## A PROSOPOGRAPHICAL STUDY OF SCRIBAL HAND 103, METHODS, AIMS AND PROBLEMS \*

Essential to defining the nature of a *politeia* is an understanding of its people. More than twenty years have passed since Margareta Lindgren published her studies on the prosopography of the Pylos tablets <sup>1</sup>. For reasons discussed below a similar comprehensive study of the Knossos archives has not been undertaken although articles dealing with Knossian prosopography and onomastics have appeared over the years <sup>2</sup>. The present paper focuses on scribal hand (h.) 103 as part of a prosopographical study of the

The following abbreviations are used:

DMic = F. AURA JORRO, Diccionario Micenico, vol. I and II (1985 and 1993);

Mykenaïka = J.-P. OLIVIER ed., Mykenaïka. Actes du IXe Colloque international sur les textes mycéniens et égéens organisé par le Centre de l'Antiquité Grecque et Romaine de la Fondation Hellénique des Recherches Scientifiques et l'Ecole Française d'Athènes (Athènes, 2-6 octobre 1990), BCH Suppl. XXV (1992);

Pylos Comes Alive = C.W. SHELMERDINE & T.G. PALAIMA eds., Pylos Comes Alive. Industry and Administration in a Mycenaean Palace. A Symposium of the NY Society of the Archaeological Institute of America and Fordham University in Memory of Claireve Grandjouan, May 4-5 1984

RCT = J. DRIESSEN, The Room of the Chariot Tablets at Knossos. Interdisciplinary Approach to the Study of a Linear B Deposit (Diss. Katholieke Universiteit Leuven 1989);

Res Mycenaeae = A. HEUBECK & G. NEUMANN eds., Res Mycenaeae. Akten des VII Internationalen Mykenologischen Colloquiums in Nürnberg vom 6-10 April 1981 (1983), 15-27;

Studies Bennett = J.-P. OLIVIER & T.G. PALAIMA eds., Texts, Tablets and Scribes. Studies in Mycenaean Epigraphy and Economy offered to Emmett L. Bennett Jr., Minos Suppl. 10 (1988); Conventional abbreviations for text references include: KN (Knossos); PY (Pylos); TH (Thebes); MY

(Mycenae); TI (Tiryns); KH (Khania).

The following abbreviations are used for types of names: CN (collector's name); SN (shepherd's name); MN (man's name); WN (woman's name); TN (toponym).

 M. LINDGREN, The People of Pylos, Prosopographical and Methodological Studies in the Pylos Archives, I and II (1973).

J.-P. OLIVIER, "KN Da-Dg", in Studies Bennett, 219-267; L. BAUMBACH, "An Examination of the Personal Names in the Knossos Tablets as Evidence for the Social Structure of Crete in the Late Minoan II Period", in Minoan Society, 3-10; ID., "The Personal Names on the Knossos Ap tablets", in A. ETTER ed., O-o-pe-ro-si. Festschrift für Ernst Risch zum 75. Geburtstag (1986), 273-278; ID., "Names of Shepherds at Knossos", Acta Classica 30 (1987), 5-10; ID., "The People of Knossos: Further Thoughts on some of the Personal Names", in Mykenaïka, 57-63; P. ILIEVSKI, "Observations on the Personal Names from the Knossos D Tablets", in Mykenaïka, 321-349; ID., "Some Structural Peculiarities of Mycenaean-Greek Personal Names", in Res Mycenaeae, 202-215; G. NEUMANN, "Zur Deutung einiger mykenischen Personennamen", in Res Mycenaeae, 328-334; J.T. KILLEN, "Names in -i on the Knossos Tablets", in Mykenaïka, 351-363.

<sup>\*</sup> I would like to thank especially Prof. Thomas G. Palaima, Dr. John T. Killen and Dr. Jean-Pierre Olivier who have read an earlier draft of this paper and whose valuable comments and suggestions have greatly improved the contents. I am also grateful to Dr. Mary Blomberg for her helpful observations and support. Last, but not least, I thank my advisor Dr. Margareta Lindgren. The responsibility for remaining shortcomings is mine alone. Mrs. Anna Waern-Sperber, a fellow graduate student, merits a special thanks for invaluable help with computer matters.

Knossos archives which will be my PhD thesis at the Department of Classical Archaeology and Ancient History, Uppsala University, Sweden.

Such an examination of the Knossos material is now particularly important. Driessen's recent study of the material from the Room of the Chariot Tablets (RCT) implies that this part of the archives is to be dated to LM II <sup>3</sup>. Olivier argues that tablets uncovered in a LM III B context at Chania are in Knossian scribal h. 115 <sup>4</sup>. Thus potentially we are dealing with a disunified archives which a prosopographical study could help to shed some light on <sup>5</sup>. H. 115 is, as argued by Olivier, inter-linked to a large number of tablets uncovered in the West wing of the palace at Knossos and consequently all of these should therefore also be dated to LM IIIB <sup>6</sup>. If his conclusion is legitimate prosopography should reveal the interaction and show its extent. Thus such a study could clarify and test diachronically the relationship between different tablet groups and respective archive areas. Moreover, it should help us to understand the operation through time of different industrial activities and the different functions of individuals within those industries. Eventually one could then compare Cretan vs. mainland industries in these regards.

There are major differences between the Linear B data from Pylos and Knossos with respect to: chronology, nature of the archives and state of preservation of the tablets. Of the ±3400 Knossos documents 75% are incomplete and 56% average less than 5 signs. The average number of signs per tablet is 7.7. The same percentages for the ±1100 Pylos documents are 50% and 33% respectively and the average number of signs per tablet is 25<sup>7</sup>. Hence it is more difficult to interpret the prosopographical material in the Knossos tablets. Valuable cross-references have most certainly been lost, as have the means to specify more clearly the exact function of certain individuals and their inter-relationships. Furthermore, Knossos has no central Archives Complex comparable to Rooms 7 and 8 at Pylos 8. Scribal departments and bureaux are distributed in different areas of the palace 9. With these reservations in mind, the aim of my study is to examine systematically, on the basis of the extant data, the Knossian personal names and designations to see if one or several patterns are revealed. For practical reasons, I have chosen to proceed with the scribal hands as a point of departure. The method used is to chart the personal names and the types of personal designations (occupational, social and titular) recurrent in the tablets. The procedure involves compiling a catalogue of individuals and groups of persons and making note of possible inter-references. These inter-references may, as indicated above, show patterns which could throw further light on the relationship between the different archive deposits and, as a consequence, on the problematic issues pertinent to

J. DRIESSEN, An Early Destruction in the Mycenaean Palace at Knossos. A New Interpretation of the Excavation Field-Notes of the South-East Area of the West Wing (1990), 114. If Driessen is correct more than 50 years may separate these tablets from the conventional dating of the rest of the archives in LM IIIA2.

J.-P. OLIVIER, "KN 115 = KH 115. Un même scribe à Knossos et à La Canée au MR IIIB : du soupçon à la certitude", BCH 117 (1993), 19-33.

A chronological space of around 200 years could theoretically exist between different archival areas. For the ramifications involved see R. TREUIL et al., "Les problèmes chronologiques", in Les civilisations égéennes du Néolithique et de l'Âge du Bronze (1989), 532-535.

<sup>6</sup> OLIVIER (*supra* n. 4), 31-32 and ref.

A. BARTONEK, "The Linear B Series and Their Quantative Evaluation", in Res Mycenaeae, 15-27; J.-P. OLIVIER, "Administrations at Knossos and Pylos: What Differences", in Pylos Comes Alive, 11-19.

T.G. PALAIMA, The Scribes of Pylos (1988), 171-189.

J.-P. OLIVIER, Les scribes de Cnossos (1967), 101-136. Area I and to a certain extent C come closest to meeting the criteria for a main archive. See PALAIMA (supra n. 8), 180 and ref.

the chronological question and to the unity/disunity of the archive deposits at Knossos <sup>10</sup>. A further aid in clarifying identifications is to use calculations based on statistical method. Such an analysis involves laying out percentages of potentially repeatable names, *i.e.* nonhapax, for each scribal hand as well as for names shared between scribal hands. A comparison of the data obtained would form a basis helpful in deciding how many of the correspondences are likely to be genuine. Nevertheless, it cannot be stressed enough that much of the material allows at best for hypothetical reasoning. Rarely do cross-references permit individuals to be identified with certainty. However, I think it is important to indicate that an identification is possible, although less than certain, and to do this without resorting to what Carney called "textual perversion", with the implication that the skimpier the evidence the more elaborate the theories that can be spun around them <sup>11</sup>! The purpose of this paper is to illustrate my methods and results and to invite critical reaction from colleagues.

Scribal h. 103 specializes in recording matters pertaining to the textile industry  $^{12}$ . Together with h. 117, h. 103 is one of the more prolific scribes in the Knossos dossier. About  $\pm$  240 tablets are attributed to this hand  $^{13}$ . Most of those with known findspot were uncovered in the West magazines of the palace (archive area F) a substantial number in F14  $^{14}$ . The possible personal names amount to around  $\pm$  200 of which  $\pm$  92 or approximately 46 % are hapax (listed in Appendix B).

To see if it is possible to discern a pattern of inter-references, the designations in h. 103 recurrent in other scribal hands have been grouped according to whether they are personal names (Pl. XIX) or other types of designations, such as occupational, social, titular and ethnic. To the personal names can be added a few that only tentatively can be said to occur in h. 103 and in another scribal hand and which I therefore class separately (Pl. XX). Left out are designations that are too fragmentary to allow any reasonable interpretation. Quite a number of the ethnics present in the tablets in h. 103 denote workgroups active in the textile industry <sup>15</sup>. They are therefore placed together with directly occupational designations and titles. Given the limitations of space, this paper is confined to the personal names. Other types of designations will not be discussed at this time. Suffice it to say that several specifically occupational designations, such as *te-pe-ja* and *a-ra-ka-te-ja*, occur only in hand 103. These occupational designations are not found in other scribal hands because they define textile specialists who only appear in records of h. 103, the major scribe recording the textile sphere.

Pl. XIX shows personal names recorded in h. 103 and recurrent in other scribal hands <sup>16</sup>. Perhaps, in a number of cases, we are here faced with simple homonyms. Quite a few of these names are present in the the so-called "shepherd position" in the sheep

<sup>10</sup> DRIESSEN (supra n. 3), 7.

<sup>11</sup> T.F. CARNEY, in an article concerning prosopography in general titled "Prosopography: Payoffs and Pitfalls", *Phoenix* 27 (1973), 156-179, esp. 173.

J.T. KILLEN, "The Textile Industries at Pylos and Knossos", in Pylos Comes Alive, 49-63. Killen believes that all tablets in h. 103 are directly related to the textile sphere; C. SHELMERDINE, "Scribal Organization and Administrative Procedures", in Studies Bennett, 343-384; I. TEGYEY, "Scribe 103 at Knossos", in P. OLIVA & A. FROLIKOVA eds., Concilium Eirene 16. Proceedings of the 16 International Eirene Conference (Prague 31.8-4.9 1982), vol. 3 (1983), 127-132.

<sup>13</sup> The tablets occur in the following series: Ak, Am, Ap, As, E, Gg, M, Lc, Le, Ln, L, Od, V, Xe. The nodule Wm 8499 is also in h. 103. Scribal hand 117 ± 640 tablets.

<sup>14</sup> SHELMERDINE (supra n. 12), esp. 382.

<sup>15</sup> J.T. KILLEN, "The Knossos Lc (Cloth) Tablets", BICS 13 (1966), 105-109.

<sup>16</sup> The list excludes names which could appear in another scribal hand but under a variant spelling e.g. a-re-ijo (Le 641) and a-re-jo (Vc 208).

tablets of h. 117 <sup>17</sup>. It has been suggested that some of these proper names may refer to the same individuals <sup>18</sup>. The strong link *per se* between the textile industry and sheep-rearing is a point in favor of such an hypothesis. But what was the role of these so-called shepherds? Were they mere herders or did they perhaps have another more supervisory function? In the latter case were they then responsible for flocks at several localities? If this were so, it would not be totally inconceivable that persons listed in tablets dealing with textiles and wool, *i.e.* involved in the textile industry at different levels, also could have responsibility for animals producing the wool needed to sustain textile production, and could in that respect, therefore, occur in h. 103 and on tablets concerned with sheep <sup>19</sup>. Nor is it inconceivable that these individuals also appear in other scribal hands dealing with different subject matters pertinent to the Knossian administration. Depending on the general make-up of the society, an individual's place or function in one area does not necessarily exclude participation in another.

It has been proposed that TN are recorded with the personal names to enable the scribes to distinguish individuals with identical names from each other <sup>20</sup>. This may well be the case. However, persons listed in the tablets are not always recorded in conjunction with a TN or under a toponymic heading. Yet the scribes were apparently able to distinguish them due to the specific nature of many record-keeping assignments. The scribes were often inconsistent in their recording. At Pylos in the Aa, Ab, Ad series the same groups of women are occasionally recorded with or without a TN <sup>21</sup>.

It is difficult to show that one and the same individual is recorded as a "shepherd" in the relevant tablets of h. 117 and in other tablet contexts because the tablets in h. 117 have the following set format: (± CN) SN+ TN+ logogram + number. Thus we do not have the kinds of corroborating contextual evidence needed to identify the same individual on different tablets, e.g. cross-references such as a repeated name-sequence, identical archive area and/or similar subject-matter <sup>22</sup>, the more coinciding the better, or names recorded with the same titular or toponymic designation. To establish definite cross-references involving name-sequences with such a paucity of names on individual tablets becomes very difficult, if not impossible.

All this is by way of warning that we are not in a position to be certain that the names in Pl. XIX recurrent in h. 117 refer to the same individuals. The fact that so many names recur in h. 117 is perhaps simply due to the large number of names recorded in this h.: more than  $400^{23}$ .

Scribal h. 115 is another hand in which several personal names prevalent in h. 103 recur. Hand 115 is also involved in recording the textile sphere of the economy <sup>24</sup>. As shown by John Killen this hand is likely to be dealing with finishing aspects <sup>25</sup>. Except for

<sup>17</sup> As noticed by L. BAUMBACH, in Minoan Society, 5.

<sup>18</sup> Ibid.

But see the salient point made by J. DRIESSEN, "Quelques remarques sur la 'Grande Tablette' (As1516) de Cnossos", Minos 19 1-2 (1985), 169-193, esp. 181, regarding SN. In As 1516, 17 SN recurrent in h. 117 are recorded. Shepherds both dependent on the palace and occurring in a collector context in the relevant tablets of h. 117 seem in As 1516 to be randomly distributed in the different groupings in the tablet. This suggests that these individuals do not correspond to the SN in h. 117.

<sup>20</sup> DRIESSEN (supra n. 19), 173.

<sup>21</sup> J. CHADWICK, "Women of Pylos", in Studies Bennett, 43-93 esp. 47.

<sup>22</sup> DRIESSEN (supra n. 19), 173.

OLIVIER (supra n. 2), 234. Of 452 SN in the Da-Dg and Dv series, 290 are complete and differ from one another.

<sup>24</sup> SHELMERDINE (supra n. 12), esp. 350f.

J.T. KILLEN, "The Knossos Ld(1) Tablets", in E. RISCH & H. MÜHLESTEIN eds., Colloquium Mycenaeum (1975), 151-181, esp. 167.

two tablets uncovered in E, those with known findspot were also uncovered in the West wing of the palace. It is therefore not surprising if the evidence strongly suggests that, at least in some cases, the same individuals are recorded in both scribal hands.

A few personal names recur in hands collectively attributed to h. 124 <sup>26</sup>. The tablets assigned to these hands come from the RCT <sup>27</sup>, argued by Jan Driessen to belong to an earlier destruction <sup>28</sup>. Therefore we may be dealing with homonyms in all of these cases.

Among the personal names present in h. 103 are a few attributed to the so-called collectors <sup>29</sup>. Some of these names recur in a large number of tablets in other scribal hands cf. we-we-si-jo. The general consensus of opinion is that these individuals held wider interests and played an important role within the palace economy and society. However, opinions differ on what exactly that role entailed <sup>30</sup>.

Louis Godart emphasizes commercial interests <sup>31</sup>. I wonder whether the collectors were in fact trade agents? Do we have evidence at Knossos of a royal trade agent, that is to say a (tamkar) system similar to that attested, for instance, at Ugarit <sup>32</sup>. Peter Warren has shown, for example, that there is evidence of a merchant class in Minoan times <sup>33</sup>. Although the Linear B tablets do not explicitly deal with trade <sup>34</sup>, the large amounts of wool recorded on the tablets were surely not intended solely for domestic use <sup>35</sup>. Textiles, given their nature, do not readily turn up in the archaeological record <sup>36</sup>. However, there is other evidence, such as the Mari texts that mention clothing being sent from Crete <sup>37</sup>. They also record a chief trader (tamkar) of the Cretans <sup>38</sup>. These texts are earlier than the Linear B tablets but it is likely that textiles were a Cretan export commodity in Minoan times and that this continued in the Mycenean era. A tamkar system involving semi-

<sup>26</sup> RCT, 104. Comprising at least a dozen scribes. See Driessen's more personal approach to scribal attribution and his grouping of major and minor scribes.

<sup>27</sup> OLIVIER (supra n. 9), 105.

<sup>28</sup> DRIESSEN (supra n. 3), 114 and see n. 5 regarding the chronological ramifications involved.

I use the conventional term 'collector' to describe these individuals until another perhaps more suitable term is agreed upon. See J. BENNET, "'Collectors' or 'Owners'? An Examination of their Possible Functions within the Palatial Economy of LM III Crete", in *Mykenaïka*, 65-101, esp. 65, n. 1 for a summary of the different terms used by various scholars.

<sup>30</sup> P. CARLIER, "Les collecteurs sont-ils des fermiers?", in *Mykenaïka*, 159-166; L. GODART, "Les collecteurs dans le monde égéen", in *Mykenaïka*, 257-283; J. BENNET (supra n. 29); J. DRIESSEN, "'Collector's items'. Observations sur l'élite mycénienne de Cnossos", in *Mykenaïka*, 197-214.

<sup>31</sup> GODART (supra n. 30), 283.

<sup>32</sup> M. HELTZER, Goods Prices and the Organization of Trade at Ugarit (1978), 121-131; ID., The Internal Organization of the Kingdom of Ugarit (1982), 187.

<sup>33</sup> P.M. WARREN, "A Merchant Class in Bronze Age Crete?", in Bronze Age Trade, 295-301.

J.T. KILLEN, "The Linear B Tablets and the Mycenaean Economy", in A. MORPURGO DAVIES & Y. DUHOUX eds., Linear B: A 1984 Survey (1985), 241-299, esp. 265. But see T.G. PALAIMA, "Maritime Matters in the Linear B Tablets", in R. LAFFINEUR & L. BASCH eds., Thalassa. L'Egée préhistorique et la mer. Actes de la troisième rencontre égéenne internationale de l'Université de Liège, Station de recherches sous-marines et océanographiques (StaReSO), Calvi, Corse (23-25 avril 1990), Aegaeum 7 (1991), 273-309, presents an analytical survey of the evidence in the Linear B tablets pertaining to maritime trade. See also 273, n. 2 concerning Minoan trade.

<sup>35</sup> KILLEN (supra n. 34), 264, for the possibility that cloth could have been exported; see C. SHELMERDINE, The Perfume Industry of Mycenaean Pylos (1985), 147 concerning oil as an export commodity.

B. KNAPP, "Spice, Drugs, Grain and Grog: Organic Goods in Bronze Age East Mediterranean Trade", in Bronze Age Trade, 21-68 gives an excellent overview of evidence pertaining to trade in organic goods. For a general survey of Aegean textiles see E.W.J. BARBER, Prehistoric Textiles. Development of Cloth in the Neolithic and Bronze Ages with Special Reference to the Aegean (1991).

<sup>37</sup> ARMT 21, 432 4-12.

<sup>38</sup> M. HELTZER, "The Trade of Crete and Cyprus with Syria and Mesopotamia and their Eastern Tin Sources in the XVIII-XVII Century B.C.", Minos 24 (1989), 7-27.

independent merchants could perhaps explain the interest shown by the palace in the close monitoring of these individuals' activities at all stages of that production which was perhaps ultimately intended for trade. The collectors seem to be linked to specific areas  $^{39}$ . The Nuzi tablets give evidence of merchants being connected to certain villages or larger defined areas  $^{40}$ . In the case of Crete, were these areas those from which the export trade was mainly directed? Was the pa-i-to / da-wo area one whose goods were intended for the Egyptian and Levantine market and ku-do-ni-ja one whose goods were destined for the western Mediterranean? These are possibilities I would like to consider more in detail at a later date  $^{41}$ .

As mentioned earlier, cross-references are necessary to identify individuals present in one or more scribal hands. Methodologically, it would be very convenient to establish a hierarchy of clear-cut criteria for cross-references and group the personal names accordingly. The prosopographical material in the Knossos tablets unfortunately does not allow for such an easy approach. Sometimes archive area and subject matter coincide but not a whole sequence of names. In other instances references to findspot or scribal hand is lacking.

Below are discussed a few examples of the names listed in Pl. XIX (cf also Appendix A).

In my study of h. 103 the most likely cases where a personal name recurrent in another scribal hand could refer to the same individual are those recorded in h. 115, as noticed for example by John Killen <sup>42</sup>. For instance *ku-ka-so* and *ja-pa-ra-ro* listed on As 5719 and V 652 respectively in h. 103 occur together on V 429 in h. 115. Likewise *o-du* and *wa-je* recur on V 479 in h. 115 and on As 5888 in h. 103. *nu-to* and *mi-ru-ro* occur together on V 482 in h. 115 and V 5913 in h. 103. The findspot, when known, for tablets in h. 115 excepting two found in area E, is the West magazines, archive area F. This fact further sustains a relationship between these two scribal hands. From the Lc and Od tablets in h. 115 we know that this is also a scribal hand concerned with wool <sup>43</sup>. Thus we have name sequence, subject matter and to some extent the same general findspot area. It is therefore very likely that identical names recorded in both hands refer to the same individuals. With this in mind, it is not impossible that the two names listed on Pl. XX [.]-*ma-ta-ro* and ]*ka-na-po* if recurrent in h. 103 and 115 respectively also refer to the same individuals in each case <sup>44</sup>.

Since we do not have a name sequence, it is less certain but not impossible that the individual *qe-ro* on As 602 is recorded in h. 115 on V 479, since other names in the As (1) set are present in both of these scribal hands. However, no cross-references permit an equation of these two with *qe-ro* in h. 117.

Along similar lines a-ta-no could be argued to belong to the same category, a name probably recorded on As 603 in h. 103 and recurring without context on Vc 569, in h. 115 and uncovered in F 13. It is more problematic to postulate that this individual is also recorded on As 1520 in h. 105. One link may be di-zo, also recorded on As 1520 and recurrent in h. 115 on V 479. Di-zo is a name elsewhere recorded in an o-pi context on V 1523 in h. 101. It is tempting to think that the same individual di-zo is referred to on the

<sup>39</sup> BENNET (supra n. 29), 91.

<sup>40</sup> C. ZACCAGNINI, "The Merchant at Nuzi", Iraq 39 (1977), 171-189.

<sup>41</sup> See also J.T. KILLEN, "Some Further Thoughts on 'Collectors' ", this volume.

<sup>42</sup> KILLEN (supra n. 25), 174-175.

<sup>43</sup> J.T. KILLEN, "Epigraphy and Interpretation in Knossos Woman and Cloth Records", in Studies Bennett, 167-183, esp. 178.

<sup>44</sup> See TEGYEY (supra n. 12), 130 for ]ka-na-po.

tablets in h. 101 and 105. The findspot of the tablets is tentatively given as J <sup>45</sup>. The *o-pi* suggests a workshop/supervisor connection although there is no indication of reference to any specific textile connection; indeed several of the tablets in h. 105 appear to deal with furniture production <sup>46</sup>. Is there a further link between V1523 and V 503 (h. 115) in the name *wa-du-na* which occurs on both tablets?

An example of a personal name where no direct cross-references prove that the name concerned refers to one individual present in different scribal hands is *ko-so* recorded on Ap 637 in h. 103 and on As 40 in h. 101 and present perhaps on Dv 8383 in h. 117. By inference one could argue, albeit speculatively, for an affinity between the *ko-so* recorded on As 40 (h. 101) and *ko-so* on Ap 637. Recorded on As 40 is also *su-ke-re* with the TN *se-to-i-ja*. *Su-ke-re* is probably the same individual on As 1516 also in h. 101 as this personal name is recorded in conjunction with the same TN in both tablets. It is not unlikely that *ko-so* being recorded on the same tablet is of similar status and in that respect could be associated with or stand in some sort of relationship to the women mentioned in Ap 637. Another tentative clue to the status of *ko-so* is perhaps the adjectival form *a-ke-si-ja* present on Ap 637, which could refer to *a-ke-ta* recurrent in the "collectors" tablet B 798 in h. 107 (area I3).

Similarly  $ku-ro_2$  could be argued as referring to one individual recorded on As 603 and on B 822. He is recorded on the As tablet with no-si-ro. This same individual is probably present on Ln 1568, also in scribal hand 103. Both tablets were uncovered in F14. On Ln 1568 before no-si-ro, pa-ro is inscribed, implying perhaps in this case a workshop owner or supervisor status  $^{47}$ . If  $ku-ro_2$  on B 822 is of similar status as no-si-ro it is not unlikely that he could be associated with do-e-ra. Therefore, also by inference, there is a possibility that we are dealing with the same individual on the As and B tablets. The personal name  $ku-ro_2$  is perhaps also recorded on U 4478 (h. 202) uncovered in the Arsenal (L), but no cross-references support a link between this individual and the others.

ta-de-so is an example of a personal name recorded with different toponyms. The personal name occurs in scribal hands 103, 117, 115 and on one tablet unattributed to a specific scribal hand. When a TN is recorded it is a different one in every case. Therefore we are perhaps dealing with separate individuals in every case. Or we can twist the evidence around and argue that it cannot be excluded that one individual could have had interests at different localities. In this respect it is important to have a full view of all of the material. A similarity between tablets As 604 where ta-de-so is juxtaposed with the TN ra-su-to and V 655 where the personal name is connected to the TN ja-po, is that they have e-re-dwo-e in initial position <sup>48</sup>. On V 655 in h. 115 ta-de-so is recorded with ja-ma-ta-ro, elsewhere possibly recorded in h. 103 (Xe 7437). However, I believe caution is

<sup>45</sup> OLIVIER (supra n. 9), 193-194.

<sup>46</sup> J.T. KILLEN, "The Knossos o-pi Tablets", Atti e Memorie del 1° Congresso Internazionale di Micenologia III (1968), 636-643, esp. 642-643.

<sup>47</sup> KILLEN (supra n. 25), 160; ID., "Notes on the Knossos Tablets", in J.T. KILLEN, J.L. MELENA, J.-P. OLIVIER eds., Studies in Mycenaean and Classical Greek presented to J. Chadwick, Minos 20-22 (1987), 319-331, esp. 327.

<sup>48</sup> KILLEN (supra n. 25), 175; see L. GODART & Y. TZEDAKIS, Témoignages archéologiques et épigraphiques en Crète occidentale du Néolithique au Minoen récent IIIB (1992), 302-303, for the suggestion that ta-de-so in h. 103 and 115 refers to the same individual since TN ja-po connected to the ta-de-so on V 655 probably lay in the vicinity of ra-su-to connected to the ta-de-so on As 604. J.-P. Olivier (personal communication) has pointed out a further similarity i.e. the two tablets were manufactured by the same tablet-maker.

called for, as the proper name ta-de-so occurs at Thebes (on an ISJ: TH Z 869) and possibly at Chania 49.

The CN a-no-qo-ta, e-me-si-jo, ko-ma-we and we-we-si-jo, probably refer to the same individuals, at least when occurring in wool/textile and workshop contexts. However, if Driessen is correct, the a-no-qo-ta recorded on Vc 173 in h. 124 is perhaps to be viewed separately from the other occurrences 50, possibly also the a-no-qo-ta recorded in the shepherd position on Da 1289. It seems plausible to assume that the a-no-qo-ta each time connected with the TN e-ra is one and the same individual (tablets Da 1323, D 7334, Dq 45). On Ap 618 a-no-qo-ta is recorded with another CN ko-ma-we-to (gen.) with the context MUL logogram probably referring to women workers in the textile industry. It is likely that the same a-no-qo-ta is referred to on Ak 615, recording women and children who are in some way dependent on/connected to this individual.

To sum up:

Of the around 200 or so possible names recorded on the tablets in h. 103 about 40 recur in other scribal hands. Another 20 can tentatively be assigned to this category. It is possible that even more belong to this group but are unidentifiable because of the fragmentary state of the tablets. Disregarding the four CN mentioned above, perhaps 14 of 60 potential occurrences can be argued in some cases as being more or less likely to denote the same individual.

No conclusive evidence suggests that the personal names recorded in h. 103 and recurrent as SN on the tablets of h. 117 refer to the same individuals. In theory it is not impossible for individuals to be connected to different localities <sup>51</sup>. The personal names recurring in h. 124 are possibly homonyms if Driessen is arguing correctly for an earlier date for the RCT <sup>52</sup>. It can be noted that *i-ne-u* and perhaps *ta-ta-ro*, both present on As 607, recur on the Xd tablets in this hand.

The most convincing identifications exist between h. 103 and 115. Both scribes record individuals pertinent to the textile sphere of the palace economy. The findspot area for the tablets concerned in these scribal hands, V 429 in h. 115 uncovered in E excepted, is the West magazines (F). This fact further sustains a relationship between the two scribes. Therefore a personal name present in both scribal hands is likely to denote the same individual.

Generally, the most likely identifications occur on tablets uncovered in the West magazines, area F, itself.

The CN a-no-qo-ta and we-we-si-jo establish an affinity with scribal hand 108, a scribe also dealing with personnel with probable textile connections. The findspots of the tablets in this hand, when known, are also the West magazines (F 7). The CN e-me-si-jo and ko-ma-we recur inter alia on E 843 (h. 102) and B 798 (h. 107) respectively. These tablets were uncovered in area I (Northern Deposit), perhaps the main archive of the palace <sup>53</sup>.

<sup>49</sup> E. HALLAGER, "The Inscribed Stirrup Jars: Implications for Late Minoan IIIB Crete", AJA 91 (1987), 171-190, esp. 178.

<sup>50</sup> See supra n. 5, for the chronological implications. In theory it is not impossible that an individual is recorded in an RCT context and in a context dated to the LM IIIA2 destruction, if for example, a time span of 50 years is involved.

<sup>51</sup> See J. MELENA, "Coriander on the Knossos Tablets", Minos 15 (1976), 133-163, esp. 138, for the idea that some SN recur with different localities because of transhumance practice.

<sup>52</sup> DRIESSEN (supra n. 3); see also supra n. 50.

<sup>53</sup> OLIVIER (supra n. 9), 126.

Otherwise only extremely tentative inter-references establish links to area I through i-ta-ja and ku- $ro_2$  (unattributed scribal hands), to area B through ko-so (h. 101) and to area J, a-ta-no (h. 105). The CN reinforce links to the areas mentioned.

This study is confined to the personal names recorded in scribal hand 103. Practically all the tablets in this hand are concerned with the textile industry <sup>54</sup>. The relatively few individuals recorded in h. 103 who with a high degree of possibility occur in other scribal hands are perhaps explained by this fact. At the same time the suggestion presents itself that the majority of the people recorded in these specific tablets work exclusively within this sector or at least were solely of interest to the palace administration in this capacity. It may be that as I examine the remaining part of the archives the view presented here will be modified.

Hedvig LANDENIUS-ENEGREN

Appendix A
List of names in h. 103 discussed above.

Name	Tabl. nr.	н.	Findspot	
a-no-qo-ta	Ap 618	103	F14	
1	Da 1289	117	J1	
	Vc 173	"124"	C	
	Ak 615	108	F7	
	Dq 440	121	F1	
a-no-qo-ta[	X 1051	(-)	13	
a-no-qo-ta-o (gen.)	Dq 45	217	B4	
1-1-1-1	E 847	(-)	13	
a-no-qo-	Da 1323	117	J1	
a-no-qo[-ta	D 7334	(-)	(-)	
a-na-qo-ta (variant)	B 798	107	13	
a-ta-no	As 603	103	F14	(PY Fn 50: a-ta-no-ro [gen.]);
	As 1520	105	J2, J3	(PY Vn 130: a-ta-no-re [dat.])
	Vc 569	115	F13	(
e-me-si-jo-jo (gen.)	Lc 551	103	F10	
3-3-6-7	L 8159	103	F14?	
	X 35	(-)	B1	
e-me[	L 5927	103	(-)	
e-me-si-jo[	E 843	102	13	
e-me-si-jo	De 1381	117	J1	
e-me[	X 7706	(-)	(-)	
i-ne-u	As 607	103	F14	
	Da 1379	117	J1	
	Xd 133	"124"s	C	
i-ta-ja	Xe 537	103	F10	
	Ap 769	(-)	14	
[.]-ma-ta-ro	Xe 7437	103	(-)	
ja-ma-ta-ro	V 655	115	F14	
ja-pa-ra-ro	V 652	103	F14	
J. P. C. S.	V 429	115	E5	
]ka-na-po	V 5536	103	(-)	
]na-po	V 492	115	F16	
]ko-ma-we	Dv 5278	117	(-)	(PY An 519, Jn 750)
ko-ma-we-to (gen.)	Ap 618	103	F14	(1 1 7111 515, 511 750)
me me to (Bem)	Dk 920	120	13	
	Dk 931	120	13	
	Dv 1272	117	J1	
	Le 5629	103	(-)	
ko-ma[	B 988	(-)	13	
ko-ma-we-te (dat.)	C 913	112?	13	(PY Cn 925)
no ma no to (duti)	Dk 1049	120	13	(1 1 011 723)
ko-ma-we-ta	B 798	107	13	
ko-so	As 40	101	B2	
]ko-şo	Dv 8383	117	(-)	
ko-so-jo (gen.)	Ap 637	103	F14	(ko-so-ne [dat.] PY Cn 45)
ku-ka-so	As 5719	103	(-)	(no so he [dat.] I I Ch 43)
and the out	V 429	115	E5	
ku-ro2	As 603	103	F14	(PY Ea 814)
102	U 4478	202	L	(* * Da 014)
ku-ro2-jo (gen.)	B 822	(-)	13	
mi-ru-ro	V 5913	103	(-)	
14 10				
	As 1516	101	J2	

	C 902	201	13	
	V 482	115	F6	
nu-to	V 5913	103	(-)	
	V 482	115	F6	
o-du	As 5888	103	(-)	
	V 479	115	F6, F7	
qe-ro	As 602	103	F14	
•	Db 1204	117	J1	
	V 479	115	F6, F7	
ta-de-so	As 604	103	F14	(TH Z 869; KH Z 5)
	De 1409	117	J1	(TH Z 870) (]de-so)
	Df 1285	117	J1	
	V 655	115	F14	
	X 7758	(-)	(-)	
ta-ta-ro	As 607	103	F14	(PY Eo 224)
	Xd 8605	"124"	(-)	
wa-je	As 5888	103	(-)	
	V 479	115	F6,F7	
we-we-si-jo	Ak 9173	108	(-)	(PY Jn 431; 658; 725)
	Le 654	103	F14	
	L 7396	213?	(-)	
we-we-si-jo-jo (gen.)	Ak 622	108	F7	
	Lc 7392	103	(-)	
	Od 502	(-)	F7	
	X 453	138?	F3	
	X 7759	(-)	(-)	
	X 8196	(-)	(-)	
we-we-si-jo[	X 9609	(-)	(-)	
The term is attested 33	times in the Da	-Dg, Dv tablets	in h. 117 55.	

<sup>55</sup> OLIVIER (supra n. 2), 254-255.

Appendix B

Personal names in h. 103 which are hapax at Knossos 56 Greek /non-Greek 57

a-de-ra2	Ap 639	WN	non-G?	L, 42
a-ka-sa-no	As 602	MN	G	L, 17 ('Αλξάνωρ) (PY Jn 415)
a-ku-ri-jo[	As 609	MN	G	L, 20 ('Ακύριος ?)
a-mi-ke-te-to	Od 687	MN?		
a-nu-wa-to	Ap 639	WN	G/non-G	G=B2, 277, non-G= I2
[a-]qi-ti-ta	Ap 639	WN	G.	I2 (MY Oe 103)
a-re-ta-wo[	As 645	MN	G	B1, 7
]a-re-te-re-u[	As 5557	MN? 58		
a-ti-pa-mo	Od 562	MN	G	L, 32 ('Αντίφαμος) (PY An 661 Jn 320; 750; Mn 1368)
a-to-me-ja	Ap 639	WN	G	B2, 277
a3-ka-ra	L 567	WN	G	L, 35 (Αἴγλα)
a-*65-na	Od 714	WN?		
a-*79	Ap 618	WN		(My Oe 123)
da-te-ne-ja	Ap 639	WN	non-G?	L, 39
di-qa-ra	Ap 628	WN		
di-*65-pa-ta	Ln 1568	WN	G?	L, 45 (Διαφάντας) Διυφάντας (DMic I, 185)
du-sa-ni	Ap 639	WN	non-G	B2, 276 (Lin A du-su-ni); I1, 418
du-tu-wa	Ap 639	WN		
e-ri-ta-qi-jo	As 604	MN	G/non-G	G=L, 51 ('Εριτάργ <sup>w</sup> ιος); non-G= Bi, 182
e-zo-wo	Xe 5900	MN	non-G?	L, 56 (PY Cn 40; 599)
i-du	Ap 639	WN	non-G	I1, 418
i-ta-mo	Ap 618	WN	G?	L, 59 (MN: "Ιταμος)
lja-mu-ţa	Ap 5864	WN	non-G	L, 60
ka-na-to-po	Ap 639	WN	non-G	I1, 418
ka-nu-se-u	As 602	MN	G	L, 62 (Γανυσεύς)
ke-pu	Ap 639	WN	G?	L, 67 (κῆπ/βυς?)
ke-ra-me-ja	Ap 639	WN	G	B2, 275
]ke-we-da 59	As 566	MN	non-G?	L, 144 (u-we-da)
ki-nu-qa	Ap 618	WN	non-G?	L, 70 (ki-nu-pa <sub>2</sub> )
ki-zo	Ap 5748	WN	non-G	B2, 276

Site and tablet number given in brackets for those names which occur at other sites. To the list above, one may add ]se-me-ni [ (V 5872) and ]pi-a-ze-ra (Xe 5905) although due to the fragmentary state of the tablets no contextual evidence secure these terms as personal names. The following abbreviations are used: L = O. LANDAU, Mykenisch-Griechische Personennamen (1958); B1 = L. BAUMBACH, in Minoan Society, 3-10; B2 = ID., "The Personal Names on the Knossos Ap tablets", in A. ETTER ed., O-o-pe-ro-si. Festschrift für Ernst Risch zum 75. Geburtstag (1986), 273-278; Bi = J.C. BILLIGMEIER, "An Inquiry into the non-Greek Names on the Linear B Tablets from Knossos and their Relationship to Languages of Asia Minor', Minos 10 (1970), 177-183; I1 = P.Hr. ILIEVSKI, "Illyrian Personal Names in the Mycenaean-Greek Onomasticon", ZA 25 (1975), 413-421; I2 = ID., "Mycenaean Personal Names in -to", Paper presented at the 2° Congresso Internazionale di Micenologia, Roma-Napoli, 14-20 october 1991 (abstract, forthcoming in Atti e Memorie del 2° Congresso Internazionale di Micenologia Roma-Napoli 14-20 ottobre 1991); La = E. LAROCHE, Les noms des Hittites (1966); Le = M. LEJEUNE, Mémoires de philologie mycénienne II (1971); Me = J.L. MELENA, "On Untransliterated Syllabograms \*56 and \*22", in Tractata Mycenaea. Proceedings of the Eighth International Colloquium on Mycenaean Studies, held in Ohrid, 15-16 September, 1985 (1987), 203-232.

As ILIEVSKI 1975 (supra n. 56), so aptly states on p. 414: "One of the most important problems in this research is that of where to draw a line between Greek and non-Greek names, and which criteria to use in distinguishing them". An attribution to Greek or non-Greek is not given for names which are not included in L (supra n. 56) and to which I have found no specific reference stating explicitly that the name belongs to either category. Most of them are possibly non-Greek; see B1 and B2 (supra n. 56) concerning the As and Ap series respectively.

<sup>58</sup> Or occupational designation (DMic I, 102).

<sup>59</sup> Perhaps (u-we-da).

ko-pi	Ap 639	WN	G?	L, 73 (Κοπίς?)
ko-re-wo	Ln 1568	WN	G	L, 73 (κόλε <i>ξ</i> ος)
ku-ru-no	As 608	MN? 60		PY Ea801 (ku-ru-no-jo)
ku-su-a-ta-o	L 698	MN	G?	ku-su = ξύν a-ta-o, L, 30 ("Ανταος?) (a-ta-o) (PY Jn 431; An 340; Fn 324; (a-ta-o-jo), Vn 1191)
ma-ku[	Ap 639	WN	G/non-G	G=L, 175 (Μάχυς?); non-G=La, 109 (hittite: maaku)
ma-tu-we(dat.)	Ln 1568	WN	G	L, 82 (Ματυ <b>ρε</b> ι)
na-e-ra-ja	Ln 1568	WN	non-G	L, 86
na-ki-zo	Wm 8499	MN?		
no-do-ro-we	As 608	MN		
o-da-ra-o	V 5913	MN	non-G	L, 89
o-po-ro-u-si-jo[	As 603	MN 61		
o-ri-mo	Ap 5748	WN	non-G	B2, 276
o-sa-po-to	Ap 5748	WN	non-G	B2, 276
pa-ja-ni	Ap 639	WN	non-G	B2, 276
pe-re-*82-ta	As 602	MN	non-G?	
pe-te-u	As 603	MN	G?	L, 104 (Πειθεύς?)
pi-ja-mu-nu	Ap 5748	WN	non-G	B2, 276
pi-ra-ka-ra	Ap 639	WN	G	B2, 275
pi-ro-qa-wo	As 609	MN	G	B1, 8
po-ro-i-ra	Od 690	WN		
pu-zo	Ap 5748	WN	non-G	B2, 276
qa-qa-ro	As 604	MN	non-G	B1, 8 (Lin. A qa-qa-ru)
qe-pa-ta-no	Ln 1568	WN	non-G?	L, 114
qe-ta-se-u	As 605	MN	G?	L, 116 (Πενθασεύς) (ΤΗ Of 30)
qe-te-se-u	As 609	MN	G	B1, 8
qo-wa-ke-se-u	As 602	MN	G	B1,8
ra-ku	V 653	MN	G	L, 118 (Λάχυς?)
ra-te-me	V 653	MN	non-G?	L, 120
ra-wo-ke-ta	As 605	MN	G	L, 120 (PY Jn 478); B1, 8
ru-nu	Ln 1568	WN	non-G	L, 271
ru-sa-ma	Ln 1568	WN	non-G	L, 125
sa-ma-ti-ja	Ap 639	WN	non-G	B2, 276 (ethn.); Bi, 183
sa-mi	Ap 639	WN	non-G	I1, 418
sa-ti-qi-to	Ap 639	WN	non-G	12
sa-*65	Ap 639	WN	non-G?	
]și-ja-qo	As 566	MN	non-G	L, 128
și-mi-do	As 607	MN		
si-ne-e-ja	Ap 639	WN	non-G	L, 128
si-nu-ke	Ap 639	WN	non-G	I1, 418
su-mo-no	Od 563	WN		
]su-*56-ta	As 5932	MN? 62	non-G?	Me, 209
ta-pa-da-no	As 608	MN	non-G	L, 132; Le, 109
ta-su	Ln 1568	WN	G?	L, 133 (Θάρσυς)
ta-to	As 602	MN	non-G	B1, 8 (Lin A ta-ti)
ta-wa-ko-to	Od 715	MN	non-G	L, 134
te-na-ja-so[	As 604	MN	non-G	L, 135
te-qa-ja 63	Ap 5864	WN		B2, 275 (PY Ep 539)
ti-no	Ap 5748	WN	non-G	B2, 276; (TN in PY An 18, Xa 565?)
ți-wa-ti-ja 64	Ap 618	WN?	non-G	L, 273; Bi, 183
tu-ka-to	Ap 639	WN	G	B2, 277
tu*49-mi	Ap 639	WN	non-G	L, 142

<sup>Or personal designation (DMic I, 408).
Ethnic? (DMic II, 45).
Or personal designation (DMic II, 307).
Ethnic (DMic II, 333).
Or personal designation variant of ethnic ti-nwa-ti-ja? (DMic II, 356).</sup> 

u-pa-ra	Ap 639	WN	non-G	L, 143
wa-ra-ti	Ap 639	WN	G?	I1, 418
wa-wa-ka	Ln 1568	WN	non-G	L. 147
wi-so	Ap 639	WN	non-G?	
wo-di-je-ja	Ap 639	WN	G	B2, 275 (PY Vn 1191; Ub 1318, MY V659)
ze-ne-si-wi-jo	M 720	MN	non-G	L, 153; Le, 128
*18-to-no	Ap 639	WN?		-,,,
*49-sa-ro	V 653	MN		
*56-ni-sa-ta	As 607	MN	non-G	Bi, 182
*56-po-so	Ln 1568	WN	non-G	Me, 217

## LIST OF ILLUSTRATIONS

- Pl. XIX Personal names in scribal h. 103 recurrent in other scribal hands.
  Pl. XX Personal names which only tentatively can be said to occur in h. 103 and in another scribal hand.

## DISCUSSION

- J.T. Killen: Could I say that I thought that was a splendid paper? Particularly I admired the caution with which you approached this question. As you know, the number of different personal names, male and female, in the Mycenaean records is actually very small. There is quite a lot of duplication. You are absolutely right in saying that one needs a lot of supportive evidence before concluding that the same name refers to the same person in two different contexts. As you know, at Pylos people have tried to make bronze-smiths into shepherds, to have bronze-smiths engaged in coastguard duties; all in my view absolute nonsense. There is very little I would disagree with: I am a bit doubtful about what you said about Hand 101 and 105; but apart from that tiny detail: splendid.
- **J. Driessen**: Of course, this is an important issue, these cross-references between the personal names at Knossos, especially, between 113 and 115 and the question of the textile business. I wonder if the stress you put on the link between the textile tablets at Knossos and those from Khania could not be suggestive of something like the industry in LH IIIB at Knossos only concerning textiles. If so the textile administration at Knossos could be dependent on the palace at Khania and not the other way around?
- H. Enegren: No, I do not think, at this point, that there is enough evidence to suggest such a scenario.

Scribal Han	de		Т	_								-					_		_	_				_	_		_	_		_	_		_		_		_	_			-			_			_	
Scribal Hall						Ш																																	П									
Names	101	102	105	107	108	110	111	1113	114	116	1118	119	120	122	123	124	125	126	127	129	130	132	133	134	136	137	138	140	141	201	203	204	206	207	208	210	211	213	214	215	217	218	219	221	222	223	224	(F)
a-ke-u			$\vdash$	+	11	+	+			+	x	+		+	-	x	+	H	+	+	+	+	+	+	+	$\vdash$	+	+	Н	+	+		+			+		+	$\vdash$	+	+	+		+	-	+	+	+
a-no-qo-ta				×	x	$\Box$				+	x		١,			-	x				$\Box$	+			+	$^{\dagger}$		- 275	$\forall$	+	+	+	+	$^{\dagger}$	+	Н	+	+	H	+	x			+			+	x
a-ra-ko	++	+		-	-		x	+		+	x	+		+		+	X		+	+	H	+	+	+	+	H	+	+	Н	+	+	-	+	Н	+	+	+	+	Н	+	-	-	+	+	+	+	+	^
a-ta-no	++	+	x	+	+		-	+	2		-	+		+		+	1		+	+	+	+	+	+	+	H	+	+	H	+	+		+	Н	+	Н	+	+	+	+	+	+	1	+	+		+	+
au-ri-jo	++	+	A	+	+	+	+	-	,	-	x	+	+	+		+	+	Н	+	+	H	+	+	+	+	$\vdash$	-	+	Н	+	+	H	+	+	+	+	+	+	$\vdash$	+	+	H	+	+	-	$\vdash$	+	+
di-ka-ta-ro	++	+	-	+	++	+	-	+		+	x	+		+		+	+	+	+	+	H	+	+	-	+	$\vdash$	+	+	H	+	+	-	+	H	+	+	+	+	$\vdash$	+	+		-	+	+	$\vdash$	+	+
e-me-si-jo	+++	x	-	+	-	+	-	+	-	+	x	+	-	+	-	+	+	+	+	+	-	+	+	-	+	$\vdash$	+	-	$\vdash$	+	+	-	+	Н	-	Н	+	+	$\vdash$	+	+		$\vdash$	+	-	$\vdash$	+	+-
i-ne-u	++	A .		+	+	+	-	+	-	+	x	+	-	+	+	-	x	$\vdash$	+	+	+	+	Н	+	+	$\vdash$	+	-	$\vdash$	+	+	-	+	H	+	+	+	+	$\vdash$	+	+	+	-	+	-	$\forall$	+	x
i-ta-ja	+	+		+	-	1	+	+	-	+	A .	+		+	-	+	*	H	+	+	+	+	+	-	+	H	+	+	$\vdash$	+	+	+	+		-	+	+	+	H	+	+		-	+	+	$\vdash$	+	-
i-ta-no	++	+	-	+	+	+	+	+	-	+	+	+	+	4	-	+	+	Н	+	+	+	+	+	+	+	Н	+	-	$\vdash$	+	+	-	+		+	+	+	+	++	+	-	+	+	+	+	+	+	x
ja-pa-ra-ro	++	+		+	-	+	-	+	7		-	+	+	+	-	+	+		+	+	+	+	+	-	+		+	-	$\vdash$	+	+	+	+	+	-		+	+	+	-	+	-	-	+	-	-	+	X
ka-si-re-u	x	+	-	+		+	-		, A	+	-	+	-	+	-	+	+	+	+	+	+	+	+	-	+	H	+	+	$\vdash$	+	+		+	+	+		+	+	1	+	+		+	+	-	1	+	+
ko-ma-we	^	+		x		+	,	ĸ		+	x		x	+		-	+	+	+	+	$\vdash$	+	+	-	+	+	1	-		+	-	+	+	+	-	+	+			+	+	-	$\vdash$	-	-	+	+	x
ko-so	x	+	-	^	+	+	- 1		-	+	x		^	+		+	+	+-+	+	+	+	+	+	+	+	-	+	-		+	+	-	+	$\vdash$	+		+	+	H	+	+		H	+	+	+	+	^
ku-ka-ro	1	+	-	+	+	+	+	+	+		x	+	+	+		+	+	x	1		+		+	-	+	$\forall$	-	1		+	+	+	+	+	-	+	+	+	+		+		+	+		+	+	+
ku-ka-so	++	+		+	$\vdash$	+	+		X		^		-	+		+	+	1	+	+	+	+	+	-	+	H	+	+	1	+	+	+	+	+	+	+	+	+	+	+	+		+	+		1	+	+
ku-ro 2	++	+		+	+	+	1	+			+	+				+	+	$\forall$	+			+	+		+		+	+		x			+	+			+	+	1		+		+	-		+	+	x
ku-tu-qa-no	11			+		+	+				x			+		+	+	$\vdash$	+		+	+	+		+	$\forall$	+			-	+				-		+	+	$\forall$	+	+		$\forall$		+	$\forall$	+	+
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Scribal Hands Names	102	105	106	108	109	110	111	112	113	114	115	117	118	119	120	121	122	123	124	.124	125	971	170	971	130	131	132	133	134	135	136	137	138	170	141	141	202	203	204	205	506	207	208	500	210	211	217	214	215	216	217	218	219	220	177	223	224	225	<b>①</b>
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