

# The *Chora* of Tauric Chersonesos and the Cadastre of the 4th-2nd Century BC

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Tauric Chersonesos can boast of many centuries' history of agriculture.<sup>1</sup> The formative years of the development of an agricultural territory and land division are normally of special interest to investigators. A considerable number of field studies and scientific publications have been devoted to researching these problems. Despite the results already obtained, however, there are still many questions to be answered, in particular, concerning the socio-economic history of the Chersonesean State and its cadastre.

One of the main sources used for determining the scale of the cadastre are topographical maps showing the location of plots, different types of structures and other remnants of land tenure. The creation of such topographical maps reflecting the archaeological situation has been the primary goal of the Herakleian expedition of the Chersonesos Preserve. A comprehensive investigation of the monuments, including excavations and prospection of farm sites, geophysical survey, and palaeobotanic study of plant remains has



Fig. 1. View of Sevastopol Bay and the Herakleian Peninsula, 1850s (after Ju. Skorikov).



Fig. 2. Settlements of the 2nd millennium BC (after L. Solov'ev, S. Strželeckij and O. Savelja).

been conducted since 1973. The results of this comprehensive archaeological research in the *chora* nearest to Chersonesos have enabled us to create a sequence of maps reflecting the spatial development of the *chora* in the Classical and Hellenistic periods.

The territory of the *chora* immediately adjacent to Chersonesos is divided by the Sevastopol' Bay, which is a continuation of the Černaja River, into two parts: the northern and the southern sides (Fig. 1).

The northern side on the west has steep banks eroded by the surf, while the rocky heights on its eastern side rise up to 120 m above sea level. The southern side, which is a part of the Heracleian Peninsula, forms a plateau sloping towards north-west. Its highest points are rocky, wild cliffs between the Chersonesos Lighthouse, Cape Fiolent, St. George Monastery, and Kaja-Baš Hill (305.9 m above sea level). The shores of numerous bays, the slopes of ravines sheltered from cold winds, and the fertile valleys of the area were inhabited long before the foundation of Tauric Chersonesos and the organization of its *chora* on the Heracleian Peninsula.

The earliest discoveries made date to the 2nd millennium BC. A total of about 10 settlements of that time are known in this area (Fig. 2).

A large number of settlements that appeared in the 1st millennium BC are known.<sup>2</sup> Most not only predated, but also existed at the time of Chersonesos' foundation (Fig. 3). Some of these settlements were located on the shores of the Karantinnaja Bay. One, covering a considerable area, as S. Strželeckij believes, originally occupied the eastern side of the Karantinnaja Bay (file 1343, 139).<sup>3</sup> Excavations yielded fragments of stone and flint tools, nuclei, flakes as well as handmade vessels with applied decoration.

The Archaic material proves that in the last quarter of the 6th century BC a Greek settlement was founded here. The *apoikia* foundation seems to have been a joint venture on the part of the Dorian Herakleiot and the Ionian Sinope-

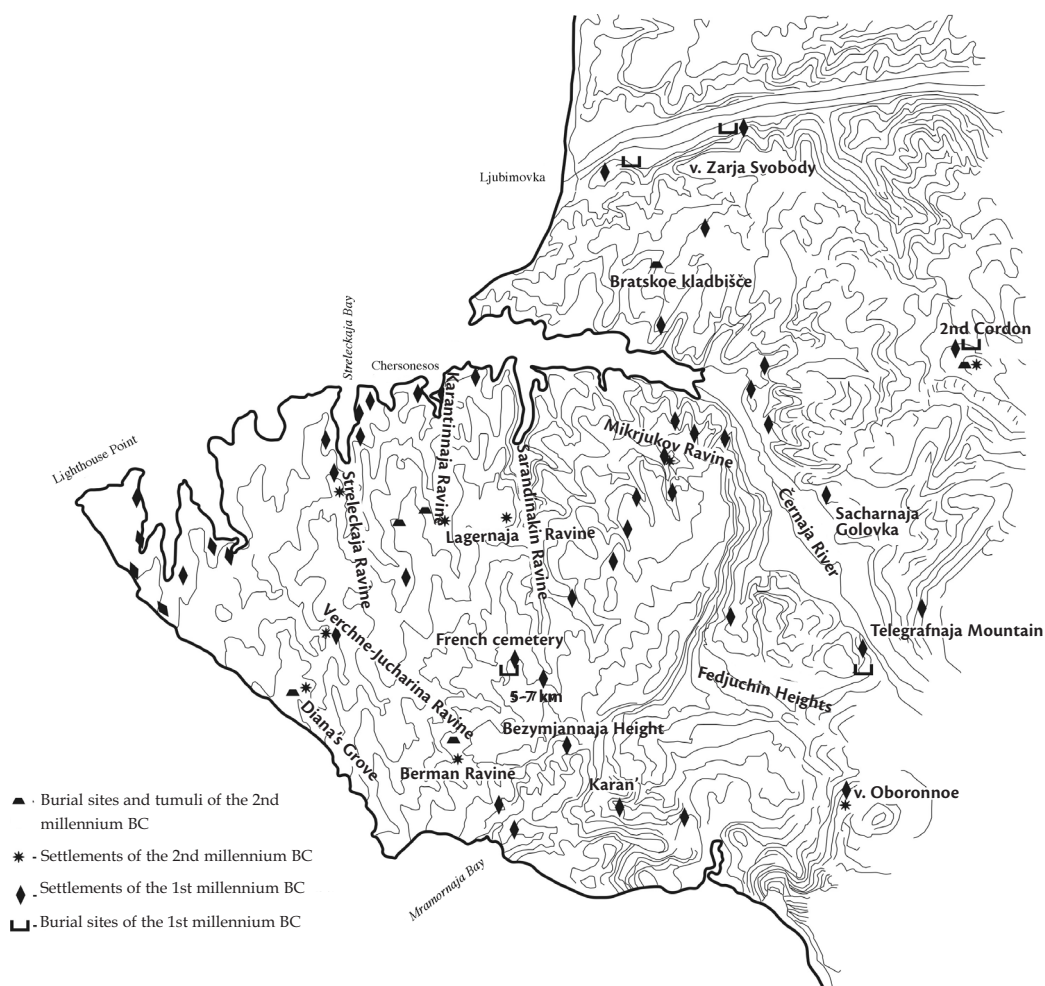


Fig. 3. Settlements of the first half of the 1st millennium BC (after L. Solov'ev, S. Strželeckij and O. Savelja).

ans, with the Herakleiot predominating. Among the abundant archaeological finds from this period are Ionian table wares from the last quarter of the 6th century to the second quarter of the 5th century BC and fragmentary Chian amphorae from the second half of the 6th century to the first half of the 5th century BC.<sup>4</sup> The problem of the co-existence of the Kizil-Koba culture and Archaic Greek settlements is still open to debate, as the cultural layers of the period preceding the foundation of Chersonesos have not yet been revealed. Nevertheless, fragments of slightly polished handmade wares with combed decoration occur in the late Classical and Hellenistic layers in the site of Chersonesos. These finds seem contemporaneous with the Greek layers, in which they have been found. Recently, A.N. Ščeglov has published material from a settlement excavated on the isthmus of the Majačnyj Peninsula. Assigning these finds to the late 6th or early 5th century BC, he assumed that there was here an Archaic Greek settlement contemporaneous with the early Chersonesean settlement (Fig. 16).<sup>5</sup>

Apparently, this settlement, like the Chersonesean one, appeared nearby or on the ruins of the native site, remains of which were traced by S.F. Strželeckij. He has found numerous fragments of handmade pottery and a laurel-leaved flint spearhead (acquisition book nos. 722-723). These finds surely came from the lowest layer of the site belonging to the Kizil-Koba settlement and datable to the first half of the 1st millennium BC. The site's north-western area, was surrounded by a defensive wall (file 1343, 114-115) after the establishment of the Greek settlement. Another Kizil-Koba site was discovered by our field-survey team in October 1997, on the southern slope of the Mramornaja Ravine. A recently dug trench has revealed household pits containing over 100 fragments of handmade black-polished ware. Other finds include pieces of round-bottomed vessels with thick walls. Some fragments are brown in colour. Among these are the lower part of a flat-bottomed vessel and some fragments of pot rims. At the same place a flint arrowhead was found. The material can, as a whole, be dated from the 8th to the 5th century BC.

Several Kizil-Koba settlements are known in the eastern part of the Herakleian Peninsula as well. One of them, the Uč-Baš, is located on a long cape with 25-30 m high cliffs, situated between the Kamenolomni Ravine and the Čertova Ravine, on the left shore of the Černaja River. From this site there is a fine view over the upper reaches of the Sevastopol' Bay, the mouth of the Černaja River, and the whole Inkerman Valley right up to the Fedjuchiny Heights. The cape's northern extremity is separated from the rest of the area by a rampart, up to 2 m in width and about 150 m in length, which functioned as a defensive wall. In the central part of the wall, on the crest of the cape, was a military site overlooking the area.

In the neighbourhood of the Herakleian Peninsula – the Balaklava, Inkerman and Bel'bek Valleys – several settlements dated to the 1st millennium BC are known; all of them have yielded finds of Greek pottery from the Archaic, Classical and early Hellenistic periods. A fortified settlement and a burial



ground dating from the turn of the 2nd and 1st millennium to the 6th-5th century BC were located on the Mekenzievy Hills, the region of the 2nd Cordon. The settlement measuring c. 1,500 m in circumference, was surrounded by a stone rampart. The remains of the walls of houses and household pits were found here. In surface surveys carried out by the State Academy of the History of Material Culture in 1933, the investigators found a significant number of objects testifying to the main activities of the occupants – farming and cattle-rearing, as well as spinning and weaving. Not far from the settlement, a large necropolis with burial stone cists was found (Fig. 4).

The gradual development of the nearby territories by the Greek colonists also continued after the foundation of the city of Chersonesos. It is evidenced by the pottery of the late 5th-first half of the 4th century BC found in the native settlements. The most intensive life in this period is observed in the north-western coastal area of the Streleckaja, Kamyševaja and Kazač'ja Bays as well as in the Berman Ravine situated in the southern part of the Herakleian Peninsula.

Investigations conducted on the Herakleian Peninsula for the last two decades have brought to light a number of new settlements with Greek pottery attributed to the Classical period. The results of surface surveys and excavations and the studies of aerial photographs from the 1940s, 60s and 90s, as well as the materials of archives and collections, have revealed traces of an earlier grid division overlaid by the comprehensive grid plan of the second



Fig. 4. Stone cists in the necropolis on the 2nd Cordon.

half of the 4th century BC in the different areas of the Herakleian Peninsula. These traces and also the finds of Greek pottery in the cultural layers belonging to the late 5th and first half of the 4th century BC are the main indicators of the early *chora* division. The early *chora* covered the following areas: the northern, adjoining Chersonesos; the western, on the Majačnyj Peninsula; the southern, between the Berman Ravine, Cape Fiolent, and the Mramornaja Ravine (Fig. 5).

The early *chora*, in its entirety, represents separate land cadastres, including fortified and unfortified settlements located on the slopes of ravines and along the shores of bays, and small plots arranged on the slopes and watersheds of ravines in the immediate vicinity of the city and settlements.

The last quarter of the 6th to the first half of the 4th century BC was a period of co-existence for Greek and native populations on the Herakleian Peninsula and active occupation of the neighbouring valleys by Greeks. This period sees the development of the *chora*, the search for a major cash crop suitable to the local conditions, a search later narrowed to grapes as a single crop cultivated on the rocky lands of the Herakleian Peninsula. The Swiss traveller Fr. Dubois de Montpéreux, in his detailed scholarly work from 1843, notes that

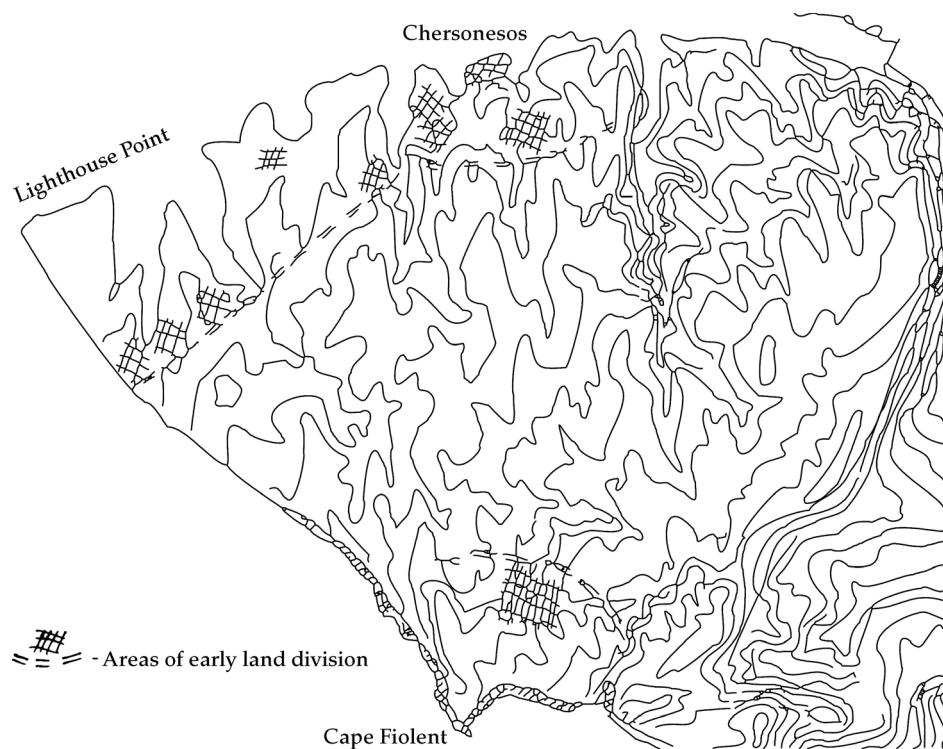


Fig. 5. Areas of early land division on the Herakleian Peninsula.

...the Chersoneseans were forced, from the very beginning of colonization, to be locked within a narrow space of its peninsula and to be highly resourceful in developing their territory... The territory of the Herakleian Peninsula was marked by parallel lines to the entire length and width, intersected at right angles. These division lines, remaining unchanged in the context of the natural topography, spaced every  $\frac{1}{2}$ -1 verst (1.06 km), became large country roads. These rectangular plots flanked by stone walls were 15 feet wide... Along the roads were built dwellings or houses and these roads became, so to speak, streets of a large city.<sup>6</sup>

By the mid-4th century BC Chersonesos started accomplishing the plan of organization of the *chora* following the model representing the combination of divided and undivided areas. First, the area and major axes of the whole grid system were determined. Roads, pre-existing as well as newly constructed, served as the major axes. All the roads followed the natural contours of the landscape, with the longitudinal roads stretched along the line of decreasing

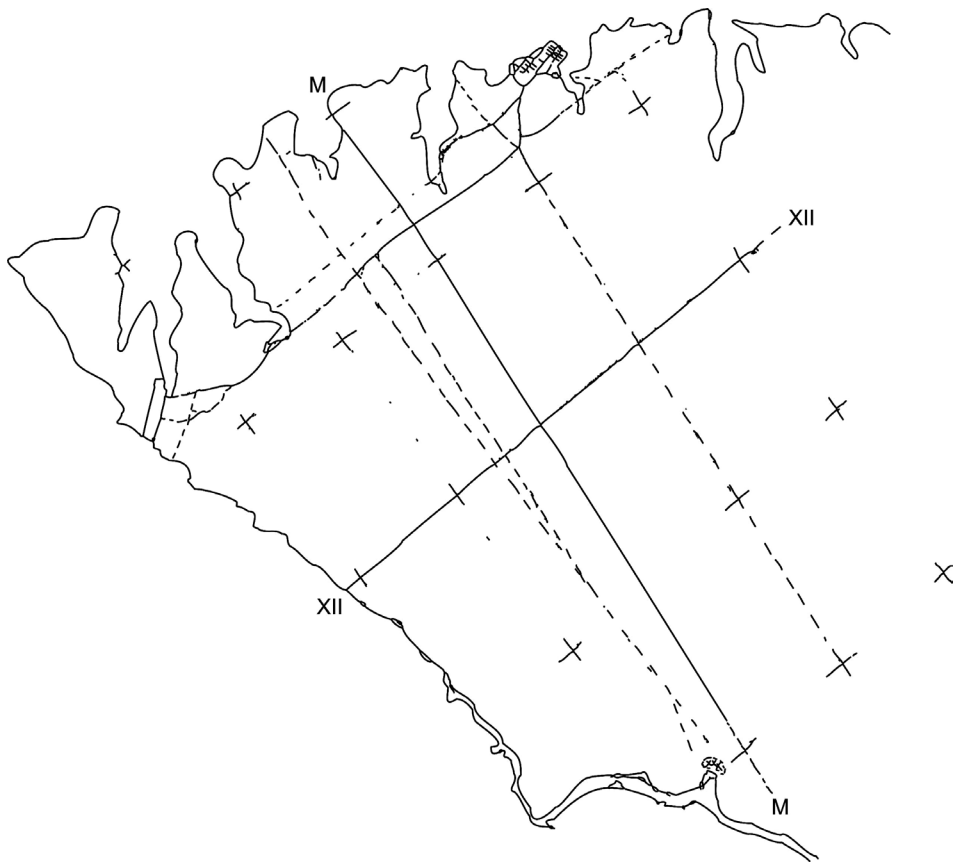


Fig. 6. The first stage of land division.

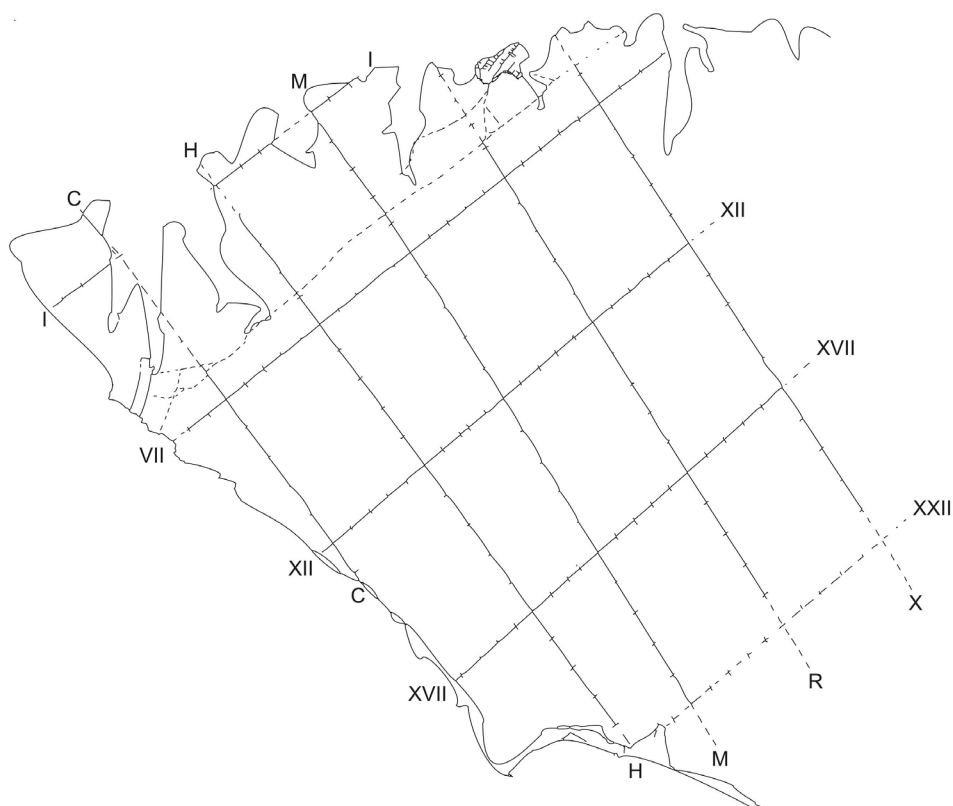


Fig. 7. The second stage of land division.

height, i.e. from south-east to north-west. Some local deviations depended on the topographic features. The land division was based on a grid system, using a common module, the Egyptian Stade, equivalent to 210 m, and its derivatives. The grid system incorporated five longitudinal axial roads, Roads C, H, M, R, X and five transverse roads, designated by Roman numerals I, VII, XII, XVII, XXI, intersected at an angle of 93 and 87 degrees. The outer roads, both longitudinal and transverse, embraced an area of slightly over 10,000 ha to be divided into plots (Figs. 6-7).

The land division went through three stages: During the first stage the two principal axes, the longitudinal and the transverse, were determined. Road M appears to have been chosen as the principal longitudinal axis, while Road XII was the principal transverse axis. The intersection of these two roads forms the centre of the divided territory. From this point, at each 2 km or 10 *stadia* along the longitudinal axis, and at each 3 km or 15 *stadia* along the transverse axis, the points of intersection with the rest of the axial roads were marked. This was done in order to have five standard plots on both the longitudinal and transverse sides of each square.





Fig. 8.  
The road at the intersection between Plots 7 and 12, 2003.

At the second stage, efforts were focused on laying out the remaining axial roads. Flanking walls for the individual plots at each 210 m or 1 stade were drawn dividing almost the whole territory into squares measuring 4.4 ha or 36 *plethra*. In the third stage, after each third square (in some cases, each second square) on the NW-SE axis and after every second square in the NE-SW axis, division roads were built (Fig. 8).

As a result of the work done, the territory was turned into a number of plots, each measuring 26.4 ha (216 *plethra*) and 17.6 ha (144 *plethra*). Stone walls subdivided each plot into fields of 4.4 ha (36 *plethra*). The lots of the early *chora* were integrated into the new grid. Some roads, which have played an important role in life of the population throughout the centuries, have been preserved. Two examples are Road V, the “Large Chersonesean Road”, that connected Chersonesos with the north-western coastal part of the *chora* and Road J, the longest longitudinal road according to Dubois de Montpéreux, which runs from the north-western coast, between the Omega and Kamyševaja Bays, to the upper reaches of the Mramornaja Ravine in the south (Figs. 9-11).

The length of Road J is the same as that of the principal longitudinal Road M, i.e. 12.5 km or 60 *stadia*. Its preservation and layout enraptured Dubois de Montpéreux:

The street that ran out of the rampart of Chersonesos at the right angle [Road V] led to the longest line of Chersonesos [Road J], crossing the ravines over well-preserved stone bridges. By following it one can pass through a number of extensive farm sites, then rise to the crest of the hill on which a deep rut left in the rock is still visible. Another row of beautiful farm sites of Chersonesos borders the street from the right side and at last one can reach the top of the remarkable ravine [i.e. the Mramornaja Ravine], which I have already described above.<sup>7</sup>

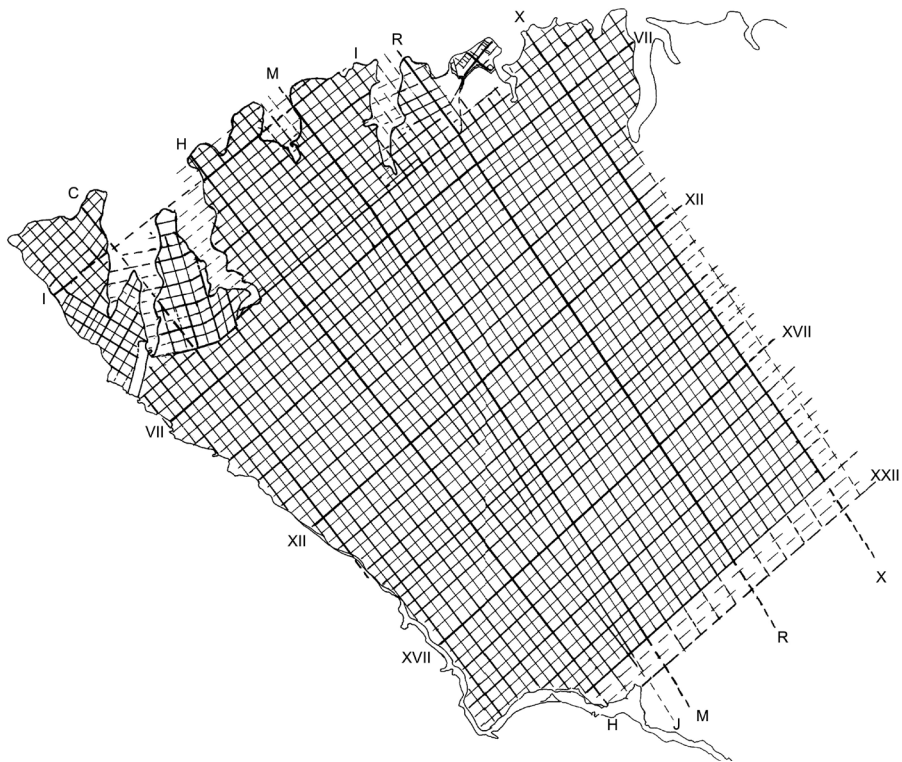


Fig. 9. The third stage of land division.

The Large Chersonesean Road, Road V, is a wide arterial road (34-40 feet) stretching along the smooth terrain from the Main Gates of Chersonesos to the fortifications on the isthmus of the Majačnyj Peninsula. So far, c. 430 plots separated by bordering and arterial roads have been revealed within the territory of the nearer *chora*. Their size varies between 15-17 and 26-30 ha.

The divided *chora* was further parcelled out. Each square of 36 *plethra* was divided into fields with sides of 52.5 and 105 m (1/4 and 1/2 stade respectively) forming standard fractions of 36 *plethra*.<sup>8</sup> The employment of a basic module and its fractions allowed the allotment of shares of any preset size during the land division and subsequent re-allotment of land. Planting walls subdivided each field into vineyards which would cover the space of the divided *chora* later on.

Within a few decades, the divided territory was covered with farmhouses fortified by towers. As mentioned, the first construction period starts in the mid-4th century BC. This is evidenced by the dating of stamped Sinopean roof tiles found in farmhouses on Plots 6, 46, and 57. A stamped Sinopean *pithos* and amphora, found in the farmhouse of Plot 6, can be attributed to the same period. Also, to the mid-4th century BC belongs a stamped handle



*Fig. 10. Areas between the Streleckaja and Omega Bays. Aerial photograph, 1960s.*

of a Sinopean amphora found on the road between Plots 7 and 12 near the farmhouse of Plot 12. The second period starts in the 340s BC. During this period, construction activities take place on the eastern side of the Streleckaja Bay (Plot 87), on the shore of the Kamyšovaja Bay (Plot 8a), on Plots 26, 100 (old 91), 172 (old 106), and 60 (Farm 3). Here a significant amount of stamped



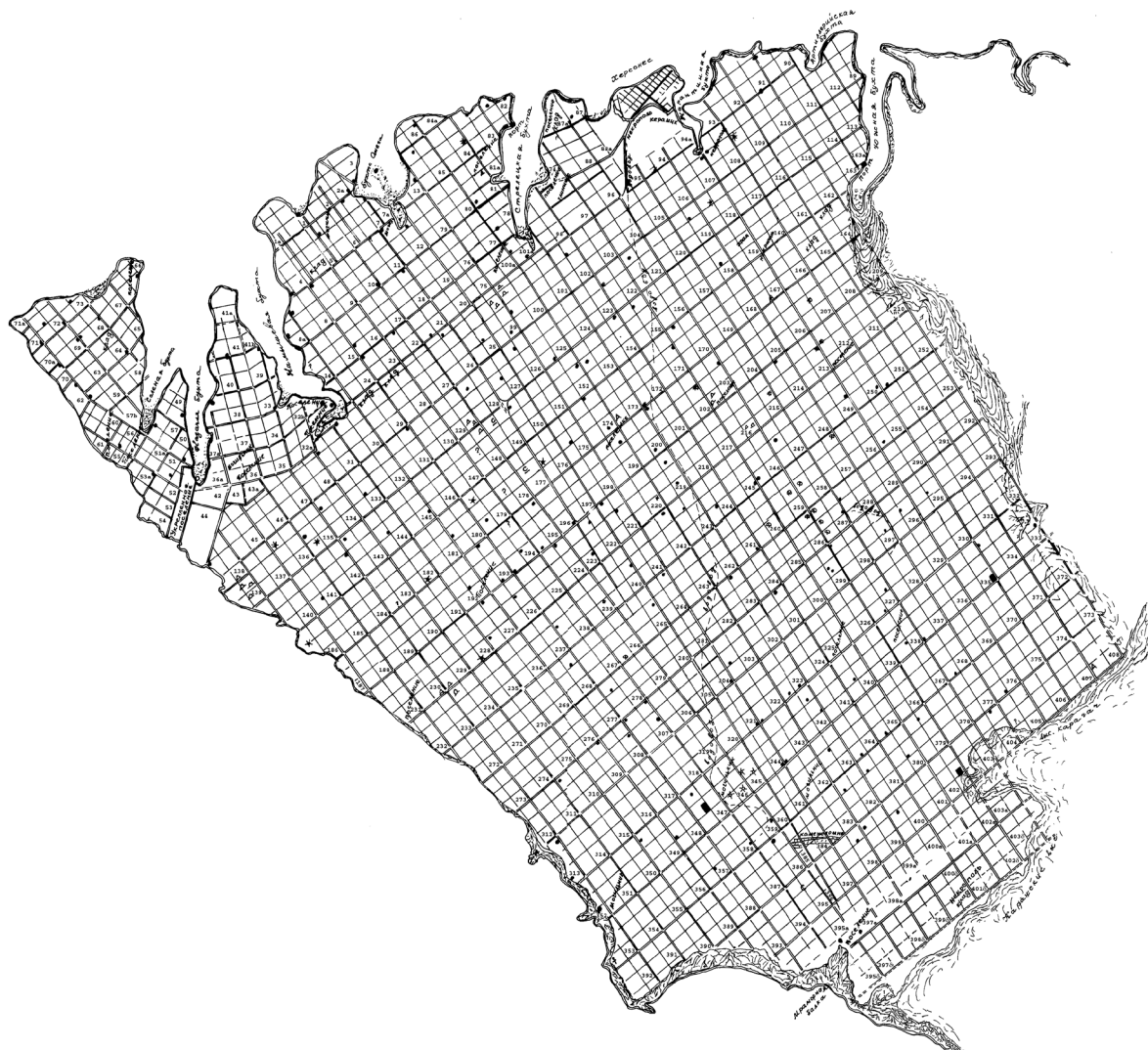


Fig. 11. The Herakleian Peninsula. The land division system with plots numbered. Second half of the 4th century BC.

Sinopean roof tiles from the 340s BC were found. The third period, which can be dated to the 330s, is characterized by extensive farmhouse construction. Along with stamped tiles from Sinope, Chersonesean tiles began to appear, and a few years later, in 325 BC, Chersonesos started a large-scale local production of stamped amphorae. Chersonesean coins dating from 350-330 BC to 330-320 BC, according to the chronology of V. Anochin (1977), were found at almost every site in the territory.



A total of 2,360-2,380 fields of 4.4 ha (36 *plethra*), which cover an area of 84,960-85,680 *plethra*, were documented in the territory of the Herakleian Peninsula, including the Majačnyj Peninsula, during the Hellenistic period. They accommodated around 200 houses and other buildings. At some farm sites dating to the second half to the third quarter of the 4th century BC, entire settlements were constructed instead of isolated farmhouses.

The system of land allotment employed in the Herakleian Peninsula was extended to cover the distant *chora* of the state of Chersonesos as well. Probably, the land covering the watershed between the northern side of the Sevastopol' Bay and the Bel'bek River was subject to land division too. This suggestion is supported by aerial photographs and the results of our surveys. Thus, a total of 360,000-390,000 *plethra* or 44,100-48,000 ha of divided land was documented in the *chora* of Chersonesos. It includes three tracts of 81,000 *plethra* each: (1) the Herakleian Peninsula, (2) the territory between the Kizil-Jar and Donuzlav Lakes, and (3) the Tarchankut Peninsula, between the Karadža settlement and Kalos Limen, as well as three smaller areas of 41,000-49,000 *plethra* each: (1) between the Kača and Al'ma Rivers, (2) from the settlement of Donuzlav South to Cape Ojrat, and (3) the territory between the settlements of Panskoe I and Masliny.

The divided *chora* on the northern side of Sevastopol measures between 40,000 and 50,000 *plethra*. If the land between the Bel'bek and Kača Rivers was also divided, this area would make up another 40,000-50,000 *plethra*. Thus, in the third quarter of the 4th century BC, half of the agricultural territory of Chersonesos was organized into a system of regular plots, the division of which was based on the concept of employing a single module.

Literary and epigraphic sources prove that the *chora* was divided into several categories: the main land allotted to the citizens as individual plots and the "remainder", whose benefits were allocated to meeting the community's needs, as well as used for allotting land to new settlers.<sup>9</sup> In accordance with custom, one tenth of the land was allocated as sacred land (Thuc. 3.50.2).

In the northern and north-western part of the Herakleian Peninsula, a great number of farms were located on the shores of bays and along the roads leading to the bays, every plot having only one farmhouse. Usually these farms were fortified with a tower and possessed large wineries with spacious cellars containing from 10 to 20, sometimes more, *pithoi*. The location of farms with their wine-making complexes and large storages along the roads leading to the port (for example, farms of Plots 6 and 26) or in the immediate vicinity of the port (farms of Plots 9, 41, 101a) was based on a well conceived plan aimed at saving time in delivering finished products to the port. Such farms, usually those of large size, seem to have been not private but collective holdings (Figs. 12-13).

Characteristic of some areas in the Herakleian Peninsula is the absence of any building structures. Among them are the plots in Area X which lies in the south-western coastal region. The terrain is flat, but with steep drops. On the

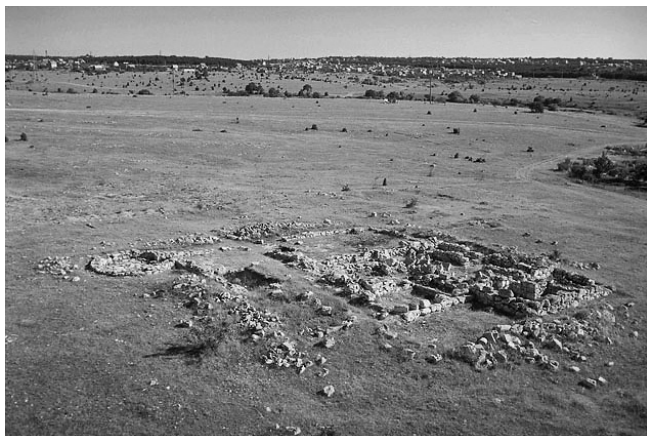


Fig. 12.  
The farm of Plot 193.

stretch of coast, between Transverse Roads IX-XIV and Longitudinal Road F, no Hellenistic structures have been found. In our opinion, this area covering more than 5,500 *plethra*, i.e. 6.5% of the total amount of the divided territory, may have originally been the reserved lands. It would have been convenient to have a block of already prepared plots in stock.

There were several ports in the divided territory. The north-western coastal area had ports in the Streleckaja, Kamyševaja, and Kazač'ja Bays. Descriptions of the Streleckaja and Kamyševaja Bays were provided above. Surveys



Fig. 13. The wine-making complex of the farm of Plot 41.

of the northern part of a fortified settlement located on the western shore of the Kazač'ja Bay allow us to make the following conclusions about its use as a port: In the Hellenistic period the bay was somewhat shorter and shallower. The part of the bay, which is nowadays a small island, was furnished with the flanking tower of the eastern defensive wall and represented in fact the ravine bottom.<sup>10</sup> The port facilities including dry docks and warehouses may have been here. Dwellings and household structures for the settlement occupied the rocky terraces of the slope. Excavations and surveys have shown that in Hellenistic times there were at least four tiers of terraces. The inhabitants of the settlement seem to have served not only the port but also the lighthouse at the extremity of the cape, to which a road led starting from the shore and passing 150 m north-east of the northern wall.<sup>11</sup>

Probably around 350 BC, the southern section of the early divided *chora* on the Majačnyj Peninsula was covered by the western defensive wall built along the ridge of the isthmus. To judge from their plans and masonry, building remains unearthed in this particular area represent the remnants of an original land division system. Later, they were adapted to other household purposes. To our mind, they may be identified as warehouses arranged along the western wall in two rows of small rooms flanking the street that connected this area to the port (Fig. 15).

Lying at the edge of the north-eastern divided *chora* of the Herakleian Peninsula, the Južnaja Bay sheltered by its steep slopes from strong winds is the most convenient place for mooring. We would suggest that precisely this bay is mentioned in the tale of Gykia of Chersonesos, where it is named "Limon" (Const. Porph. *De adm. imp.* 53). Going by the distance, on the route chosen by the Bosporans on their way back to the Symbolon Limen, there could only have been one bay, namely the Južnaja Bay, they could have turned to (Fig. 14).



Fig. 14. The Južnaja (South) Bay. The upper reaches of the bay are in the foreground. Photograph from the early 20th century.



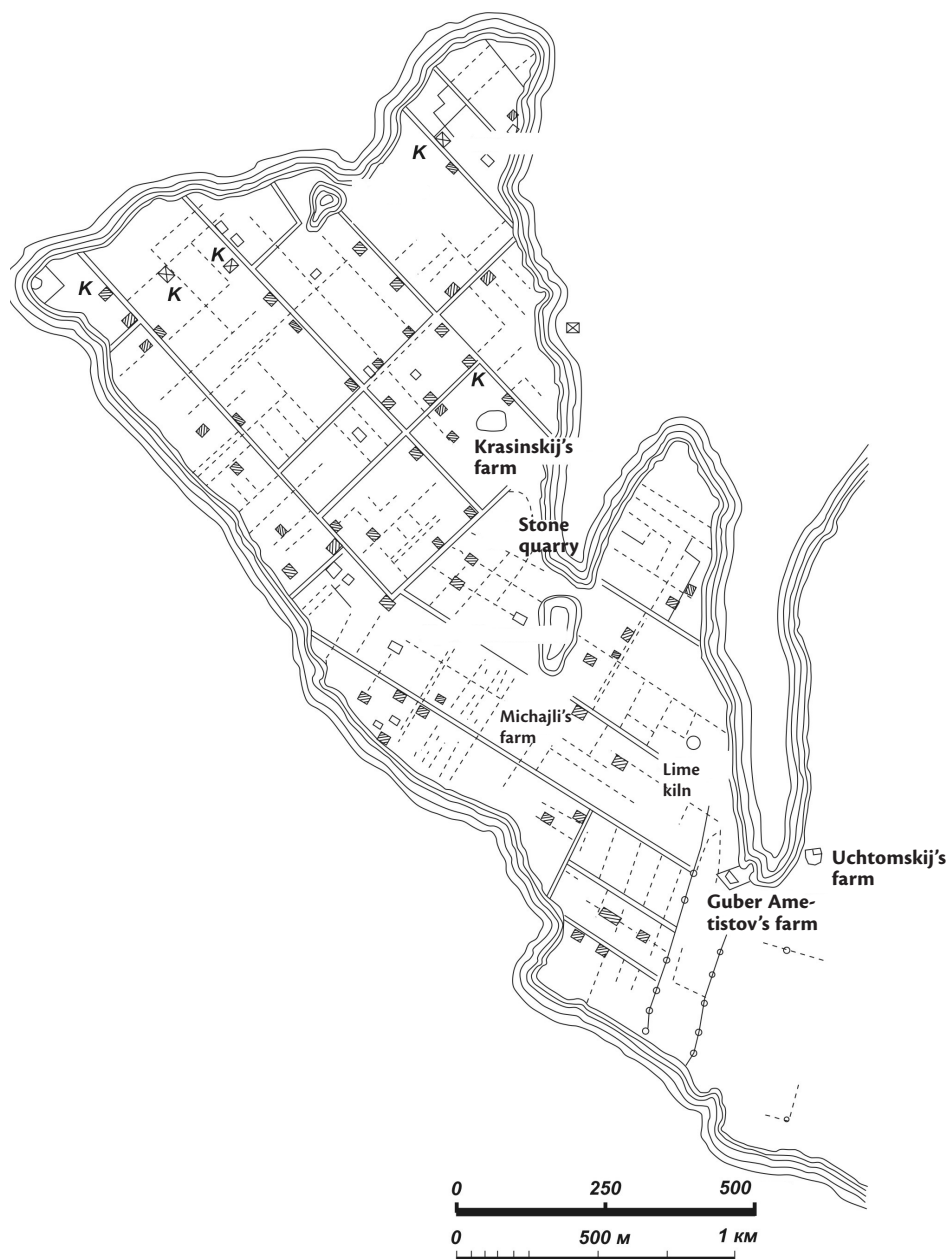


Fig. 15. Land divisions on the Majačnyj Peninsula, 1910-1911 (after N. Pečenkin).

In the late 1980s and early 1990s, in the course of various construction projects, remains of a large port settlement were investigated. The cultural layer extended about 100 m on the left slope of the Južnaja Bay and into its upper reaches. The settlement appeared in the early Hellenistic period, and





Fig. 16. The northern part of the settlement on the western shore of the Kazač'ja Bay excavated in 2002.

an enormous quantity of tableware and amphora fragments, mainly of Chersonesean production dating, according to V. Kac (1994), to 325-265 BC were collected on the site.

The upper reaches of the Sevastopol' Bay, at the estuary of the Černaja River, is the likely site of the port of Ktenous. Ktenous could have been used by the Taurians as an inland port even before the Greek colonization, and thus has been linked with their principal harbour Symbolon Limen. Speaking about Ktenous, Strabon mentions that it was equidistant from Chersonesos and from Symbolon Limen, i.e. 40 *stadia* or about 8.5 km. The distance in a straight line from the walls of Chersonesos to the upper reaches of the Sevastopol Bay and the estuary of the Černaja River does not exceed 9 km or 43 *stadia*, and that from Balaklava, 9-9.5 km or 45 *stadia*. The imaginary point of intersection is the area of the Čertova Ravine and the Uč-Baš.

In the home *chora* of Chersonesos, among the public land holdings were also the sacred lands. The availability of the sacred land in the Chersonesean state is evidenced by the decrees which refer to treasurers of sacred sums (*IOSPE* I<sup>2</sup>, 408, 412). Usually the sacred land was state property which was leased out for the benefit of the city treasury.<sup>12</sup> We can state with confidence that part of the *polis*' sacred land was located on the Majačnyj Peninsula.

The ceramic material recovered from the sites includes a few fragments of containers and a considerable number of black-glazed vessels, mostly *kylikes*, *kantharoi*, *alabastra*, but also salt-cellars and fish-plates. Among other finds are black-glazed lamps and miniature terracotta altars.<sup>13</sup> While the Herakleian sites yield mainly transport and storage pottery, black-glazed fragments constituting only 3-4% of the whole pottery assemblage, here the finds of imported high-quality black-glazed ware predominate.

In 1993, on Plot 53a a two-chambered structure built of rubble was excavated. The peculiarities of its plan – rock-cut pits in the corners of a large room and outside the building, as well as the finds of coins, *kantharoi*, lamps, among which are black-glazed fragments – allow us to suggest a ritual purpose for this structure. It was a roadside shrine from the second half of the 4th century BC, located at a vine nursery garden.<sup>14</sup> It is commonly believed that a sanctuary of Parthenos, Dionysos, and Herakles was located in the territory of the Majačnyj Peninsula. The named peculiarities of the area allow us to interpret this as sacred land belonging to the sanctuary.



Fig. 17.  
The fortified settlement at the  
Bezymbjannaja Hill. The horos  
is in the foreground, 1997.

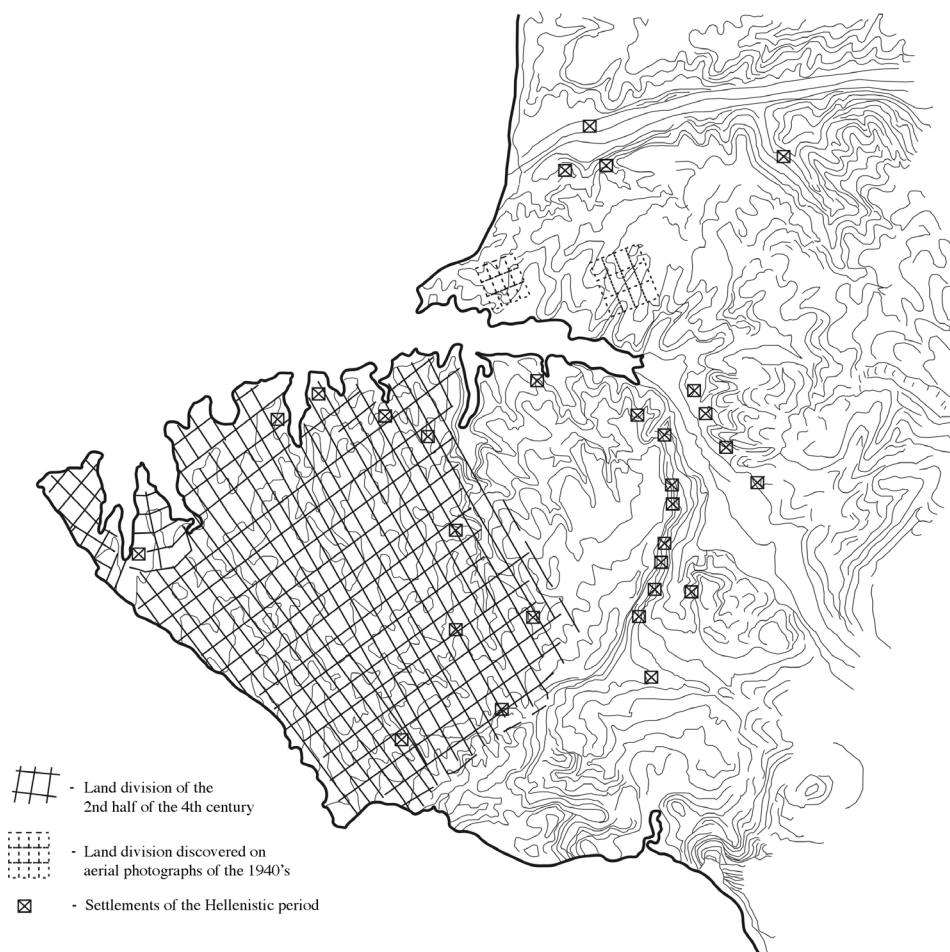


Fig. 18. The nearer chora of Chersonesos in the 4th-2nd centuries BC.

To the remaining part of the divided *chora* may be assigned the territory occupied by agricultural settlements. It is evident that the boundaries of the settlements included in this system were designated by special boundary markers, *horoi*. Two such markers were found in the course of the Herakleian Expedition's excavations of fortified complexes at the Berman Ravine and Bezymjannaja Hill (Fig. 17). The settlements seem to have been located between the plots belonging to a group of citizens or *phyle*. Axial roads, roads between settlements as well as springs and bays could have served as boundaries. Some Hellenistic settlements occupied the south-eastern edge of the Herakleian Peninsula (Fig. 18).

The distance from Chersonesos to the nearest settlements in the upper reaches of the Karantinnaja Bay and those at the cape between the Pesočnaja and Streleckaja Bays is 2,500-3,000 m or 12-15 *stadia*. The distance to the next

ones in the Lagernaja and Kilen Ravines is 5,000-8,000 m or 25-30 *stadia*. To the upper reaches of the Kazač'ja Bay, the Berman Ravine, the Bezymjannaja Hill, the Chomutova Ravine, the Uč-Baš, the Taš-Kule, the *uročišče* of "Caucasus", the Vodokanal, the Inkerman, the Mekenzievy Heights, the 4th Sector and a settlement in the territory of the S. Perovskaja Collective Farm there are 10,000-12,000 m or 50-60 *stadia*; to the Mramornaja Ravine, the Vinogradnaja Hill, the Fedjuchiny Heights, the Sacharnaja Golovka, 15,000-17,000 m or 70-80 *stadia*. Finally, to the boundaries of the area where the early Hellenistic material including that from Chersonesos was found, there are 20,000-22,000 m or 100-110 *stadia*.

The remains of a pottery workshop excavated by N.M. Pečenkin in 1903 at the estuary of the Bel'bek River prove that this suburban area was associated with pottery production. Probably this is a part of the territory mentioned in the Oath of Chersonesos as the land which the city "master or mastered" (*IOSPE I*<sup>2</sup>, 401). Farther north, a watershed, approximately 5 km wide, lies between the Bel'bek and Kača Rivers. No evidence of Hellenistic-period habitation has been found here so far, possibly because we know too little about this area.

In the next watershed, between the Kača and Al'ma Rivers, traces of two early Hellenistic settlements were found. One of them is the settlement of Vilino located on the right bank of the Al'ma River. Judging by the surface survey, it was established in the last decades of the 4th century BC and existed until the 2nd century BC.<sup>15</sup> Evidence for another settlement of the same period was found 3.5 km to the north-west from Vilino.<sup>16</sup> Both settlements were situated in the area of land divisions discovered by Čuklin and L.A. Moiseev. Here, on the seashore, S.B. Lancov suggests the existence of an ancient settlement or even a fortress, which could have served as a base for further colonisation of the region by Chersonesos.<sup>17</sup>

Farther north-west, on the Tarchankut Peninsula, "other fortifications" of the Chersonesean state, located between the tracts of divided land, are known. Discussions continue as to the interpretation of a fragmentary inscription describing the sale or rent of land (*IOSPE I*<sup>2</sup>, 403). This text implies that the plots in the territory of north-western Crimea could have belonged to the citizens of Chersonesos.<sup>18</sup> If so, the amount of land actually possessed by a Chersonesean citizen when the *polis* dominated the territory of the north-western Crimea consisted of two parcels or more.

All settlements, fortifications and divided areas of the north-western Crimea are located at a relatively short distance from each other, within the line-of-sight range. Such organization of the *chora* complies with Aristoteles' principle that the territory of a *polis* and its population should be "easily visible" (Arist. *Pol.* 1327a).



### Conclusion

The archaeological maps revealing the step-by-step development of the nearby *chora* of Chersonesos had a decisive influence on solving the problems associated with the organization of the territory on the Herakleian Peninsula and allowed us to make the following conclusions: It is beyond dispute that in the late 6th century BC – the period of the foundation of an Archaic Greek settlement on the shore of the Karantinnaja Bay – the territory of the Herakleian Peninsula was settled by indigenous tribes. In the last quarter of the 5th century BC in the place of the Archaic Greek settlement the town appeared. Spatial and economic development of Chersonesos resulted in an active and purposeful development of the surrounding *chora*. Greek settlements with adjoining plots of land began to dot the Herakleian Peninsula, taking over the location of the native villages or settling nearby. The finds of Greek pottery of the late 5th to the first half of the 4th century BC in the strata of native sites, as well as the discovery of burials belonging to the natives of that period, proves that relations between Greek and native populations were peaceful.

At the beginning of the second half of the 4th century BC, Tauric Chersonesos became an extensive territorial state. During this period, the division of the greater part of the *chora* into lots took place applying a single module. Traces of land division revealed on the northern side of Sevastopol' prove that the entire coastal stretch of land was divided. It can be noted that the grid pattern there is formed by alternating sections of land of larger and smaller sizes. The combined area of the divided *chora* of the state of Chersonesos is at least 55,000-60,000 ha or 450,000-550,000 *plethra*. It consists of three sections of 10,000 ha or 81,000 *plethra* each, and five sections of 5,000-6,000 ha or 41,000-50,000 *plethra* each. The territory of each section is subdivided into a number of plots in its turn. The basic module is a plot or a field measuring 4.4 ha or 36 *plethra*. When completed, the system of plots on the Herakleian Peninsula incorporated the earlier grid division and agricultural settlements.

The fringe areas of the divided *chora* fall into the category of sacred land. If the area reserved for sacred land made up one tenth of all lands, in the state of Chersonesos, sacred land would have occupied 45,000-55,000 *plethra* or 5,000-6,000 ha of the total divided space. The sacred allotments prove to have been interspersed among private holdings just as settlements and fortifications were. The remaining land consisting of about 10,000 plots, each of 36 *plethra* – may have been owned by the citizens of Chersonesos.

The western, undivided part of the Herakleian Peninsula in the Hellenistic period was in possession of the Chersonesean community. Here were situated two harbours, Limon and Aulita, while at the foot of the Sapun Mountain bordering the Herakleian Peninsula on the eastern side, lay the port of Ktenous. The discovery of Greek and native settlements in this territory testify to an intensive exploitation of this area in the rural economy of Chersonesos in the 4th to 2nd centuries BC.

## Notes

- 1 The author of the present paper was not able to attend the conference. Instead, her contribution was read by V. Stolba. The editors have decided to include the original paper slightly revised by the editors, since to publish a book on the landscape archaeology of Black Sea chorai without the important evidence of Chersonesos is inconceivable.
- 2 Savelja 1996, 13-17; 1997, 88-89.
- 3 Strzeleckij's file 1343, p. 139.
- 4 Zolotarev 1993, 4.
- 5 Ščeglov 1997, 53-54.
- 6 Dubois de Montpéroux 1843/1846, 174-175, translated by the author.
- 7 Dubois de Montpéroux 1843/1846, 297, translated by the author.
- 8 Nikolaenko 1983, 15-16; 1985, 13.
- 9 Arist. *Pol.* 1267b; 1330a; Andreev 1967, 48-53; Jajlenko 1982, 170.
- 10 Ščeglov 1993, 22.
- 11 Nikolaenko 1997b, 80-82.
- 12 Jajlenko 1982, 191, 243.
- 13 Pečenkin 1911, 112; Nikolaenko 1997b, 210.
- 14 Nikolaenko 1997b, 210-214; 1997a, 76-77.
- 15 Lancov 1989, 78-84; Koltuchov, Zubar & Myc 1992, 85-94.
- 16 Koltuchov, Zubar & Myc 1992, 85-94.
- 17 Lancov 1991, 103, 105-106; 1989, 78-84. Cf. Koltuchov, Zubar & Myc 1992, 92.
- 18 Solomonik & Nikolaenko 1990, 88-93; Vinogradov & Ščeglov 1990, 363-368.

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### Abbreviations

AO	Archeologičeskie otkrytija. Moskva.
GAIMK	Gosudarstvennaja Akademija istorii material'noj kul'tury.
ZOOID	Zapiski Odesskogo obščestva istorii i drevnostej. Odessa.
IAK	Izvestija imperatorskoj Archeologičeskoj Komissii. St Peterburg.
KSIIIMK	Kratkie soobščeniya Instituta istorii material'noj kul'tury. Moskva-Leningrad.
NPTCh	National Preserve of Tauric Chersonesos.
SMK	Sevastopol'skij muzej kraevedeniya.
ChSbor	Chersonesskij sbornik. Sevastopol'.
IOSPE	B. Latyshev, <i>Inscriptiones antiquae orae septentrionalis Ponti Euxini Graecae et Latinae</i> . Petropolis 1885-1916.