

Introduction

Pia Guldager Bilde & Vladimir F. Stolba

General discussion of landscape archaeology, of the relationship between Greek *poleis* and their territory, and between Greek settlers and the indigene environment is unthinkable without the rich evidence preserved from the Black Sea region. This has previously been acknowledged at conferences such as *Territoires des cites grecques* 1991 (Brunet 1999) and *Problemi della chora coloniale dall'Occidente al Mar Nero* 2000 (Stazio & Ceccoli 2001). During the days 31 August-3 September 2003 the Danish National Research Foundation's Centre for Black Sea Studies hosted an international conference on *Chora, Catchment and Communications. The present state and future prospects of landscape archaeology in the Black Sea region, 7th century BC-4th century AD* at Sandbjerg Estate in Sønderborg, Denmark. As reflected in the title of the conference, which took the Black Sea region as its point of departure, the aim of this scholarly meeting was two-fold: to establish an overview of the relationship between the larger Greek cities and their territories through discussing how the *chorai* were defined and organised in time and space, but also to take the pulse on the current status of landscape archaeology in the Black Sea region. Researchers representing the main ancient cities of the west, north and south coasts of the region were invited, as well as specialists working in the Mediterranean, who provided a comparative perspective. Unfortunately, not all researchers invited could attend. In the present volume, 13 of the papers presented at the conference are published. Two of these were read by members of the Centre staff, because their authors (V.A. Kutajsov and G.M. Nikolaenko) were unable to participate in the conference, and further two papers have been added after the conference (O. Doonan; T.N. Smekalova & S.L. Smekalov) in order to fill some of the major gaps in the present volume's coverage.

Investigation of the rural landscapes of the Greek *poleis* of the Black Sea region, in particular along the north coast, has a long ancestry. Since the early 1950s, when intensive archaeological exploration of the rural territories of the Greek Black Sea cities began, the interaction between *polis* and its *chora*, as well as the internal organization of the *chora* itself, became one of the main issues of archaeological research in this region. Good examples of such overall studies, to mention but a few, are the investigations of A. Avram on the Greek *poleis* of Kallatis and Istros, of S.B. Ochotnikov, S.D. Kryžickij & S.B. Bujskich on the Dniester and Lower Bug regions, of S.F. Strželeckij, A.N. Ščeglov and G.M. Nikolaenko on the territory of Chersonesos, as well as of I.T. Kruglikova,

A.A. Maslennikov, V.N. Zin'ko, and A.V. Gavrilov on the European part of the Bosporan Kingdom, and Ja.M. Paromov's studies of the Asiatic part of the kingdom. Some of these studies are recently summarised in English in *Colloquia Pontica* 6 (2001) and in Grammenos & Petropoulos 2003.

The above-mentioned studies aimed at an understanding of the relations between *polis* and *chora* and between Greeks and Barbarians as well as an assessment of the economic (productive) capacity of the Greek *poleis* through a reconstruction of the territory's borders and the size of the territory under state control. They have provided us with significant insight into general trends and patterns. However, they are mainly concerned with the Greek cities and their territories and thus have a strong research bias towards the Greek period. It is therefore not so easy to obtain a long-term perspective on settlement patterns and land use in the region beyond this period. In addition, as an effect of the Cold War it has been notoriously difficult to obtain good topographical maps of the region. This has created significant problems, not least in publications of regional studies, due to the difficulty of obtaining any valid idea about the interrelation between sites and the physical landscape.

During the conference, a heated debate took place on survey methodologies. Even though the term "survey" is employed in Mediterranean as well as in Black Sea archaeology, it soon became evident that the scope and approaches, which it is taken to describe, differ significantly. As an effect of the Iron Curtain, the methodologies have moved in different directions, and there has been little scholarly exchange concerning the development of the discipline, which has become, particularly in the West over the past 40 years, a highly specialised field in its own right (e.g. G. Barker & D. Mattingly (eds.), *The Archaeology of Mediterranean Landscapes* 1-5, 1999-2000). However, such a debate is to be welcomed, because a lack of exchange of ideas, also on methodology, has implied that sampling techniques and the strategies behind them differ to an extent that comparison of data between the two regions is rendered virtually impossible.

Nevertheless, times are changing. The early 1990s saw an intensification of cooperation between scholars over systematic, intensive and non-judgemental field survey in the region, and the method has now been practiced by research teams in the Black Sea region mainly in collaborative projects. To be mentioned is the Ukrainian-Polish investigation of Nymphaion's *chora* made in 1993-1997 (Scholl & Zinko 1999; Zin'ko in this volume), O. Doonan's survey around Sinope carried out between 1996 and 1999 (Doonan 2004; contribution to this volume), as well as the brief survey made by a French-Russian team on the Taman' Peninsula in 1998 and 1999 (Müller et al. 1998; 1999; 2000). The German-Bulgarian investigation of the territory in the hinterland between the Roman forts in Iatrus and Novae which took place from 1997 to 2003 is, moreover, to be cited (Conrad in this volume). All four projects have contributed greatly to our understanding of the inhabited landscapes of the region, and they show the potential of following non-judgemental sampling strategies.

During the conference, many issues were discussed, primarily the organisation of the territories, settlement patterns, and demography. As do the settlement patterns, the territory sizes vary greatly from the more modest, such as Nymphaion with c. 50 km² (Zin'ko) to the extremely large territories of Olbia with c. 400 km² (Bujskich with reference to Kryžickij & Ščeglov 1991) and Chersonesos, the *chora* of which only divided into plots (including the region of Kerkinitis with 50-70 km² [Kutajsov]) amounted to c. 440-480 km² (Chtcheglov 1992, 254-256; Nikolaenko 1999, 44).

Soviet archaeology has a long tradition of employing aerial (and later satellite) photography in the study of the rural landscape (e.g. Ščeglov 1980; 1983). Analysis hereof has formed the basis of much of our knowledge about the western Crimean cadastres. Recently, the combination of such photography with historical and contemporary topographical maps has been employed with significant results by T.N. Smekalova and S.L. Smekalov as witnessed by their article in this volume. Their study confirms the observation made earlier by A.N. Ščeglov concerning the orthogonal organisation of the Chersonesean territory on the outer tip of the Tarchankut Peninsula. What seems even more important, they demonstrate convincingly that the European part of the Bosporan Kingdom on the Kerch Peninsula was similarly divided into orthogonal land-plots. Possibly, as suggested by S. Bujskich (with reference to Šiškin 1982), part of Olbia's territory was also thus organised. These conclusions challenge A. Wasowicz's suggestion that the territorial organisation employed in the (northern) Black Sea region followed the settlers' ethnic background distinguished by an Ionian (radial) system and a Doric (orthogonal) system (Wasowicz in: Brunet 1999). A recently published study by Ju. Gorlov & Ju. Lopanov (1995), combined with data previously provided by Paromov, shows that a radial system was employed on the Asiatic side of the Bosporos in the micro region of the Fontalovskij Peninsula, where road systems radiate from the main settlements with the lay-out of fields adapting to the road systems. The same seems to have been the case in Olbia's immediate surroundings, but the above observations make it difficult to distinguish between Ionian and Doric habits of organising the territory. In general, most of the early Black Sea cadastres so far identified seem to belong to the 4th century BC, and Smekalova & Smekalov's study suggests that the entire European part of the Bosporan Kingdom was divided into plots contemporaneously.

We can observe that the plot sizes vary in the individual *chorai*. The smallest plots are found in the *chora* of Olbia, where they are either 37.5 × 280 m or varying from 0.3-0.5 ha up to 3-5 ha which is reminiscent of the mainland Greek "norm" of 3.8-5.4 ha as mentioned by Bintliff. Even within the same *polis* territory plot sizes may differ. Thus, the size of all land lots in the nearer *chora* of Chersonesos and possibly around Kerkinitis is 4.4 ha or 36 *plethra*, which Nikolaenko considers a basic module, whereas the land lots situated on the Tarchankut Peninsula are considerably larger amounting to c. 10-10.5 ha with some individual lots measuring up to 53 ha (Chtcheglov 1992, 254-256;

Nikolaenko 1999, 35-44; Nikolaenko and Smekalova & Smekalov in this volume). With a standard size of approximately 4.4 ha (210 × 210 m), which is very close to the size found in the northern half of the Metapontine *chora* between Bradano and Basento (Carter), some 2,360 to 2,380 plots would have filled the divided area of the Chersonesos' home *chora* (Nikolaenko 1999, 42; cf. Carter in this volume).

In the Bosporan Kingdom, the module employed for the cadastres differs from the Chersonesean (and Metapontine) modules. Smekalova & Smekalov suggest that it is based on the Egyptian foot resulting in plots of 1,000 × 1,000+100 feet. The territory around Theodosia was organised in plots measuring 350 × 390 m, whilst those around Nymphaion measured 350-380 × 380-400 m (Smekalova & Smekalov). They also suggest that in the Asiatic Bosporos around Patrasys a similar orthogonal system with distances of c. 340 m was employed.

Several of the authors discussed the productive capacity of the territories (Kryžickij, Bujskich, Kutajsov, Smekalova & Smekalov) but their results are not so easy to compare because their starting points, e.g. production capacity per hectare, differ. Neither was there common ground concerning site typology, but it was repeatedly underlined that it was characteristic of the *chora* settlements that they did not show any regular internal organisation (Gavrilov, Kryžickij). Apart from Alcock & Rempel few authors discussed site types other than settlements. Sanctuaries were briefly mentioned by Carter, Bujskich, Kryžickij, and Nikolaenko, but in the Black Sea region, *chora* sanctuaries and their location has been much less in focus than in the West. This is even more so true of the interpretation of off-site scatters, which is intensively discussed in Mediterranean landscape archaeology (Alcock & Rempel, Bintliff, Hayes [oral presentation]).

In many localities there are signs of a crisis in the early 5th century BC. This is true in the *chora* of Olbia (Kryžickij) and in the European Bosporos (Saprykin, Zin'ko), but there is no agreement as to its reason, whether it was due to invading nomads (Zin'ko) or it was the result of Greek expansion (Saprykin). In Theodosia settling of the *chora* started during this period and seems to contradict the evidence from the *chorai* mentioned above (Gavrilov).

The conference also contributed to exposing a major crisis in most of the region in the first half of the 3rd century BC. As an effect of this crisis, most of the *chorai* were abandoned and city fortifications were strengthened. The reason for this crisis mentioned by the scholars present at the conference was primarily the movement of nomads (Ochotnikov, Saprykin) and the entry of new nomadic groups such as Sarmatians (Gavrilov) or Galatians (Bujskich). The reasons behind this collapse were probably manifold, and the change in the climate to hotter and drier conditions mentioned by Kutajsov (with reference to Šnitkov 1969) and Smekalova & Smekalov may well have been an additional factor (for a recent discussion, see Stolba 2005a; 2005b).

The most difficult question addressed at the conference concerned the re-

relationship between Greek, ethnically mixed, and non-Greek components of the cultural landscape. Some participants were of the opinion that the Greek colonists arrived in an “empty” land (e.g. Gavrilov, Kryžickij, Zin’ko), but this was contested by Carter. It was generally acknowledged that not least in the *chorai* ethnic groups were quite mixed and most of the time co-existed relatively peacefully (e.g. Avram, Gavrilov, Nikolaenko, and Zin’ko). How to interpret the material remains in ethnic terms was nevertheless hotly debated. The main battlefield was (and still is) how to interpret handmade pottery and living units dug partly into the ground ([semi]-dugouts) (see also Tsetskhladze 2004). In varying quantities, both can be found in the cities as well as in the *chora* settlements and not merely in the initial phases of colonisation. Bujskich and Kryžickij are of the opinion that their presence shows Greek accommodation to local climate and resources, whereas other researchers view this as sign of an ethnically mixed population (Avram, Gavrilov, Ochotnikov and partly Kryžickij). Carter argued strongly against modern preconceptions of “nation states” and “racial purity” underlying much of the discussion on Greek-Barbarian polarity, but it was acknowledged that the Barbarians presented a much greater challenge in the Black Sea region than they did in other colonial areas of the Greek world (Bintliff, Carter). Perhaps the way to cut the Gordic knot is, as suggested by Carter, to investigate skeletal material on a large scale as has been done with great success for example in the *chora* of Metapontion.

We may conclude that there is still room for further discussion over aims, methodologies, and results in landscape and survey archaeology. We are sure that the coming decade will show further methodological advances. The recent deplorable development in many Black Sea *chorai*, where subtle, non-monumental evidence is being rapidly destroyed by illicit digging activities and by urban and agricultural expansion as mentioned by Kryžickij concerning the *chora* of Olbia, should induce us to exploit the potential of intensive survey as a kind of rescue archaeology even further (Alcock & Rempel) before more knowledge is irretrievably lost.

Finally, the editors would like to thank all contributors as well as to acknowledge the effort of friends and colleagues, who assisted us in producing this volume. The translation of papers submitted in Russian (Ochotnikov, Kryžickij, Smekalova & Smekalov) was made by Alexej V. Gilevič. The linguistic revision was undertaken by Robin Lorsch Wildfang and Patric Kreuz (article of S. Bujskich). The editing of illustrations was made by Line Bjerg and Jakob Munk Højte, to whom the editors want to express their gratitude.

Bibliography

- Brunet, M. (ed.) 1999. *Territoires des cites grecques. Actes de la table ronde internationale organisée par l'École Française d'Athènes, 31 octobre-3 novembre 1991* (BCH Suppl., 34). Paris.

- Gorlov, Ju.V. & Ju.A. Lopanov 1995. Drevnejšaja sistema melioracii na Tamanskom poluostrove, *VDI* 3, 121-137.
- Grammenos, D.V. & E.K. Petropoulos (eds.) 2003. *Ancient Greek Colonies in the Black Sea* (Publications of the Archaeological Institute of Northern Greece, 4). 2 vols. Thessaloniki.
- Kryžickij, S.D. & O.M. Ščeglov 1991. Pro zernovyj potencial antyčnych deržav Pivničnogo Pryčornomor'ja, *ArcheologijaKiiv* 1, 46-56.
- Müller, C., E. Fouache, V. Gaïbov, et al. 1998. Péninsule de Taman (Russie méridionale), *BCH* 122, 643-654.
- Müller, C., E. Fouache, Y. Gorlov, et al. 1999. Péninsule de Taman (Russie méridionale), *BCH* 123, 589-598.
- Müller, C., E. Fouache, Y. Gorlov, et al. 2000. Péninsule de Taman (Russie méridionale), *BCH* 124, 655-657.
- Nikolaenko, G.M. 1999. *Chora Chersonesa Tavričeskogo. Zemel'nyj kadastr IV-III vv. do n.e.* Part 1. Sevastopol'.
- Scholl, T. & V. Zin'ko 1999. *Archaeological Map of Nymphaion (Crimea)*. Warszawa.
- Stazio, A. & S. Ceccoli (eds.) 2001. *Problemi della chora coloniale dall'Occidente al Mar Nero. Atti del quarantesimo Convegno di studi sulla Magna Grecia, Taranto 29 settembre-3 ottobre 2000*. Taranto.
- Stolba, V.F. 2005a. The Oath of Chersonesos and the Chersonesean Economy in the Early Hellenistic Period, in: Z.H. Archibald, J.K. Davies & V. Gabrielsen (eds.), *Making, Moving and Managing. The New World of Ancient Economies, 323-31 BC*. Oxford, 298-321.
- Stolba, V.F. 2005b. Monetary Crises in the Early Hellenistic Poleis of Olbia, Chersonesos and Pantikapaion. A Re-assessment, in: C. Alfaro, C. Marcos & P. Otero (eds.), *XIII Congreso Internacional de Numismática (Madrid, 2003)*. *Actas – Proceedings – Actes*. Madrid, 395-403.
- Ščeglov, A.N. 1980. Utilisation de la photographie aérienne dans l'étude du cadastre de Chersonésos Taurique (IV^e-II^e s. av. n.è.), *DialHistAnc* 6, 59-72.
- Ščeglov, A.N. 1983. Razvedki i raskopki antičnych sel'skich poselenij i agrarnych sistem, in: D.B. Šelov (ed.), *Metodika polevyh archeologičeskich issledovanij*. Moskva, 12-30.
- Šiškin, K.V. 1982. Aerometod kak istočnik dlja istoričeskoj topografii Ol'vii i ee okrestnostej, *SovA* 3, 235-242.
- Tsetschladze, G.R. 2004. On the Earliest Greek Colonial Architecture in the Pontus, in: C.J. Tuplin (ed.), *Pontus and the Outside World. Studies in Black Sea History, Historiography, and Archaeology* (Colloquia Pontica, 9). Leiden-Boston, 225-278.