

Malou Blank

*Mobility, Subsistence and Mortuary Practices:  
An Interdisciplinary Study of Neolithic and  
Early Bronze Age Megalithic Populations of  
Southwestern Sweden*

Doctoral dissertation in Archaeology  
Department of Historical Studies, University of Gothenburg  
GOTARC Series B Gothenburg Archaeological Theses no. 78  
Gothenburg 2021  
223 pages plus six peer reviewed papers  
ISBN 978-91-85245-84-0; 978-91-85245-85-7

Review by Jan Apel 

The title of Malou Blank's doctoral thesis neatly reflects its content. It is an interdisciplinary study that produces results from a battery of scientific research methods and statistical techniques, whereby new light is shed on the Neolithic megalithic grave tradition of Falbygden in Västergötland, southwestern Sweden. The research area is located between Sweden's two largest lakes, Vänern and Vättern, an area with a chalk-rich, Cambro-Silurian bedrock that tend to preserve archaeological bone materials. The main objective of the thesis is to gain new knowledge of the Neolithic and Early Bronze Age societies, that built and used the numerous megalithic graves that are found in this part of Sweden. Several hundred samples of

---

Stockholm University  
jan.apel@ark.su.se

This is an Open Access article distributed under the terms of the Creative Commons 4.0 International licence (CC BY 4.0) (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

human remains, from 46 megalithic sites, make up the backbone of the data that are analysed in the thesis. Archaeological observations and artefacts are also included in the analysis.

The thesis consists of six papers that have been published in international peer-reviewed journals. Blank is the first author of five of these, and the single author of one. The introductory chapter presents research questions, methods, and conclusions, all of which are anchored in the general cultural history of period, stretching from the Early Neolithic to the Early Bronze Age (c.3500–1100 BCE). In two appendices isotopic and bio-archaeological data are presented, and detailed site and artefact descriptions are given. The author has had access to large data-sets, due to her involvement in two large research projects; the *Neolithic Lifeways* (Gothenburg University) and the *ATLAS*-project (Stockholm University and Uppsala University). It is impossible to give an account of all the results that have been presented in the thesis, but in the following I will highlight some points that I found particularly intriguing.

Analyses of over 200 radiocarbon dates of human remains from megaliths confirm two phases, when megalithic graves were erected and used in Falbygden in Västergötland. Dolmens and passage graves are dated to an early phase, between c.3500–2600 BCE. The gallery graves are dated to a later phase, extending between 2200–1100 BCE (Blank et al. 2020:12–16). The  $^{14}\text{C}$ -dates are analysed with several methods, including Kernel Density Estimation (KDE) plots and models, and ordinary Summed Probability Density (SPD) models. It is concluded that the smoothing of the curve that KDE offers, that removes artificial spikes, comes at the cost of accuracy. High quality  $^{14}\text{C}$ -dates, especially dates that coincide with a steep calibration curve, will lose resolution, an important fact that it is pleasing to see mentioned in the second paper. It is, thus, important to choose method according to the research questions, and Blank comes to the conclusion that SPD models, complemented with KDE plots, work best in this case, because the main purpose is to investigate the most likely use-time, without shortening the possible use-time by conducting for instance Bayesian modelling (Blank et al. 2020:2).

While the dissertation presents novel and interesting results regarding the chronology, subsistence and mobility of the populations buried in the Middle Neolithic dolmens and passage graves, the most interesting parts, in my opinion, concern the Late Neolithic gallery graves in Falbygden. A revised chronology of the Late Neolithic period in southern Scandinavia is presented in this regard. While earlier researchers usually have dated the period to 2350–1700 BCE, the author concludes that a more accurate date is 2200–1700 BCE (Blank et al. 2020:2). These new chronological results are worth a comment. These graves have not received the atten-

tion they deserve in earlier research, and this thesis remedy this situation. Originally defined as the gallery grave period by Oscar Montelius, the Late Neolithic period in Sweden is characterized by several hundreds of gallery graves, mainly concentrated to the counties of Västergötland, Småland and Scania, although they are also present in large parts of southern and central Sweden. The fact that gallery graves are not closed contexts, but rather contain numerous burials, have made them ill-suited for detailed chronological analyses. While the individual inhumation graves from the Middle Neolithic and Early Bronze Age periods were suitable for the find combination method, the Late Neolithic collective gallery graves were more difficult to sort chronologically. Thus, the dating campaign presented in the thesis is more than welcome, and from a Swedish perspective the chronological revision that is presented in the thesis is understandable. However, from a Danish perspective the re-dating of the period might be surprising. While Swedish archaeologists, from Oscar Montelius and onwards, usually defined the Late Neolithic on the basis of the Swedish numerous gallery graves, Danish archaeologists have since the days of Sophus Müller tended to define the period on the basis of flint daggers. According to this definition, the transition from MN B to LN I happened when flint daggers replaced battle axes as male grave goods in the upper graves of the Danish Single Grave Culture. Thus, it is pretty bold to suggest that the radiocarbon dates from Falbygden's gallery graves actually date the onset of the Scandinavian Late Neolithic. Especially since the most common flint dagger type recovered in Swedish gallery graves is the Type III dagger with a rhombic handle (Blank 2022:86). The earliest flint daggers of Type I on Jutland commonly appear in LN I contexts, such as individual inhumation graves, single-grave stone cists and settlement with two-aisled houses with sunken floors (Jensen 1973; Sarauw 2006). I know for a fact that Blank is currently assembling evidence for Bell Beaker activities in Sweden, and it will be really interesting to see how an earlier Late Neolithic phase might be reconciled with the gallery grave phase.

A further interesting observation presented in the thesis is that human remains dated to MN A also appear in graves that – according to the traditional terminology – are classified as gallery graves and thus belong to the later phase (Blank et al. 2020:20–21). In fact, artefacts dated to the early phase have also been recovered in gallery graves, and Blank suggests several interpretations of this observation. It may be the result of a flawed megalithic typology, for instance that passage graves erroneously have been classified as gallery graves. It is also possible that some multi-chambered gallery graves may have been built already during MN A, something that would correspond with dates of similar *allée couverte* gallery graves in Western Europe (Kaelas 1962; Apel 1991; Blank et al. 2020:20). However, she also

puts forward the idea that human bones from the older graves might have been redeposited in the gallery graves together with artefacts, perhaps in order to connect to earlier traditions. The latter is indeed a more thought-provoking interpretation.

After establishing a strontium isotope baseline covering an area of 120×130 km by analysing 61 water samples and five animal samples, Blank also uses human strontium values to discuss mobility patterns during the two phases. While the strontium isotope values of individuals from the early phase reveal signs of a fairly low mobility, the Late Neolithic population indicate a somewhat higher mobility, especially from c.2000 BCE, including values that suggests contacts with areas such as Eastern Central Sweden. These results are related to the occurrence of exotic amber beads during the early phase and flint daggers, slate pendants and metal artefacts, especially from 2000 BCE and onwards. Blank points out the connection between a greater mobility, as indicated by strontium values, and the distribution of flint daggers. The inferred connection between Falbygden and Eastern Central Sweden – that may be result of a second agricultural expansion around 2000 BCE – has in fact been corroborated by a recently published analysis by Sundström and Guinard (2020) of radiocarbon dates from Eastern Central Sweden where it is established that the Late Neolithic started around 2000 BCE and, consequently, that there is a considerable lag in the spread of the new agricultural techniques originating from the southwest. In this respect, the Late Neolithic agricultural revolution spread in quite a different way to the Early Neolithic revolution, which took place 1500 years earlier.

To sum up, the thesis is impressive. It is an important contribution to the research on the European megalithic traditions, that is currently carried out in Scandinavia as well as in other parts of Western Europe, not least concerning the adjustment of the megalithic chronologies, enabled by large amounts of high-quality radiocarbon dates and statistical techniques. Blank manages to handle and make sense of the large amounts of diverse data, and she presents well-grounded arguments for her interpretations. It should be mentioned that she has not been directly involved in the actual laboratory work, and I believe that this has been a great advantage in this case. It means that time and attention have been focused on archaeological interpretations and contextualisation of the analysed data. While archaeology always is in need of detailed scientific results, it is equally important for archaeologists to handle, analyse and interpret available data, and from them produce valid and interesting cultural historical interpretations. This thesis is a prime example of such work.

## References

- Apel, J. 1991. *Hällkistor i östra Mellansverige*. Unpublished bachelor's thesis. Department of Archaeology and Ancient History, Uppsala University. Uppsala.
- Blank, M., Sjögren, K-G. & Storå, J. 2020. Old Bones or Early Graves? Megalithic Burial Sequences in Southern Sweden based on <sup>14</sup>C Datings. *Archaeological and Anthropological Sciences*. Vol. 12(89), doi:10.1007/s12520-020-01039-9.
- Blank, M. 2022. Flint Daggers and Related Artefacts in Megalithic Tombs of South-Western Sweden. In: Tornberg, A., Svensson, A. & Apel, J. (eds), *Life and Afterlife in the Nordic Bronze Age: Proceedings of the 15th Nordic Bronze Age Symposium held in Lund, Sweden, June 11–15, 2019*. Acta Archaeologica Lundensia, Series Prima in 4 no 37. Lund: Lund University.
- Jensen, J.A. 1973. Bopladsen Myrhøj, 3 hustomter med klokkebægerkeramik. *Kuml*. Vol. 22 [1972] pp. 61–122.
- Kaelas, L. 1967. The Megalithic Tombs in South Scandinavia: Migration or Cultural Influence? *Palaeohistorie*. Vol. XII pp. 287–321.
- Sarauw, T. 2006. *Bejsebakken: Late Neolithic Houses and Settlement Structure*. Nordiske Fortidsminder Series C. Vol. 4. Copenhagen: Det Kongelige Nordiske Oldskriftselskab.
- Sundström, L. & Guinard, M. 2020. *Rikstenboplatserna: Arkeologisk undersökning av mesolitiska platser på Södertörn med yxproduktion och stora kokgropar samt utmarksbruk från senneolitikum till äldre järnålder*. SAU rapport 2020:29. Uppsala: Societas Archaeologica Upsaliensis.