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Abstract: Patterns in the Later Prehistory of the Eastern Korinthia

Daniel J. Pullen (Florida State University), Thomas F. Tartaron (Yale University), Richard Rothaus (St. Cloud State University), Dimitri Nakassis (University of Texas-Austin), and Amy Dill (University of Texas-Austin)

From 1999 to 2001, the Eastern Korinthia Archaeological Survey (EKAS) obtained a wealth of new data on later prehistoric settlement in its 200-km^2 study area. EKAS sampled diverse environmental zones in the lowlands of the northern Korinthian plain, the Saronic and Korinthian Gulf coasts, and the rugged inland terrain south of Mount Oneion. Predictive models for prehistoric settlement and harbor locations were developed and tested, and numerous sites and off-site scatters of prehistoric material were systematically investigated. As a result, we are able to measure intraregional variability in habitation and exploitation of land and other resources, and to address complex questions involving the regional system and its interrelated parts.

We may also begin to place the Eastern Korinthia within the wider context of other regional projects carried out in neighboring regions, including the Nemea Valley, the Berbati Valley, and the southern Argolid. It is already clear that the Eastern Korinthia's Neolithic and Bronze Age trajectory is unique in its particular chronological development and social and economic dynamics. Thus, the EKAS results contribute to the broader picture of chronological and cultural variability that is emerging from similar studies in the northeastern Peloponnese and beyond. This paper examines the similarities and contrasts, and offers explanations for them.

Patterns in the Later Prehistory of the Eastern Korinthia

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Daniel J. Pullen, The Florida State University; Thomas F. Tartaron, Yale University; Richard Rothaus, St. Cloud State University; Dimitri Nakassis, The University of Texas-Austin; Amy Dill, The University of Texas-Austin

INTRODUCTION

From 1999 to 2001, the Eastern Korinthia Archaeological Survey (EKAS), under the direction of Timothy E. Gregory of Ohio State University and Daniel J. Pullen of the Florida State University, with Thomas F. Tartaron of Yale University as Field Director, and with generous funding from the Institute for Aegean Prehistory obtained a wealth of new data on later prehistoric settlement in its 200 square kilometer study area. At previous annual meetings of the AIA we have described our innovative survey methodology utilizing discrete geomorphological boundaries and in-field finds processing, but today we wish to focus on some of the results of our work in later prehistory and how these results fit in with patterns detected in other regions, both neighboring and further away.

When comparing and contrasting regional trajectories, it is important to bear in mind that the surface record is seriously incomplete, limited by postdepositional processes that continuously reveal and conceal evidence of the human past. The surface material itself is fragmentary, and often difficult to identify with confidence. And in the realm of interpretation lies the problem that apparent similarities in the trajectories of different regions may be superficial, masking considerable variability in subsistence strategies, economic and social organization, and extraregional contacts and influences. Although we strive to take these

considerations into account, the review offered today reflects an early stage of analysis and interpretation.

EKAS concentrated on sampling diverse environmental zones in the lowlands of the northern Korinthian plain and along the Saronic Gulf coast, with some work in the rugged inland terrain of Mount Oneion. What is clear from our work is that the Eastern Korinthia's Neolithic and Bronze Age trajectory is unique in its particular chronological development and social and economic dynamics.

THE STONE AGE

We have not detected any pre-Neolithic activity in our survey area, nor have any finds of the earlier Stone Age by others been documented in the immediate vicinity. Part of the explanation for this lack of early material is surely the geomorphological history of the Korinthian plain which would preclude the discovery of materials associated with Pleistocene deposits.

Neolithic in the Korinthia has been known since the early twentieth century through excavations by the American School of Classical Studies at Ancient Corinth and Gonia. One of our goals was to elucidate the boundaries of prehistoric activity around Gonia and its adjacent hill of Yiriza, both excavated in the 1910s by Blegen. As might be expected, a light scatter of sherds of all periods was found as a halo effect. But two spots may indicate actual Neolithic activity. By themselves the quantity of Middle to Late Neolithic pottery is not very great at these two spots, but coupled with the relative lack of Bronze Age materials here and that the excavated Neolithic was at the eastern end of Gonia, this suggests in situ dispersed pockets of Neolithic activity separated from the main Neolithic concentration on the hill of Gonia.

Approximately 3 km to the southeast of Gonia, on the forward edge of an uplifted fossil marine terrace, the site of Rachi Boska/Perdikaria has long been known for its Early and Late Bronze Age material, including a Mycenaean wall. EKAS discoveries expanded the periods of prehistoric activity represented on the hill. Sherds of Middle and Late Neolithic, Early Helladic I, and Middle Helladic were identified, in addition to materials of Early Helladic II and Late Helladic already known.

Middle and Late Neolithic occupation in the eastern Corinthia seems to be quite extensive, a pattern similar to the Argive plain, but quite different from the scanty evidence from the Nemea, Berbati, and Asea Valleys, and the southern Argolid. All three Neolithic sites, Ancient Corinth, Gonia, and Rachi Boska/Perdikaria, are situated in similar environmental settings, on the forward northern edge of uplifted marine terraces, providing security and vantage points as well as ready access to plentiful agricultural areas. Extending this pattern further we seem to have by the Late Neolithic a pattern of intensive occupation of well watered, large plains or their margins, such as the Argolid and Corinthian plains, but little to no occupation of interior regions such as Nemea, Berbati, and Asea or poorly watered regions such as the southern Argolid.

Missing from EKAS region is material from the Final Neolithic period, in contrast to the plentiful evidence for the Early Helladic I period. Elsewhere, in both the Berbati Valley and the southern Argolid a large number of sites of the Final Neolithic period were discovered, compared to the rather fewer Middle and Late Neolithic sites. Even applying Rutter's rough correction factor of the number of sites in a period divided by the number of centuries represented by the period, there is an increase in the Final Neolithic over previous periods in those regions. The Final Neolithic expansion is often attributed to the spreading of the

"Secondary Products Revolution," that is the intensified use of milk, wool, and traction of animals, as opposed to meat. Does the lack of Final Neolithic in the Korinthian plain mean that the Secondary Products Revolution bypassed this area?

The Early Helladic I period is attested in a number of areas of the eastern Korinthia, included Yiriza, Gonia, Perdikaria, Kromna, and several other spots. What is strikingly different about the EH I ceramics in the eastern Korinthia is the relative rarity of examples from the Talioti assemblage and the relative abundance of volcanic tempered fabrics commonly found in the southern Argolid and along the Saronic Gulf, but rare in the Argive Plain or interior of the Corinthia as at Nemea. Coupled with the relative lack of evidence for the preceding Final Neolithic period, the Early Helladic I period may represent a "colonization" situation such as Broodbank has recently examined for the islands themselves. We wish to test this notion in 2002 by examining some coastal areas to the southeast of our 1999–2001 territory.

Though Early Helladic II material is plentiful in the eastern Korinthia, the pattern of EH II centers of activity is not quite what one might expect. Several sites have produced a large quantity of material spread over a wide area, suggesting large sites, but no evidence for a corridor house has been found. But overall the number of sites of the Early Helladic II period is not large. This pattern is very different from that of the southern Argolid where the surface remains suggested a three-tier hierarchy of settlement and more than one site produced rooftiles (though it should be remembered that rooftiles in the EH II period are not always connected with corridor houses). Only one possible rooftile was identified on the south side of Gonia.

Early Helladic III material of any amount has shown up only at Gonia. This pattern of scant EH III finds is similar to other regions of southern Greece. Gonia is probably the principal

center for the eastern Corinthia in this short period, but we must remember that Early Helladic III ceramics tend to be relatively undetectable in the surface archaeological record.

In many regions of southern Greece the Middle Helladic period is as poorly represented as the preceding EH III period. But the additional MH ceramics discovered at Perdikaria and Kromna raises questions about why the Eastern Korinthia did not experience the virtual depopulation that characterized most of the Middle Helladic period in the southern Argolid, the Nemea Valley, and the Berbati Valley. Sites such as Korakou, Gonia, Ancient Korinth, and Perdikaria were apparently never entirely abandoned in the Middle Helladic period. There is evidence from the excavated sites for an increase in activity at the end of the Middle Helladic period that parallels a resurgence of settlement in the Argive Plain, the southern Argolid, and the Nemea Valley. For example, thirteen rich tombs of the late MH, contemporary with the first burials in Grave Circle B at Mycenae, were discovered near the North Cemetery at Ancient Korinth. But even in the transitional period between Middle Helladic and Late Helladic I, the survey evidence suggests that occupation remained nucleated at the larger, long-lived settlements.

By contrast, Late Helladic I–IIA artifacts are found at numerous locations in addition to the established sites, and this probably reflects a dispersal or decentralization of activity on the landscape, as well as the foundation of new settlements of modest size, for example at Kromna and on the Rachi ridge above Isthmia. Such a pattern is similar to what is seen in the Nemea Valley, where late MH sites continued into early Mycenaean times, and some 20 new sites were detected. Expansion also continued in the southern Argolid, but the Berbati Valley did not receive an impetus for expansion until the emergence of the palace at Mycenae. In the transitional phases from Middle to Late Helladic, Eastern Korinthian material was primarily of

local manufacture, although in late MH through Early Mycenaean times, a substantial connection with the Saronic area is manifest in Aeginetan cookwares, kraters, and large storage jars. This connection echoes the relationship with the Saronic area that prevailed in Early Helladic I, and demonstrates that an alternative explanation for a superficially similar resurgence of activity in the transition to the Mycenaean period may be required for the Eastern Korinthia.

The Eastern Korinthia diverges considerably from the regions to the south in palatial Mycenaean times, reflecting in part the variable intensity of influence from Mycenae. The Berbati Valley, lying in such close proximity, was particularly tied to the development and fortunes of the palatial system. By Late Helladic IIIB2, however, the stylistic koiné in Mycenaean pottery had been broken, the palaces were in decline, and contraction of activity in the Berbati Valley had begun. In the southwestern Korinthia, the settlements of Tsoungiza and Zygouries were influenced to a considerable degree by developments at Mycenae. Roads that emanated from Mycenae connected this area to the palace, and the results of NVAP indicate that the valley's resettlement and development in the LBA depended heavily on its relationship with Mycenae to such an extent that, during LH IIIA2–LH IIIB1, the inhabitants of Tsoungiza had access to the same range of ceramics as did the residents of Mycenae itself.

The data from survey and excavation indicate a quite different trajectory for the northern and eastern Korinthia, and shed light on the intriguing and long-standing debate about the Korinthia's relationship with the palace center at Mycenae. It has often been repeated that Mycenae must have exerted political and economic control over the Korinthia, an argument based on three main propositions, the "Catalogue of Ships" in the *Iliad*, the lack of a palatial or fortified site in the Korinthia, and the agricultural resources and communication advantages of the Korinthia. In this view, sites like Gonia, Perdikaria, and Korakou might be seen as

administrative outposts of the palatial authority. Yet the archaeological evidence, as we understand it, does not support the extension of direct control over the Eastern Korinthia by Mycenae. In Early Mycenaean times, a settlement system emerged in the absence of any possible influence from Mycenae, and this basic pattern persisted through the Mycenaean period. The survey evidence does not suggest any further expansion or altered settlement configuration during the palatial period, in terms of site numbers, functions, or locations.

During the palatial period, Eastern Korinthian ceramics were stylistically influenced by Argive forms and decorative motifs, but the fabrics and production were mainly local. At Gonia for instance, though many forms and decorative motifs are similar to the Argive repertoire, we identified four distinct fabrics, only one of which might represent an imported product. In general, the fabrics reflect the properties of local clays, and are closely comparable to Mycenaean fabrics found at our other survey sites. Thus, unlike the situation in the southwestern Korinthia, the evidence implies an emphasis on exchange of information and ideas, of stylistic fashions rather than trade in actual objects.

It is thus possible to envision a continuum of influence extending outward from Mycenae, and to propose that the Eastern Korinthia was beyond the ability or desire of Mycenae to exert direct control.

We can only begin to discuss the spatial and social organization of the LBA Eastern Korinthia. At this initial stage, we can certainly recognize two tiers in a regional site hierarchy, with indications of the existence of a third tier. A first tier comprises the relatively large sites, including Gonia, Korakou, and Perdikaria, which are typically located on the elevated surfaces of uplifted and eroded fossil marine terraces. These locations were clearly chosen for visibility, if not defensibility: viewshed analysis demonstrates the intervisibility of these major sites and

points to close relationships among their inhabitants. A second tier comprises smaller inland and coastal sites lacking comparable advantages of size and views; these might be seen as hamlets that form part of an expansion of activity to take fuller advantage of agricultural and pastoral resources in times of prosperity and growing population. The identification of small, offsite scatters at many locations may point to a third tier consisting of non-residential activities and/or casual discard or loss.

PROBABILITY MODELING FOR PREHISTORIC SETTLEMENT

Through a mix of inductive and deductive methodologies, a probability model for prehistoric landscape usage has been developed. While such “modeling" is not new, and can be found, for example, in the introduction to Hope-Simpson’s gazetteer, the EKAS model is unique in that it is quantifiable and testable.

The model has been developed through ArcView GIS to allow for quantification of variables, testing of alternate hypotheses, analysis of statistical significance of variables, and easy visualization. The model is based on environmental factors, and is predicated upon fieldwork investigating the long-term geomorphology of the Korinthia. While acknowledging the strict environmental parameters for landscape occupation in this semi-arid rugged region, the model also accommodates cultural choice and predilections. The accompanying chart details some important factors in determining prehistoric site locations. The actual model parameters are too complicated to present in this forum, so we ask the audience to tolerate this oversimplified version sufficient only to give a “taste” of what is there.

The model allows for complex gradations of probability values in a variety of categories, and allows for “fuzzy” logic without hard boundaries between or within categories. The goal is not site prediction, but rather explication of what quantifiable landscape factors influenced

prehistoric landscape usage, and the creation of relative probability maps. As the human presence in the landscape was not full to biological capacity in the prehistoric period, the ability of the model to predict is sharply truncated.

Continued testing of the model includes ongoing statistical regression analysis and scheduled field visits to high probability areas which we plan to conduct in a limited fashion in Summer 2002.

CONCLUSIONS & FUTURE WORK

We have shown how the patterns of prehistoric activities in the Eastern Korinthia are different from neighboring regions of southern Greece. While we are still studying the data retrieved from our project, and hope to acquire some new data in Summer 2002, we can offer a few explanations for these differences. First of all, the environmental setting of our survey territory is very different from many others in southern Greece, for the simple reason that ours is a coastal region, not an interior region like the Nemea or Berbati valleys. The other major coastal region studied by intensive survey, the southern Argolid, is rather marginal in its environmental setting, with a much less-watered landscape than the Korinthia. We do not suggest that patterns of settlement are environmentally determined, but that the environment, especially geomorphology and hydrology, sets parameters for a region's settlement. Cultural choices ultimately play the deciding role in patterns of settlement. We have outlined those environmental factors that we deem significant for prehistoric settlement in the eastern Korinthia, but it is the cultural choices that operated within those environmental parameters that remain to be explained.