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Discussion and Debate: Myopic Misunderstandings? A Reply to Meyer (*JMA* 35(2), 2022)

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Abstract

This paper engages with Nathan Meyer's (2022) paper 'Finding Sites in Mediterranean Survey'. Building upon longstanding critiques of Mediterranean survey practices, Meyer argues for a re-direction of survey practices. We feel that several of his core arguments reflect an unbalanced view on the role of site and off-site data in Mediterranean surveys, conflating intensive and siteless surveys. Moreover, while these critiques seem to us unnecessarily negative regarding the analytical potential of off-site data, they also reflect an overconfident attitude towards the use of site data for comparative purposes.

Introduction

From the 1950s, systematic fieldwalking became an important aspect of archaeological research in the Mediterranean. Within this broader development, several 'waves' of methodological maturation can be distinguished, including one particularly important trend: a shift from mainly site-oriented approaches towards those that map the archaeological surface record as a continuum that reflects different kinds of human activities. This shift from what is commonly referred to as

'extensive', site-oriented methodologies towards 'intensive' surveys implies important changes in the scale and intensity of research and the nature of the data being gathered: while survey regions became generally smaller, the amount of data and the types of sites and off-site phenomena recorded increased exponentially (Knodell *et al.* 2023).

Critiques of this development appeared in the early 2000s. Fentress (2000) questioned the added value of labour-intensive recording of ceramic densities, especially in off-site contexts

where post-depositional processes would allegedly render impossible the detection of any meaningful patterning in the data. This line of critique was extended by two archaeologists working primarily in the Americas. Blanton (2001), in a review of the five volumes of the *POPULUS* project (Barker and Mattingly 1999), characterised Mediterranean surveying as ‘myopic’—that is, targeting areas too small to ‘represent the regional systems of which they are part’. In his view, because of the many methodological complexities involved in the analysis of survey data and the lack of standardisation between projects, Mediterranean survey had become unable to address ‘issues relevant to understanding the causes and consequences of change over time at regional and macro-regional scales of social interaction’ (Blanton 2001: 629). Kowalewski (2008: 229, 249–50) similarly criticised Mediterranean ‘micro-methodologists’ for their focus on small sample areas; in his view, regional studies should aim for full-coverage survey of more sizeable regions that represent ‘a meaningful set of communities that form a system’.

Meyer’s (2022) recent contribution can be read in part as a firm restatement of the critique developed by Fentress, Blanton and Kowalewski. Meyer presents a critical assessment of the state of our field and suggests how, in light of that critique, it should develop. We see four core components to Meyer’s argument:

- (1) Mediterranean survey practice as it has developed can be characterised as *siteless survey* aimed at *measuring artefact densities*;
- (2) methodological ‘headwinds’ (Meyer 2022: 146) render the meaningful analysis and comparison of such intensive survey data extremely difficult if not impossible;
- (3) sites are the (only) units that lend themselves to comparison between projects; and
- (4) future surveys should depart from predictive modelling and adopt a multi-stage, site-oriented approach encompassing both extensive and intensive methods.

Our aim is to engage with Meyer’s argument, and thus also to address the longstanding critiques upon which it builds, which have received remarkably little explicit response by Mediterranean survey practitioners. We believe that several of Meyer’s core arguments reflect a view of Mediterranean survey practices that does not represent how recent survey projects have operated. We believe that these critiques present a somewhat unbalanced view on the role of site and off-site data in Mediterranean surveys, incorrectly conflating intensive and siteless surveys. We find Meyer’s critiques unnecessarily negative regarding the analytical potential of off-site data; moreover, we feel his assessment that site data can be compared rather unproblematically needs more careful consideration. In the following sections, we review in more detail each of these four points.

Focusing on Terminology: What Do We Mean by Intensive Survey?

Meyer appears to assume that ‘intensive’ survey necessitates moving away from defining sites in the landscape, and dealing only with the continuous carpet of surficial material that is a reality of much of the Mediterranean ground surface. For several reasons, this is an inaccurate representation of current practices. Here we show how the site concept remains integral to intensive survey (Figure 1), and we also sketch the other methodological advantages of more—as opposed to less—intensive observation of the landscape.

Intensive survey involves the systematic inspection of the ground surface to generate quantitative information on artefact densities (Attema *et al.* 2020; Knodell *et al.* 2023). This routinely involves an explicit sampling strategy that is a function of a research question and the division of the landscape into discrete units of observation, with the resulting observation undertaken systematically and at varying degrees of intensity. The result is usually a more or less fine-grained understanding of the

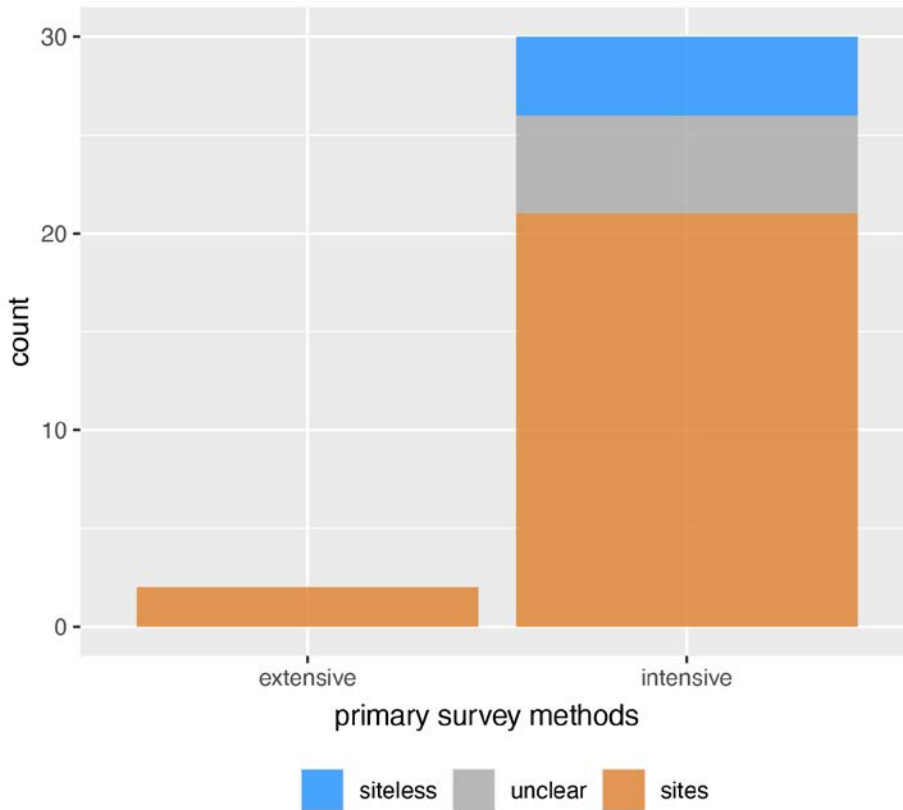


Figure 1. Application of site concept for sample of 32 Mediterranean survey projects started after 2000 (data modified from Fieldwalker.org)..

distribution of archaeological material across the ground surface. How does this allow us to define and study sites?

Crucially, sites are not intrinsic properties of the archaeological record. Rather, they are the result of a process in which certain parts of the record are artificially demarcated from others to aid interpretation, comparison and synthesis (Witcher 2006). This process is vital: we need to be able to compare two loci of human activity that differ in time and space in order to be able, in turn, to build patterns and establish differences. To make sure that the basis of comparison is empirically secure—that we are comparing two entities between which comparison is valid—we need a formal process of defining

the entities in question, whether we call them sites, AOIs, POSIs, loci, etc. When it comes to the surficial archaeological record of the Mediterranean, intuiting such entities on the basis of visual inspection is likely to be a flawed method of definition, not least because of taphonomic variability (especially over time: witness the ‘traffic light’ phenomenon—Lloyd and Barker 1981) and the lack of evaluative criteria. Thus, for first-generation extensive surveys, the degree of confidence in ‘sites’ being used to construct regional settlement dynamics is necessarily low.

Contrary to Meyer’s position, we argue that intensive survey is the type of survey best placed to identify sites, precisely because it does not set out to discover sites as *a priori* discrete

phenomena but rather incorporates quanta into the evaluative procedure. Whether designated as ‘sites’ or not, the correlation of relatively high densities of artefactual material with other signs of intense human use of an area (architectural remains, anthropogenic landscape modifications) allows such loci to be distinguished from background densities via formal mathematical procedures, in addition to purely qualitative criteria (e.g., Bevan and Conolly 2009). Moreover, intensive survey identifies classes of site that extensive survey cannot, as Cherry (1983) showed early on in his compelling demonstration that site frequency correlates positively with intensity of observation; we consider this in more detail in the next section.

Truly siteless surveys are rare, and geographically limited to the Aegean (Figure 2). Intensive survey practitioners have never shied away from the site; on the contrary, they have shown that we cannot reliably identify a locally representative range of sites without intensive prospection.

Intensive survey has other, central advantages over traditional extensive survey, or the novel, alternating-scale methodology for which Meyer advocates. Most obviously, it has revealed the essential ubiquity of the continuous carpet of sherds. While the behavioural explanations for this differ (Alcock *et al.* 1994; Pettegrew 2001), the fact of its discovery is of fundamental importance to any attempt to model the rural Mediterranean landscape. Any method that presupposes the existence of sites, rather than trying to parse them from background patterns, would miss this key element of the wider landscape. In addition, intensive survey allows us to begin to grasp those post-depositional processes that have blurred the material outcomes of past human behaviours in which we are interested. Far from fetishising Holocene geomorphology (Blanton 2001), failing to attempt to reconstruct dynamism in ploughsoil assemblages means that the ‘sites’ revealed by extensive survey may be nothing of the sort.

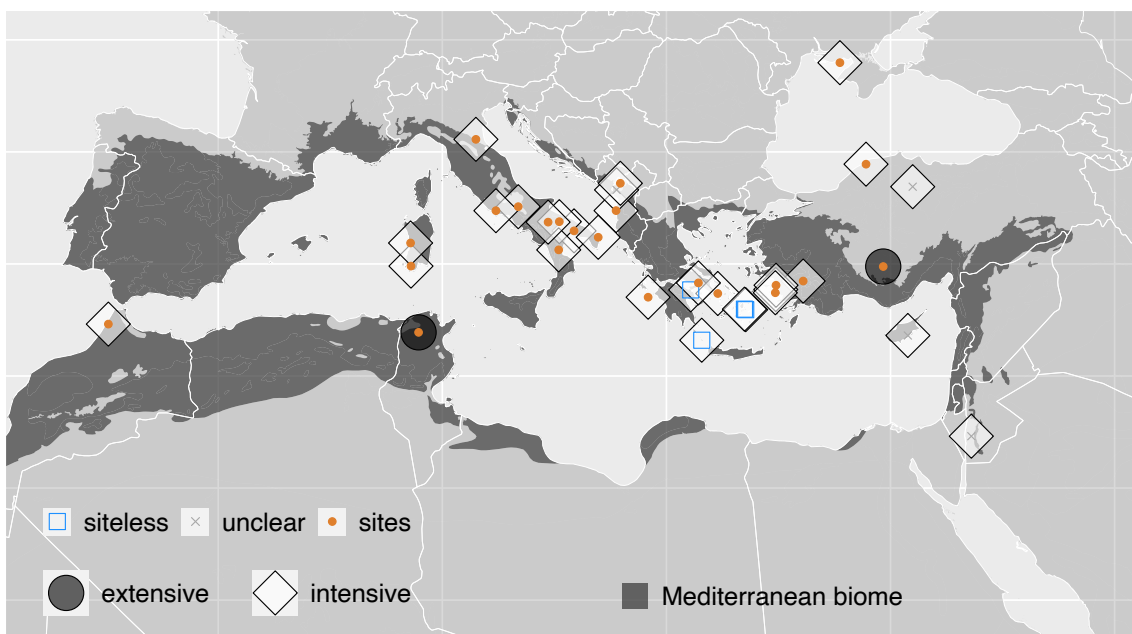


Figure 2. Geographic spread of different survey approaches within the Mediterranean (based on same sample of 32 projects summarised in Figure 1).

A Closer Look at Sites

As argued above, the site is—and has always been—a core concept within Mediterranean survey archaeology, and we agree with Meyer and others that it is indeed a crucial unit of analysis that helps us to simplify the complexity of past remains, particularly when looking at macro-regional or supra-regional scale data. While sites are therefore the main entities we can and should compare between projects, the process of comparison is by no means unproblematic.

First, archaeologists must face the basic question of how to define, classify and interpret sites. In a traditional perspective, this is a fairly straightforward process. Sites, commonly equated to settlements, have characteristics that can be recorded, classified and interpreted unproblematically according to criteria that are set out *a priori* and on an objective basis; or, conversely, they have more or less uniform characteristics that allow typological interpretation in terms of size and complexity classes, or historically attested categories. Because settlements (or at least buildings) are the most conspicuous type of site it is all too easy to slip into assuming, wrongly, that ‘site’ usually equals ‘settlement’, and thus in the mode of quantitative human geographers to infer settlement hierarchies from that identification.

Meyer’s argument on this point, however, seems contradictory. On the one hand, when it comes to defining sites, he opts for a rather different solution: he defines sites as ‘any areal expanse with an arrangement or aspect of material culture or environmental features that are likely indicative of—and with the potential of being interpretable as—past human activity’ (Meyer 2022: 152). This reflects a much more plastic approach to site definition than that to which many Mediterranean archaeologists would subscribe. It does, however, suggest that sites may have a rather broad and heterogeneous set of characteristics that are also open to a much broader set of interpretations. Defined in this way, sites are exactly what off-site surveys

intend to trace in the landscape in a systematic way; for example, following this definition, sites can indeed be spatially expansive (‘continuing for kilometers’—Given 2004: 166, quoted by Meyer 2022: 153), like the supposed manuring spreads around the city of Thespieae (Bintliff *et al.* 2007), which could accordingly be considered a site. To us, this kind of definition seems difficult to reconcile with the idea of sites as self-evident phenomena that exist independent of observation. Additionally, it would not enable easy comparison between projects.

On the other hand, he seems to follow the equation between sites and settlements, resulting in ease of comparability. Thanks to insights from intensive surveys, however, we know how challenging such generalising classifications are (Witcher 2012). Sites of similar size and material footprint may represent different social-economic entities (e.g., a large villa and a village may look rather similar), while conversely similar historical entities may have material footprints that vary according to local or regional cultural preferences or economic conditions (e.g., supply patterns) (Witcher 2006). These are crucial insights to take into account before using site data as proxies for the study of broader sociopolitical or economic phenomena. A good example concerns the use of site data for demographic extrapolations, which is much less straightforward than we might like (e.g., Blanton 2004): what might appear as Roman farms on the surface may in fact represent a much broader range of sites, in part permanently inhabited, in part seasonally inhabited, in part not inhabited at all (Bowes 2021). Equally, large semi-urban or urban sites may in fact have served as low-density central places rather than large population centres (Heinzelmann and Jordan 2012). Comparison of classified site data is therefore not straightforward, but requires both quantitative and qualitative scrutiny.

If we take a more restrictive definition of sites (that might be more suitable for comparing and integrating site data), and follow Meyer

in arguing for the need to compare them, the challenges intrinsic to such comparison remain considerable, and certainly deserve closer attention (de Haas and van Leusen 2023). One possible solution to the issue of comparability—standardisation of methods and classifications—has been long debated but, for various reasons, never realised (Mattingly 2000; Alcock and Cherry 2004; Knodell *et al.* 2023: 270). Additionally, even if standardisation in methods were achieved, this would not imply that regionally distinct sampling and visibility biases could be disregarded, or that variability in typological and chronological classification would be resolved. Because chronology plays a major role in almost any supra-regional analysis, the reliance on globally circulating well-dated imports for dating sites is highly problematic: coarse-ware typo-chronologies are crucial, but by nature regionally specific and thus not necessarily easy to compare or integrate. In other words, no matter what context they are from or what methods were used to collect them, archaeological data are heterogeneous and thus difficult to integrate (de Haas and van Leusen 2020; Attema *et al.* 2022).

A Vision for Off-Site Data?

If we followed Meyer's proposed realignment of survey methodology around sites in order to address accusations of methodological 'myopia', one consequence is the abdication of duty towards 'off-site' finds and a rejection of the idea that these can have any meaning in cross-Mediterranean or wider perspective. Meyer (2022: 143) suggests that 'siteless survey methods produce data that [...] do not provide correct deliverables'. What constitutes 'correct' in this case is a matter of what research questions are asked. But discarding high-resolution data about archaeological finds because they do not fit neatly into the category of site is problematic. Sites are simply places around which archaeologists fixate because of a concentration

of residues from past activities. Such activities could naturally include the creation of built settlements and all of the regular everyday actions that take place in them; or they could include the construction of, or simply the discard of, immense amounts of rubbish. But the site was not (necessarily) of equal importance to past peoples who constructed or discarded material culture in this place; they lived fluidly across landscapes, moving within and between many different places and non-places, and only leaving non-negligible traces in a few of them.

Let us consider what intensive survey strategies from the Mediterranean really represent and how treating the artefact as the unit of analysis, rather than the site, can help us to answer questions that are not purely site-related. Each counted or collected find is a congealed index of past human labour and, in very crude terms, the quantity of such finds is an index of the quantity of labour invested. Along these lines, the analysis of off-site distributions in terms of agricultural expansion and intensification strategies is crucial to the comparative assessment of past societies, over both time and space (Bintliff and Snodgrass 1988; Hayes 1991).

Meyer (2022: 151) suggests that it is impossible to compare find densities across different regional landscapes, or that such comparisons are meaningless, and he is not the first to argue this (Given 2004). This view rests primarily on the fact that localised taphonomic processes, the differential recognisability of different material sets and the diversity (or rather incompatibility) of recording ontologies create quantitative stochasticity in distribution patterns. We do not deny the existence of any of these problems, and any rigorous study would need to consider them. But we do argue that such problems are common to all forms of archaeological data, and if we were to stop making comparisons in other parts of the field because of such objections, we would reduce archaeology to mere compilation. Moreover, a biased sample does not rule out *per se* quantitative comparison, for example if sam-

ples can be argued to be biased in the same or opposite direction (Drennan 2009: 88-89), or are amenable to Bayesian exchangeability (Banning 2021: 51). Instead of forsaking find densities as local and idiosyncratic, we simply need to get better at modelling our methodologies (e.g., through formal models of survey intensity) as well as uncertainties in the resulting survey data.

The more pressing problem is that, despite the efforts of a few valiant Open Data champions, most archaeologists still do not make their artefact-level data available in a form from which densities could be drawn together from different projects, even in a very basic comparable way (Strupler 2021). In fact, many survey projects (site-oriented or not) have only been published in a preliminary way, and full publication and archiving of data according to FAIR (Findable, Accessible, Interoperable and Reusable—Wilkinson *et al.* 2016) standards remains the exception: of the 32 recent survey projects presented in Figures 1 and 2 (above), only 10 have made data available digitally (and are thus findable and accessible), and not all datasets are complete or documented in such a way as to be interoperable and reusable. The track record of older survey projects is certainly not better (de Haas and van Leusen 2020).

What could we do if we had off-site data in a more accessible form? At a basic level, regional average artefact densities could provide a proxy for the comparative size of the (ceramic-producing) economies at a Mediterranean scale; this would avoid the additional interpretive step of reconstructing settlements or their hierarchies but still provide opportunities for modelling gaps (Bevan and Wilson 2013). While such density figures should not, of course, be used uncritically (any more than site numbers or densities should), chronological analysis of such artefact data could also highlight periods of growth or recession sensitive to regional diversity in a probabilistic way, as has been successfully applied for radiocarbon dating (Crema 2022). Deviation or range indica-

tors of density per square metre would provide crude but potentially comparative proxies for the changing clustering of human activity (i.e., not just the clustering of ‘settlements’) in a pan-Mediterranean perspective. Such indices would also highlight the uneven distribution of archaeological investigation, with some places receiving much higher intensity work than others (and compare that to recovery in the places that have been investigated), and as a result help us to unbind our wider regional interpretations (Knodell *et al.* 2023: 275-93). There is no reason why these sorts of comparisons could or should not be made outside the Mediterranean region if comparable data can be marshalled.

Density data are only one of a series of variables derived from off-site data that can be analysed; in fact, densities can only be considered meaningfully in conjunction with other attributes such as fragmentation, assemblage composition and topographic context (de Haas 2012; Waagen 2014). Using simple GIS algorithms, multivariate statistics (such as PCA) or now machine-learning approaches, these variables together allow for a contextual reading of off-site distribution at the local scale in light of discard strategies and agricultural practices. By applying models derived from ethnographic data to interpret these distributions at larger spatial scales, off-site data thus also can be used to assess comparatively broader issues of, for example, agricultural expansion and intensification (Hayes 1991; Forbes 2013).

Zooming In and Out? Premises and Practical Implications of Alternating Methods

The framework Meyer proposes to move Mediterranean survey forward leans heavily on predictive modelling to inform decisions on exact sampling strategies, and on quality assurance measures. We can agree that all archaeological field surveys are organised with some kind of implicit model of expected archaeology in mind. A risk intrinsic to such an approach is that the model becomes

a determinant, and that biases will be built into the survey strategy. Meyer points to detection maps (Casarotto *et al.* 2018) as instruments to assist in such predictive modelling, for example permitting the exclusion of certain areas from the survey. The study he refers to, however, used such maps to analyse *post hoc* potential visibility and geomorphological bias, and their application as part of a predictive approach remains untested. A potential use could, of course, involve allowing identification of areas where field survey would be ineffective regarding ploughzone archaeology, for example in areas whose processes affecting surface formation (i.e., heavy degradation) postdate the specific period of interest. Such instances, however, will still rely on models with coarse resolutions obfuscating local variability and warrant local inspection. Also, we seldom have the possibility of ignoring more recent archaeological phases, let alone the ethical issues concerned with such a strategy.

More generally speaking, any predictive model should be checked continuously to avoid systemic bias. Although Meyer asserts this, it is not clear how it should be achieved in practice and what the implications of his proposed strategy would be. By overlapping extensive survey areas with areas in which more intensive techniques (intensive gridding and/or point sampling—e.g., Stek and Waagen 2022) are applied, one might be able to monitor such bias, but alternating sampling methods is a significant risk here because of the aforementioned issues. The same holds true for the expected archaeology: boundaries between different types of land exploitation zones and/or cultural spheres with their associated archaeological indicators will usually be strictly hypothetical at best, and almost certainly fuzzy.

The point on quality assurances brings us to the hypothetical methodological example in which Meyer shows how different types of sampling can be applied flexibly and adaptively in the field. Although we agree that there should be more attention towards quality assurance in archaeological field survey (Banning 2017), the

logistical challenges of continuous adaptation as part of the team leader's responsibility are more profound than Meyer hopes. It commonly takes an experienced team leader to adapt basic field survey strategies during fieldwork, such as determining where something like a random grab sample should be applied complementary to the regular intensive method. Making or adjusting probability calculations in the field would likely put too heavy a strain on most survey team leaders, introducing the risk that an inappropriate strategy might be employed. Given that most field surveys in the Mediterranean are projects that rely heavily on student labour, using a standardised method is preferable for this reason alone.

Concluding Remarks

To summarise our main observations on Meyer's argument: his characterisation of intensive Mediterranean survey practices as focusing solely on density quantification (disregarding sites) seems to us incorrect (and we note that projects that in fact take such an approach are rare); we feel his suggestion that sites should be the sole units of comparison underestimates the complexities involved in such comparison and neglects the fundamental importance of off-site data in this process; and while his proposed framework in part reflects current practices, it in part seems overly restrictive. This leaves us only to address the tacit challenge of our presumed 'myopia': that only by focusing on site definition can we scale-up projects to the level that regional processes can be addressed (a key component of Blanton's and Kowalewski's critiques). We make three points in response.

First, pertinent human processes operate on a range of scales, from the highly local to the trans-continental, and all scales lend themselves to discrete types of research questions. We would argue that many of the crucial processes in Mediterranean history (e.g., urbanisation and state formation) are in fact addressed appropriately at micro-regional and regional scales (e.g., Whitelaw

2012). Second, extensive or alternating-scale methods are likely to miss many or indeed a majority of sites in a given area that might be supposed to be relevant to regional systems, and are not able to generate large quantities of data at high resolutions (e.g., systematic ceramic data for the study of economic integration and performance). Third, Mediterranean political geography and systems of issuing permits simply preclude a project on the implied scale. More cost-effective means of addressing truly large-scale issues involve harnessing the power of rich local datasets via effective integration (Attema *et al.* 2020). This is a point where Mediterranean survey archaeologists should be criticized for not having documented, published or archived their data so as to allow such integration.

Critical reflection upon how and to what end we investigate Mediterranean landscapes is crucial, and Meyer should be commended for re-invigorating debate on the approaches and methodologies we use in Mediterranean survey archaeology. In its vision for the future, his paper represents a welcome reminder of the need for flexibility in the historically, environmentally and geomorphologically complex Mediterranean context. But when it comes to addressing ‘the regional and macro-regional scales of social interaction’, we disagree with the direction proposed: rather than simplifying complex yet rich data, we should embrace the complexity of our intensive survey data in building better comparisons, even if this is highly challenging. Blurring our extant sharp focus on the local and regional does not seem like a viable basis to bring the bigger picture correctly into view.

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