Federico Manuelli

Local Imitations and Foreign Imported Goods. Some problems and new questions on Red Lustrous Wheel-made Ware in the light of the new excavations of the Southern Step Trench at Yumuktepe/Mersin.

Abstract

The aim of this paper is to analyze some problems related to the circulation of Red Lustrous Wheelmade Ware in the Eastern Mediterranean areas and especially in Anatolia. Important considerations will regard the recent excavations of the Late Bronze Age levels at Yumuktepe/Mersin in Plain Cilicia. Here, the studies carried out on a small but representative selection of red fine ceramics have permitted our increased knowledge of matters pertaining to Red Lustrous Wheel-made ware's "imitations", "imports" and "coarse variations". Finally, these data will be used to shed more light and pose new questions over the appearance and the diffusion of this ware in Southern Anatolia and generally in the territories under Hittite cultural control.

Keywords: Anatolia, Red Lustrous Wheel-made Ware, Yumuktepe/ Mersin

1. Introduction: the Red Lustrous Wheel-made Ware matters

1.1. Production and circulation

The recent volume *The Lustrous Wares of the Late Bronze Age Cyprus* is the most up to date study on the circulation of Red, White and Black Lustrous Wares in the Eastern Mediterranean area¹.

The papers included in the volume show us how the debate on Red Lustrous Wheelmade Ware (RLWMW) has become highly interesting given the recent finds in Anatolia. Also new questions, prospects and points of view were opened and will be analyzed in the next pages through the information brought to light in the new excavations at Yumuktepe/Mersin.

It is know that the Late Bronze Age is a period marked by the springing up of international deals and trading. During this period the whole Mediterranean area seems to have been involved in the increase of long distance journeys, concerning the movement of both people and artefacts.

¹ See I. Hein (2007).

In this stimulating historical framework RLWMW, as well as other specialized manufactures like Mycenaean and Cypriot potteries, plays a key role regarding the circulation of goods along the Mediterranean coasts².

Specifically, RLWMW shows the relationship which connected Cyprus with the other regions of the Eastern Mediterranean and in particular, as concerns this study, with the Central and Southern Anatolian areas between the 15th and 13th century BC.

With reference to the other widespread and coeval ceramic artefacts, RLWMW was considered to be a homogeneous group with regard to its chemical and petrographic characteristics for its realization in a unique and specific productive area. Thus the existence of a unique source can be assumed. This is in contrast, for example, to the Mycenaean potteries which were produced in several places over the Aegean and the Eastern Mediterranean³.

Production and circulation of RLWMW was widely and closely discussed by K.O. Eriksson. This scholar identified the area of Northern Cyprus as the unique source of production⁴. Even though a large number of studies and analyses concerning RLWMW have been fruitfully carried out and published during recent years, the aforementioned issue supported by Eriksson has been accepted largely by the scholars, even taking into account the most recent scientific analyses⁵. Nevertheless, C. Knappett also considers the Southern coast of Cilicia to be geologically compatible with the RLWMW characteristic. Hence, the origin of the pottery has been questioned at the moment and an Anatolian origin can not be excluded⁶.

Further problems regarding RLWMW remain open to debated by scholars.

The main question is related to the dating of the appearance of the ware in different geographical areas. In fact, the diffusion proposed by Eriksson has been revised during recent years in the light of the latest discoveries⁷. In particular, the later manifestation of RLWMW in Anatolia asserted by Eriksson has been reviewed through the most recent excavations in the west valley of Sarıkale at Boğazköy, where a large series of sherds and

² The relations and the diffusion between these specialized wares during the Late Bronze Age are widely discussed by I. A. Todd (2001) and E. Kozal (2003).

³ C. Knappett – V. Kilikoglou (2007b), 116.

⁴ K. O. Eriksson (1993), 149.

⁵ Especially through the new analysis carried out using the Neutron Activation Method. See C. Knappett et al. (2005), 48; C. Knappett – V. Kilikoglou (2007a), 256 and C. Schubert – E. Kozal (2007), 175. See also the analysis carried out by *The Anatolian Iron Age Ceramic Project* especially on samples coming from Kinet Höyük in P. Grave et al. (2008).

⁶ C. Knappett et al. (2005), 48; C. Knappett – V. Kilikoglou (2007a), 256.

⁷ K.O. Eriksson proposed a first appearance of RLWMW in Cyprus at the beginning of the Late Cypriot IA2 (LCIA2) and a following development in Egypt, Palestine, Syria and Lebanon during the same period. During the LCIB1 the ware is present in Nubia, Crete, and in the 'Amuq Valley, and between the LCIB2 and the LCIIA at Rhodes. Finally, during the LCIIA2 the ware appears in Anatolia, see K.O. Eriksson (1993), 139–142. These facts were also reviewed considering that the ultra-short chronology adopted by K.O. Eriksson (1993), 1–2 is rarely accepted, see D.P. Mielke (2006), 73. In fact, RLWMW appears to be contemporary in the different areas considered by Eriksson, especially in Syria, Anatolia and Egypt, see R. S. Merrilees (2007).

pots of RLWMW arm-shaped vessels and spindle bottles was discovered⁸. The dating of the assemblages at the period between the 15th and 14th century, during the Middle Hittite Kingdom, had allowed the re-evaluation of the appearance and the supply of this ware in Anatolia during the Late Bronze Age⁹.

Indeed, the evidence which brings the dating of the ware forward with regard to the Central Anatolian territories is presently quite abundant and tends to be supported by recent studies¹⁰.

Besides this, other subjects of crucial importance are still being debated with specific regard to the Anatolian area.

First of all, why have only the regions of Central Anatolia, with a special reference for Boğazköy, and the Göksu Valley (or Rough Cilicia), especially in Kilise Tepe, shown a significant amount of RLWMW?¹¹

Secondly, for what reason is RLWMW the only product connecting the Hittite Anatolian territories with Cyprus, and in general, with the whole Eastern Mediterranean area during the Late Bronze Age?¹²

Finally, why is the repertoire of shapes of RLWMW in Anatolia limited to arm-shaped vessels and spindle bottles, compared with the other areas of diffusion of the ware?¹³ And, in consequence, which are the relations between these shapes and the Hittite cults and cultures?¹⁴

1.2. Imports and local manufactures

Another interesting question regards the critical issue of the RLWMW imitations.

Once again, Eriksson first introduced this problematic subsequently developed in recent studies¹⁵. Starting from the strengthened idea of the existence of a sole source in Northern Cyprus, Eriksson identified the presence of local imitations of RLWMW, especially spindle bottles and pilgrim flasks.

First of all, it is important to clarify the characteristics of RLWMW in order to define the meaning of an imitation. Through a macroscopic analysis RLWMW is characterized by an extremely fine fabric in which every kind of inclusions seems to be removed. The paste was wheel-worked, and the surface was slipped and carefully burnished. These treatments, to-

- ⁸ J. Seeher (2002).
- ⁹ For the recent dating of Boğazköy see J. Seeher U.-D. Schoop (2006), 60–62.
- ¹⁰ See the recent discussions debated by D.P. Mielke (2006), 73–74; (2007), 156, 162; Müller-Karpe (2003), 391 and Schoop (in press.). Eriksson also agrees with the recent dating, see K.O. Eriksson (2007), 55.
- ¹¹ E. Kozal (2007), 141.
- ¹² For the connections between Anatolia and the other regions of the Mediterranean during the II millennium B.C. see Kozal (2006).
- For instance also at Kilise Tepe other shapes like bowls and pilgrim flasks are attested, see D. Symington (2001), 165; see also: C. Hansen J. N. Postgate (2007a), 329–331 and C. Hansen J. N. Postgate (2007b), 343–344. For an exact description of the RLWMW shapes see K. O. Eriksson (1993), 21–27.
- ¹⁴ D. P. Mielke (2007), 155.
- ¹⁵ See K. O. Eriksson (1993), 157–158 and D. P. Mielke (2007).

gether with a controlled firing at a high temperature, result in a uniform red-orange colour and a very lustrous surface 16.

Starting from its characteristic features it appears not to be difficult to recognise some "anomalies" in this ware relating to a use of a less fine fabric or to a careless treatment of the surface, whereas the shapes tend to be the same.

Obviously occasional variations of the surface colours, or the presence of a grey core of the paste, could also be ascribable to an imperfect firing. Thus it is not always possible to attribute visible anomalies to the use of different clay or to a careless treatment.

Nevertheless, where possible scientific analysis on sherds was employed differentiations in the clay's composition often came to light.

Thus, it seems that a visible diversity of RLWMW's characteristics often coincided with a distinctive composition of the clay elements¹⁷. On the other hand, it is also possible that sherds defined as belonging at the RLWMW group with macroscopic analysis transpired, through scientific analysis, to have been realized with a different clay.

By the way, it is very interesting to note that sometimes the analysis showed the existence of coarse variants of RLWMW, often invisible to the naked eye. This means that the analyzed pots belonging to the same ceramics group as RLWMW present a great deal of inclusions, as was clearly shown in some examples from Kilise Tepe¹⁸.

Hence it is clear that whilst we can speak of imitations for those samples characterized by different clay composition from RLWMW, we cannot with reference to these coarse variations.

The aforementioned evidence shows us how it could be difficult, in some cases, to distinguish a "real" and "canonical" RLWMW production from a "coarse variation" or from an "imitation". So, in the light of this discussion, these questions seem to be far from a definite solution and through scientific analysis we will be able to determinate an exact source for certain.

It is also interesting that the Anatolian area is very rich in non-canonical RLWMW examples of arm-shaped vessels and spindle bottles. Recently this matter was discussed by D.P. Mielke who opened a very intriguing issue on a direct participation of the Central Anatolian territories in the development of these forms¹⁹.

- ¹⁶ K. O. Eriksson (1993), 18–19. As concerns the fabric's details a lot of scientific analysis has recently allowed the definition of the composition of RLWMW. For a description see C. Knappett (2007), 284–285 and for some specific discussions C. Knappett et al. (2005); C. Knappett V. Kilikoglou (2007b); M. Artzy (2007); C. Schubert E. Kozal (2007) and the associated bibliographical references.
- See the analyzed pots coming from the Palestinian coast in E. Yannai et al. (2003), 111 and also the cases quoted by M. Atzy (2007), 12; C.J. Bergoffen (2005), 46–48, 95–97 and, in general, the discussion considered by R. S. Merrilees (2007), 151–152.
- ¹⁸ C. Knappett V. Kilikoglou (2007a), 254–255. This fact is also known for samples coming from Kazaphani in Cyprus, see C. Knappett et al. (2005), 44; and from Kuşaklı, see D. P. Mielke (2006), 41. The samples belonging to the coarse variation of RLWMW from Kuşaklı (defined as ware C29) were also compared by Mielke to a pot excavated in Boğazköy, see D. P. Mielke (2007), 158.
- D. P. Mielke (2007), 165. A reasonable amount of anomalous RLWMW vessels are quoted by D. P. Mielke (2007), 158–161. These come from the main sites of Central Anatolia, namely Boğazköy, Kuşaklı, Maşat Höyük, Alaca Höyük, Alişar Höyük, Inandıktepe, Korocutepe and the area near Kalehöyük.

All the questions here introduced and described will be taken further and discussed during the next pages in the light of the new data coming from the new excavations at Mersin.

2. The case of Mersin: the Late Bronze Age levels at Yumuktepe

2.1. The first excavations

Yumuktepe is a large mound covering an area of approximately 5 ha with a total height of 23 m above the plain below. It was excavated between 1936 and 1939 by an English Archaeological Mission directed by J. Garstang. This brought to light some important remains related especially to the second part of the II millennium B.C. in the north-west part of the mound ²⁰.

Garstang distinguished a "Cilician Hittite" from a "Hittite Imperial" phase. The first corresponds to the Pre- and Early-Hittite occupations on the site, covering the period between 1950 and 1500 BC. (levels XI–VIII). The second refers to the Hittite occupation, between 1500 and 1200 (levels VII–V). Nonetheless, the most ancient levels were investigated in a single trench, so that extensive excavations concerned only the Imperial Hittite phase.

Regarding this last period, Level VII is characterized by a fortification building very similar to the city wall encountered in Hittite settlements. This is made using twin parallel walls reinforced by cross partition walls. They are filled inside with stone chipping and rubble and defended by projecting towers²¹.

The inner part of the settlement in Level VII is characterized by the presence of a paved street separating the fortification from a series of dwellings, whereas the outer part was described as a "platform" or "béton" realized with horizontal layers of clay mixed with rubble, witch probably played the role of a buttress for an outer rampart²².

The subsequent Levels VI and V represent a reuse of the structures before the final destruction attested at the end of Level V.

2.2. The Southern Step Trench

If in the north-western area the excavations particularly concerned the late II millennium levels, in the southern part of the mound the early occupation of the site during the Late Bronze Age was also investigated.

²⁰ See J. Garstang (1953), 209–249. A useful synthesis of this work is also reported by V. Sevin – K. Köroğlu (2004), 73 and É. Jean (2006), 314–318.

J. Garstang (1940), 94. These structures characterized by this filling could be defined as a "kasten-mauer". The filling-in of the inner part of the wall distinguishes this fortification from the "casemate" type. See the up-to-date study on Hittite fortification buildings by T. De Vincenzi – P. Rinaldi (2007).

²² J. Garstang (1953), 240–241. However, as rightly asserted by É. Jean (2006), 321, Garstang's description of the "filling" is quite ambiguous. See also the interpretation supported by V. Sevin – K. Köroğlu (2004), 73.

The description of the ruins excavated and the chronological sequence postulated by Garstang remain valid as a broad outline²³. However, it is not an aim of this study to reinterpret the oldest excavations. Rather this study seeks to describe the earliest excavations and to introduce the new project on the site.

In any case, the necessity for resuming the excavations with modern methods was concretized in 1993 by an interdisciplinary team from Istanbul and Rome Universities. In 2001 the direction was assumed by Prof. Isabella Caneva from Lecce University.

The new excavation activities on the mound confirmed and clarified the succession of the strata from the Neolithic period to the Middle Ages²⁴.

In the southern part of the mound a step trench was opened and excavated from 1997 to 1999, and in 2003. The trench covered an area of 5×17.50 m with a sequence of layers relating to Medieval and Iron Age Periods over 5 different levels connected with the Late Bronze Age occupation on the site²⁵.

From 2006 the excavations on the trench were resumed. The southern square was enlarged, reaching an area extended on about 14×12 m during the 2008 season²⁶.

The first years of excavation have, in general, confirmed the sequence displayed by Garstang. No traces of the Level VII fortification were recognized, but a layer of sand, clay and mud without architectonical remains was discovered and connected with the "filling" described by Garstang²⁷. Below the "filling", in Level IX a wide burnt mud-brick downfall was brought to light and explained by the excavators as the possible remains of a broader fortification wall destruction²⁸.

During the 2008 campaign this last interpretation was confirmed by the discovery of part of a fortification wall related to Level IX. The wall was realized with stone on the external and internal sides and a filled of mud-brick in between. In the inner part of the enclosure a series of houses were also excavated. These are not directly connected with the fortification but the massive collapse of the wall was also recovered over them. So, it is possible to presume a unique phase of use for these structures²⁹.

3. The Hittite pottery assemblages at Yumuktepe

3.1. Wares and shapes from level IX: an overview

The excavation of the Level IX structures produced a very interesting amount of sherds and pots connected with the earliest Late Bronze Age occupation phase.

²³ É. Jean (2006), 318.

²⁴ I. Caneva – B. Marcolongo (2004).

²⁵ See V. Sevin – K. Köroğlu (2004).

²⁶ The numbering of the levels adopted by Garstang was also maintained for the new excavations. The relation between the stratigraphies are summarized in V. Sevin – K. Köroğlu (2004), 75 Table 1.

²⁷ V. Sevin – K. Köroğlu (2004), 75.

²⁸ V. Sevin – K. Köroğlu (2004), 74.

²⁹ An extensive report on the excavations of these levels and its finding is also in preparation and will be published after the 2009 campaign of work at Yumuktepe.

Generally, this Level was dated to the end of the "Early Hittite" period or to the beginning of the "Hittite Imperial" period according to ceramic comparisons with other sites excavated in a more extensive way³⁰.

More detailed information has come from the most recent investigations of the Southern Step Trench. Based on comparisons with more recent ceramic studies, É. Jean dated Level IX between the late 16th and the early 15th centuries³¹. Further, a 2003 radiocarbon dating from Level IX was placed at 1670–1430 BC. cal, and a 2008 sample from the fortification collapse was dated between 1460–1260 BC. cal. The comparison of the two dates confirms an early 15th century dating for this level ³².

In detail, as regards the pottery assemblages nine ware classes were identified through macroscopic analysis.

Generally, the pastes are characterized by mineral tempers, while the presence of vegetal inclusions is very rare.

On the basis of the size of the temper and the colour of the fabric the aforesaid wares can be placed in five main production groups: grey coarse, orange standard, medium-coarse and coarse, pale standard, brown fine and standard, red fine. Colours and surface treatment, as well as firing techniques, were considered to be subordinate characteristics. The whole of the production is characterized by a wheel-made manufacture.

The grey group presents a non-dense fabric with a copious number of cavities and inclusions of grit and shell fragments; straw is also present. The colours of paste and surface are mainly dark in shade, from grey to brownish-grey. The surfaces are occasionally slipped or burnished, and the firing is generally not excellent. This production is associated with short-necked cooking pots with everted rims.

The orange group presents a not very dense fabric with an abundant quantity of inclusions of grit and chalk, also fine straw may be present. Both the paste and surface are characterized by pale tone colours, especially shades of orange and brownish-orange. The surfaces are smoothed and sometimes also slipped and burnished. The firing is not excellent so that the paste is often characterized by a grey core and a large number of cavities. This production is associated both to open and closed shapes, nevertheless the large plates and the deep bowls with inverted rim are extremely common. This last shape sporadically presents a red-slip decoration over the rim.

The buff group is characterized by quite a dense fabric with small but abundant inclusions of grit and chalk, fine straw is sometimes also present. Light tone colours of paste and surface are most frequent, especially from buff to light-brown. The surfaces are usually smoothed or slipped, sometimes a dense white slip is identified. The firing is good with few small cavities. This group is related especially to shallow and deep bowls with internally thickened rim.

³⁰ See J. Garstang (1953), 2; V. Sevin – K. Köroğlu (2004), 80. Also the phases and the general periodization distinguished by Garstang were maintained in the new excavations. Obviously, the definition of these historical period is change on the light of the most recent studies and field activities on Hittite sites. See J. Seeher (2006) and for a general critical discussion also D. P. Mielke (2007), 156.

³¹ É. Jean (2006), 328.

³² The samples were analyzed by Prof. L. Calcagnile of Centro di Datazione e Diagnostica from University of Lecce (Italy).

The brown group presents a dense fabric with a small number of cavities, even though firing is never excellent. Also the inclusions are sparsely characterized by little grits and very fine straw. Paste and surfaces are light in shade, especially in brown and beige variations of colours. The treatments of surfaces attested are smoothed and burnished, sometimes painted or paint slip decorations are present mainly over the rim. Both open and closed shapes are attested, shoulder beakers and small jars are also frequent.

The red group is characterized by a dense fabric. Inclusions and cavities are completely or largely absent and the firing is excellent. Paste colours vary from red to pinkish-red, while surfaces are orange or reddish-orange and well burnished. Given these characteristics the red fine group has been associated with the RLWMW production.

3.2. The question on the Red Lustrous Wheel-made Ware from Level IX assemblage

Indeed, just a few number of the sherds recovered from Level IX were associated with this red fine group. Moreover, only one of these sherds can be associated to a well-known shape. It is an interesting exemplar of spindle bottle bottom.

This pot is characterized by a non-pedestal ring-base with a mark realized with three signs incised into the clay of the base before firing (Fig. 1). The lower part of the vessel preserved is very slender and presents evidence of wheel manufacture in its inner part. It is possible to relate this base with a slim and low vessel described as a Spindle Bottle type VIA1b by Eriksson³³.

The paste colour is reddish-orange without inclusions and with a very small number of cavities. The surface is orange in shade and carefully vertically burnished.

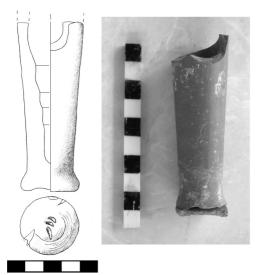


Fig. 1. Spindle bottle bottom. Yumuktepe '06 GYA A500.

³³ K. O. Eriksson (1993), 22–23. This type is described as a bottle with a "slender long body and a base that is usually about the same diameter as the rim".

Even though this bottle base and the other red fine sherds seem to present the typical RLWMW characteristics as regards the quality of paste and surface and the abovementioned associated shape, scientific analysis have shown no differences between this production and the other groups described. In this way, the clay used for realizing the vessels of the red fine group seems to be the same as the other production, even if with a smaller number of inclusions. So, also the red fine group tends to fall into the local productions³⁴.

Nonetheless, only one sample of the red fine group was analysed, so that the results here pointed out are absolutely preliminary and subject to changes. Furthermore, the spindle bottle sherd was not analysed, so it is very reasonable believe it belongs to RLWMW along with other fragments from Level IX.

The presence of a pot-mark on the base of the vessel also supports this hypothesis, given that these marks represent a very common feature on RLWMW spindle bottles³⁵.

Anyway, the importance of the argument here discussed is the demonstration of divergences between the two kinds of analysis. Above all, it is very interesting to note how sherds defined as belonging to the RLWMW group with a naked eye analysis can, in fact, be associated to a local production through scientific studies.

In this way, the presence of RLWMW in Yumuktepe level IX is speculative but reasonable, while the sample analysed has shown the occurrence of local imitations of this production. By the way, other examples defined as imitations are present in Level IX ceramic horizon. In these cases typical RLWMW shapes were reproduced clearly with a local clay, visibly dissimilar to RLWMW or red fine group.

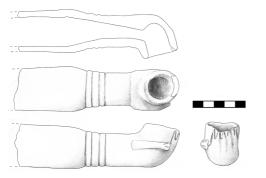




Fig. 2. Arm-shaped vessel. Yumuktepe '08 GYA IX.

- The analyses are being carried out by Prof. Antonio Serra and Prof. Daniela Manno from University of Lecce (Italy). A detailed morphological characterisation and a chemical identification of the pottery components were obtained by scanning electron microscopy methods coupled with a X-ray spectrometer. These preliminary analyses evidence that the red fine sample examined shows a composition of the clay elements similar to the other wares identified. A detailed report on this analysis is being planned.
- ³⁵ Even though the marks realized with a triple signs are very common on RLWMW vessels the example from Yumuktepe seems to be unknown compared with the widely-known range of pot-marks. See the examples reported by K. O. Eriksson (1993), 145–147 and, for a discussion on the Late Bronze Age pot-marks, see also M.-H. Gates (2001), 137–141.

The most interesting pot is a fragmentary arm-shaped vessel (Fig. 2)³⁶. This one is realized in the most canonical way: the body is a wheel-made tubular shape and the preserved tip is a modelled piece forming a right hand holding a bowl. The body border, represented the wrist, is decorated with a typical three moulded ridges pattern. The other part of the tubular body is missing and so the original length of the vessel cannot be reconstructed.

No scientific analysis was carried out on this vessel, nevertheless its macroscopic observation has shown an evident difference compared with fabric and surface of the red fine group spindle bottle and sherds mentioned earlier. The paste is dark-brown and the fabric is quite dense with little and scattered grit inclusions. The surface is reddish-brown in colour and vertically burnished. Also the firing is not excellent. So, the vessel seems to be more similar to brown fine and standard group rather than to the red fine group.

Obviously, the aforementioned existence of coarse variations of RLWMW exemplars does not allow the certain classification of this pot as an arm-shaped vessel imitation without the use of scientific analysis.

However it is important to note that, together with the technical diversities described concerning fabric and surface, the Yumuktepe arm-shaped vessel exemplar also shows a less careful realization of the figurative part of the pots, such as the hand and the bowl. Indeed, only the thumb presents a bas-relief manufacture, whereas the other fingers are simply represented through a series of grooves realized in the wet clay³⁷. Nevertheless, a less careful realization of the vessels does not imply the presence of an imitation, and sometimes arm-shaped vessels defined as imitations present a very careful manufacture³⁸.

In conclusion, the laboratory analysis seems to have shown the existence of a RLWMW local imitation. Imports are plausible on the basis of macroscopic studies related to a spindle bottle bottom and some sherds. Nonetheless, this contention still remains speculative, in view of the dichotomy discovered when comparing the two kind of analysis. Imitations are also visible to the naked eye studies carried out on the arm-shaped vessel sherd, even though it is impossible to rule out the possibility of a coarse variation in this case.

However, in the light of the explained cases, it is clear how complicated and uncertain the identification of a RLWMW vessel or its variances is without laboratory analysis. Moreover, the classification in "imports", "imitations" and "coarse variations" brands remains speculative pending exhaustive and definitive studies.

4. Discussion

Interesting discussions arise from the consideration of the abovementioned information from Yumuktepe within a wide perspective. Incidentally, the most recent excavation activities will shed more light on, and expand our knowledge of, the circulation of this manufacture in Southern Anatolia.

- ³⁶ A small amount of possible RLWMW imitations of sherds of spindle bottles were recognized. However, the fragmentary nature of the pots did not allow them to be associated with spindle bottle for certain.
- ³⁷ Also the realization of the fingernails is quite careless.
- ³⁸ This is evident in some of the examples reported by D. P. Mielke (2007), 157 Fig. 1. This question will be also discussed during the next pages.

The presence of the aforesaid RLWMW pots and sherds varieties at Mersin represents a fascinating subject, despite the limited amount. First of all, it is important to consider that a wide number of sherds with a red-burnished surface were identified in Garstang Level V investigations³⁹. Even if during those excavations these fragments could be easily mistaken for red-slips or other burnished wares, the association of this sherds with spindle bottles and pilgrim flasks shapes recognized by the excavators are unquestionable signs of a significant presence of RLWMWM on the site.

On the contrary, no evidence of RLWMW sherds seems to be identified in the 1996–2003 Southern Step Trench excavations.

Concerning the arm-shaped vessel, it is very interesting to note the presence of quite a similar item brought to light during the 1938–39 excavation season. This exemplar came from Level VII, and was described as a censer realized with a buff fabric and an orange burnished slip⁴⁰.

Considering the Yumuktepe discoveries in a wider geographical context, the site can be perfectly set into the distribution of RLWMW in Cilicia.

By the way, it is very interesting to note a strong differentiation in the finds recovered from Plain to Rough Cilicia⁴¹. As said, the Göksu Valley represents one of the regions characterized by the widest diffusion of RLWMW findings, as the excavations at Kilise Tepe and also the surveys conducted in this area have shown⁴². On the contrary, RLWMW was identified very sporadically in Eastern Cilicia by the survey at first and also by the extensive archaeological activities⁴³.

This kind of diversification is connected with the different role played by the two areas in the relations between the Mediterranean coasts and the Central Anatolian territories during the Late Bronze Age⁴⁴. Indeed, the routes between Cyprus and the Central Anatolia involved Rough Cilicia, while Plain Cilicia was more implicated in the land-routes from the Levant, which crosses the Taurus Mountains at the pass know as Cilician Gates⁴⁵.

In fact, the most recent works in Plain Cilicia demonstrate a more complex pattern considering the excavations in Kinet Höyük, Sirkeli Höyuk and Soli Höyük⁴⁶. These sites have never revealed an abundant presence of RLWMW compared to the assemblages of Kilise Tepe. However the presence of the ware, even if in sporadic quantities, introduces a different and composite situation now. In this way, also the assemblage coming from Yumuktepe Level IX coincides with this new condition of the research.

In the light of the discussed matters a critical issue must also be raised concerning the meaning of RLWMW imitations and imports in the Hittite territories and in Yumuktepe.

- ³⁹ J. Garstang (1953), 243; G. M. Fitzgerald (1940), 132.
- $^{40}\,$ G.-M. Fitzgerald (1940), 134 Fig. 2a 10. See also É. Jean (2006), 318 Fig. 6. 5.
- ⁴¹ E. Kozal (2007), 141.
- ⁴² For Kilise Tepe see J. N. Postgate (2007); D. Symington (2001), 169–170 and D. Symington (1995), 181. Fore the surveys see French (1965), 177–201.
- ⁴³ For the surveys see M.-H. Gates İ. Ötzen (1994) and B. Hrouda (1998). See also the references reported in É. Jean (2003), 79 and K. O. Eriksson (1993), 133.
- ⁴⁴ J. N. Postgate (1995), 143–144.
- ⁴⁵ J. M. L. Newhard et al. (2008), 87.
- ⁴⁶ See M.-H. Gates (2006), 300 for Kinet Höyük, A. Ahrens et al. (2008), 90 for Sirkeli Höyük and R. Yağcı (2008), 800–801 for Soli Höyük.

First of all, RLWMW represents a well-dated foreign material, useful for trying to establish a more detailed chronology for the Anatolian regions, and also for clarifying the involvement of the Hittite people in the long distance trade movements⁴⁷.

Generally, reflecting on these subjects, imitation or import of a manufacture implies good knowledge and wide diffusion of this product. A manufactured object was imported in view of its high quality, reflecting the trends and the styles of the period. Also the desire for imitation reflects the excellent attributes of a manufactured good, but it could also be connected to the making of inexpensive substitutes of the original at the same time. The reproduction of a commodity can be intended for a local and everyday use, as opposed to a specific use for an exotic imported item⁴⁸.

In addition to these reasons imposed by matter of style, some economic implications can also be introduced⁴⁹. In this way, the imitation may reflect an overall demand for exported goods, and an inability of the original potters to meet this demand. It is also possible to see in the imitation the attempt of some producers to enter the trade network of the commodity, introducing keenly priced low-quality goods on the market.

Nevertheless, tracing these last economic questions to the subject of RLWMW, these assumptions must be considered as speculative. In fact, the first theory can be used for a manufactured good characterized by an abundant number of finds, such that its demand could not satisfied by the craftsmen. Instead, the second statement would tend to confer a particular significance upon the commodities themselves more than to the content of the vessels. On the contrary, the finds of RLWMW are quite limited everywhere, and the importance of the vessel rather than its content is not so obvious and is still very controversial⁵⁰.

In conclusion, it is interesting to summarize the arguments discussed by trying to clarify some problems on the circulation of RLWMW.

First of all, the dating of Yumuktepe Level IX tends to confirm the appearance of RLWMW in Anatolia at the beginning of the 15th century BC. As said, the preponderance of findings in the regions of Rough Cilicia and Central Anatolia, in the key sites of Kilise Tepe and Boğazköy is clearly connected with the movements of this manufacture, travelling on the routes between Cyprus and the Mediterranean coast and the Hittite capital.

The links between Cyprus and the Hittite territories had to be very close. The diffusion in Anatolia of arm-shaped vessels and spindle bottles produced by Cypriot potters is an indication of these relations. So, the Hittite court was interested in the request of these specific shapes for internal use, probably linked with some sort of ritual connected with the offerings of liquids⁵¹.

- ⁴⁷ For these questions see Genz (2006), 186.
- ⁴⁸ See the examples of export productions and the relative discussion quoted by A. Sherratt S. Sherratt (2001), 28–29.
- ⁴⁹ These questions were also discussed by E. Yannai et al. (2003), 113.
- ⁵⁰ The problem regarding the residue analysis carried out on RLWMW vessels seem to be very preliminary, see V. J. Steel et al. (2007) and C. Knappett et al. (2005).
- 51 In spite of the lack of definitive evidence, it seems to be very plausible that the spindle bottles were used for containing some kind of oil or fragrance, while the arm-shaped vessels can be directed associated with the rituals. For a synthesis regarding the usage of spindle bottles and arm-shaped vessels RLWMW see D. P. Mielke (2007), 164–165 with its bibliographical references.

Nevertheless, it is possible to suppose that next to the Cypriot production an Anatolian manufacture was also established. Thus, besides the realization of RLWMW vessels by Cypriot potters and the import of them to Anatolia, we could imagine the slow development of a local production. The contacts between the two areas facilitated the improvement of the local manufactures creating, over time, almost undetectable commodities. For its geological characteristics and for its closeness to the Cypriot area, the Southern coasts of Cilicia were the best places to work out this development. All these facts explain the presence of the illustrated exemplars from Yumuktepe Level IX, and also the spreading of the imitations of RLWMW in the Anatolian territories.

Hence it is sometimes probably more correct to speak of "different local productions" rather than "imitations", when it was possible to assume that the realization of RLWMW would not restricted to Northern Cyprus. After all, it is difficult to presume that the Cypriot potters realized and distributed all RLWMW production over the Mediterranean. In particular the realization of an item like the arm-shaped vessels, produced in Cyprus but reserved almost totally to the Anatolian territories, seems to be quite improbable. Further historical considerations support this last statement⁵². Indeed, the existence of diplomatic relations between the Hittite Kingdom and Cyprus were confirmed in the course of the 14th and the 13th century. Nonetheless, the Hittite domination over Alašiya is demonstrated only during the Late Imperial Period so that Cyprus seems to have been independent from Hittite control during the 14th and the 13th century.

A final note to observe regards the diffusion of arm-shaped vessels on the basis of the discovery of the earliest examples in the Anatolian areas. The realization of some of these early manufactures with other fabrics or with particular surface treatments but with a more careful execution compared to the RLWMW exemplars could be considered as a sign of an Anatolian involvement in the creation and the development of this shape⁵⁴.

Following this hypothesis, it is also possible to imagine the first appearance of non-RLWMW arm-shaped vessels in Anatolia with a subsequent development of these items in Cyprus in association with the diffusion of other RLWMW shapes. The spread of this production can be justified in view of the advanced knowledge of the manufacture of metal commodities by the island craftsmen connected with the desire of the Hittite people to improve the making of their vessels.

In conclusion, in the light of the reflections made here, it is possible to consider the Southern coast of Anatolia as also being involved in the production of RLWMW. In any case, the examples and the arguments here introduced are fascinating and future elaborations will be essential.

⁵² See the Hittite textual and archaeological evidence about the relations between the kingdom of Khatti and Alašiya quoted by S. de Martino (2008).

⁵³ See also the reasons reported by K. O. Eriksson (2007), 56–58.

⁵⁴ D. P. Mielke (2007), 165.

Acknowledgments

I wish to express my thanks to Isabella Caneva for giving me the opportunity to work on the Hittite levels from Yumuktepe and for the numerous discussions on the aspects of the excavation and the pottery study. I am also most grateful to Stefano de Martino for his support and encouragement and for the excellent comments and suggestions upon my research. My thanks also to Jörg Klinger who gave me permission to publish this paper on Altorientalishe Forschungen series. Particular appreciation to Antonio Serra and Daniela Manno for providing me with information on the preliminary scientific analyses on Yumuktepe assemblages. Many thanks are due to Ulf-Dietrich Schoop, Carl Knappett, Peter Grave and Lisa Kealhofer for their valuable bibliographical indications and to Dirk Paul Mielke and Kathryn O. Eriksson for their suggestions. I am specially indebted to Ekin Kozal for comments and discussions value in facilitating my research. I am also obligated to Agnes Crawford who has revised the English style of the paper. The drawings were realized by Alice Siracusano, while Sara De Angelis scanned and arranged the figures. Any errors which remain in this work are naturally my sole responsibility.

Bibliographie

Bibliographical abbreviations from Reallexikon der Assyriologie.

- Ahrens, A. Kozal, E. Kümmel, C. Laube, I. Novák, M., Sirkeli Höyük Kulturkontakte in Kilikien. Vorbericht über die Kampagne 2006 und 2007 der deutsch-türkischen Mission, IstM 58 (2008) 67–107.
- Artzy, M., On the Origin(s) of the Red and White Lustrous Wheel-made Ware, in: Hein, I. (ed.), The Lustrous Wares of the Late Bronze Age Cyprus and the Eastern Mediterranean. Paper of a Conference held at the Austrian Academy of Sciences, Vienna, 5th–6th November 2004, (Contributions to the Chronology of the Eastern Mediterranean 13), Wien 2007, 11–18.
- Baker, H. D. Collon, D. Hawkins, J. D. Pollard, T. Postgate, J. N. Symington, D. Thomas, D., Kilise Tepe, AnSt 45 (1995), 139–192.
- Bergoffen, C. J., The Cypriot Bronze Age Pottery from Sir Leonard Wolley's Excavations at Alalakh (Tell Atchana), (Contributions to the Chronology of the Eastern Mediterranean 5), Wien 2005.
- Caneva, I. Marcolongo, B., The history of the mound, in: Caneva, I. Sevin, V. (eds.), Mersin-Yumuktepe a Reappraisal, Lecce 2004, 23–32.
- Caneva, I. Sevin, V. (eds.), Mersin-Yumuktepe a Reappraisal, Lecce 2004.
- de Martino, S., Relations Between Khatti and Alašiya. According to Textual and Archaeological Evidence, in: Wilhelm, G. (ed.), Khattuša–Boğazköy. Das Hethiterreich im Spannungsfeld des Alten Orients. 6. Internationals Colloquium der Deutschen Orient-Gesellschaft. 22.–24. März 2006, Würzburg, Wiesbaden 2008, 247–263.
- De Vincenzi, T. Rinaldi, P., The development of Hittite military architecture: "Kastenmauer" and "Casematte" building techniques, in: Archi, A. Francia, R. (eds.), VI Congresso Internationale di Ittitologia. Roma, 5–9 settembre 2005. Parte I, (SMEA 49), Roma 2007, 217–226.
- Eriksson, K. O., Red Lustrous Wheel-made Ware, Jonsered 1993.
- Eriksson, K. O., Using Cypriot Red Lustrous Wheel-made Ware to establish Cultural and Chronological Synchronism during the Late Bronze Age, in: Hein, I. (ed.), The Lustrous Wares of the Late Bronze Age Cyprus and the Eastern Mediterranean. Paper of a Conference held at the Austrian Academy of Sciences, Vienna, 5th-6th November 2004, (Contributions to the Chronology of the Eastern Mediterranean 13), Wien 2007, 51-60.

- Fisher, B. Genz, H. Jean, É. Köroğlu, K. (eds.), Identifying Changes. The Transition from Bronze to Iron Age in Anatolia and its Neighbouring Regions. Proceedings of the International Workshop, Istanbul, November 8–9, 2002, Istanbul 2003.
- Fitzgerald, G. M., Pottery of Levels V, VI, VII, in: Garstang, J. (ed.), Exploration in Cilicia, The Neilson Expedition: Fifth Interim Report, Excavations at Mersin: 1938–1939, AAA 26 (1940), 131–158.
- French, D. H., Prehistoric sites in Göksu Valley, AnSt 15 (1965), 177–201.
- Garstang, J. (ed.), Exploration in Cilicia, The Neilson Expedition: Fifth Interim Report, Excavations at Mersin: 1938–1939, AAA 26 (1940), 89–158.
- Garstang, J., Prehistoric Mersin. Yümuk Tepe in Southern Turkey, Oxford 1953.
- Gates, M.-H., Potmarks at Kinet Höyük and the Hittite Ceramic Industry, in: Jean, É. Dinçol, A. Durugönül, S. (eds.), La Cilicie: espaces et pouvoirs locaux (2º millénaire av. J.-C. 4º siècle ap. J.-C.). Actes de la table ronde international d'Istanbul, 2–5 novembre 1999, Paris 2001, 127–136.
- Gates, M.-H., Dating the Hittite Levels at Kinet Höyük: a Revised Chronology, in: Mielke, D. P. Schoop, U.-D. Seeher, J. (eds.), Strukturierung und Datierung in der hethitischen Archäologie. Voraussetzungen, Probleme, Neue Ansätze. Structuring and Dating in Hittite Archaeology. Requirements, Problems, New Approaches, (Byzas 4), Istanbul 2006, 293–310.
- Gates, M.-H. Ötzen, İ, Report on the Bilket University Archaeological Survey in Cilicia and Northern Hatay: August 1991, AST (1994), 387–394.
- Genz, H., Imports and their Methodological Implications for Dating Hittite Material Culture, in: Mielke, D. P. – Schoop, U.-D. – Seeher, J. (eds.), Strukturierung und Datierung in der hethitischen Archäologie. Voraussetzungen, Probleme, Neue Ansätze. Structuring and Dating in Hittite Archaeology. Requirements, Problems, New Approaches, (Byzas 4), Istanbul 2006, 185–196.
- Grave, P. Kealhofer, L. Marsh, B. Gates, M.-H., Using neutron activation analysis to identify scales of interaction at Kinet Höyük, Turkey, JAS 35 (2008), 1974–1992.
- Hansen, C. Postgate, J. N., Pottery from Level III, in: Postgate, J. N. Thomas, D. (eds.), Excavations at Kilise Tepe 1994–98. From Bronze Age to Byzantine in western Cilicia, Exeter 2007, 329–342.
- Hansen, C. Postgate, J. N., Pottery from Level II, in: Postgate, J. N. Thomas, D. (eds.), Excavations at Kilise Tepe 1994–98. From Bronze Age to Byzantine in western Cilicia, Exeter 2007, 343–370.
- Hein, I. (ed.), The Lustrous Wares of the Late Bronze Age Cyprus and the Eastern Mediterranean. Paper of a Conference held at the Austrian Academy of Sciences, Vienna, 5th–6th November 2004, (Contributions to the Chronology of the Eastern Mediterranean 13), Wien 2007.
- Hrouda, B., Survey in der Umgebung von Sirkeli Höyük, 1994, in: G. Arsebük G., Mellink, M. J. Schirmer, W. (eds.), Light on Top of the Black Hill. Studies presented to Halet Çamble, Istanbul 1998, 427–434.
- Jean, É., From Bronze to iron Age in Cilicia: The Pottery in its Stratigraphic Context, in: Fisher, B. Genz, H. Jean, É. Köroğlu, K. (eds.), Identifying Changes. The Transition from Bronze to Iron Age in Anatolia and its Neighbouring Regions. Proceedings of the International Workshop, Istanbul, November 8–9, 2002, Istanbul 2003, 79–92.
- Jean, É., The Hittite at Mersin Yumuktepe: Old Problems and New Directions, in: Mielke, D. P. Schoop, U.-D. Seeher, J. (eds.), Strukturierung und Datierung in der hethitischen Archäologie. Voraussetzungen, Probleme, Neue Ansätze. Structuring and Dating in Hittite Archaeology. Requirements, Problems, New Approaches, (Byzas 4), Istanbul 2006, 311–332.
- Jean, É. Dinçol, A. Durugönül, S. (eds.), La Cilicie: espaces et pouvoirs locaux (2º millénaire av. J.-C. 4º siècle ap. J.-C.). Actes de la table ronde international d'Istanbul, 2–5 novembre 1999, Paris 2001.
- Knappett, C., Detailed Fabric Descriptions, in: Postgate, J. N. Thomas, D. (eds.), Excavations at Kilise Tepe 1994–98. From Bronze Age to Byzantine in western Cilicia, Exeter 2007, 273–294.
- Knappett, C. Kilikoglou, V., Pottery Fabrics and Technology, in: Postgate, J. N. Thomas, D. (eds.), Excavations at Kilise Tepe 1994–98. From Bronze Age to Byzantine in western Cilicia, Exeter 2007, 241–272.
- Knappet, C. Kilikoglou, V., Provenancing Red Lustrous Wheel-made Ware: Scales of Analysis and Floating Fabrics, in: Hein, I. (ed.), The Lustrous Wares of the Late Bronze Age Cyprus and the Eastern Mediterranean. Paper of a Conference held at the Austrian Academy of Sciences, Vienna, 5th–6th No-

- vember 2004, (Contributions to the Chronology of the Eastern Mediterranean 13), Wien 2007, 115-140.
- Knappett, C. Kilikoglou, V., Steel, V., Stern, B., The Circulation and Consumption of Red Lustrous Wheelmade Ware: Petrographic and Residue Analysis, AnSt 55 (2005), 25–59.
- Kozal, E., Analysis of the Distribution Patterns of Red Lustrous Wheel-made Ware, Mycenaean and Cypriot Pottery in Anatolia in the 15th–13th century B.C., in: Fisher, B. Genz, H. Jean, É. Köroğlu, K. (eds.), Identifying Changes. The Transition from Bronze to Iron Age in Anatolia and its Neighbouring Regions. Proceedings of the International Workshop, Istanbul, November 8–9, 2002, Istanbul 2003, 65–78.
- Kozal, E., Anatolien im 2.Jt. v.u.Z. und die Hinterlassenschaften material Kultur aus dem Ostmittelmeerraum, insbesondre Zyperns, Tübingen 2006, (Dissertation zur Erlangung des akademischen Grades Doktor der Philosophie der Fakultät für Kulturwissenschaften der Eberhard-Karls-Universität Tübingen), (http://tobias-lib.ub.uni-tubingen.de/volltexte/2006/2481/).
- Kozal, E., Regionality in Anatolia between 15th and 13th century BC: Red Lustrous Wheel-made Ware versus Mycenaean Pottery, in Hein, I. (ed.), The Lustrous Wares of the Late Bronze Age Cyprus and the Eastern Mediterranean. Paper of a Conference held at the Austrian Academy of Sciences, Vienna, 5th–6th November 2004, (Contributions to the Chronology of the Eastern Mediterranean 13), Wien 2007, 141–148.
- Merrilees, R.S., When did Red Lustrous Wheel-made Ware First Appear in the Levant?, in: Hein, I. (ed.), The Lustrous Wares of the Late Bronze Age Cyprus and the Eastern Mediterranean. Paper of a Conference held at the Austrian Academy of Sciences, Vienna, 5th–6th November 2004, (Contributions to the Chronology of the Eastern Mediterranean 13), Wien 2007, 149–154.
- Mielke, D. P., Die Keramik vom Westhang, (Kuşaklı-Sarissa 2), Rahden/Westf. 2006.
- Mielke, D. P., Red Lustrous Wheelmade Ware from Hittite Contexts, in: Hein, I. (ed.), The Lustrous Wares of the Late Bronze Age Cyprus and the Eastern Mediterranean. Paper of a Conference held at the Austrian Academy of Sciences, Vienna, 5th–6th November 2004, (Contributions to the Chronology of the Eastern Mediterranean 13), Wien 2007, 155–168.
- Mielke, D. P. Schoop, U.-D. Seeher, J. (eds.), Strukturierung und Datierung in der hethitischen Archäologie. Voraussetzungen, Probleme, Neue Ansätze. Structuring and Dating in Hittite Archaeology. Requirements, Problems, New Approaches, (Byzas 4), Istanbul 2006.
- Müller-Karpe, A., Remarks on Central Anatolian Chronology of the Middle Hittite Period, in: Bietak, M. (ed.), The Synchronisation of Civilisations in the Eastern Mediterranean in the Second Millennium B.C. Proceedings of the SCIEM 2000 Euro Conference, Haindorf, 2nd of May 7th of May 2001, (Contributions to the Chronology of the Eastern Mediterranean 4), Wien 2003, 383–394.
- Newhard, J. M. L. Levine, N., Rutherford, A., Least-cost pathway analysis and intra-regional interaction in the Göksu Valley, Turkey, AnSt 58 (2008), 87–102.
- Postgate, J. N., The Historical Geography of South Central Anatolia, in: Baker, H. D. Collon, D. Hawkins, J. D. Pollard, T. Postgate, J. N. Symington, D. Thomas, D., Kilise Tepe, AnSt 45 (1995), 143–148.
- Postgate, J. N., The Excavations and their Results, in: Postgate, J. N. Thomas, D. (eds.), Excavations at Kilise Tepe 1994–98. From Bronze Age to Byzantine in western Cilicia, Exeter 2007, 31–44.
- Postgate, J. N. Thomas, D. (eds.), Excavations at Kilise Tepe 1994–98. From Bronze Age to Byzantine in western Cilicia, Exeter 2007.
- Schubert, C. Kozal, E., Preliminary Results of Scientific and Petrographic Analysis on Red Lustrous Wheel-made Ware and other LBA Ceramics from Central Anatolia and Cyprus, in: Hein, I. (ed.), The Lustrous Wares of the Late Bronze Age Cyprus and the Eastern Mediterranean. Paper of a Conference held at the Austrian Academy of Sciences, Vienna, 5th–6th November 2004, (Contributions to the Chronology of the Eastern Mediterranean 13), Wien 2007, 169–177.
- Seeher, J., Die Ausgrabungen in Boğazköy Khattuša 2001, ArchAnz (2002), 59–78.
- Seeher, J. Schoop, U.-D., Absolute Chronologie in Boğazköy Khattuša: Das Potential der Radiokarbondaten, in: Mielke, D. P. – Schoop, U.-D. – Seeher, J. (eds.), Strukturierung und Datierung in der hethitischen Archäologie. Voraussetzungen, Probleme, Neue Ansätze. Structuring and Dating in Hittite Archaeology. Requirements, Problems, New Approaches, (Byzas 4), Istanbul 2006, 53–76.

- Schoop, U.-D., Indications of Structural Change in the Hittite Pottery Inventory at Boğazköy Hattuša, in: F. Pecchioli Daddi, F. (ed.), in press., The Central-North Anatolia in Hittite Period. New Perspectives at the Light of Recent Investigation.
- Sevin, V. Köroğlu, K., Late Bronze Age at Yumuktepe: New Evidence from the Step-Trench South, in: Caneva, I. Sevin, V. (eds.), Mersin Yumuktepe a Reappraisal, Lecce 2004, 73–83.
- Sherratt, A. Sherratt, S., Technological change in the East Mediterranean Bronze Age: capital, resources and marketing, in: Shortland, A. J. (ed.), The Social Context of Technological Change: Egypt and the Near East, 1650–1550 BC: proceedings of a conference held at St Edmund Hall, Oxford, 12–14 September 2000, Oxford 2001, 15–38.
- Steel, V. J. Stern. B. Knappett, C., Organic Residue Analysis of Red Lustrous Wheelmade Ware from Five Sites in the Eastern Mediterranean, in: Hein, I. (ed.), The Lustrous Wares of the Late Bronze Age Cyprus and the Eastern Mediterranean. Paper of a Conference held at the Austrian Academy of Sciences, Vienna, 5th–6th November 2004, (Contributions to the Chronology of the Eastern Mediterranean 13), Wien 2007, 191–196.
- Symington, D. Excavated Material: Pre-Classical Pottery, in: Baker, H. D. Collon, D. Hawkins, J. D. Pollard, T. Postgate, J. N. Symington, D. Thomas, D., Kilise Tepe, AnSt 45 (1995), 172–186.
- Symington, D. Hittites at Kilise Tepe, in: Jean, É. Dinçol, A. Durugönül, S. (eds.), La Cilicie: espaces et pouvoirs locaux (2º millénaire av. J.-C. 4º siècle ap. J.-C.). Actes de la table ronde international d'Istanbul, 2–5 novembre 1999, Paris 2001, 167–184.
- Todd, I. A., Early Connections of Cyprus with Anatolia, in: Karageorghis, V. (ed.), The White Slip Ware of the Late Bronze Cyprus, Proceedings of an International Conference Organized by the Anastasios G. Leventis Fondation, Nicosia, in Honour of Malcom Wiener, Nicosia 29th–30th October 1998, Wien 2001 (Contributions to the Chronology of the Eastern Mediterranean 2), 203–214.
- Yağcı, R., Hittites at Soli (Cilicia), in: Archi, A. Francia, R. (eds.), VI Congresso Internationale di Ittitologia. Roma, 5–9 settembre 2005. Parte II, Roma 2008 (SMEA 50), 797–814.
- Yannai, E. Gorzalczany, A. Peilstöcker, M., A Group of Vessels from the Syrian Coast Found in the Coastal Plain of Israel, Levant 23 (2003), 101–116.

Federico Manuelli Università degli Studi di Trieste Dipartimento di Scienze dell'Antichità Via del Lazzaretto Vecchio 6/8 I - 34123 Trieste