agricultural cycle.

Total grid survey was confined to the northern portion of this zone (map 26). Grid 18 spreads over more than 6000 sq meters, covering parts of field blocks 130, 134, 135, 137, 141a and 141b. Field blocks 125, 126 and 129 were completely covered by grids 15, 16 and 17, respectively. The latter were narrow fields, separated by dense hedges. According to the large block survey, they all featured above 60 fragments per 1000 sq meters. The high artifact density was confirmed by the grid survey, especially on field block 129. Grids 15-17 covered an area of about 5760 sq meters. As the northern edge of grid 17 partly borders with the southern edge of grid 18, total grid survey was carried out over an area of 1.2 hectares.

Contrary to our expectations there was little continuity in the distribution of the total surface record. By far the largest concentration of material was collected from grid 17 (map 27). Exactly 886 shards were collected from 12 grid units, covering an area of slightly over 2100 sq meters. On average 73 fragments were collected per grid unit or about 45.5 per 100 sq meters. This is about 3 to 4 times the density recorded on grid 1. It is mainly contributed by the fact that the total artifact density never drops below 24 fragments per 100 sq meters, while at least one third of the grid units feature artifact densities higher than 55 fragments per 1000 sq meters. In fact one grid unit in the eastern half of the grid featured a density of over 90 fragments per 100 sq meters or nearly 1 fragment per square meter, which presents one of the densest concentrations of finds in both survey areas. This very high artifact density continues into field block 125, covered by grid 15. The entire northern row of grid units feature total artifact densities of between 24 and 90 fragments per 100 sq meters, evidently increasing from east to west. Then on the southern row of grid units, the density of surface finds suddenly became much sparser, barely reaching the threshold of 13.3-16.6 fragments per 100 sq meters. As was often the case in the second survey area, it is possible to observe two vaguely separate cores: one in the northeast corner, the other in the southwest corner of grids 15 and 17. On most of the surrounding fields, the amount of the total surface record drastically decreases. As mentioned before, only a sparse carpet of recent debris was encountered on field blocks to the south of grid 15. To the north, on field blocks covered by grid 18, the density of the surface material also drops below 10 fragments per 1000 sq meters. However 20 meters from the northern edge of grid 17 on five adjacent units, it rose back to over 23 fragments per 100 sq meters. This slightly thinner cluster was partly enveloped by a discontinuous ring of grid units featuring between 13.3 and 16.6 fragments per 100 sq meters. The majority of the units on grid 18 however featured total artifact densities lower than 13 fragments per 100 sq meters. Surface material was evidently too scarce on field units to the east and west of the grid periphery to merit a full coverage by total grid survey.

The very high concentration of surface material on field block 129 continues uninterrupted to the west, on field block 126 (maps 26 and 27). Like field blocks 125 and 129 this is a narrow garden, delimited by a tall hedge on all four sides. It was completely covered by grid 16. Out of the 348 collected shards, more than 80% were found on the northern row of grid unit. This is practically a direct continuation of the dense concentration revealed on grids 15 and 17. Total artifact density gradually rose from about 23.3 fragments on the easternmost unit, to nearly 42 fragments per 100 sq meters on the westernmost unit. On the southern row of grid units, it suddenly dropped below 10 fragments per 100 sq meters. Although at the time of the grid survey the neighboring

fields to the south and north didn't look promising, an extension of the total grid survey over at least parts of these field units would have neatly drawn the limits of this concentration. This is hardly expressed by the large block survey records, which suggest that the cluster of finds spread at least partly over field block 128. The same can be argued for field blocks 96a/b and 97a/b, lying east of field block 129 on the other side of the dirt road.

The total collections on grids 15-17 revealed the second largest cluster of surface finds in this survey area. As in many other cases in this survey, it bears a prominently longitudinal shape, measuring at least 145 meters on an east-west axis and at least 40 meters on the shorter axis. It occupies an area of nearly 5500 sq meters, assuming that it didn't spread further to the east. Only the cluster recorded on grid 1 is larger, though it is not as compact as the former. The size of this cluster, as well as the amount of surface material, explain its survival in the surface record beyond the limits of a single agricultural cycle. In contrast, the cluster on grid 18 was thinner and at least five times smaller. Although covering a slightly greater surface, the total amount of surface finds on this grid was about 660, almost three times smaller than the collection from grids 15-17. It is quiet possible that clusters of similar size existed on field blocks 134 and 137, as well as on field block 118, about 50 meters to the southwest of grid 15. Because of their small areas and the relatively small quantity of surface material, it wasn't possible to locate them in the ever-changing surface conditions. In fact, the cluster on grid 18 is not the smallest in this survey area. In terms of size and material quantity, it is of a rank similar to the clusters on grid 2 and 27. We saw that even smaller clusters, such as those on grids 3, 4 or 8 can considerably raise the density of surface finds on a field block level.

A slightly different picture emerges when the weight of the collections is analyzed (map 28). The two main concentrations are confirmed, but their extent is visible shrunken. The major cluster covered by grids 15-17 appears mostly limited to grids 15 and 17. The two cores vaguely defined by the number of collected shards become far more pronounced, yielding over 3 kilograms of material. Only on three other units do the collections weigh 2 kilograms or more, all three on grid 17. Regarding the weight of the collections, most of the units on grid 16 fall below the average of 850 grams. Over 50% of the 40 kilograms of material collected from grids 15-17 were collected from grid 17, clearly indicating the main core of this cluster. Although the density of surface material was much lower on grid 18, the weight of the total collection is only slightly lower than that of the combined collections from grids 15-17 or about 32 kilograms. However exactly one fourth of this sum is contributed by a collection from a single grid unit, immediately to the east of the cluster defined on the basis of artifact density. Understandably when weight distributions are analyzed, this cluster moves slightly to the east, although it's retained its size and even its shape. It is also evident that the cluster stands out far more sharply against the surrounding background. This sudden increase in the weight of the collection was certainly determined by the presence of larger fragments of brick and tile and therefore, one should be reserved about its significance; especially because this particular grid unit is positioned at the edge of the field, where usually larger ceramic debris is dislocated. Similar causes probably lay behind the slight increases in the weight of the collections on two other peripheral units, on grid 18 and 16.

The two clusters on grids 15-17 and 18 occupy essentially the same location as the cluster on grid 27. They are positioned on a slightly lower ground, at about the same

altitude as the clusters on grids 4 and 8, below the line of 500 meters above the sea. All three occupy the very head of the emerging basin. Being positioned so close to each other, it is possible that they were part of the same settlement; naturally, given that the material is contemporary on all three locations.

The large block survey identified larger concentrations of surface finds on at least three other field blocks at the floor of this small valley, by the asphalt road linking Skopje with Kučevište (map 29). Unlike the previous agglomeration of several field blocks featuring very high or higher than average artifact density, these are isolated or pair of fields featuring between 90 and 150 fragments per 1000 sq meters. Total grid survey was carried out over field blocks 263 and on field blocks 276b-277b.

Grid 19 was limited to field block 263 (map 30). Like the fields covered by grids 15 or 17, this was a narrow garden measuring about 2200 sq meters. The total grid survey covered roughly 60% or 1400 sq meters, because the eastern end of the parcel wasn't cultivated and surface material was nearly absent. Despite the very small size of the gridded area, 593 fragments were collected or nearly 60 per grid unit. The mean density is at least 40 fragments per 100 sq meters. The distribution of the surface finds is rather similar to that recorded on grid 17. Only on the easternmost pair of units did artifact density drop below 13.3 fragments per 100 sq meters. On the four central units of the grid, it fluctuated between 60 and 86.6 fragments per 100 sq meters, gradually decreasing to between 30 and 40 fragments per 100 sq meters in the western half. Even on the westernmost pair of units, the survey recorded densities above 13.3 fragments per 100 sq meters. On the neighbouring field units to the north and south, the large block survey recorded average and lower than average artifact density. This situation didn't change dramatically the following year, when we conducted the grid survey. Thus, it seems that the cluster on field block 263 was completely bounded to the field limits. Even if we assume that the periphery of this cluster spread over to the neighbouring field to the south, the decrease in the quantity of finds must have been very drastic. This was confirmed when we inspected the profile exposed on the scarp separating the two fields. In fact, nothing on the profile suggested that there was an archaeological layer even beneath the surface of field block 263.

Looking at the weight of the individual collections and the weight of the total collection from grid 19, one sees a very similar distribution pattern (map 31). The most numerous collections also weighed most. In general however, a relatively small mass of finds was gathered from this field or about 10 kilograms in total. The finds that constitute the cluster on grid 19 have the lowest weight to count ratio in the survey area. The heaviest collection weighed less than 2.5 kilograms. Thus, none of the collections from this grid rank in the highest category based on the weight of the collections. This either indicates that architectural ceramics doesn't present significant portion of the finds gathered or that the material is in a poor state of preservation.

About 275 meters further south also on the eastern side of the asphalt road, the large block survey recorded artifact densities higher than the average on three field units (map 29). Revisiting these locations the following year, it became clear that larger quantities of finds were present only on field block 277b and perhaps on 276b. Field block 277b with a density of nearly 90 fragments per 1000 sq meters was already singled out by the large block survey. The two field units were to be entirely covered by the total grid survey. However laying out grid 20, it quickly became evident that the increased quantity of finds

on this field is solely contributed by a very dense cluster in the southwest corner of field block 277b. North and east of the field corner, the quantity of surface material suddenly decreases and it was decided to limit the grid survey to the western half of field 277b and the southern periphery of field block 276b.

In total only about 310 fragments were collected from an area of 1350 sq meters. On average 34 fragments were collected per grid unit or about 22.6 fragments per 100 sq meters. But these figures hardly illustrate the real distribution of surface finds on grid 20 (map 30). Over one third of the total number of collected finds or 112 were collected from one grid unit in the southwest corner of the grid. In terms of artifact density, this is over 74.5 fragments per 100 sq meters. From this core the quantity of material drastically dwindles in both directions. The following unit to the east features an artifact density of nearly 50 fragments per 100 sq meters. Another 15 meters to the north and east, it is reduced to 23.3 fragments per 100 sq meters and on the peripheral grid units it almost completely diminishes. Only on the eastern side is it likely that the cluster spread slightly beyond the grid limits.

An almost identical picture emerges when the weight of the collections is considered (map 31). The main concentration is limited to the same grid units, the core spreading more in a north-south rather than an east-west direction. As usual, the difference between the core and the peripheral parts of the cluster becomes more pronounced when weight is analyzed. This is especially the case for the cluster on grid 20, where nearly 70% of the weight of surface material was gathered from the core of the cluster. Of the total of over 19 kilograms of ceramics, over 13 kilograms were collected from two grid units from the westernmost row. The grid unit in the southwest corner of the grid featured the heaviest collection in the survey area, with over 9 kilograms of surface material.

Regarding its size and inner distribution, the cluster on grid 20 is in the same rank as the clusters on grids 3, 6 or 14. It occupies an area of several hundred square meters and basically consists of one very dense core limited to one or two grid units, surrounded by a few grid units featuring higher than average artifact density, but many times lower than the concentration on the core. As the cluster on grid 19, it belongs to the floor of the surveyed basin. At this point, there emerges a small seasonal stream running between the Skopje-Kučevište asphalt road and the eastern ridge. While discussing the distribution of the surface material on grids 15-18, we mentioned that this is a flat and inundated area, suitable for primitive farming. The clusters on grids 19 and 20 occupy the lowest locations among the “sites” in the survey basin. The former lies at about 470 meters above sea level, on the same “terrace” as the hypothetical cluster on grids 12-13. The cluster on grid 20 occupies an even lower ground, lying at an altitude of between 450 and 460 meters above sea level.

Already during the large block survey, it became evident that the western ridge had visibly smaller amounts of surface material. Only on four field blocks did the artifact density exceed the limit of 90 fragments per 1000 sq meters and there lacked larger zones of higher than average artifact density (map 32). By the time when the grid survey was scheduled for this part of the survey area, we already had some idea about the chronology of the finds gathered during the field block survey the previous year. This helped us in deciding on the focus of the total grid survey. Thus field block 207, where the large block survey recorded a density of over 90 fragments per 1000 sq meters was left out of the total grid survey, as it became clear that the vast majority of the finds collected consisted

of off-site debris discarded during the last two centuries. On the other hand, the character of the finds collected by field walking transects drew our attention to field block 170, where the large block survey recorded barely 60 fragments per 1000 sq meters. By this time, it became clear that despite the fact the survey area was lying at a distance of nearly 2 kilometers from the nearest modern villages, there were still considerable quantities of Late Ottoman and Early Modern material, especially on the western ridge. This realization warned us not to attribute too much significance to the "threshold" values, observed in the preceding paragraphs. Nonetheless for the sake of consistency, it was decided to carry out the total grid survey on most field blocks where the large block survey recorded very high artifact densities.

According to the large block survey results, the largest concentration of surface material was on field blocks 230 and 231, situated in the central portion of the ridge just below its summit at 500 meters above the sea. On both fields the artifact density reached above 100 fragments per 1000 sq meters. The focus was on field block 231, where the large block survey recorded a larger amount of surface finds (map 33). Grid 21 covered the field entirely and was to be extended into the neighbouring fields. It quickly turned out that this was going to be unnecessary. Only about 330 fragments were collected from an area of over 2000 sq meters. On average 20 fragments were collected per grid unit or approximately 13.3 fragments per 100 sq meters. Surface finds were particularly scarce on the northernmost row of grid units, where the recorded artifact density never exceeded 5 fragments per 100 sq meters. As a result, the grid was not extended over field block 230. In fact much larger quantities of material were collected from the southernmost row of grid units, bordering field block 232 to the south. But although the artifact density was never lower than the threshold of 13.3fragments per 100 sq meters, reaching to over 28 fragments on one grid unit, the great majority of the finds were evidently dating to the last two centuries. Realizing that this was a continuation of the dense off-site carpet spreading over much of the western ridge, the grid wasn't extended further to the south.

The distribution of finds within the grid's limits also indicates that this wasn't a genuine archaeological site. It lacks a clear focus, while the fluctuations in the quantity of the finds are rather random. The greatest amount of material was collected from a grid unit from the easternmost row, by the terrace that bounds the field on the east. Here the total grid survey revealed a density of about 50 fragments per 100 sq meters, exceeding the supposed threshold of 13.3-16.6 fragments by a vast margin. Nevertheless the collection consisted almost exclusively of Early Modern or Late Ottoman tile, which also contributed to the increased weight of about 2.2 kilograms (map 34). Taken together the material collected from grid 21 weighs nearly 11 kilograms, which is more than on grid 14 where the survey revealed a genuine archaeological site. It is quiet possible that fragments of Early Modern or Late Ottoman roof tile contribute to the increased volume of the collections. Another indicator that the cluster of finds on grid 21 is not a discrete archaeological site is the fairly even distribution of the collections' weights. On the clusters on grids 14 or 20, which were evidently comprised of predominantly Roman finds, the difference between the weight of the collections from the core and peripheral units was multifold.

Attention was shifted to a pair of field blocks, less than 100 meters to the northwest of grid 21. These are field blocks 212a and 212b, lying above the line of 500 meters above sea level at the very summit of the western ridge. The large block survey recorded

above 90 fragments per 1000 sq meters on field block 212b, roughly about the same density as on field blocks 230, 231 and 207. However on the neighbouring field block 212a, the artifact density reached to over 150 fragments per 1000 sq meters, which is the highest density recorded on the western ridge.

The two longitudinal fields were to be completely covered by grid 22, but it was immediately realized that the situation was almost identical to that recorded on grid 21 (map 33). The total collection counted only about 320 fragments on an area of over 2200 sq meters. The large block survey results were actually confirmed, as the quantity of finds gradually increases from east to west and from south to north. Nevertheless the character and the overall amount of the finds clearly suggested that it wasn't necessary to extend the grid over the entire area of the field blocks. On average less than 18 fragments were collected per grid unit, which is slightly lower than the quantities collected from grid 21. Despite the recorded increase along the east-west axis, this is a fairly even distribution, especially when compared to the situation recorded on grids 3, 6 or 20. The maximum artifact density barely exceeded 20 fragments per 100 sq meters on one or two units in the northern half of the grid.

In general the distribution of the weight of the collections follows the same pattern (map 34). Accidentally or not, the total collection from grid 22 weighed 10.9 kilograms, nearly identical to the weight of the total collection from grid 21 covering only a slightly smaller area. The distribution of the weight by grid units is also very similar to that recorded on grid 21. Although the increase along the east-west axis is repeated, the difference between the maximum and the minimum weight is less than 1.5 kilograms.

The third and largest grid on the western ridge was laid over a larger group of field blocks in the southern portion of the ridge, 130 meters to the south of grid 21 (map 33). These are field blocks 486 and 494-497 lying at the same altitude as field blocks 230-231, covered by grid 21. On this location both the large block and the grid survey were carried out in the second year's campaign, resulting in fairly even surface conditions. Unlike the previous two grid surveys, we had no preview of the chronology of the transect collections. The densities recorded by the large block survey were within the same ranges as those recorded on field block 230-232 or 212a-b reaching a maximum on field blocks 496, where nearly 14.5 fragments per 100 sq meters were recorded. However against the background of the recorded densities on surrounding fields, this is a significant increase. Field units to the south, west and east of this group featured less than 20 fragments per 1000 sq meters. Only to the north do they tie onto a zone of average or higher than average artifact density, eventually culminating on field blocks 230-231 and 212a-b.

The total grid survey covered most of the surface of field blocks 496 and 497 and the greater portion of field blocks 494 and 495. The western thirds of these fields were left out of the cultivated zone and the amount of surface finds was evidently negligible. However the grid was extended southwards over a small vineyard, lying perpendicularly to field blocks 494-497. In total about 6660 sq meters were covered by grids 23 and 24. Although this is three times the area covered by grids 21 or 22, the total collection counted only about 610 fragments or slightly over 13 fragments per grid unit. In terms of artifact density, this is about 9 fragments per 100 sq meters. Contrary to our expectations, the total artifact density on this group of field blocks was considerably lower than on field blocks 230-231. The distribution of surface material within the limits of the grid resembles the distributions revealed on grids 18 or 27. The maximum artifact densities of

about 25 fragments per 100 sq meters were recorded on a contiguous group of units in the central part of grid 23, the part covering field block 496. Three out of four units are aligned in a single row, very similar to the elongated clusters revealed on a number of other field units in this survey area. Most of grid units featuring between 10 and 20 fragments per 100 sq meters are concentrated on the neighbouring rows of grid units. Units on the periphery of grid 23 feature less than 2 fragments per 100 sq meters, further emphasizing the roughly concentric distribution pattern. The quantity of surface finds rises again on field block 486 covered by grid 24, confirming the results of the large block survey. Though it doesn't equal the maximum density recorded on grid 23, it still rises to a respectable level of 20 fragments per 100 sq meters.

The very poor quality of the finds gathered from grid 24 prompted us to limit the total survey to the northern half of field block 486. This is nicely illustrated on the map showing the weight distribution of the grid unit collections (map 34). On grid 23 it roughly follows the quantity distribution, slightly expanding the core over the neighbouring rows of grid units. But on field block 486 despite the increased quantity, the weight of the collections is way below the average. They are practically undistinguishable from the peripheral units on grid 23, the weight of the collection per grid unit rarely exceeding 500 grams. But the maximum weight recorded on the central units of grid 23 is not much greater, barely exceeding 1.5 kilograms. In this respect, the distribution on grids 23-24 is very similar to that recorded on grid 22. In both cases the weight and the quantities of the finds are rather evenly distributed. More precisely the differences between the grid units with maximal and minimal amounts are too small.

Apart from grid 27 covering field blocks 102a/b and 103 a/b, two other locations were covered by the regular grid surveys towards the end of the second year's campaign. Initially we didn't plan to expand the total collections, because only a few changes were detected in the overall distribution pattern and the character of the finds as the second year's campaign was drawing to an end. However the study of the material collected by field walking transects alerted our attention to two field units, situated in the opposite corners of the survey area. On these field blocks, the large block survey recorded densities only slightly higher than the survey's average or about 60 fragments per 1000 sq meters. Past experience in this survey area taught us that even much larger quantities of surface finds don't necessarily indicate the presence of discrete archaeological sites. In these two cases however, at least 80% of the finds collected by field walking transects were evidently dating to the pre-Ottoman Period and obviously weren't part of the dense off-site carpet emanating from the modern villages at Montenegro's foot.

The first group of finds was collected from field blocks 348 and 351, situated along the eastern limit of the survey area on the lower slopes of the eastern ridge, 150 meters to the south of grid 10 (map 35). Grid 26 covered almost the entire area of these two fields, stretching over 2165 sq meters. Only the western third of field block 348 was left out, due to the declining visibility conditions and quantity of surface finds. About 320 fragments were collected from the entire grid, equalling the amounts collected from grid 21 or 22 on the western ridge. On average a density of about 13.3 fragments per 100 sq meters was recorded. The bulk of the finds was clearly concentrated on field block 351, in the southern half of the grid. Here the maximum density of over 25 fragments per 100 sq meters was recorded on the central grid unit. There is a slight decrease towards the southern and western edges of the field, but beyond its limits it is impossible to follow

the spreading of this cluster. Only a few fragments of modern pottery were found on the fields to the east of the dirt road that delimits the survey area, although one shouldn't exclude the possibility that there are smaller clusters further east, mirroring the situation recorded on grids 6 and 7 or 4 and 8. The cluster on grid 26 occupies an area of at least 1500 sq meters, though it is evident that it spreads further south and west and also probably to the east.

For the greater part the distribution of the weight of the collections confirms the quantity distributions (map 36). Essentially the same pattern is repeated, though the difference between the central and peripheral grid units becomes evidently less pronounced. Regarding both quantity and weight, the collection from grid 26 doesn't differ much from those on the western ridge. In fact it is slightly thinner, weighing just over 8 kilograms. Nevertheless the gap between grid units with maximal and minimal weight is more pronounced. Collections from the central grid units weighed 2.3 and 1.9 kilograms, while on grid units along the northern grid periphery they never weigh more than 500 grams.

The cluster on grid 26 practically ties on to the chain of clusters revealed on the slopes of the eastern ridge. It is very similar to the clusters revealed on grids 9-10, 6 and 2, but also to the cluster on grid 20, which lies on the same terrace at a height of about 470 meters above sea level. This is the southernmost concentration of surface artifacts uncovered in the second survey area. As explained earlier, the overall quantity of the surface material visibly declines in the southern third of the surveyed basin. Only a few field units situated south of field blocks 277b and 251 feature artifact densities higher than the average for this survey area. Material collected during the large block survey consisted almost exclusively of off-site debris dating from the past couple of centuries. A revisit of some of these fields the following year suggested that they differed little from field units on the western ridge.

That the sheer quantity of the total surface record can be quiet misleading, particularly in conditions of relatively high artifact densities is best illustrated by the case of field blocks 170 and 171. Regarding quantity of surface material, these two field units merge inconspicuously into the zone of average to higher than average artifact density covering the northern half of the western ridge. Featuring between 52 and 60 artifacts per 1000 sq meters, nothing but the character of the collected finds suggests that there is a separate cluster of finds on these fields, chronologically unrelated to the carpet of Late Ottoman and Early Modern off-site material. If fieldwork was completed prior to the study of the finds collected from the previous campaign, the cluster of finds on field blocks 170 and 171 would have surely went unnoticed. It further underlines the importance of the decision to collect samples of surface finds during the field block survey.

In terms of sheer quantity of surface material, the total grid survey on these two field units confirmed the results of the large block survey (map 37). Only about 235 fragments were collected from an area of 2200 sq meters. Recall that this is nearly 30% less than on grids 21 or 22, where the collections consisted almost entirely of Late Ottoman and Early Modern finds. On average this is slightly over 16 fragments per grid unit or nearly 10 finds per 100 sq meters. The bulk of this material was collected from grid units covering field block 171, which was also suggested by the large block survey. On a single grid unit in the centre of the grid, the artifact density reaches a maximum of about 22 fragments

per 100 sq meters. From this core it gradually decreases in all directions, but before the chronology of the total collections is fully clarified, it is impossible to know if this reflects the true extent of a discrete cluster of surface finds or random fluctuations in the off-site record. The grid wasn't extended further south, as the material that drew our attention almost completely disappears from the surface of the neighbouring field.

The collection from grid 25 becomes even thinner when the weight of the finds collected is considered (map 38). The total collection weighs slightly over 6 kilograms, one of the lowest in the second survey area. Essentially it repeats the pattern of quantity distribution, with an even smaller difference between the central and the peripheral grid units. The heaviest and most numerous collection weighs an average 1.1 kilograms.

This small, barely visible cluster is situated on the summit of the western ridge, just above the contour line of 500 meters above sea level. It could very well be the only archaeological site in this part of the survey area. The location offers a full visual control over the surveyed basin and partly over the neighbouring valley to the west. It also has a quick and easy access to the local roads connecting the foothills with the mountain-side. Not surprisingly, compared to the micro-locations occupied by the sites at the floor of the basin or on the lower slopes, the immediate surrounding of this cluster is drier and the soil layer is thinner. In general the western ridge is less favourably positioned than its eastern neighbour, regarding both proximity to water and access to the local road-network.

Conclusion

The grid collections revealed two important aspects of the total surface record in the second survey area. The so called zones of higher artifact density, sometimes stretching over several hectares were in fact generated by small concentrations of finds, limited to areas of several hundreds sq meters, rarely exceeding 1000 sq meters. If there are a few clusters of such size, situated at intervals of 100-200 meters or less, the large block survey will detect them as a single zone of higher artifact density, spreading over several contingent field units. This is simply due to the relatively low resolution of the field block as a quantitative unit. The same was observed in the Sopot survey, where it created a problem of determining the exact size of the clusters on field units that weren't gridded. The large agglomeration of field blocks on the eastern ridge covered by grids 4, 6-10 nicely illustrates the point. Looking at the large block survey results, one has the impression that there is a continuous carpet of higher than average artifact density, covering an area of several hectares (map 5). But the total grid survey revealed that we were actually dealing with a series of tiny clusters, spaced too close to each other to be recorded as separate phenomena by the large block survey (map 17). The small size of these concentrations also perhaps explains their elusiveness. Although in general the total grid survey confirmed the results of the block by block quantification, in a number of instances field units selected for total collection offered only a few fragments of Early Modern pottery and tile. Knowing the constantly changing conditions on the surface, this didn't come as a great surprise. But now, having determined the actual size of most of the discovered clusters, it becomes easier to grasp their sudden appearances and disappearance from the surface record. These clusters are so small that even if present on the surface at the time of the survey, it wouldn't be too difficult to miss them out.

However the size of the clusters of finds and the changing surface conditions were not always the sole factors that caused discrepancies between the results of the field block survey and the total grid collections. On a number of field blocks, especially on the western ridge, the total collection by grid units confirmed the large amount of surface finds, but failed to locate discrete clusters of archaeological material. Although revealing something about the distribution of the off-site material, this equifinality creates problems of interpretation. The absence of discrete clusters of archaeological finds on field blocks with very high artifact density can both be related to the changing surface conditions and to the seemingly anomalous increases in the amount of off-site debris dating to the past couple of centuries. To a certain degree the situation was saved by the decision to collect samples of finds during the field block survey. If larger amounts of archaeological finds were truly present on the surface contributing to the increased artifact density, there was a good chance that they will find their way into the collections by field walking units. On the other hand, their absence in the sample collections probably indicates that the recorded high artifact density is chiefly contributed by off-site debris discarded in the past couple of centuries.

The total grid survey also revealed something about the distribution of finds within the clusters' limits[15]. In fact it is possible to argue that the distribution of the total surface record within the limits of the gridded areas will in itself indicate if one is dealing with an increased amount of off-site material or genuine archaeological sites. On field blocks where the total grid survey confirmed the existence of archaeological material, there was in general a more significant difference between gird units with maximal and minimal amounts of surface finds. The main concentration was limited to one or several grid units, often aligned in the same row. They were usually surrounded by grid units featuring lower artifact densities, but still much higher than on units on the grid periphery. Thus the presence of clusters of finds unrelated to the dominant off-site carpet was often indicated by the roughly concentric distribution pattern of the total surface record. It is expected that after the finds are chronologically sorted, this pattern will become more regular. However it seems that this was the case only when the unearthed finds comprise a considerable portion of the total surface record. A small amount of archaeological finds, such as the one revealed on grid 25, would hardly affect the distribution pattern of the total surface record. In cases such as this, the total grid surveys revealed a relatively even distribution of finds across the entire area. To be sure it is always possible to observe certain tendencies, but in general the difference between the unit with maximum and minimum artifact density is smaller than on grids covering genuine and larger archaeological sites.

The total collections by grid units were weighed, hoping that this would present an additional parameter for defining the site limits. It was believed that collections closer to the site core will consist of better preserved and larger fragments that will by consequence weigh more than collections of off-site material or from the site periphery. However there are a number of problems associated with this method. Most commonly the distribution of the weight of the material is chiefly dictated by the presence or absence of architectural ceramics. In certain cases this still proved to be a good indicator of the site core, but it could often be misleading. Most illustrating are the cases where

[15] J. Bintliff, P. Howard, A. Snodgrass et al, *Testing the Hinterland: the work of the Boeotia survey in the southern approaches to the city of Thespiai*, Cambridge 2007.

collections from grid units featuring low or average quantity of surface finds positioned along the fields' edges, ranked high or very high by the weight of the collections. As explained in the preceding sections, this was a result of secondary dislocations. Being more visible on the surface, larger ceramic fragments were more likely to be removed from their original locations and piled up at the corners of the fields. Thus a few discarded tile fragments could equal in weight a collection of several dozens pottery fragments. In general however, the weight distributions followed the quantity distribution and in many cases, they would put the core of the clusters in an even sharper contrast than the quantity distribution.

One of the most sobering lessons of the Montenegro survey was the realization that sheer quantity doesn't always indicate the presence of unearthed, archaeological remains[16]. In the Sopot survey, at least during the collection of surface finds by regular grids, the increased quantity of the total surface record was readily taken as an indicator of the site core. But after the processing of the collected material, it became clear that even in Sopot this wasn't always the case. As elaborated in the method and theory chapter, the initial assumption is that prolonged human activity on certain location would necessarily result in a greater amount of surface remains. Thus even if there is a thick carpet of Late Ottoman and Early Modern off-site debris, it was assumed that material unearthed from sub-surface layers would necessarily further increase the amount of the total surface record, elevating it above the surrounding fields. In practice however, this isn't always the case. Specifically in the second survey area the problem arose from the surprisingly large fluctuations in the amount of the off-site debris dating to the last two centuries. Although smaller than the fluctuations recorded across the limits of genuine sites, they are still very considerable. The most extreme example came from grid 21, where within the space of four grid units measuring 10 by 15 meters, we recorded a sevenfold increase in the amount of the total surface record. Analyzing the distribution of the Late Ottoman and Early Modern material from the first survey area, we also observed sudden increases on certain field units, though never to such an extent as in the second survey. A number of factors can contribute to the fluctuations in the amount of off-site debris from the past couple of centuries. Apart from distance and accessibility[17], the practice of individual farmers could also account for this phenomenon defying the overall tendency of decrease of off-site material with increasing distances from the settlement and topographic barriers[18].

Whatever the cause behind this phenomenon, it doesn't allow the definition of site limits solely on the base of the quantity of the total surface record. The tiny clusters of unearthed archaeological finds apparently had a miniature effect on the distribution pattern of the vast amount of Late Ottoman and Early Modern off-site debris. As shown on grid 25, they can remain hidden even in conditions of average artifact densities (map 37). On the other hand large concentrations of off-site debris can easily appear as genuine archaeological sites. Hence it becomes meaningless to speak about general site threshold for the entire survey area. As in the first survey the true extent of both the site and the off-

[16] J. Bintliff, P. Howard, A. Snodgrass, The Hidden Landscape of Prehistoric Greece, 139-169, *Journal of Mediterranean Archaeology* 12-2, 1999; J. Bintliff, 209-210, eds. M. Pasquinucci, F. Trement, 2000.
[17] P. Howard, Spatial Analysis of Boeotia Field-walking Survey Data, 111-127, J. Bintliff, P. Howard, A. Snodgrass et al, 2007.
[18] R. Jones ed. *Manure Matters: Historical, Archaeological and Ethnographic Perspectives*, Ashgate 2012.

site zone will only be revealed after the gathered finds are studied and divided into separate chronological groups.

It is possible to argue that as the quantity of the total surface record often proved a poor indicator of unearthed archaeological finds, there is a good probability that a number of potential sites were left out of the total grid survey. After all the sum of the fields covered by the total grid survey comprises only about 8% of the survey area or roughly 89 400 sq meters. Moreover the grids are not evenly distributed across the surveyed terrain. They were concentrated in the zones of higher artifact density defined by the large block survey, mostly along the eastern and northern limits of the survey area. Certainly this has to be taken into account when interpreting the distribution of the finds by period. At the same time however, one has to be aware of the fact that over 3800 fragments were collected by individual field walking transects, from nearly all field blocks in the survey area. This is over one third of all surface finds documented by the large block survey. While these records cannot replace the total grid survey in determining the size of the eventual sites, they will certainly indicate their presence and approximate location. Bearing on mind the degree of survey intensity in both survey areas, one has to conclude that larger clusters of archaeological surface material would have hardly passed unnoticed.

Nearly 50% of the field units featuring higher than average artifact density were partly or entirely covered by the total grid survey. It revealed a series of small clusters, measuring not more than a couple of thousands square meters, but more often limited to a few hundred square meters. The clusters recorded on grid 1 and 15-17 are slightly larger, but as said, there is little ground to speculate about their actual size prior to the study of the collected finds. At the moment, the only certainty is that these are by all standards small clusters, even smaller than the majority of sites discovered in the Sopot survey. They were mostly concentrated on the slopes of the eastern ridge and in the northern half of the basin's floor (map 39). Most commonly they are distributed at intervals of between 100 and 200 meters, although in certain cases, such as on grids 15-18 and 27 or grid 4-10, groups of two or three smaller clusters were found within a radius of 100 meters. At the other extreme lie the clusters on grids 19, 20 and 25, standing at distances greater than 250 meters from their nearest neighbours. It is quiet possible that the actual network is denser and that there were at least one or two clusters of similar size on the stretch between grids 14 and 12-13, especially on field blocks 294-296, immediately to the north of grid 13 and on field blocks 47, 49-50, west of grid 1. It is also very possible that the group of potential sites on grids 15-18 and 27 were accompanied by at least another cluster that couldn't be located in the second year's campaign. Only the cluster on grid 25 was situated in the western half of the survey area, on the summit of the western ridge. Both by its location and the character of the collected material, it is evidently unrelated to the clusters in the eastern half of the survey area.

Contrary to the initial expectations the majority of these clusters were positioned on the slope of the ridge, not on its summit. Three out of sixteen sites occupied the summits of the ridges, the clusters on grids 3 and 11 on the summit of the eastern, the cluster on grid 25 on the summit of the western ridge. Another five certain sites were located on the floor of the surveyed basin and the remaining 8 clusters occupied the slopes of the eastern ridge. These micro-locations are unlike the micro-locations occupied by the present-day villages. Topographically these are poorly defined and unprotected locations. They seem

unrelated to the local roads or to the main sources of drinking water. Although at the moment we know very little about their character, it is evident by their size that they are incomparable to the relatively large, present-day villages. It is certain that nothing of a similar size existed in the survey area.

Little else can be added to what was already said about the surface archaeology of the survey area prior to the study of the material collected. Naturally it is of an utmost priority to establish the chronology of the loosely defined clusters and distinguish the clusters of artifacts unearthed from sub-surface layers, from clusters created by increased concentration of Late Ottoman and Early Modern off-site debris. If at least half of the sixteen clusters are genuine archaeological sites, it would either imply that the survey area was occupied by a network of contemporary farmsteads or similarly to the situation in the first survey area, there was an extreme settlement displacement during the past. In any instance these findings suggest that at least during certain periods of the past, the local settlement pattern differed greatly from that of the past couple of centuries. This was already indicated by the discovery of the small fortification in the northeast corner of the survey region, in the midst of a presently featureless, agricultural terrain. It will also be very interesting to establish the chronological profile of the off-site material. This could point to the period when the survey area became intensively exploited by the settlements at the foot of Mt. Montenegro and ultimately to the period when the present-day settlement pattern was established.

Contrary to our first hand impressions and the expectations based on what was known about the local environmental conditions, the mean overall artifact density was roughly equal in both survey areas (see graph 2 in Appendix 1). Understandably the total surface records in the two survey areas are in all probability generated by different factors, as it is clear that the chronological profile of the collections are very different. Was the second survey positioned analogously to the first survey, i.e. covering the immediate surroundings of modern settlement, both the mean and the maximum artifact density would have been much higher. But even if we suppose that the mean overall densities are twice as high on the fields surrounding the houses of Kučevište or Mirkovci, these figures will still be much lower than the overall off-site densities recorded in Boeotia or on the Ionian Islands[19]. To illustrate the striking differences it suffices to mention that the maximum on-site density in the Montenegro survey is lower than the mean artifact density recorded on the fields surrounding ancient Hyettos in northern Boeotia[20]. Here it has to be stressed that while in Boeotia the bulk of the total surface record in the off-site zone is dated to the Classical-Early Hellenistic period, in the surveyed micro-regions along the Vardar Valley, it is certain that a considerable portion of the surface finds is comprised of Late Ottoman-Early Modern finds. As discussed in Appendix I there are a number of factors that can influence the amount of the total surface record in specific regions, both including "cultural" (longevity and intensity of occupation, supply and consumption of ceramic artifacts) and environmental (climate,

[19] T.W. Gallant, "Background noise" and site definition: a contribution to survey methodology, 403-418, *Journal of Field Archaeology* 13-4, 1986; J. Bintliff, Town and Chora of Thespiai in the Imperial Age, 199-229, eds. L de Ligt, et al, *Roman rule and civic life: Local and Regional Perspectives*, Amsterdam 2004.
[20] J. Bintliff, 210, eds. M. Pasquinucci, F. Trement, 2000.

rates of erosion and sedimentation) factors[21]. The surveyed micro-regions present only a tiny fraction of the broader geographical regions to which they belong and it is still too early to speak in terms of regional tendencies for the Upper or the Mid-Vardar Valley.

[21] J. Bintliff, A. Snodgrass, Off-site pottery distributions: A regional and interregional perspective, 506-513, *Current Anthropology* 29-3, 1988; T.J. Wilkinson, Extensive shard scatters and land-use intensity: some recent results, 31-46, *Journal of Field Archaeology* 16-1, 1989.