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## Chapter 7. Conclusions

This book proposes a GIS-based procedure to use (legacy) survey data for regional-scale investigations of settlement patterns. Considering the wealth and growing accessibility of these data, it is vital to develop solid methodologies that permit us to use this complex and variegated dataset for historical reconstructions. To this effect, this study has presented a method which not only offers a way to formally tackle a research question using (legacy) site-based survey data (*i.e.* deductive-inductive strategy), but which also provides widely-applicable means to deal with biases affecting these data. The study of surface visibility and geomorphological processes needs to become standard procedure in regional settlement pattern analyses (see discussion and applications in *e.g.* Terrenato & Ammerman 1996; van Leusen 2002; Banning *et al.* 2011; 2017; Feiken 2014; De Neef 2016; Sevink *et al.* 2016). This book underlines the advantages that the assessment of biases can provide for the interpretation of settlement patterns. The analysis of distortions in site patterns allows researchers to recognize misleading observations and avoid biased interpretations. Clearly, this type of analysis should be incorporated as an essential component within the landscape archaeology project work plan (see discussion in van Leusen 2002; Terrenato 2004). In this way, a distinction can be made between those patterns produced by post-depositional processes and those that are instead representative of the ancient settlement organization. The method proposed in this book incorporates this bias-testing as a key step in the procedure of reconstructing regional settlement patterns from site-based survey data.

Regarding the case-study, we have seen that the method allowed answering the central research question, on which of the two proposed scenarios of

early Roman colonial rural settlement organization is most likely to be correct. By applying a deductive-inductive procedure, new light could be shed on early Roman colonial landscapes in central and southern Italy. This research strategy not only permitted efficient testing of the reliability of competing settlement theories on an inter-regional level (deductive analysis, Chapter 3); it also offered a better understanding of local variations in settlement preferences that further enhanced our understanding of early colonial period settlement behavior in specific regions (inductive analysis, Chapter 6). Bias-testing (Chapters 4 and 5) allowed us to exclude the possibility that survey site patterns were the mere result of modern visibility and geomorphological factors, rather than representative of ancient settlement strategies.

Two significant conclusions on settlement patterns in early Roman colonial territories were reached. First, the conventional colonial settlement model which presumes that colonial rural settlements were regularly organized, has been seriously undermined. The detailed analysis presented in this book has shown that this theory is incompatible with the available survey site-based data which, for the treated case-study, consisted of recorded site point distributions (for other studies that reached similar conclusions for these but also for other contexts using different approaches and data see Pelgrom 2008; Stek 2009; 2018). In fact, this study provided solid evidence that the survey data instead strongly match the more recently proposed polynuclear, village-based settlement theory in terms of settlement density and site patterns. Based on the different interrelated analyses carried out in this book, it can now be excluded that the clustered patterns in the dataset of Aesernia and Venusia are the result of

post-depositional biases or of major methodological differences in survey recording methods (for another colonial case-study with similar results see Hayes & Martini 1994, esp. ch. 3). The clusters of sites, as well as the low site density areas, and the empty zones in between them, are most likely the result of ancient location preferences and connected settlement strategies, rather than the result of the visibility and geomorphological biases considered in this analysis.

The second conclusion regards one of the contexts analyzed in this book, namely the territory of the Latin colony of Venusia. For this region, it was possible to dig deeper into the logic behind the recorded site patterns. Chapter 6 showed that the settlement clustering of archaeological sites did not happen randomly across the landscape, but instead targeted specific land pockets only marginally settled in the previous, pre-colonial period. According to the results from the inductive analysis, the preference for these zones seems to have been determined by two main cultural factors during the colonial period (3rd – 1st century B.C.): namely, a) the pre-colonial settlement organization and b) the vicinity to the colonial urban center. The influence of the latter factor was already noted during the deductive analysis performed earlier in Chapter 3 (section 3.4.1), when the data were compared with the ‘adjusted’ Von Thünen model.

The working hypothesis of a nucleated settlement organization could thus be confirmed (deductive analysis, Chapter 3) and complemented with new information regarding the rationale that probably determined the location of settlement clusters in the territory of Venusia (inductive analysis, Chapter 6). Of course, it is impossible to tell from patterns in survey sites whether the people living there were of Roman or native origin. However, the research presented in this book has demonstrated that during the Republican period the communities settling these territories adopted a settlement strategy that significantly differed from conventional expectations. These communities seem to have placed their settlements in a flexible way by choosing to cluster their dwellings in those zones only marginally settled in the previous pre-colonial period. This choice seems to be independent from favorable environmental

factors, or at least these were not the most influential aspects. Instead, settlement location was likely related to the influence played by the colonial town and the geopolitical landscape organization (*i.e.* local cultural constraints).

These newly acquired insights on the character of rural settlement patterns in early colonial landscapes of central and southern Italy can now be tested further in the field or in the laboratory, as well as being applicable to testing for survey datasets of other territories. This study has demonstrated that, if approached in a proper way, (legacy) survey data can disclose important information about settlement patterns and about the principal processes that determined these patterns.

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