

Carnegie administration and a growing emphasis on the hard sciences brought an end to more than fifty years of excavations. He provides interesting details about the project members and their career paths after the Carnegie closed its Archaeology division. One oversight here is Gustav Strömsholm's dates (1901–), which suggests extreme longevity when in fact he died in 1983.

The foreword by Marilyn Masson brings to light the more recent findings based on the ongoing Instituto Nacional de Antropología e Historia project directed by Carlos Peraza Lope beginning in 1996 and her own National Science Foundation-funded project with Peraza and Timothy Hare exploring the economic foundations of Mayapan. Her Appendix with the inventory and lot descriptions from the Carnegie *Current Reports* provides a ready reference to associations. Her summary of the recent work on Mayapan is invaluable, including her notations about revised population density (up to 17 000) and evidence of violence at the site well before the final collapse in the mid fifteenth century. One thing that does not receive adequate coverage is an early occupation at the site that clearly overlaps Chichen Itza, as is evident from recent analysis of radiocarbon dates published by Peraza and Masson in a 2006 article in *Ancient Mesoamerica*; it shows occupation going back to the twelfth century or possibly earlier. This omission may be why John Weeks (p. xx) states that '*Uxmal is known to have been abandoned about 300 years before Mayapán was founded, and Chichén Itzá was reduced to the status of a minor centre during the time Mayapán flourished.*' Although the apogee of Uxmal is considered to be around AD 900, there is evidence of continued occupation into the twelfth century, and Chichén Itzá seems to have been occupied that late as well; in short there was overlap between the three sites as we documented in our *Ancient Mesoamerica* article (Milbrath & Peraza 2003). We came to this conclusion largely because the *Carnegie Reports* provide such detailed information about the excavations that it is possible to reconstruct the content and stratigraphy of individual lots and excavation trenches.

One reason the Carnegie Institution of Washington's Reports remain so accessible is that they all have a set format, and this makes it possible to locate easily descriptions and photographs of individual lots and a great variety of information that is not available in later publications. In the Reports we find information about the architectural stratigraphy, with

sealed deposits of early material that overlaps with Chichen Itza's later ceramic component (Hocaba), ceramics also found in the later occupation of Uxmal. Report 26 by Robert Smith, on the Early Ceramic horizons at Mayapan, before the foundation of the city itself, is an intriguing capsule view of his later monograph, *The pottery of Mayapan*. Unfortunately, the photographs of Toltec period types (fig. 26.4) are missing, reproducing instead photographs that belong to Report 27 (fig. 27.4). Some of the figure captions are extremely long, as they were in the original, but Weeks could have helped by improving the formatting, so that letters designating individual drawings could easily be found amidst the long artefact descriptions. Finally a few photographs did not reproduce well (e.g. figs. 4.7, 9.10). These are all minor problems and should not detract from the important contribution made by Weeks. These Reports are once again truly current, and will spark interest in Mayapan, a site that is a true time-capsule of the Postclassic Maya because it was abandoned about a century before the Spanish conquest.

SUSAN MILBRATH

Museum of Natural History,

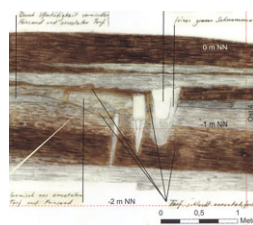
University of Florida, Gainesville, Florida, USA

(Email: milbrath@flmnh.ufl.edu)

SVEN KALMRING. *Der Hafen von Haithabu* (Die Ausgrabungen in Haithabu 14. Band). 668 pages, 325 b&w & colour illustrations in text, 207 b&w & colour illustrations & 83 tables in appendices. 2010. Neumünster: Wachholtz; 978-3-529-01414-7 hardback €120.

It's not a bad haul for any dig: a Viking ship, a hoard of counterfeit coins, a goldsmith's cache, and the

odd number of swords, ingots, treasure chests and jewellery. And lest we forget: the structural remnants of a Dark Age harbour. Hedeby or *Haithabu*, as the town's name is transliterated from runic inscriptions, was



at the main intersection between Western Europe, Scandinavia and the Baltic Sea area from the ninth to the eleventh century AD. The most substantial excavations ever undertaken in a Viking Age harbour took place here in 1979–80, using *cofferdam* technology, and have now received definitive publication.

Kalmring sets out not merely to present the excavations, but to analyse the harbour in the context of environmental, logistic, economic, social, legal, military and cultic factors, framed in Luhmannian terms as interacting systems. To this end the book considers, among other things, transport topography (chapter 4), landscape setting (chapter 6) and the social and political context provided by written sources (chapter 5). This section presents a useful introduction, albeit largely a tribute to previous research.

The vital core of the book is the 200-pages long chapter 9 on the structural remains of the harbour front. Armed with 264 dendrochronological measurements and a comprehensive GIS database, Kalmring sorts 2044 excavated timber posts into an intelligible sequence of urban and maritime history. Following occasional traces of eight-century activity the first signs of urban development emerged in the second decade of the ninth century. A narrow landing-stage was soon extended into the harbour, presumably providing dry access to shallow-draft vessels beached stem to shore. A more substantial jetty built *c.* 865 allowed small vessels to moor at the tip. The construction of two jetties leading into deep water followed in the 880s and 90s, and medium-size vessels could now moor sideways along the front. A final phase of expansion around AD 1000 gave sufficient depth for high-sea cargo-carriers to approach the harbour front. This sequence, matching and detailing the outline known from shipwrecks, will frame future discussion on the early expansion of maritime communication in Europe's northern seas.

Most artefacts from the excavation have been published before, but Kalmring pays them a rewarding revisit in chapter 14, in order to review their place in the new chronological sequence. This part of the analysis is limited by an unnecessarily rudimentary documentation. Indeed it was decided that the position of portable objects was irrelevant, being supposedly subject to drift and turbation. Finds were recorded only in relation to 4 × 4m squares. The excavation strategy employed was the planum method, which in this case proceeded in 15cm thick spits, despite the existence of a clear stratigraphy. Thus, though half a kilometre of sections were drawn, Kalmring is mostly unable to relate individual finds to specific strata. Champions of stratigraphic excavation will find food for criticism, but we must bear in mind the conditions, timing and tradition of excavation in operation in the late 1970s.

Still, large groups of objects can now be seen as having been dropped from successive stages of the harbour front. Yet some of the dates proposed might have called for further discussion. In particular, the assertion that a highly characteristic set of Carolingian and Nordic coins was lost after *c.* 890 (p. 418 ff.) seems very difficult to reconcile with their numismatic date of *c.* 825. Kalmring's reference to circulation time is unlikely to convince specialists, and a consideration of the sequence of use of the harbour might offer a different interpretation: if early ships landed stem to front, then the area where the early hoard was found was not in an inaccessible part of the basin, but quite possibly at the stern end of a moored vessel.

The book advances two theses of far-reaching implications for the archaeology of early medieval urbanism. The first one forms the heart of the final chapter and concerns a problem which has puzzled research on Hedeby since Weber's and Childe's definitions of urbanism: where is the market place? Kalmring uses comparanda from Baltic Sea towns of the High Middle Ages to suggest that the market place was not a central square but the harbour front itself. The distribution of coins and weights in the excavation supports the idea that transactions were conducted on the jetties. This adds a new dimension to the massive and repeatedly extended constructions. The second new thesis is discussed cautiously in footnotes. Kalmring notes that all structures in the harbour area align carefully with plot boundaries on land. He asks if these investments could be owed to private enterprise, rather than the royal power long envisaged as the major protagonist of early medieval urbanism. Both these points are original, controversial and exciting, and will stay at the centre of new research for years to come.

The book is lavishly produced and printed in full colour. Structures are documented in a 147-page catalogue with section drawings, maps and tables, supplemented by 44 artefact distribution plans. Unfortunately for the English-speaking community, the summary is a mere gesture of 5 pages. With a book like this, however, there can be no question about it: in the twenty-first century, Vikings must speak German.

SØREN SINDBÆK
Department of Archaeology,
University of York, UK
(Email: sms510@york.ac.uk)

This page is brought to you by the OWL at Purdue University. When printing this page, you must include the entire legal notice. Copyright ©1995-2018 by The Writing Lab & The OWL at Purdue and Purdue University. All rights reserved. Reference List: Author/Authors. Note: This page reflects the latest version of the APA Publication Manual (i.e., APA 7), which released in October 2019. The equivalent resource for the older APA 6 style can be found here. The following rules for handling works by a single author or multiple authors apply to all APA-style references in your reference list, regardless of the type of work (book, article, electronic resource, etc.). In Haithabu and Wolin, copper alloys usually appear on knives that come from the settlement not from graves. silver With at least 151 pieces included in the catalog, silver is generally the most popular material for wrapping knife handles. 16.14b). The wrapping trend then begins around 900 (Petersen 1951: 190) or even before it (Arrhenius 1989: 82) and in Scandinavia culminates by the placement of these decorated knives in graves during the 10th century (Birka, Haithabu, Thumby-Bienebek). This dating can also be applied to Scandinavian finds in Great Britain and the northern coast of Poland (Kobrow, Wolin). Die Ausgrabungen in Haithabu, Band 15, Band II (Katalog, Listen, Tafeln und Beilagen), Neumünster. Atgāzis, Māris (1998). Tuvcā«Ātas ieroĀi senajĀ LatvijĀ 10.-13.gadsimtĀ. There is no text for this item. Object Description. Rating. Page 14. Page 15. Page 16. Page 207. Page 208. Page 209.