Review of: Schülke, A. (ed.) (2020). Coastal Landscapes of The Mesolithic. Human engagement with the coast from the Atlantic to the Baltic sea. London: Routledge. 454 pages, 117 b/w illustration. ISBN 978-1-138-30360-7

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"CoastalLandscapes of The Mesolithic-Humanengagement with the coast from the Atlantic to the Baltic sea" is not only the result of a workshop held in Oslo back in 2016, but it also forms a new and comprehensive volume on an important topic that surfaces every now and then; namely the way, extent and effects that living by and off the coast had on prehistoric communities in northern Europe after the Late Glacial and onwards. The aim of the workshop was to "discuss the topic in light of current international research between the Atlantic and the Baltic. Based on presentations with variations intermsofarchaeological, geological and topographic situations, weaimed to address diversemethodological strategiesandtoshareinterpretativeapproachesacross geographic areas." This it certainly does, as it delivers sixteen individual chapters, all of which are distributed across four major parts according to specific themes such as the significance of coastal areas (Part I), coastal sites, mobility and networks (Part II), the resources of the sea and beyond (Part III) and finally the coastal zone: time depth, historicity and ritual practice (Part IV). "All four parts includecasestudiesstretchingfromBrittany,France in the south, central Norway in the north and from theIrishislandsinthewesttothebeachesandislands of the Baltic in the east" (Schülke, 2020, 2) and provides anything from the quantitative, geospatial or research historical takes on the Mesolithic. As impressive as this sound, I do have some minor reservations pertaining to the books content, but I will return to those at the end of the review.

Part I sets out to do pretty much what its title communicates, namely, to assess the "significance of coastal areas". The reader should be careful in reading the title as suggesting that "coastal areas are/were significant", because this is not always certain. For instance, Astrup inaugurates part I with a pragmatic computational approach using a geographical information system (GIS) and available archaeological evidence from the Maglemose culture. Focusing on the area of Vendsyssel located in the north eastern part of Jutland, Denmark, Astrup constructs spherical buffers intended to represent parts of the landscape exploited by prehistoric communities (ASTRUP, 2020, p. 34). Astrup concludes that the areas of exploitation would have

included a considerable portion of the coast but unfortunately does not justify the use of a 10 km radius for the buffers, nor is it considered how different landscape features or movement speeds might have affected the size of these (e.g. Byrd et al., 2016). However, whether or not, this would have meant that communities could have settled along the coast for longer periods of time is something that Astrup suggest could be substantiated only if better osteological remains become available.

The preservation of organic remains is fortunately not as dire - with emphasis on 'not as' - for other parts of northern Europe. For large parts of Scandinavia, continuous uplift of the earth's crust since the last ice age has resulted in the exposure of post-glacial shorelines, sometimes with good organic preservation. Solheim, for instance, marshals a total of 589 radiocarbon dates from 167 coastal sites in southeastern Norway in order to assess the demographic development during the Mesolithic. Based on statistical benchmarks, Solheim suggests that his demographic model fits best with a scenario in which a population grows exponentially over time, albeit with the occasional negative deviations. Solheim also provides evidence from isotopic analyses from human bones and teeth that all - undoubtedly - point to marine foods as an important part of the Mesolithic diet. Part I also involves two major synthetizations and research historical reconsiderations - of both the coastal landscapes around the islands of Ireland (e.g., WARREN & WESTLEY) and the Latvian shore (e.g., Bērziņš). It is obvious from this chapter that investigations into the significance of coastal landscapes during the Mesolithic is more or less riddled with source critical issues as a result of the waxing and waning of the post-glacial shoreline, as illustrated by both Warren and Westley, as well as Astrup and Bērziņš. In situations like these, it is very important to adopt the attitude of 'reconciling data sets of fundamentally different scales of resolution: both spatial and temporal' (WARREN & Westley, 2020, p. 93).

Part II introduces us to various types of coastal sites and their mobility strategies (Breivik, this vol.), the long-term effects that coastal living had on technology and demography (MITHEN ET AL., this vol.), resilience (FOSSUM, this vol.), social networks and how they relate to aspects of mobility and social complexity (MARCHAND, this vol.). Breivik, for instance, provides a diachronical account on changes in site characteristics along the central Norwegian coastline from 9400-8500 cal BC and traces a development that goes from small field camps with narrow activity patterns to becoming

larger and more varied as the marine environment eventually stabilized. The accumulation of sites grinds to a sudden halt after 8500 cal BC (Breivik ET AL., 2018, p. 263) but its significance within the overall pattern is given less attention. It is not impossible that this was the result of a possible population collapse as suggested by Mithen, Wicks and Berg-Hansen's case study from western Scotland (this vol.). Although they argue for a highly flexible settlement pattern that was supported by having extensive ecological knowledge, it is clear, that this only helped to a certain point. At around 8200 cal BP, human activity is both suddenly and drastically reduced, prompting Wicks et al. - with reference to previously elaborated population figures ranging from 25 to 240 people (Wicks & MITHEN, 2014, 253) - to suggest a potential population collapse.

The use of absolute numbers is a valuable contribution to questions regarding collapse as it only really becomes tangible once viability thresholds can be defined (Lundström et al., 2021; Maier & Zimmermann, 2017; Smith, 2014). However, estimates on said thresholds vary (White, 2017, p. 17) and 240 people as a maximum population size could still be well above the tolerance level for a population to remain viable. It is not entirely certain, therefore, that communities in western Scotland during the 8200 cal BP event suffered a population collapse even if the drastic reduction in activity is striking.

In south eastern Norway, for instance, the case study by Fossum (this vol.) suggests that communities carrying out a generalist subsistence practice exhibited marked climatic resilience at this time. No significant changes in the archaeological record - apart from an apparent plateau in the frequency of sites between 8600-8000 cal BC - was noticeable as a result of the 8200 cal BP event, which was the expectation had communities instead practiced much more specialised subsistence strategies. However, no definition for resilience is provided by neither Fossum nor by Breivik and colleagues (Brei-VIK ET AL., 2018). This is an unfortunate trend within the larger field of resilience studies already (Bradtmöller et al., 2017, 10) and it really should not be perpetuated as it forces the reader to make intuitive judgements as to whether or not simply observing spatial and temporal changes in the archaeological record can be considered enough of a benchmark (Fossum, 2020, 180), when it instead could be measured against readily available definitions (Peters & Zimmer-MANN, 2017, p. 44).

Part III deals with the subsistence basis of both Mesolithic and Neolithic coastal communities and their potential social ramifications. Although empirical support is weak for established fishing practices during the early Mesolithic in Norway, Bergsvik and Ritchie (this vol.) clearly demonstrates - using both archaeological as well as osteological evidence - that not only did fishing become more important toward the end of the middle Mesolithic and more so throughout the late Mesolithic on the west coast of Norway, but it also had downstream effects on settlement preferences, degrees of sedentism, technological developments and the extent to which members of the communities took part in the subsistence practice. Increased sedentism and technological investment is, however, not limited to just communities that practice fishing, but can also be the result of extensive hunting, as is brilliantly demonstrated by Glykou interesting case study that couples both archaeological and zooarchaeological data in order to make inferences on the palaeoenvironment and patterns of seal hunting in during the late Mesolithic and the early Neolithic from parts of eastern Denmark and larger parts of the south-eastern Baltic sea.

Increased sedentism and potential social complexity appears to be part of an overall late Mesolithic trend in general, as is also demonstrated by Mjaerum and Mansruds case (this vol.) study on the socio-economic importance of fishing for the eastern parts of Norway. Here too, evidence for fishing is limited to the middle and late Mesolithic although they also note that exploitation in other parts of the landscape was developing in parallel, such as the hunting of elk in the interior. This move away from the coastal zone is also explored further by Wieckowska-Luth and Kirleis (this vol.) who deploy numerous palaeobotanical methods in order to investigate whether or not Mesolithic communities at this time might have been starting to exploit what they call the 'hinterland' in addition to the coast.

Up until this point, it is fair to say that the book has had strong and overall focus on aspects relating to ecology and subsistence practices. Thus, when moving into part IV, the book switches gears and directs its attention to social aspects even if those – as is made evident – are never completely decoupled from ecological, topographical or environmental phenomena. Nyland, for instance, takes a wholly different approach than most of the previous contributions. Looking at the practice of raw-material acquisition across large parts of southern Norway from a different

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perspective than the more common direct and, or, embedded procurement perspective (BINFORD, 1979) Nyland integrates a social perspective and argues that quarries – instead of being treated as mere places for resource extraction- also came to obtain social and symbolic significance as they gradually became places of repeated visits during the late Mesolithic, resulting from the desire to establish stability in an otherwise changing coastal world. However, this stability in raw material acquisition practices seems to also have been partly responsible for the increased degree of between-group differentiation both during the late Mesolithic (SKJELSTAD, 2003) and early Neolithic (BERGSVIK, 2006).

Schülke investigates how traces of occupation and settlement sites in the coastal zone of southeastern Norway provide insights into Mesolithic peoples experience of, and response to, past events embedded in changing coastal landscapes. Schülke draws on an extensive body of excavated sites and palaeogeographic reconstructions of the prehistoric shoreline from eastern Norway and argues that social and experiental aspects would have been just as important as the importance of resources to middle and late Mesolithic populations, seeing as to live by the coast would have meant to live in an environment under constant change along both spatial and temporal gradients. In specific, Schülke highlights how in some areas, occupation would have continuously followed the constantly changing shoreline, whereas in other areas sites would have been situated much further away. Some of these sites would also have been used or visited repeatedly or during longer intervals of time marking a significant break with the more ephemeral sites of the early Mesolithic (BJERCK, 2008). When approaching the end of the book we also - quite fittingly - approach the end of the Mesolithic with Sørensen's account on structured ritual depositions at the Mesolithic-Neolithic transition.

Sørensen provides us with an interesting case study from the late Ertebølle site of Syltholm I from southeastern Denmark and specifically seeks to address aspects of structured deposition of bone, pottery and wood items, suggesting that they lend additional weight to the view of the coastal zone as a ritual deposition area, something that – seen from most of the book's contributions – appears much more pronounced in both the area around the Latvian (BĒRZIŅŠ, this vol.) and Atlantic coast (MARCHAND, this vol.) during the Mesolithic. Just like Astrups case study in the northern parts of Denmark, the area sur-

rounding Syltholm has also been heavily subjected to inundation from post-glacial sea-level rise (Sørensen, 2020, 397). However, instead of posing a re-locational incentive as one can imagine that it might have done for early Maglemose communities, Sørensen argues that the water in fact served a ritual purpose for late Ertebølle communities. Moreover, Sørensen also argues for marked cultural continuity in these forms of ritual hunter-gatherer practices into the Neolithic when farming communities also starts to establish in the region. Unfortunately, Sørensen does not elaborate much more on the potential reasons for this marked continuity, but perhaps an answer can be found in the fact that recent years research on ancient DNA - some of which in fact comes from Syltholm - indicates relatively little, if any, interaction between the hunter-gatherer and farming populations (JENSEN ET AL., 2019; SKO-GLUND ET AL., 2014).

To conclude: This is a much-welcomed anthology to the topic on coastal landscapes during the Mesolithic of northern Europe. It's an impressive anthology to say the least, seeing as the book covers a wide range of topics and methodologies; anything from the exploitation of both the coastal and interior zones (Astrup, Wieckowska-Luth and Kirleis), its potential impact on demography and social resilience (Solheim, Wicks et al., Fossum), settlement and subsistence strategies (Breivik, Bergsvik & Ritchie, Mjaerum & Mansrud, Glykou, Schülke), ritual practices and social interaction (Marchand, Nyland, Sörensen), not to mention important research historical (Warren & Westley) and regional syntheses (Bērziņš). Although it is only a minor remark, the amount of case studies focused on the Norwegian coast made the reading process somewhat repetitive at times. Let us hope that future conferences and/or anthologies manage to attract contributors from other regions such as the North Sea coast, the Bothnian gulf or the Swedish west coast to name just a few (Schül-KE, 2020, 2). Other than that, the book is extremely generous both in temporal and geographical scope and thus should have no problem appealing to well familiarised readers looking for updates on regional debates or what the empirical basis for some of these might be. Indeed, the anthology comes packed with tables summarizing anything from sites analysed, radiocarbon dates or characteristics of certain mammalian taxa. The layout of the book made for a pleasant read seeing as anything from photographs, figures and tables are all neatly - and consistently - formatted in black and white or gray scale and the extensive index allows

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the reader to easily navigate back and forth to sections of particular interest. The book should also appeal to the interested – but perhaps uninitiated – reader to whom the topic on coastal landscapes during the Mesolithic is completely new.

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