LINGUISTICS

WILLI (A.) **Origins of the Greek Verb**. Cambridge: Cambridge University Press, 2018. Pp. xxxi + 713. £120. 9781107195554.
doi:10.1017/S0075426919000624

The dust jacket of Willi's new work features a telescope image of the Andromeda Galaxy. This could serve as a striking metaphor of magnitude: the book has an enormous conceptual scope and extensive coverage of Greek and other Indo-European languages (the references to secondary literature stretch to 76 pages). Being two and a half million light years away, Andromeda might also have been chosen as an indication of distance. Willi takes the reader further back into the ancestry of Greek than most scholars dare, considering not just Proto-Indo-European, Greek's reconstructed ancestor, but also 'Pre-Proto-Indo-European', a hypothetical earlier stage of the language when the forms of verbs and nouns and even syntax are barely recognizable. Or perhaps the picture stands as a representation of ethereal star-spangled beauty, a ball of light surrounded by swirling arms of colour. There is indeed an elegance to Willi's proposed asterisk-laden solutions to many old problems of Indo-European linguistics. The reader is often left in awe of the brilliant etymologies, the bold rethinking of some of the supposed certainties of reconstructed Indo-European and the sophistication of an elaborate model of language change over millennia. Here is a master of his craft at work, weaving an intricate web out of words and theories. The result is a picture of the Greek and Indo-European verbal system where *tout se tient* (in Antoine Meillet's phrase, first recorded in print in the *Revue internationale de Sociologie* 1, 1893, 318), both synchronically and diachronically.

The book starts with a consideration of the origin of the difference between the aorist and imperfect (in the indicative) or aorist and present (in non-indicative moods). Most readers of ancient Greek texts are aware of the notion of 'aspect', separating aorist forms, conveying perfective aspect, from imperfects and presents, which are described as of imperfective aspect. Perfective aspect indicates that the verbal action is somehow viewed as complete, perhaps occurring only on a single occurrence, for example. Imperfective aspect may be associated with repeated, long-lasting or incomplete actions, or might be used to draw the hearer's (or reader's) attention to the verbal process, rather than its completion. The system of aspect in Greek is semantically similar to that in Slavic languages such as Russian, where imperfective verbs are paired with perfective verbs, but the realization of aspect in ancient Greek is effected in a very different way. Of the Indo-European languages attested before the Christian period, only Sanskrit offers anything vaguely similar to ancient Greek in aspectual terms. Latin, the other ancient Indo-European languages of Italy and Hittite and its siblings once spoken in Anatolia can all be described without recourse to the notion of aspect at all. Indo-Europeanists have various theories of how the aspectual system of Greek arose, but, as Willi shows, no current theory offers a fully convincing account of its origin.

Rather than looking for the origin of aspect, Willi sees it as a constant throughout prehistory, with verbal formations themselves following recognized grammaticalization patterns, so that earlier imperfective formations are reinterpreted as perfective by speakers. These waves of new perfective formations are held to be the explanation for the various means of forming aorists in Greek. Reduplicated aorists, such as ἔπεφνον, are relics of the oldest layer, with subsequent strata represented by s-aorists, root aorists and thematic aorists. Willi has earlier made the claim that the Greek augment is itself originally a reconfigured outcome of reduplication and functioned as a perfective marker (rather than a past tense marker); this idea acts as a key that unlocks further insights into the prehistory of the verb. In the last two chapters, Willi addresses the reconstruction of the nature of Pre-Proto-Indo-European agreement patterns, attempting to show how an ergative system of alignment changed to the nominative-accusative system familiar from Latin and Greek. The realignment is combined with some highly speculative reconstruction of personal pronouns to explain the form of individual personal endings on verbs.

I set the book under review as the topic for a term's graduate reading seminar in Cambridge. The work amply repays detailed study, and it will certainly be read by Indo-Europeanists and those interested in the history of Greek. The collection of evidence for, and analysis of, different Greek stem formation types (such as reduplicated aorists and presents, thematic and sigmatic aorists and the Greek perfect) are exemplary, and will be part of scholars' arsenal for decades to come. Indeed, the discussion of the Greek and Indo-European

https://doi.org/10.1017/S0075426919000624 Published online by Cambridge University Press

perfect is certainly the best currently available. The reconfiguration of the Indo-European verbal system is, however, less likely to have a lasting impact. While Willi's reconstructions are instructive to think with, I suspect I will not be the only one for whom Pre-Proto-Indo-European seems too many light years away.

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STEELE (P.M.) (ed.) **Understanding Relations Between Scripts: The Aegean Writing Systems**. Oxford: Oxbow Books, 2017. Pp. xv + 221. £36. 9781785706448.
doi:10.1017/S0075426919000636

This book is a collection of nine essays that represent the proceedings of a conference held in Cambridge in 2015. The essays touch on the Bronze Age scripts of Crete (Cretan hieroglyphic, Linear A and Linear B), the Cypriot scripts and Linear B in mainland Greece. To the extent that they can be read or analysed, the scripts appear to be syllabic, or mixed syllabic and ideographic/logographic (some signs stand for an item such as a commodity, animal or human being; there are also numerals, weights and measures).

Scripts that can be read differ from cuneiform syllabic writing (and hieroglyphic Luwian and Egyptian) in not using logograms within a sentence as a substitute for syllabic spelling and in not using determinatives; nevertheless, the scripts, and the culture of writing that lies behind them, are very different from each other, and undeciphered systems such as Cretan hieroglyphic may well include such features. This is suggested by Roeland Decorte in his contribution, 'Cretan "hieroglyphic" and the nature of script'. This essay is essential reading for anyone needing to deal with this earliest Cretan writing system (unique in that around half of the surviving corpus is found on seal-stones). He argues that the standard corpus of Cretan hieroglyphic inscriptions (J.-P. Olivier and P. Godard, *Corpus Hieroglyphicarum Inscriptionum Cretae*, Paris 1996) fails to distinguish clearly between signs and decorative elements on seals, or even to articulate a theory of the relationship between these two elements. Decorte proposes that many semiotically significant elements have been rendered invisible by incorrect 'normalization' in printed editions, and more broadly that, if art is meaningful, then importing a distinction between signs and 'decorative' elements in the seals may be the wrong way forward in understanding the script. The theme of palaeographic accuracy is echoed in Miguel Valério's essay ('Script comparison in the investigation of Cypro-Minoan'), which calls for a detailed study of the Cypro-Minoan script(s) to distinguish graphemes from allographs; on this basis, he argues, the phonetic values of some Cypro-Minoan signs might be guessed at by both careful script comparison with Linear A and internal analysis of the distribution of the Cypro-Minoan signs.

Both Helena Tomas ('Linear B script and Linear B administrative system: different patterns in their development') and Vasillis Petrakis ('Reconstructing the matrix of the "Mycenaean" literate administrations') argue for a rethinking of the relationship between Linear B and the two earlier writing systems on Crete (Linear A and Cretan hieroglyphic), and their administrative contexts. They both acknowledge that Linear A provided the immediate model for the shapes and (probably) values of most Linear B signs, but make an interesting case that Cretan hieroglyphic writing practice played a more significant role in the development of the Linear B literate administration than previously imagined (in spite of the chronological gap in the evidence available to us). Petrakis suggests a fusional coexistence of Cretan hieroglyphic and Linear A systems in the Second Palace period (Late Minoan I), at least in north-central Crete, and sees this as the crucible in which the Linear B administrations of Late Minoan II took shape. An important implication is that Linear B was developed on Crete, rather than mainland Greece or elsewhere.

Philippa Steele and Torsten Meissner ('From Linear A to Linear B: the problem of the backward projection of sound values') set out sober and clear arguments to demonstrate that 'it is legitimate *in principle and as an approximation* to read Linear A with the sound values of Linear B' (93, authors' italics). This is sure to become a standard reference, since most students are taught, on the one hand, that it is methodologically wicked to try to read Linear A with Linear B sound values, but, on the other, that this is what everyone does. Anna Judson in a clear and useful essay discusses the 'additional' signs of Linear B, which mostly spell sequences that could also be written using two syllabic signs (though a_2 [ha] and pu_2 [phu] could not): for example *dwe*, *au*. She shows that many older and still widely held views are probably

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