Chambon, Grégory: Normes et pratiques: L'homme, la mesure et l'écriture en Mésopotamie. I. Les mesures de capacité et de poids en Syrie Ancienne, d'Ebla à Émar. Gladbeck: PeWeVerlag 2011. 200 S. 8° = Berliner Beiträge zum Vorderen Orient 21. Hartbd. € 29,80. ISBN 978-3-935012-08-9.

Summarizing in the conclusion (p. 180) what is already promised in the introduction, Grégory Chambon states that the aim of the book under review is not to present a complete picture of measuring practices in Syria during an approximate millennium but rather to "exhibit particular 'ways of doing' in the notation of metrological units and in measuring quantities, which fit fully within the culture of 'cuneiform societies', reflecting modes of thought and conducts which take on their full meaning in a particular socio-economic and economic context" (reviewer's translation).

Whether "practices" or "ways of doing" are spoken of, the aim of the book is in explicit contrast both to "historical comparative metrology" and to an understanding of metrology which is too closely modelled on the metric system as guaranteed by the Bureau International des Poids et Mesures. Within Assyriology, the former might be considered an outdated adversary, but in other disciplines it has not always been discovered to be so.¹ As regards the understanding of ancient metrological systems in the perspective of the metric system, the reviewer's immediate

¹ Quite recently, an article in one of the major and most respected journals in the history of science thus claimed, without specifying its evidence beyond a reference to a badly informed general handbook of metrology, that in "the construction of the Stonehenge structures, length measures were used as we encounter them in Babylonia" (A. Kainzinger, *Archive for History of Exact Sciences* 65 (2011, 67–97, here p. 92).

Unfortunately, the addition of another well-researched publication is not likely to change this state of affairs.

feeling was that this sensibility on the part of the author (as made explicit in a discussion of the modern notions of *norme*, *étalon* and *standard*, pp. 44–45) might depend on his national upbringing, and still believes that this is partly the case; but after finishing reading he has to admit that the warning is not always out of place, even when writings from the latest decades are concerned.

The author's own approach can be characterized as social-anthropological, with much respect for particulars and for the embedding of ideas within a social practice, in a "larger Syrian" area deliberately delimited by geographical and cultural criteria in combination (p. 18), from the mid-third through the mid-second millennium BCE; Ebla and Mari (from pre-Sargonic to Old Babylonian), well elucidated by sources, are dealt with in particular detail. The approach is also characterized by strong attention to meta-theoretical issues, as well as to parallels within historical contexts that may be more similar to Bronze Age larger Mesopotamia than the modern industrialized world – in particular Medieval and Early Modern Europe, whose many discordant metrologies are familiar to historians.

A full survey of the observations made about single metrological units or measuring practices would go beyond the limits of a review; it would also misrepresent the aim of the book. Instead, a list of general results obtained – or often, since nothing more can be done, suggested – on the basis of these observations will show what can be found in the book. Some of these are new, others represent partial of full agreements with earlier workers.

One theme is that of centre versus periphery, where Chambon tends to read into this terminology a claim that metrological units were simply exported from the centre and then adopted more or less precisely in the periphery (p. 28, p. 42). While the claim about the implications of the terminology maybe questioned, he is certainly right when pointing out that what was exported may often have been a cuneiform sign, for example for the silà, which was then used about pre-existing local units of grossly comparative magnitude (pp. 28, 42, cf. p. 184) - and, in general (not expressed in theses words, but cf. p. 25) that a "periphery" is an entity of its own (mostly several distinct entities), of which only one characteristic is to depend in some respects on a "centre", defined as such by being somehow (economically, politically, culturally) more powerful. While naive application of the model centre-periphery provided by 19th–20th-century European colonialism might also suggest that the components of a periphery are linked to the centre only and have little mutual interaction, this was certainly not true of the northern and western peripheries of the cuneiform world.

This plurality and interconnectedness of "the periphery" is amply demonstrated by Chambon on various aspects of the weight systems and their use. Several documents are cited that show administrator-scribes in one region being aware of the metrological practices of regions from which goods were received or which were otherwise taken into consideration (e.g., pp. 100 f. 105 f.). Similar concerns might explain the coexistence in the same place of an "Ugaritic" shekel of 9,4 g and a "Syrian" shekel of 7,8 g as divisions of the same mina into 50 respectively 60 parts, the former indeed corresponding to the habit of the North-West to account in decimal multiples of the shekel and the latter to that of the South-East to account in terms of mina and talents (pp. 156, 184).

Such instances of arithmetical conversion between metrologies seem mostly to concern the weighing of metal – probably because metal is less likely to be spilled inadvertently or lose quality during transport than oil and grain, and because of the higher precision of weight measurement. In any case, it seems that other goods were re-measured after transport instead of stated measures being re-calculated – as might also happen even in the case of metals (e. g., pp. 159, 181).²

Another theme has to do with the notions of "large" and "small" measures, sometimes assumed to refer to falsification of metrological standards (which certainly occurred, and was condemned, see p. 43). Chambon points out that nothing in the terminology suggests *undue* greatness or smallness (pp. 43, 173), and finds instances where the reference appears to be to heaped versus levelled measure (pp. 169, 172) – identifying also (following Claus Wilcke) a term that seems to designate the instrument used for levelling. A smaller measure might also (a hypothesis advanced as such on p. 179) refer to containers that were to be transported on ship on Euphrates and therefore could not be filled up completely.

So far, this has dealt with technical and economic practice. But considerations of power and political legitimization also seem to have sometimes intervened in metrological practice (and not only in royal proclamations of metrological "reform", cf. pp. 38–40). This is well illustrated in the "Upper-Mesopotamian Kingdom" established by Šamsî-Addu around Ekallâtum (pp. 137–141). In his chosen capital Šubat-Enlil, hollow measures "of Šamaš"

² This has a parallel in late medieval Europe which Chambon does not mention. The coin lists contained in Italian *libri di mercatura* and *libri d'abbaco* never state the value of one coin in terms of another one, which might indeed be changed by clipping or by simple wear, but only the fineness – see the specimens in Lucia Travaini, *Monete, mercanti e matematica*. *Le monete medievali nei trattati di aritmetica e nei libri di mercatura*. Roma, 2003.

appear to have been in general use; in the cities conquered by his army, as Mari, Tuttul and Qaṭṭarâ, on the other hand, these were only used by high dignitaries on official occasions, without replacing the metrologies used in normal economic life – and as Šamsî-Addu's son Yasmah-Addu, installed by his father as the formal ruler of Mari, freed himself from the paternal tutelage and designated himself as *lugal*, he introduced instead the "measure of Mari" for official purposes where he was in control.

All of these general discussions are based on careful discussion of single texts and single metrological units. For the benefit of readers who are interested in information on these, it will be adequate to reproduce from the final index the list of units and connected terms discussed in the book:³

```
giš meš êqum
a-gàr
a-gar<sub>13</sub>
                              na₄
anše
                              nîbum
ba-ri-zu
                              nì-sagšu
dar-áb
                              pânum
dùn
                              parisu
ebbum
                              saggilû / sag-îl-la
gi-in
                              silà/qa
gín
                                   silà gal
                                   silà <sup>d</sup>utu
    gín DILMUN
gú-bar
                               su
gur
                              sûtu
    gur gal
                                   sûtu gal
    gur kittum
                                   sûtu gi-na / kittim
    gur mahîrtum
                                   sûtu kinâtê
kakkaru
                                   sûtu še-ba
kînum
                                   sûtu šibšim
la-ha
                                   sûtu dutu
ma-na
                              simdu
má
                              še
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 $[{]f 3}$ Here, as in what precedes, I follow Chambon's transliterations.