

sg. -ες (Ind., Subj.) que “concurrécée par -ει de l’impératif, a produit le croisement -εις”, siguiendo una idea de Fr. Bader. La hipótesis, basada en la admisión de una forma de Impv. -ει (sin apoyo ni en griego ni en otras lenguas) no explica los hechos cirenaicos mejor que la explicación habitual que opera con la coexistencia de desinencias primarias y secundarias en Subj. breves: \*-es, \*-et habría dado \*-es, \*-e, en cuyo caso la 3ª sg. sería homófona de la del Ind., lo que haría preferible una forma -ει (correspondiente a tem. -ē[i]) en el caso del Aor. ἐνε(ι)κ-. Por lo demás, ἦνικα no es “degré réduit” de ἦνεια (p. 152): <ει> refleja un desarrollo fonético secundario a partir de \*enenk-.

Fuera de lugar están las divagaciones a propósito de ᾶς (= ἔως) (p. 120: “\*-wos ...une particule \*wo- et un particule \*-s avocalique, dont la commutation avec -vat du sanskrit ...” se correspondería con “les affinités de \*so- et \*to- ...”) o la explicación de βάβαλος como \*g<sup>w</sup>e-g<sup>w</sup>eH<sub>2</sub>- “thème de parfait avec suffixe \*-lo-” (p. 3). Igualmente, el escepticismo ante la metátesis \*leuo- à \*loue- en el caso de ciren. Λωσαμενος (p. 31 n. 32), de acuerdo con un proceso tipificado por M. S. Ruipérez, *Emerita* 18, 1950, pp. 386ss. (= *Opuscula*, pp. 120ss.) o la mención de \*praotos como posible protoforma de πράτος (106).

Es llamativo el hecho, no especialmente gravoso en un trabajo básicamente filológico, de que la bibliografía citada rara vez es posterior a 1988. No se tienen en cuenta, por ejemplo, los artículos de E. Risch, *Fs Neumann*, 1983, pp. 321ss. y Fr. Kortlandt, *MSS* 49, 1988, pp. 63ss., sobre 3ª pl. ἔθεν (p. 152 n. 39 se remite al estudio de A. Morpurgo sobre los ‘dorismos’ de Hesiodo (1964) ni el de quien esto escribe dedicado a las formas del Dat. Pl. en *Glotta* 48, 1990, pp. 133ss. Hubiera sido bienvenida asimismo una toma en consideración, aunque sólo fuera a título informativo, de interpretaciones contenidas en las tesis sobre el cirenaico de K. Forbes (Londres 1959, inédita [*non uidi*]) y Fr. Lonati, *Grammatica delle iscrizioni greche della Cirenaica*, Florencia 1990, aunque no se apoyen en un *corpus* superado.

Estas observaciones críticas, que afectan en gran parte a aspectos parciales y no intrínsecamente dialectales, no detraen valor a los méritos indudables del estudio de D.-L. Los casos en que las explicaciones de la autora son convincentes sobrepasan ampliamente aquellos en los que el autor de esta reseña mantiene otra opinión. Se trata de un trabajo excelente y útil, muy filológico en el sentido más amplio de la palabra: una obra de referencia, fruto de años de trabajo minucioso, serio y cualificado, que será de consulta indispensable para el dialecto de Cirene y para el estudio de los dialectos griegos en general, y que hace esperar con impaciencia la anunciada edición del *corpus* cirenaico de las épocas arcaica y clásica.

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ILSE SCHOEP: *The Administration of Neopalatial Crete. A Critical Assessment of the Linear A Tablets and their Role in the Administrative Process. Minos Supplementary Volume no. 17. Salamanca 2002, pp. 230.*

This monograph, based on Ilse Schoep’s doctoral thesis (Leuven 1996), is an admirable multi-disciplinary study of the (undeciphered) Linear A tablets and their role in the administration of Neopalatial Crete (MM III-LM I). The archaeological contexts of the tablets, their pinacological features (e.g., manufacture), epigraphic features and structure (contextual patterns of sign-groups and logograms) are all explored in the endeavour to

identify the economic interests and administrative procedures recorded in the Linear A inscriptions. Consideration of the better-understood Linear B material is a pervasive and beneficial motif of the book.

Following a brief Introduction clearly articulating Schoep's goals and a helpful section on the Conventions used, the book is neatly divided into four chapters: 1. An Introduction to Linear A, 2. Towards a Classification of Linear A Tablets, 3. The Concerns of the Neopalatial Administration: A Contextual Analysis of Linear A Logograms and Sign-groups, 4. A Tentative Reconstruction of the Neopalatial Economy and Administration.

For Schoep, the purpose of any administration is "to keep track of incoming and outgoing movement of goods." (p. 9) Two types of Neopalatial documents assist in this process: recording documents (bars and tablets) which accommodate writing and (b) sealed documents (roundels, noduli, flat-based nodules, hanging nodules, direct object sealings and miscellaneous sealings) which provide authentication (by means of a seal). This work focuses on the inscribed Linear A tablets. The sealing evidence has already been studied in detail by Erik Hallager (*The Minoan Roundel and other Sealed Documents* 1996). The inscriptions on clay storage vessels (Zb) are also excluded: "although they have an indisputable economic aspect, [they] are not included either because they do not bear any testimony to the keeping of administration." (p. 9) Such judgement perhaps should be reserved, especially given the role proposed for the Linear B inscribed stirrup jars in recording the production *and* delivery of oil from manager to collector to palace (P. G. van Alfen, «The Linear B Inscribed Stirrup Jars as Links in an Administrative Chain», *Minos* 31-32, 1996-97 [1998], pp. 251-274). Still, it is an acceptable choice for this monograph's purposes.

In Chapter 1, Schoep discusses the creation and use of the Linear A script, skilfully situating it in its wider chronological and geographical setting. First attested in the Protopalatial period (MM II), it was limited to south-central Crete (e.g., Phaistos), while Cretan Hieroglyphic was used in the N and NE of Crete (e.g., Knossos, Malia, Petras). By MM III, the scripts co-existed (e.g., found in the same deposit both at KN and MA) and by LM IA, Hieroglyphic (with which Linear A shares some signs) had become obsolete. Possibly influenced by it, Linear A recording documents reflect an evolution in shape from bars to tablets. Linear A continued until LM IB, and on some non-administrative objects (from both secular and religious contexts, mainly from central Crete) after the onset of Linear B. Linear A has also been found in the Aegean islands of Samothrace, Keos, Melos and Thera, and in Cyprus, southwestern Anatolia and Israel.

While it is not Schoep's purpose to decipher the Linear A script, she aptly outlines the candidates for the language behind it, including Semitic (non-IE) and Lycian (IE), noting several scholars' observations, including Duhoux's that the script's high number of affixes may reflect an agglutinative language. She rightly warns against applying Linear B phonetic values to Linear A homomorph signs, but employs the strategy for comparative purposes.

The differences between Linear A and B are carefully considered. For instance, the wider application of Linear A (range of surfaces and sites) does not necessarily imply more widespread literacy, and the reduction of ligatured signs in Linear B and the creation of new logograms may not imply commodities different from or unattested in Linear A but perhaps an overall strategy towards simplification of signs.

Three levels of Minoan administration are identified: centralized (palace [Zakro] or central building [Haghia Triada]), decentralized (offices of the central administration, e.g., the NE House at Knossos) and private (e.g., houses at Khania). But these are fairly subjective categories: the distinction between 'decentralized' and 'private' administration, for instance, may be blurred at non-palatial sites. Linear A archives are divided into (a) full combination deposits (mostly restricted to the upper floor of a central building, close to its residential area) and (b) single type or limited combination deposits (usually located

in a non-residential part of a building). These classifications are adequately discussed only for the site of HT, no doubt owing to the limited data from elsewhere.

The signs on the Linear A tablets are classified according to function (for the most part) into seven types: syllabograms (syllables) [S], logograms (signs designating commodities, p. 27) [L], klastatograms (fractions) [K], numerals [N], isolated signs [I], single signs [SS] and compounds signs [CS]. Schoep explains that “[t]he way in which different sign categories relate to one another at different sites [e.g., whether lexical information is preferred over logograms between sites and/or tablet formats] provides information about the way in which administration was kept [at each site], the type of information recorded in the tablets, and perhaps also the stage of recording...” (p. 39) Yet the quantitative distribution of these sign-types must be handled cautiously. For instance, the highest rate of logograms occurs at Tylissos and Malia, but these rates are biased because of the low number of tablets from these sites: e.g., the rate of logograms at Tylissos is comparatively high (27.7%) but only two tablets are noted for the site (see p. 40, Table 1.13 [pp. 57-65] for the quantitative distribution of signs on Linear A tablets, and Table 2.7 [pp. 80-81] for the numbers of tablets from each site).

In Chapter 2, Schoep classifies the Linear A tablets into format types according to the structure of their text: a ‘text’ is made up of formally distinguishable components (sign-groups, logograms, numerals, fractions), and the variation in the combination of these components makes up the ‘format’ of a tablet. A classification according to subject matter, based primarily on logograms (the underlying organizing principle in the Linear B tablets), is not applicable because the Linear A tablets “mostly contain multiple entries which relate to different commodities.” (p. 69) Unlike prior analyses of structure —of only the openings of tablets (Myers and Brice) or of a single site (Packard)— Schoep’s deals with the entire format of tablets from twelve sites on Crete (Table 1.13). Five main format types are identified (Table 2.8): *Type I mixed commodities tablets* featuring one or more sections of information (*IA*: range of agricultural items often placed in a fixed order, *IB*: miscellaneous commodities, *IC*: formats unclear); *Type II specialized tablets* usually with one logogram and its variants; *Type III single commodity tablets* in which a logogram seems to apply to the entire list of word and number entries; *Type IV tablets* lacking logograms and containing word and number entries; *Type V combined tablets* combining sections written in different format types (attested only at HT). It is difficult to assess how representative this typology is: it rests heavily on the tablets from HT, owing to their number and better preservation (see Table 2.7). The three most representative deposits come from Haghia Triada, Zakro and Khania (p. 39). Not all format types are attested at all sites, and those that occur at several sites display internal differences (pp. 86, 167). Only the *mixed (IA)* and *miscellaneous (IB)* formats are internally coherent enough to be compared to the Linear B ‘sets’ of tablets (p. 167). Other relevant format features include rule-lines (more common in Linear B), size of signs (open headings often written in majuscules in Linear B but not so in Linear A), opisthography (more common in Linear A). Overall, Linear A tablets lack the standardization in layout characteristic of Linear B tablets. In addition to scribal idiosyncrasies, inter-site differences are great: e.g., opisthography seems more common at HT and ZA but rare at KH (p. 73); palimpsests occur mostly at HT but are absent from KH (p. 79).

Several preliminary conclusions are presented: (1) the recurring contextual patterns suggest that the proposed formats are not coincidental (e.g., the fixed order in HT *Type IA mixed commodities tablets*). (2) Generally (there *are* exceptions), the different formats are thought not to reflect consecutive stages of information processing because they lack two prerequisites: (a) quantities do not increase or decrease “significantly” (p. 86) between the different formats/stages and (b) not all logograms occur on all formats (e.g., some agricultural products occur in *mixed* lists but never on *single commodity* formats). (3) Since ‘transaction signs’ (Ch. 3) are not format-bound and a particular format may contain

a variety of these, it is likely that the format itself reflects not the type of transaction concerned but some other information, such as the different parties (anthroponyms, toponyms) involved in a transaction (as in *single commodity tablets*), or the range of commodities, their provenance or destination, or their particular intended use.

Chapter 3, geared towards the identification of commodities, parties and transactions of the administration, constitutes a contextual analysis of Linear A sign-groups and logograms within and between the various formats. Logograms identifiable on the basis of Linear B homomorphs relate to livestock [e.g., AB 21 (OVIS), AB 22 (CAP), AB 23 (BOS), AB 85 (SUS)], agricultural commodities [e.g., AB 30 (FIC), AB 120 (GRA 'wheat' or, in R. Palmer's view endorsed by Schoep, HORD 'barley'), AB 122 (OLIV), AB 131a (VIN)], and people AB 100/102 (VIR). By analogy with the Linear B personnel lists, anthroponyms might be expected to occur (but not necessarily so) in those tablets with number 1 entries. The frequency of these sign-groups is so low between sites, however, that they cannot be identified with certainty on the basis of their contextual position. Large numbers associated with people are thought to reflect census records. Three basic transactions are expected in the Linear A tablets (which are assumed to be economic records like the Linear B ones): (i) inventories/assessments, (ii) contributions/collections (inward movement of items to the administration in the form of taxes, levies, deliveries, etc.) and (iii) allocations/distributions (outward movement of items from the administration to different parties). Proposed transactional terms (single signs or sign-groups) include AB 04/TE (punctuated from the rest of the text by word-dividers on either side, usually found at the start of a list and always associated with one or more logograms), AB 81-02/KU-RO 'total' (followed, as in Linear B, by the sum of the preceding entries), PO-TO-KU-RO 'grand total', KI-RO (only at HT) whose occurrences suit an interpretation of 'deficit' of some sort (e.g., when it follows a KU-RO entry, it is always smaller than it), and possibly AB 31-76 SA-RA<sub>2</sub> (only at HT), whose mutually exclusive relationship with AB 04/TE within the *Type I mixed commodities tablets* suggests that these two terms reflect either opposed or different types of the same transactions (e.g., respectively *either* contributions versus distributions *or* payments and rations).

Schoep's detailed intra- and inter-site analysis of format types offers a number of insights. For instance, (1) *Type IV* tablets, with sign-groups followed by whole numbers *and* cross-references with tablets actually featuring the VIR logogram (AB 100/102) may suggest the recording of people. At least one of the sections on the *Type V combined tablets* relates to people (who are recorded in large numbers here), but the lack of overlapping sign-groups with other tablets (i.e., sign-groups presumed to reflect personal or place-names) may indicate that different people are involved - these ones, recorded with food sections (rations?) on the *Type V* tablets, might have been dependants of the administration. (2) If Schoep's assumption is correct that AB 04/TE and large quantities of wine and figs on *Type III single commodity tablets* represent contributions to the administration, then the presence of AB 04/TE in the *Type I mixed commodities tablets* along with their regularly proportionate entries may also reflect contributions, in this case of several commodities in fixed amounts, perhaps related to taxation. (3) The contextual patterns of a given commodity may hint at different economic strategies between sites: e.g., at ZA and KH, figs occur with AB 04/TE, but are never associated with this 'transaction sign' at HT. While this chapter presents a multi-layered analysis for each logogram, etc. and is packed with useful details, it also contains an array of assumptions, such as Schoep's tentative yet continual equation of small quantities with (outgoing) allocations and large quantities with (incoming) contributions (p. 96, 126, 132). On the other hand, she is fully aware of the limitations of her small sample size, warns of potential interpretative blunders, e.g., that parallel entries need not be semantically equivalent (cf. alternating Linear B anthroponyms and occupational terms on PY An 39), and usually carefully qualifies her statements.

In Chapter 4, she explores further the different settlements' exploitation and management of livestock, staples and other commodities by integrating textual and archaeological data. At Haghia Triada, the main crop, AB 120 (barley), was collected with KU-RO and KI-RO (deficit) noted at the end of texts (HT 15, 118, 123) suggesting target records, and possibly tax-based contributions. Applying the Linear B unit of measure, and assuming that actual collections rather than expected ones or measurements of land plots are recorded, the total amount of barley involved in AB 04/TE transactions (HT) would fill over 600 pithoi, requiring storage facilities beyond the villa itself. Oil production was an important economic concern at HT, but the absence of presses at central buildings could imply decentralized or private production. The level of involvement of the administration in the manufacture of wine is also unclear. Wine and figs share a contextual pattern which may suggest that they were mobilized through similar channels and/or put to similar use by the administration: on *Type III single commodity tablets* (HT) they both are associated with AB 04/TE, but on *Type I mixed commodities tablets* are hardly ever associated with it. At the same time, the contextual pattern of wine and figs differs from that of AB 120 (barley), possibly indicating a different source and/or method of mobilization (e.g., collection of wine and figs from land managed by the administration versus tax-based contributions of barley from private lands). The low frequency of livestock may be due to the limited evidence: sheep are most common (but the numbers are smaller than in Linear B records). Non-agricultural commodities (e.g., vase, textile, wool logograms) are rare in the tablets. Yet the excavated loom weights and at least three kinds of cloth on the tablets attest to a low-scale textile industry at HT, an excavated LM I kiln points to locally produced pots, and raw materials and finished craft goods were found in the villa at HT and the palace at ZA.

The focus of the Linear A tablets appears to be agricultural staples (but note the number of completely unidentified logograms) and Schoep views them as documents that record contributions and distributions for services performed or to feed a dependent workforce. The sealed documents, then, could have been used for non-agricultural commodities and other transactions involving perhaps a wider geographical scale not directly supervised by the central administration: (a) at HT and ZA, two-hole hanging nodules are thought to have been attached to craft goods, (b) the logograms on the KH roundels appear to relate to sheep, craft goods and other non-agricultural items, and (c) the foreign clay of some nodules suggests relations with other centres. The dichotomy in the findspots of Linear A sealed documents and tablets also suggests that they may not reflect consecutive stages in the processing of information (as they often do in the Linear B system), but that they are "largely complementary and parallel," reflecting "different administrative concerns, either different transactions or spheres of control." (p. 197) Still, it is possible that at least some noduli served as primary sources of information for tablets (since some display shared sign-groups with them and are even occasionally found with them, e.g., HT 24 recording 46 or 47 units of wool, found with 45 noduli).

The administration at HT appears to have exerted a degree of control over a hinterland (of unknown extent) from which it was able to mobilize resources (demonstrated by the listing of deficits), but the structure of the organization remains unclear. Did it function through sub-centres? Was it accountable to a larger centre? In general, the great variation within and between sites in format types and find contexts leads Schoep to view Linear A administration in the LM IB period as one of island-wide self-sufficient centres, free of Knossian hegemony. Their engagement in élite competition and emulation may have resulted in occasional similarities in administrative practices but, on the whole: "The differences in the ways in which the administrations at Haghia Triada, Zakro and Khania were dealing with commodities, the administrative procedures followed and the palaeography of the tablets seem to suggest that the administrations were organized locally by local administrators, with their own idiosyncrasies, rather than by officials sent

out from a single centre to regulate the flow of tribute.” (p. 198) Would she argue, then also conversely, that Linear B uniformity reflects overall unity?

My opinion of this work is divided. On the one hand, I believe that Schoep’s contextual analysis is dangerously premature, in view of the undeciphered script and the small data base: in contrast to the over 5000 Linear B tablets, only 328 tablets are inscribed in Linear A and Schoep’s format types are based on the well-preserved ones which make up only 26.4% of these, i.e., only 86 tablets (p. 38, 80). A larger data set might one day reveal a greater degree of standardization in Neopalatial recording procedures between sites than is presently apparent. On the other hand, given that we can only work with the evidence at hand, her study represents a courageous attempt at making sense of a largely impenetrable body of material, by correctly focusing on identifying (probably functionally meaningful) contextual patterns in the Linear A tablets. Her contention that different formats correspond not to types of transactions but to other information such as particular parties (people or places) or particular purposes/uses of items is an acceptable pre-decipherment hypothesis (note, however, that in the Linear B corpus, the same topic may be covered by different formats —e.g., PY Aa, Ab texts). Her typology of formats, acknowledged to be heavily dependent on the HT tablets (pp. 80-81), seems to me to be rather forced (but this is a common drawback of externally-imposed classifications). Often her assumptions and interpretations are debatable. Above all, I am not convinced by her argument that the available textual evidence reflects independent sites/centres (even if Cretan topography might). Differences in administrative procedures —at the level of book-keeping and/or economic strategies— could just as easily be attributed to a Knossian centre entrusting the administration of its satellites to locals. The problem (which Schoep is aware of) is one of *degree(s)* of political and economic (de)centralization. Simply put, there remains in my opinion a healthy medley of plausible interpretations. Whether or not Schoep’s analysis and interpretation meet with approval, her extensive research, the comparisons regularly drawn between Linear A and Linear B scripts and administrations (as currently understood), and her inspiring integration of distinct classes of evidence into a coherent synthesis make this a thoroughly thought-provoking study.

On a technical note, the text contains simple oversights (orthographic errors) and some other mistakes (e.g., footnote 114 is missing [p. 33] and Table 1.9 does not quite match the information in the corresponding paragraph [p. 41]), but these are outweighed by Schoep’s meticulous, multi-faceted research (ranging from notes on the occasional bronze hinges found with sealed documents suggesting storage in wooden boxes [p. 26] to reflections on the reasons for palimpsestic tablets [p. 79] to explanations of the difficulty of identifying wine and oil presses [p. 183]). The book is an excellent resource of easily accessible information, thanks to its careful organization and comprehensive bibliography.

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