This paper addresses the issue of contacts between Greek and Anatolian languages in the second and first millennia BCE: after a survey of the linguistic situation in the Aegean-Anatolian area, some methodological criteria and a critical list of (supposed) isoglosses, we investigate some morphosyntactic and lexical features that are supposedly shared by Greek and Hittite: the encoding of modality through particle (Gk. ān ~ Hitt. man), the absolute constructions, the interface between semantics and morphosyntax in Hittite verbal prefixation and the functions of the suffix -sk- in Hittite and Greek preterite formations; and we re-examine the correspondences between two Greek and Hittite lexical items. Each morphological phenomenon would perhaps deserve a dedicated study, but our objectives here are to show that 1) we need a case-by-case approach for the study of any supposed shared phenomenon among languages of this area but, at the same time, 2) a systematic analysis of the morphosyntactic and lexical isoglosses between Greek and the Anatolian languages is greatly needed in order to better understand the (pre)historical relationships between these two IE branches.