

LESBOS WINE: ΟΙΝΟΣ ΑΥΘΙΓΕΝΗΣ OR REGIONAL VINTAGE SPREAD THROUGHOUT THE LESBIAN SPHERE?

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Abstract: Judging from chemical results obtained on some 68 samples of archaic Lesbian amphoras both from Lesbos itself (Mytilene, Methymna, Eressos et alii) and from overseas sites (viz. Abdera, Istros, Berezan, Nadlimanskoe and Olbia) and in comparing them with chemical pottery references of the Lyon Lab data bank for both Lesbos and Eastern Greece, it appears that less than ca. one third of them only – consisting of various grey ones only – were manufactured on the island, for most of them in the western part of it. The remaining part of ca. two thirds clearly originated from outside the island, mostly from the Troad / Hellespontus sphere, judging from comparisons with our available references for these areas. It is first of all the case for most the so-called Lesbian red jars, except one part of them from an unknown centre (distinct from Thasos as erroneously put forward by Clinkenbeard). Consequently, Lesbian wine-label would rather correspond to a single vine species or blend of various ones than to a strictly delimited vineyard.

Cuvinte-cheie: vin de Lesbos, amfore tip Lesbos, epoca arhaică, determinarea originilor

Rezumat: În urma comparării rezultatelor analizei fizico-chimice, realizate pe un număr de 68 de eşantioane de amfore tip Lesbos, provenind atât din insula Lesbos (Mitilene, Methymna, Eressos ș.a.), cât și din alte situri din afara acesteia (Abdera, Istros, Berezan, Nadlimanskoe, Olbia), cu datele de referință ale Laboratorului de Ceramologie din Lyon pentru Lesbos și Grecia de Est, se evidențiază o idee principală. Din totalitatea eşantioanelor de amfore analizate, cca o treime, în principal cele gri, par a fi produse pe insulă, mai ales în partea occidentală a acesteia, restul de două treimi părând a fi confecționate în exterior, cea mai mare parte în sfera Troada/Hellespont. Este cazul, mai ales, al tipului „fractional red” al lui B. Clinkenbeard, care s-a dovedit a fi un produs exterior insulelor Lesbos și Thasos. În consecință, vinul numit „de Lesbos” ar putea defini nu neapărat produsul unei anumite podgorii, ci ar corespunde, mai degrabă, unei regiuni mai extinse, conținând soiuri și cupaje diverse.

The complex lineage of transport amphoras of Lesbian types still raises today keen questions of origin, despite several previous scientific approaches¹.

The Lyon Lab data bank for Eastern Greece includes 231 samples from various parts of the island of Lesbos², among them 26 of various archaic transport amphoras of Lesbian types, viz. 18 from Mytilene and eight from Methymna. Our range of samples from the island also includes a set of undifferentiated fragments of “recent amphoras” (*sic* recorded !) collected in 1986 during a survey conducted by M. Picon (†), but without any mention of the places of sampling left in the lab archive; however, according to the pieces of information provided by the ephoreia, two main areas were concerned, which included some remains of kilns: one at the eastern part of the Gulf of Geras and the other in the northern bank of

the Gulf of Kalloni³. For comparative tests, a supplementary group of 42 samples of archaic jars of Lesbian types was analysed from several overseas sites, viz Abdera (14), Istros (20), Berezan (5), Nadlimanskoe (1) and Olbia (2).

The data processing began with the internal classification for Lesbos itself combining both clay samples, amphoras of Lesbian types and associated pottery finds. Among archaic amphoras only, four main representative clusters stood out from it, viz.:

- A first homogenous one associating a group of grey wares, all of them collected from various sites of western Lesbos (Methymna, Eressos, Antissa and Pyrrha), together with six fragments of Lesbian jars from Methymna, all of a variant with beige clay and dark grey core. Although most

¹ Jones 1986, p. 281–282, 740; Clinkenbeard 1982; 1986; Whitbread 1995, p. 154–165; Domingo, Johnston 2003, p. 31–32, 35–36, 42–43, 47: 2a, 48: 2b; Dupont 2011; 2019, p. 42, 46–49.

² In comparison with the situation of the 60's (see Hampe, Winter 1965, p. 147–151) or even late 70's (see Psaropoulou 1984, esp. p. 165–167, 178, 184, 199, 202, 206), some modern potters' workshops are still operating in the NE part of the island, at Mandamados town and beach (alias Haghios Stefanos), the latter being specialized in the manufacture of cooking-wares. For that reason, their products were

restricted to 10 samples only, which revealed a rather irrelevant chemical pattern.

³ These two locations might have been partly inspired by such modern contributions as Simandiris 1896, p. 31: “La vigne n'est actuellement cultivée qu'aux vallées de Calloni et Eressos et en partie sur les collines de Plomari”. However, except in the case of the triad Mytilene-Methymna-Eressos, already well attested in antiquity, the surroundings of both Kalloni and Geras gulfs seem to have been devoted to viticulture though mainly from modern times.

probably ascribable to the west / north-west part of the island, a closer attribution of this group to a definite city remains open, despite the dominant position of Methymna for such jars;

- The second one was dominated by 25 grey ware samples from Mytilene supplemented by two others from Methymna, together with two samples of Lesbian jars of the standard grey variant and two others from Methymna of the beige variant with grey core. Thus, this association is a bit puzzling to validate a definite attribution to Mytilene alone;

- For the third one, a more sharply defined alternative arose, due to the association of five samples of Lesbian jars from Mytilene of the standard plain grey variant together with three other samples of grey wares from Pyrrha, thus raising the debatable question whether Pyrrha at that time, although not yet annexed to the territory of Mytilene, might already have been included within Mytilene's amphora-producing sphere of influence or close network;

- As for the fourth one, also of a mixed assemblage, consisting of five samples of Lesbian jars, all coming from excavations in Mytilene, including one of the blackish variant with red core, another misfired one of the standard grey lineage and three others belonging to the orange variant, alias Clinckenbeard's "fractional red" type⁴. As for the associated pottery finds, they were restricted to two disparate scraps of grey wares - one from Mytilene and the other from Eressos - together with a brick fragment from Methymna, thus leaving a firm attribution to Mytilene in abeyance.

Judging from chemical results obtained from our samples of jars connected with pottery finds from Mytilene town alone, it appeared immediately that the proportion of those fitting with the chemical pattern of local common wares was restricted to just five out of twenty-one, the remaining samples being scattered among the other groups more or less clearly connected with the remaining parts of the island. For Mytilene itself, the range of fabrics was restricted to those that were fully grey, whereas those that were beige with black core or blackish with red core rather ranked among outsiders. A special case was represented by a small group of six amphoras that included two grey ones and four of Clinckenbeard's "Fractional red" type, the chemical pattern of which did not fit clearly with any other group of pottery finds from the remainder of the island. Of course,

the lack of similar chemical patterns between these deviant transport amphoras and common wares cannot be considered as definitely conclusive in all cases. Many workshops of the former were located in the countryside, in closer proximity to agricultural crops, whether vineyards or olive groves, and for that reason potters of transport amphoras often used clay resources that were distinct from those selected by their urban colleagues for vases. However, this cluster analysis represents a useful first step in indicating origins within the island.

For most of these groups that associate pottery and transport/storage amphoras, it often occurs that a given group includes specimens of both categories that came from separate parts of the island. Moreover, the limits of territories of the different main *poleis* of the island still remain unclear for the archaic period⁵. In the case of the territory of Mytilene, if it already incorporated a large area westward beyond the Gulf of Geras, the association within the same cluster of Lesbian grey amphoras from Mytilene and grey wares from Pyrrha may either correspond to Mytilene's exports or even to an extension of Mytilene's vineyard westwards accordingly.

Less scanty than for Mytilene, the cluster of samples ascribable to the western part of the island consisted of a mixture of both transport amphoras and pottery finds, the former all being from Methymna, the latter being scattered among several western cities, *viz.* Methymna (4), Pyrrha (2), Eressos (5) and Antissa (6). Thus, it would be still hazardous to attribute these jars to one centre over another, even if both coinage⁶ and even ancient authors⁷ would rather point at the former one!

As for the above-mentioned set of samples collected by M. Picon in 1986, except a few specimens of grey wares from Mytilene, they were mostly issued from the remains of assumed workshops of amphoras identified around both Geras and Kalloni Gulfs, seemingly all of post-archaic date⁸. Unfortunately, it turned out that the chemical pattern of these "recent" (*sic* recorded!) finds, analysed by the Lyon Lab at that time, didn't match up with the results obtained on our own series, meaning that their contribution to the identification of origin of the lineage of archaic containers proved to be rather misleading at this stage.

Of course, at this early stage, preliminary comparative tests were undertaken with our data bank of references for Eastern Greece, in order to evaluate the specificity of chemical pattern(s) of our representative selection of samples from the island. As it is often the

⁴ See Clinckenbeard 1986.

⁵ For a comprehensive overview of Archaic Lesbos and its cultural ties with Anatolia, see Spencer 1995; on economic disparities between its cities, see Bresson 2000, p. 101–108.

⁶ See omnipresent representations of Dionysos emblematic *kantharoi* in Methymnaean coinage (Buchholz 1975, pl. 12: nos. 22–37).

⁷ See Ovid, *Art of Love*, I, 57: "Gargara quot segetes, quot habet

Methymna racemos... tot habet tua Roma puellas..."; Virgil, *Georgics*, II, 90: "Non eadem arboribus pendet vindemia nostris, Quam Methymnaeo carpit de palmite Lesbos". For both authors, Methymnaean vineyards obviously overshadow Lesbian viticulture.

⁸ See both Basiakos 1986, Archontidou 1986. Among the 15 located remains of pottery workshops, only a single one was identified south of Mytilene with an amphora workshop of Hellenistic or Roman date.

case, occasional limited overlappings were evidenced, as one would expect with mainland Aiolis, first of all one with Phocaea, a *polis* in close connection with Mytilene, as suggested by the monetary treaty ratified between them at the end of the 5th century BC⁹. Thus, if, as expected, Phocaea received some pottery imports from Mytilene, it surprisingly appeared that even some assemblages of grey wares found in Mytilene, were most probably imported from mainland Aiolis, together with bird- and banded bowls of similar chemical pattern. Conversely, even if excavations at Phocaea have brought to light a rather abnormally high proportion of amphoras of Lesbian types¹⁰ amounting to as much as 31%, no local imitations of them were still evidenced among the Mytilene finds¹¹.

A second stage was then started in extending the classification of chemical data for Lesbos itself by adding those obtained on our samples of overseas finds of these amphoras of Lesbian types. As expected, quite a lot of these overseas examples swelled the ranks of the main groups ascribable both to Mytilene in a broad sense (*i.e.*, town and assumed territory) and to western Lesbos, involving a more anarchical reallocation, calling for the following comments. As concerns grey amphoras, several specimens from Istros and one from Abdera form a cluster together with grey wares from Mytilene and, somewhat unexpectedly, three jars from Methymna of the beige variant. However, the main results were obtained on jars of the “Lesbian red” variant, which were scarcely represented at all among the finds from Lesbos itself, nor among our own collection of samples from the island. It now appeared that our specimens of them collected from overseas sites split into two groups, *viz.*: 1) one that coincided with another of our main clusters including grey wares and one Lesbian grey amphora, both from Mytilene; and 2) another completely separate one, independent of any other sample from the island.

In order to clarify the situation, the next stage consisted in focusing our attention on the classification of the whole range of our jars of Lesbian type alone, both those from Lesbos and those from overseas settlements. The resulting dendrogram of classification of chemical data (Plate I) can be summarized as follows in restricting ourselves to the enough closely-knit groups:

- the first three clusters [1–3] on the left concentrate a majority of samples from the island: the central one, from Mytilene only; the other two on either side, from Methymna mainly: the left one together with several finds

from Istros and one from Abdera; the right one from Methymna only, next to two “Lesbian red” ones from Berezan and Mytilene in a marginally irrelevant position;

- the central cluster [4], the most numerous one, is of outstanding importance, since, beside some samples of Lesbian grey jars from both Mytilene and Abdera, it includes the greater part of our samples of “Lesbian red” amphoras, *viz.* three from Mytilene and eight from Istros, Berezan and Olbia;

- then comes a smaller cluster [5] combining, beside one Lesbian grey sample from Mytilene and another beige one from Methymna, four specimens of an early variant of Lesbian jars from Abdera fitted with twisted handles¹², *viz.* two grey ones and two pale orange ones. Two items of the “Lesbian red” variant are adjoining this cluster, but in a rather marginal position;

- small-sized too but chemically heterogenous, the next branch [6], associates three Lesbian grey jars, *viz.* two from Abdera and one from Istros, together with an isolated “Lesbian red” one from Berezan;

- conversely, the next branch [7] deserves particular importance since it brings together the remaining samples of “Lesbian red” jars, all from Black Sea settlements (Istros, Berezan, Nadlimanskoe), apart from a single early Lesbian grey jar from Abdera in a marginal position.

Concerning chemical patterns, such a partition calls for the following comments. One immediately notes that the first three clusters [1–3] are the only ones, with high baryum contents, connected with the use of clays of volcanic character¹³, containing a high amount of barytin issued from hydrothermal veins, thus *a priori* fairly good candidates in favour of a Lesbian manufacture. Cluster [2] differs from [1] and [3] ones by higher amounts of iron, nickel and chromium. As for the main branch represented by cluster [4], it differs from the preceding ones by both lower baryum and aluminium contents. It is also the case for the following clusters [5] and [7], of which the former is characterized by higher iron, potassium and aluminium contents, and the latter by even higher percentages of iron around 10%.

Having in mind that chemical clusters do not necessarily reflect the actual sequence of archaeological groups, how should one interpret the distribution obtained here? Concerning the first three clusters, it clearly appears that these are representative of local products of the island itself, with two separate poles of manufacture, *viz.*: a) a clear central one [2] focused on Mytilene alone and gathering jars of the Lesbian grey variant only; and b) two complementary mixed others [1 and 3] on either side, both

⁹ See Bodenstedt 1981, p. 29–33.

¹⁰ See Atila, Okan 2018, p. 98.

¹¹ As it will be the case later with remains of Hellenistic imitations of Chian jars (see Okan *et alii* 2015).

¹² Parallels are to be found in the proto-archaic levels from Old-Smyrna (source: J. M. Cook's field-notebooks), in Kommos (Johnston 2005, p. 365 nos. 204–205, fig. 28) and Milazzo (Brea, Cavalier 1959, p. 112, pl. L/5).

¹³ See geological maps: Buchholz 1975, p. 37, fig. 6; Whitbread 1995, p. 157, fig. 4/15.

including most of our samples of Lesbian jars of the beige variant from Methymna, together with some others of the Lesbian grey variant from Mytilene. Whether these two clusters might be complementary appears highly probable, their partition being mainly based on their complementary calcium contents, as it is often arbitrarily the case in data-processing. Are they representative of Methymna alone or of somewhere else within the western part of the island remains uncertain. In any case, their association with some finds of Lesbian grey jars from Mytilene might result from the distribution of Methymnaean vintages throughout the island. As for the overseas samples falling into these three clusters, all of them belong to the Lesbian grey variant. Most probably irrelevant, because in a marginal position alongside the right cluster, are two samples of “Lesbian red” jars: one from Mytilene and one from Berezan, with slightly higher potassium content. Then follows the much larger cluster [4] dominated by a large concentration of “Lesbian red” jars, associating our three remaining samples from Mytilene together with a large range of overseas ones from Istros, Berezan and Olbia, whereas the Lesbian grey variant is only represented by a handful of samples from Abdera, as well as two others from Mytilene and two additional ones from Abdera but in a rather irrelevant marginal position. The next cluster [5], with higher aluminium content, stands out by the presence of four of our samples of a special variant of early Lesbian grey jars from Abdera fitted with twisted handles, adjoined by two orthodox ones with rounded handles: one from Mytilene and one from Methymna. Two samples of “Lesbian red” jars – one from Istros and one from Olbia – with slightly higher titanium content - fit alongside this cluster but in a rather irrelevant marginal position on the right. The same remark applies to the next small cluster [6] combining, somewhat erratically, two samples of Lesbian grey jars from Abdera on the one hand, with a Lesbian grey jar from Istros and a “Lesbian red” one from Berezan on the other. Much more homogenous and significant at the same time is the last cluster [7], associating a concentration of “Lesbian red” jars from various Pontic settlements, viz. Istros, Berezan and Nadlimanskoe, together with a single Lesbian grey sample from Abdera, but with none at all from Lesbos island itself.

Two clusters emerge from all the others, gathering the majority of our samples of “Lesbian red” jars, viz. [4] and [7]. The fact that, even the larger one [4] only includes a small number of finds from the island of Lesbos itself, while the smaller one [7] has none at all, rather makes one

suspect that we might well be faced with products issued from unidentified centres of manufacture, most probably established outside the island, though at least within its direct sphere of influence. This sphere may include first of all its colonial region and secondarily areas within its trading network. Accordingly, additional comparative tests were required with potential providers of these doubtful Lesbian types.

Ranking among the first candidates to identify comparable chemical patterns and so solve the controversial problem of origins of these amphoras of “Lesbian red” type, were reference samples taken from Thasos island, consisting of an assemblage of some 150 Hellenistic jars of Thasian type, even though they were post-Archaic in date. The comparative tests of chemical patterns operated with them clearly evidenced that they could not be attributed to Thasos itself, as B. Clinkenbeard wrongly suggested under the somewhat inappropriate appellation of “fractional red” jars¹⁴. Previously, an Attic origin for these Lesbian red amphoras - alias “jars with glass-shaped foot” in the former Soviet terminology – had even been put forward by V. Ruban¹⁵ but quite rightly rejected by I. B. Brashinskii¹⁶ as well as by comparative tests with our own Attic references. More recently, a Phocaeen manufacture had been even advanced by Ö. Özyiğit¹⁷. Thus, the almost complete gap of these “Lesbian red” jars among the finds from Lesbos itself had to be solved in quite another way, especially since the deciphering of trademarks also proved to be disappointing¹⁸. Conversely, judging from the quite explicit Silenus mask applied on the neck of one specimen from Odessos¹⁹ and another one from Olbia²⁰, there was no doubt at all about their wine content rather than oil.

In order to clear up the gap between these two branches [4] and [7] on one side and the local triad [1–3], the next step has consisted to start a programme of comparative studies between finds from Lesbos island itself and from its *peraia* on the opposite mainland as well as on its expanding line of ports of call northwards, viz. along the shores of the Troad and Hellespontus²¹, major transit sea-route between the East Aegean and the Euxine²². For that purpose, preliminary comparative tests were undertaken, involving some 114 representative local references from: Atarneus (10), Adramytteion (10), Troja (20), Abydos (10), Sestos (20), Lampsacus (10), Parion (10) Cyzicus (10), and Dascylium (14).

In addition to their geographical proximity, these

¹⁴ Clinkenbeard 1986.

¹⁵ Ruban 1980, p. 108.

¹⁶ Brashinskii 1983.

¹⁷ Özyiğit 1994, p. 88–90, 89, fig. 5, 104, pl. 29–30.

¹⁸ Bîrzescu 2005, esp. p. 60–61.

¹⁹ Minchev 2003, p. 275, pl. 2:2.

²⁰ Levi 1964, p. 159–160, 162, fig. 33/2.

²¹ The whole shoreline from Antandros to Hellespontus was colonised by the Aeolians and Strabo 13, 1, 38 reports that the whole Troad was under Lesbian rule. On the Lesbian *Peraia*, see Kontis 1978; Carusi 2003, p. 21–61 and map Tav. IV; Ellis-Evans 2019, esp. p. 159–197.

²² Even if we are still scarcely informed about the exact nature and course of the trading activities along the Straits (see Prêteux 2016).

coastal areas were renowned in antiquity and up to the end of the Ottoman period for their well-developed viticulture, first in line along the Asiatic shore of Hellespontus between Lampsacus and Priapos²³.

What emerged from the rather muddled clusters obtained by comparative tests tended to reinforce our earlier suspicions about the manufacture outside Lesbos of a significant share of transport amphoras of Lesbian types, even if these preliminary results will have to be validated by completing our data bank of local references and inquiring concurrently about the still poorly documented assemblages of archaic jars found at Hellespontine settlements. For each mixed cluster evidenced, work has to be done associating amphoras of Lesbian types with external references ranging from the Troad to Propontis, cross-checking systematically the range of internal data for Lesbos itself – *i.e.*, for both pottery and amphora samples –, in order to test in each case the balance between the respective amounts of assumed locally made common wares and external references. Thus, when faced with a cluster of amphoras from both Lesbos and overseas settlements, the close relationship of the former ones with a significant number of common wares from any Lesbos settlement would rather incline one to interpret these amphoras as locally made and their counterparts from overseas settlements within the same cluster as exports from Lesbos to these settlements.

Accordingly, the clusters of the above-mentioned dendrogramme had to be reinterpreted as follows:

-[1] Despite the incorporation of several overseas intruders from both Atarneus, the Troad as well as a single one from Lampsacus into this cluster, the fact that, in the initial classification of the whole range of our samples from Lesbos itself, the involved amphoras, all of the beige variant and from Methymna, were complemented by quite a lot of common wares, all from western Lesbos, *viz.* 6 from Antissa, 4 from Eressos, 2 from Methymna and 2 from Pyrrha, led us to attribute the components of this branch to a centre of manufacture located in the western part of the island, presumably centered on Methymna²⁴; conversely, the associated samples from Atarneus, the Troad and Lampsacus would rather correspond to exports from Lesbos to these areas.

-[2] The core of our second branch consisting of Lesbian grey amphoras from Mytilene only and without

apparent connection with any other wares except three samples from Eressos but in a marginal position, thus suggests that we are most probably faced with the products of a specialized workshop located in the immediate vicinity of Mytilene and seemingly rather satisfying the needs of the local market, judging from the lack of associated references, either from the opposite *peraea* or from the Troad and Hellespontine shores.

-[3] As above-mentioned, this third little branch might well have been arbitrarily separated from the first cluster as it is often the case in the course of chemical data processing. It mainly gathers three samples of the same beige variant of Lesbian jars from Methymna which were included in the same group as their other counterparts within the above-mentioned general classification of all our samples from Lesbos. These three samples only stand out by their slightly lower calcium and magnesium correlated contents. Accordingly, they most probably fall within the same entity as their counterparts of cluster [1], *i.e.*, ascribable to the western part of the island as well. Such an attribution is reinforced by the high barium content of most samples of both clusters [1] and [3], thus suggesting an origin connected with the dominant volcanic geological context of North-West Lesbos (barites from hydrothermal veins)²⁵. Two samples of “Lesbian red” jars, one of them from the island itself, still flank this cluster on the right, but in a marginal probably irrelevant position.

-[4] This dominant branch of the dendrogramme, including four separate clusters, presents the distinctive features of including both the main concentration of our samples of “Lesbian red” jars and the main one too of early Lesbian grey ones from the earliest Abdera Clazomenian necropolis, although in marginal clusters on either side of the two central ones. Among the included samples of “Lesbian red” jars, only 3 out of 11 were collected on the island, where they are otherwise scarcely represented. This branch raises a keen problem of attribution of origin: whereas, in the above-mentioned general classification of all our samples from Lesbos, the involved amphoras were associated with many common wares from different parts of the island, and so assumed to be of rather local manufacture, comparative tests with our references from both Troad and Hellespontine sites conversely pointed to a similar relationship of chemical pattern²⁶. Judging from the rarity of “Lesbian red” jars

²³ For Lampsacus, see: Her. V, 117; Thuc. I, 138; Xen., An. VII, 8, 1; Strab. XIII, 589; for Parion: Her. V, 117; Xen. An., VII, 2, 7; Strab. XIII, 588; Paus. IX, 27; for Priapos: Thuc. VIII, 107; Strab. XIII, 582, 587; MeL. I, 97: Pl. IV, 75; V, 141; Arr. An. I, 12, 7. For modern times, see: Lechevalier 1800, p. 14, 19, 24; Eldem 2017.

²⁴ The greyish beige shade often to be found on Methymna's grey wares would also support such an attribution of origin. Given the diverse geological conditions on the island, the unusually high barium content

would also suggest an origin bounded by the volcanic zone of the western part of the island.

²⁵ See Higgins, Higgins 1996, p. 132–135.

²⁶ As for pottery production, it was still active in modern times both in the Troad (Tekkök-Biçken 2000) and Hellespontus (*ead.* 2011), whereas several brickyards are still operating today in the Gelibolu area. As for clay sources, they are available all among the Straits, on either side of which Late Tertiary sedimentary deposits are rather

among the finds from all parts of Lesbos Island itself, one would rather be inclined to interpret those falling into a common group together with similar counterparts from Black Sea settlements as being produced from a foreign centre or area of manufacture and not on Lesbos island.

The Hellespontus renowned vineyards surely led to the local production of amphoras there, more or less modelled on the standard type of their motherland, even if, until now, no lineage of stamped containers has been clearly evidenced there for the Hellenistic period²⁷. In this case, our samples of common wares from the island that share the same chemical pattern as the few associated specimens of Lesbian red jars should then be interpreted as imports instead of being locally-made products, a situation already evidenced by lab results on Black Sea settlements (Istros, Berezan, Olbia...), which concurrently produced grey wares locally and also still imported large quantities of them from their homeland. While still put forward only as an hypothesis, such an attribution of a significant share of these Lesbian red jars to Hellespontine workshops awaits confirmation from the verdict of finds themselves. If such was in fact the case, the associated early Lesbian grey jars from Abdera within this same chemical pattern would lead us to conclude that these assumed distant secondary workshops were already operating as soon as the second half of the 7th century BC.

Conversely, the role played by the Troad appears to be less clear. Even though no great vintages are recorded there by ancient sources, it does not mean at all that the viticulture was less developed there in antiquity. In more modern times, *viz.* at the end of the Ottoman period, the most productive vineyards were reported as being “on the southern coast of the Marmara Sea and along the Asian shore of the Dardanelles”; however, they extended further south, down to modern Yeniköy in the immediate vicinity of ancient Troy²⁸, even if producing rather indifferent table wines. Unfortunately, we are still poorly informed about the distribution patterns of archaic transport jars between the Troad and Propontis, except in the case of Troy itself, where jars of Lesbian types are over-represented among the assemblage from sector D9, especially the red variant²⁹. It might well have been the case further south too in Antandros, where quite a lot of these jars have been brought to light in the necropolis,

used as infant burials as in Abdera³⁰. Conversely, their amount among Dascylium’s archaic finds doesn’t exceed 22% during the Achaemenid period, half of them of the red variant³¹.

Over and above these overlappings of chemical pattern with the Troad-Hellespontine area, further ones were even evidenced with our Chian reference – *i.e.* beyond the Lesbian sphere –, which will need deeper inquiries for being validated. The involved samples mainly consist of specimens of both the light grey variant with fine clay and the red one.

In addition to the geographical localization of the centre of manufacture from which these exotic imitations are issued, another debatable point concerns the identification of the Lesbian polis involved in it. Admittedly, there seems to be no evidence for the existence of a Methymnaean *peraia*³², but the fact that a good part of our samples falling into this cluster ascribable to the Troad-Hellespontus region are made of a fine clay instead a coarse micaceous one and greyish-beige fired in surface as the Methymnaean grey wares suggests that Methymna too might have developed its own Aktaian trade network and even established there amphora potters’ workshops working in the Methymnaean tradition, either migrant or locally trained ones.

-[5] Even more puzzling appears the case of cluster [5], which stands out by the presence of all our four samples of early Lesbian jars from Abdera of a special variant with twisted handles, adjoined by two orthodox ones with rounded handles: one from Mytilene and one from Methymna. Their chemical pattern differs by a higher aluminium content. Two samples of canonical Lesbian red jars – one from Istros and one from Olbia – with slightly higher titanium content – fit alongside this cluster but in a rather irrelevant marginal position on the right.

For that branch, even if a connection with our local references for the Troad/Hellespontus area was also evidenced, it was a looser one in a rather marginal position, on the fringe of a cluster predominated by samples from Parion, thus not fully conclusive.

-[6] Rather heterogenous, this small cluster does not include a single sample from Lesbos itself. It might well have been separated rather artificially from the larger cluster [4] on the lone basis of a slightly higher calcium content, as it is often the case in the course of data-

homogenous, thus often thwarting close-range geochemical determinations of origin (see Higgins, Higgins 1996, p. 125–126).

²⁷ Only isolated examples of debatable stamps have been put forward, *e.g.* one ABY from Istros (Canarache 1957, p. 305, no. 793) formerly attributed to Abydos (J. & L. Robert, BE 1958, p. 31), another to Bathys Limen (Lungu 2019) or another hypothetical one attributed to Lemnos (Şenol 2006, p. 91.3).

²⁸ See Eldem 2017, esp. p. 175–179.

²⁹ See Lawall 2002, p. 215–217, 227, fig. 6. However, for the Hellenistic period, Ἀλκάνωρ stamps, the distribution of which is reported to be

centred on the Trojan area, are struck on jars of unknown shape but with oval handles (Lawall 1999, p. 191–192, 200–201 (cat. 15), 199, fig. 3). See also lastly Lawall 2019.

³⁰ Candar 2018.

³¹ Yaldir 2011, p. 368–372, fig. 2–4, 6.

³² Even if Assos was claimed as part of a Methymnaian *peraia* it is only on the basis of Strabo XIII, 1, 58, but there is no archaeological evidence to support it.

processing. As with the preceding one [5], it is bordered in marginal position by two samples of Lesbian red jars from outside Lesbos.

-[7] Together with the larger one [4], this last cluster gathers the rest of the “Lesbian red” jar samples, all from outside the island and without connection to any of our local references for both Eastern Greece and the Northern Aegean. In comparison with their counterparts of cluster [4], their chemical pattern differs by a noticeably higher iron content. Furthermore, the insertion in a marginal position alongside clusters [3], [5] and [6] as well as between clusters [4] and [5] of isolated pairs of these “Lesbian red” amphoras might well suggest the existence of additional minor centres of manufacture.

Conversely, additional parallels of chemical pattern were also obtained between jars of Lesbian types and references from more remote areas, *viz.* with several sites of Aegean Thrace, a country well-renowned for its long tradition of great vintages³³. Thus, most of our samples included in the dominant branch [4] of the dendrogramme also matched up with our references for Doriskos (*i.e.*, Ainos area), whereas the smaller cluster [5], including our four early Lesbian jars with twisted handles from Abdera was rather fitting with our reference for Maroneia. However, several arguments led us to reject such an alternative: 1) assuming that Aeolian Ainos had occupied a leading position in Aegean Thrace for the manufacture of such a significant share of the archaic lineage of jars of Lesbian types would have surely led to an overrepresentations of such finds throughout the area; 2) the reported range of containers of post-Achaic date put forward for supporting the existence of an amphora production centre located somewhere in the Evros delta³⁴ differs completely from the Lesbian lineage; 3) the same remark applies to the range of amphora finds from Abdera³⁵, twice North-Ionian foundation; 4) even within the assemblage of archaic amphoras of the earliest Abdera necropolis, jars of Lesbian types do not appear overrepresented in comparison with those of Chian and North-Ionian origin³⁶. Consequently, it seems that we are rather faced here with some random overlapping of chemical pattern, as it sometimes occurs. However, that may be, either Aegean Thrace or Troad / Hellespontus products, one might rather be faced with more or less orthodox imitations of Lesbian jars issued from the hands

of some migrant Lesbian potters established abroad. This would explain the somewhat tentative dual firing process used for them, either reducing or oxidizing.

All these somewhat unexpected new lab results of determination of origin obtained on amphoras of Lesbian types from both Lesbos and overseas settlements therefore invite us to operate a *distinguo* between the Lesbian great vintages, so celebrated by Athenaeus³⁷ and many other ancient sources one side, and the composite lineage of transport amphoras of Lesbian types on the other. If the former appellation was most probably restricted to the island itself, the latter covered a wide range of containers. Although related in shape and primarily intended for Lesbian great vintages proper (*viz.* Mytilene, Methymna and Eressos), these container types were also borrowed outside Lesbos by several other centres under Lesbos’ direct sphere of influence or within its close trading network. The purpose must have been to carry their own local vintages of varied quality, either recorded ones (*e.g.*, Lampsacus, Priapus and Parion) or still unidentified ones. This means that the composite range of λεσβια did not at all constitute a label of origin on the export markets. It is also worth noting that Lesbos itself surely exported its indifferent wines side by side with its great vintages as well³⁸. Hence, the rather large range of fabrics of these containers of Lesbian types, either in the clay structure – coarse or fine grained – or in the firing process according to the various habits peculiar to scattered centres of manufacture (see **Excursus**).

These lab results also revive the debate about the still unsolved problems of wine-making process in the ancient Greek world. If it now clearly appears that the label “Lesbian”, rather than being restricted to the wines produced by the island itself, might well have stretched out far beyond its shores, as not only extended to Mytilene’s *Peraia* on the opposite mainland, but also further northwards to vintages produced by secondary vineyards³⁹. Whether these secondary appellations developed by several Aktaian cities of the Lesbian sphere of influence along the shores of the Troad and Hellespontus were obtained using the same wine-making process, either from a single vine *species* (as in the case of French red Bourgogne) or from an assemblage of specific varieties (as in the case of French “Côtes-du-Rhône”) remains unclear. One can assume that such a label as *Pramneios*, reported by both Athenaeus⁴⁰ and others, surely referred to such vine *speciei*. Wines of

³³ Salviat 1990, esp. p. 459–462 (§ *Vin de l’Ismaros et de Maronée*); Koukoulis-Chrysanthaki 2007.

³⁴ See Karadima 2004.

³⁵ See Peristeri-Otatzis 1986. However, the complete shape of early classical date illustrated p. 495, fig. 13, attributable to Zeest’s former “Protohasian” type, appears rather ascribable to the North-Ionian lineage (Teos ?), either imported original or local imitation in Abdera, twice North-Ionian foundation. For the reattribution of the type, see Dupont 2010.

³⁶ Incidentally, twisted handles are also to be found among the finds of grey wares from Mytilene.

³⁷ Athen. I, 28e–29d; 31a; 32f; 33c; 45e; II, 129d; 137b; XIII, 598c.

³⁸ As well as vinegar, also obtained from Lesbos wine, “quod Methymnaeam vitio mutaverit uvam” (Horace, *Sat.* II, viii, 50).

³⁹ See lately Kourakou-Dragona 2017; Dzierzbicka 2018, p. 269–274.

⁴⁰ Athen. I, 30c.

these kinds were often shared by several distant vineyards and this endowed Lesbian wine with its distinctive flavour, shared between three distinct vine-growing districts as ancient sources report, *viz.* Mytilene, Methymna and Eressos, the latter being top ranked by Galen⁴¹. Moreover, even Mytilene, Methymna and Eressos vineyards surely produced concurrently great-vintage and non-vintage wines, which were kept and marketed in the same shapes of jars⁴². Thus, briefly, the Lesbian wine-label would rather correspond to a *species* or assemblage of vine *speciei* rather than to a strictly delimited vineyard. Accordingly, related tastes might well have been obtained elsewhere from the same assemblage, as in the case of the original French Cahors vintage as compared with its later borrowed Russian cousin Kagor, strictly vinted from Crimean grapes under the guidance of Prince Lev Sergueïevitch Galitzine under Tsar Alexander the Third's reign.

Furthermore, even if probably not as well developed as it is today in the eastern part of the island⁴³, olive growing was also attested in ancient Lesbos till modern times⁴⁴ and one can therefore assume that at least one part of locally made jars of Lesbian type were intended for containing olive oil or even olives in brine⁴⁵. In the same way, both the mainland opposite Lesbos, adjoining the Edremit Gulf, *i.e.* the Antandros territory, and the shores of the Hellespontus around Lampsacus and Cyzicus were also devoted to olive growing⁴⁶ and these also needed jars for containing their own oils. Thus, one can assume that the manufacture of amphoras also occurred among several more or less widely separate workshops.

To sum up, this preliminary lab approach to the lineage of all these jars of Lesbian types now demonstrates to what extent, once again, the yet attractive slogan once put forward by Michel Gras, that viewed the transport amphora as emblematic of the *polis*, would need to be more carefully nuanced. The fact that, only one third or so of our samples clearly appears ascribable to the island itself, all variants taken into account, seems now beyond doubt. However, whereas in

the case of Virginia Grace's "Samian" lineage of containers, which now have been completely redistributed among several widely-scattered places of manufacture, the range of shapes was rather differentiated, the Lesbian lineage morphologically appears much more homogenous, thus to be interpreted as a genuine amphora koine⁴⁷. Furthermore, judging by the case of the early specimens from Abdera's Clazomenian necropolis, allochthonous imitations of the Lesbian originals seem to appear as early as the second half of the 7th century BC⁴⁸.

As for the red variant of these jars of Lesbian types that follows later on overseas markets⁴⁹, it was probably initiated to differentiate the original Lesbian containers from their borrowed counterparts. Among our samples from the Clazomenian necropolis of Abdera, two of them with orange clay can be interpreted as "Lesbian red" predecessors. The same remark applies to the specimen brought to light among the finds from the Middle Ebro valley in the Chirpan region⁵⁰. One might even ponder to what extent the firing under oxidizing atmosphere might have been adopted by the amphora potters of the Lesbian *Peraia* under the influence of the Attic tradition, possibly connected with the war between Mytilene and Athens over Sigeion at the mouth of the Hellespontus, which apparently lasted for two generations, *ca.* 610–540 BC.

Conversely, due to the small size of most samples put at our disposal for chemical analysis, the already major reallocations of origin obtained cannot be connected as yet with current typologies of these containers of Lesbian types, except in the case of those from the Abdera Clazomenian necropolis, all ascribable to the earliest variant of the lineage, *viz.* Monakhov's variant I-A / Sezgin's GLE51, and covering the second half of the 7th century BC in current typologies⁵¹, but nevertheless already foreshadowing major typological refinements in detail⁵², thus foreshadowing a complete reassessment of the Lesbian label for the subsequent stages of this major lineage of East Greek containers as well for the Lesbian wine-label.

⁴¹ Galen, *apud* Kühn 1827, p. 28.

⁴² As it is the case today in Burgundy or in the Bordeaux region, where the same vineyards are producing and marketing concurrently great-vintages and non-vintages under separate quality-labels.

⁴³ See Sifounakis 1986.

⁴⁴ On the repartition of olive-growing areas in modern times, see Koldewey 1890, colour map 31. In 1850, the island was exporting 350.000 quintals of olive oil, its main product at that time, whereas large quantities of local wine were still marketed in Constantinople (Bargigli 1880, p. 244, 247). See also Bresson 2000, chapt. 5, p. 102–103. As for today, the local production of olive oil represents up to 10% of the whole national production of Greece.

⁴⁵ *PSI* V, 535, l. 29.

⁴⁶ Fickendey 1922, esp. p. 23; De Scherzer 1882, p. 114–116.

⁴⁷ See Dupont 2006; Dupont 2010; Dupont 2019, p. 34–45.

⁴⁸ Or even earlier, in the case the Tell Qudadi specimen also proved not to be of Lesbian manufacture (see Fantalkin, Tal 2010, esp. p. 7–9).

Unfortunately, NAA results are not strictly comparable with those of X-Ray fluorescence.

⁴⁹ Early specimens of standard Lesbian red jars were also brought to light in Abdera, but only in the later Teian necropolis.

⁵⁰ See Lozanov 2010, esp. p. 85, 90, pl. 49/4 (early Lesbian red amphora).

⁵¹ See Monakhov 2003, p. 44–45, 49, 257 pl. 27: 1; Sezgin 2012, p. 209–211, 229–230, 239, fig. Gles1.03. However, a closely related find from Methone Pierias, issued from a context dated turn 8th / beginning 7th century BC (see Besios *et alii* 2012, p. 345, no. 4) as well as the well-known specimen from Tell Qudadi, also from a context not later than the very beginning of the 7th century BC (Fantalkin, Tal 2010) now invite to update their emergence from at least half a century.

⁵² As already evidenced by both chemical pattern and morphological specific features between our samples of branches [4] and [5] of the dendrogram: the former with pear-shaped body, nearly cylindrical neck and wedge rim with wide band below, delimited by a groove or slight ridge; the latter with ovoid body, slanting squat neck, protruding rounded / echinoid rim and twisted handles.

Listing of X-ray fluorescence chemical data in dendrogram order
 (Samples : LSB= Lesbos ; HIS and DUP= Istros ; BOR= Berezan ; OLV= Olbia ; ABR= Abdera)

Samples	CaO	Fe2O3	TiO2	K2O	SiO2	Al2O3	MgO	MnO	Na2O	P2O5	Zr	Sr	Rb	Zn	Cr	Ni	La	Ba	V	Ce	Y	Th	Pb	Cu
(1) LSB148	4.02	6.59	0.779	3.28	61.81	17.85	3.27	0.0979	1.70	0.31	210	465	152	76	109	87	58	1470	139	108	24	29	40	47
LSB151	4.09	6.60	0.780	3.25	61.74	17.83	3.32	0.0988	1.67	0.32	214	465	150	78	110	89	55	1444	141	108	25	27	41	47
LSB 57	4.67	6.58	0.776	3.42	60.79	17.49	3.48	0.1239	2.03	0.38	180	355	140	98	123	108	51	1241	134	76	28	19	44	54
DUP612	5.27	6.68	0.743	3.39	60.14	17.03	4.15	0.1157	2.02	0.24	183	375	142	90	130	116	44	770	147	92	27	21	38	43
DUP613	5.06	6.54	0.749	3.41	59.31	17.79	3.98	0.1223	2.48	0.31	187	423	138	95	137	103	47	908	147	90	26	14	53	38
DUP614	4.54	6.68	0.736	3.96	59.64	17.55	3.73	0.1171	2.39	0.43	178	377	128	98	128	115	45	882	135	90	26	5	113	53
HIS530	4.70	6.84	0.860	3.78	61.45	18.17	4.08	0.1235																
LSB155	5.39	6.29	0.736	2.95	60.19	17.46	3.83	0.1221	2.39	0.38	178	459	126	88	109	93	43	1167	120	100	28	20	39	42
LSB 66	6.36	6.78	0.870	2.96	60.97	17.31	3.02	0.1043	1.12	0.22	212	278	128	91	137	118	51	1529	137	73	29	17	35	51
ABR 56	4.78	7.08	0.770	2.64	62.63	16.91	2.61	0.1029	1.88	0.43	210	299	96	74	120	86	24	546	151	55	27	21	38	33
DUP615	3.74	7.11	0.850	2.78	62.51	17.47	3.67	0.1451	1.32	0.2	204	267	125	103	164	118	44	601	169	86	34	11	34	33
LSB150	5.00	8.06	0.973	2.97	59.05	17.99	3.89	0.1300	1.21	0.45	194	252	141	104	260	237	41	1323	140	87	31	19	25	39
DUP665	2.41	7.91	0.986	3.57	62.76	17.64	3.20	0.2835	0.85	0.14	220	182	133	101	433	238	60	629	155	131	39	12	42	34
LSB 60	1.17	7.68	0.924	2.62	63.99	18.31	3.95	0.1508	0.88	0.09	214	158	129	101	479	334	55	600	164	96	37	14	32	32
LSB 65	1.43	7.23	0.876	2.74	64.24	18.16	4.00	0.1618	0.78	0.1	219	182	130	95	461	349	59	1058	162	86	34	15	35	40
LSB 62	1.71	7.81	0.975	2.84	62.51	18.15	4.44	0.1922	0.96	0.1	214	199	137	106	591	428	51	1019	164	100	38	15	38	43
LSB 63	2.09	7.36	0.968	2.86	61.87	18.49	4.96	0.1534	0.85	0.1	208	191	141	102	504	289	57	1047	174	91	35	15	36	41
LSB 59	2.41	7.49	0.936	2.32	64.64	16.15	4.41	0.1248	1.11	0.14	219	194	107	85	493	371	51	977	151	91	36	12	38	39
LSB 64	2.21	8.06	0.950	2.48	63.56	16.17	4.99	0.1570	0.93	0.2	212	187	111	101	1197	449	50	1096	157	88	33	10	23	42
(2) LSB153	2.34	6.01	0.784	3.81	63.79	18.23	2.13	0.1236	2.09	0.34	252	510	178	74	74	50	73	1805	126	124	27	37	57	39
LSB154	2.43	6.15	0.785	3.79	63.56	18.28	2.14	0.1233	1.95	0.47	252	505	180	69	51	30	60	1597	125	127	25	37	56	37
LSB149	2.42	6.61	0.818	3.74	62.84	18.31	2.08	0.1276	2.10	0.54	260	542	171	75	82	60	64	2536	139	136	28	35	57	50
LSB 61	1.62	6.08	0.898	3.03	65.69	19.02	1.81	0.0894	1.33	0.19	230	169	146	98	112	96	69	982	124	118	39	23	51	36
(-) BOR 75	4.39	5.72	0.748	3.47	65.55	16.06	2.00	0.0953	1.46	0.28	250	303	162	73	197	142	63	846	127	118	30	32	39	31
LSB202	3.69	5.81	0.747	3.44	66.51	16.02	1.95	0.0770	1.09	0.41	239	282	164	77	199	139	89	996	129	121	29	41	64	24
ABR 60	5.02	6.45	0.762	2.26	63.51	15.22	3.83	0.6052	1.97	0.2	198	286	84	78	144	134	38	508	129	87	30	28	30	37
ABR 63	5.11	6.40	0.757	2.31	63.50	15.65	3.92	0.1558	1.78	0.22	207	355	90	79	143	106	35	574	127	83	28	20	30	41
LSB 89	5.98	6.62	0.819	2.22	64.03	14.95	3.89	0.1389	1.00	0.15	218	221	96	78	275	235	38	580	132	89	32	13	18	29
ABR 54	4.81	6.32	0.770	2.51	61.81	15.92	4.90	0.2549	2.21	0.31	224	306	86	82	154	139	45	543	120	88	30	21	34	48
LSB 93	5.14	5.61	0.765	2.65	65.38	15.62	2.45	0.1020	1.91	0.2	210	247	114	72	178	124	32	560	108	76	30	14	35	31
OLV 58	5.79	5.71	0.734	2.66	64.66	15.66	2.36	0.0997	1.83	0.32	189	250	120	85	233	122	38	479	115	79	28	10	33	35
DUP666	5.21	5.94	0.747	2.87	63.51	16.31	2.41	0.1256	2.44	0.25	189	260	116	80	231	115	40	625	137	85	30	10	38	55
DUP621	5.17	5.96	0.724	3.01	65.66	14.72	2.80	0.1103	1.51	0.16	176	245	103	81	177	132	35	511	129	68	25	10	34	39
DUP292	5.99	6.25	0.774	2.62	64.01	17.14	3.13	0.0977																
(4) DUP293	6.48	5.87	0.792	2.56	65.04	16.36	2.79	0.1060																
ABR 52	6.42	5.71	0.830	2.83	62.53	16.01	3.12	0.1081	2.01	0.2	230	389	99	81	155	107	48	829	135	98	32	16	30	33
BOR 74	6.05	6.70	0.732	3.07	62.40	15.41	3.39	0.1423	1.73	0.19	158	270	113	90	207	155	31	503	118	79	27	9	37	40
LSB 92	4.60	5.49	0.723	2.59	66.82	14.81	2.86	0.1278	1.63	0.16	197	253	98	78	162	123	33	612	104	73	26	9	39	38
DUP619	4.33	5.17	0.704	2.70	67.06	15.36	2.11	0.1141	2.07	0.19	193	239	99	72	145	96	33	603	114	66	29	11	31	31
DUP617	4.83	4.53	0.662	2.80	68.39	14.08	2.04	0.0901	2.19	0.21	206	258	102	63	156	97	39	545	103	70	28	11	40	23
LSB 203	6.50	5.50	0.674	2.30	66.39	13.39	2.99	0.1136	1.49	0.43	170	288	86	77	230	145	24	938	100	66	24	10	24	32
LSB 91	1.65	6.87	0.847	2.61	69.35	15.81	1.85	0.1024	0.59	0.13	206	133	120	88	223	200	35	536	126	83	30	13	18	55
LSB 58	2.76	5.88	0.792	2.59	68.98	15.08	2.08	0.1034	1.16	0.28	198	138	106	83	199	215	41	1644	124	69	29	12	28	41
ABR 61	2.31	6.71	0.813	2.09	67.81	15.52	2.64	0.1415	1.52	0.26	247	256	85	78	157	100	35	587	128	90	31	18	45	39
ABR 58	1.48	6.92	0.828	2.25	65.34	17.56	2.67	0.1467	2.37	0.25	224	217	81	73	230	160	49	550	126	66	33	17	44	34
(-) BOR 78	7.17	6.06	0.711	3.48	61.68	16.34	2.15	0.0871	1.91	0.17	200	292	152	71	220	148	51	738	115	102	28	35	29	27
DUP622	7.33	6.07	0.667	4.16	61.76	15.39	2.33	0.0997	1.57	0.42	196	336	149	85	196	155	51	694	137	98	28	31	40	32
LSB 90	1.36	7.44	1.002	3.40	62.20	21.03	2.61	0.1449	0.44	0.11	222	188	179	125	282	176	54	796	178	99	38	23	26	42
ABR 62	2.00	7.02	0.811	3.15	60.99	20.37	1.94	0.1349	3.05	0.23	246	457	115	78	75	48	55	1439	144	86	23	26	74	41
(5) ABR 51	2.41	7.32	0.899	3.19	59.13	21.73	1.53	0.1848	2.95	0.34	261	535	113	72	92	68	68	1618	156	97	26	25	64	41
ABR 55	1.96	7.07	1.027	2.58	60.62	21.34	2.41	0.0824	2.58	0.14	223	223	122	88	117	61	62	765	115	131	34	17	40	20
ABR 50	1.75	7.10	0.933	3.75	58.62	21.45	2.86	0.4711	2.50	0.36	176	258	170	100	118	100	54	633	153	91	29	21	51	38
LSB152	1.64	6.96	0.912	3.72	59.50	22.48	1.97	0.0865	2.04	0.34	278	480	153	75	39	20	68	2133	146	131	25	39	52	49
(-) OLV 59	3.49	8.73	1.194	2.32	59.73	19.53	2.28	0.1866	2.27	0.11	132	208	133	108	125	40	38	405	157	84	27	11	36	24
DUP295	2.39	8.38	1.385	3.00	60.49	21.66	2.58	0.1083																
ABR 53	7.90	6.71	0.758	2.23	58.19	16.43	5.63	0.1188	1.65	0.17	183	463	78	129	162	136	37	641	137	84	31	18	22	32
(6) ABR 59	8.86	6.24	0.734	2.25	59.57	15.33	4.88	0.1358	1.60	0.18	192	426	79	80	150	119	24	685						

EXCURSUS

Whereas most publications devoted to transport amphoras of Lesbian types still confine themselves to the primary distinction between “Lesbian grey” and “Lesbian red” ones, it clearly appears that the range of fabrics was more diversified, an acknowledgement rather unusual on the scale of an island, *a priori* rather in favour of a scattered geographical distribution of their centres of manufacture.

Judging from their wider range of basic visual colours, both outside and inner ones, various firing methods were operated by the involved workshops of

these jars. Beside the whole grey ones, either coarse dark grey (Fig. 1/a) or fine light grey (Fig. 1/b) variants, on one side, and the rather homogeneous ones labelled “Lesbos red” (Fig. 4), both an intermediate light beige variety with black core (Fig. 2) and a last black-smoked one with red core (Fig. 3) complete the “Lesbian” series.

Whereas the black-smoked variety remains rather anecdotic, the light beige one appears fairly well represented among the finds from Methymna, where a related firing process is to be found on the locally made common wares of greyish beige fabric.



Figure 1. Archaic amphoras of Lesbian types. Basic visual fabrics. a) Lesbian grey, coarse; b) Lesbian light grey, fine.



Figure 2. Archaic amphoras of Lesbian types. Basic visual fabrics. Lesbian beige with dark grey / black core.

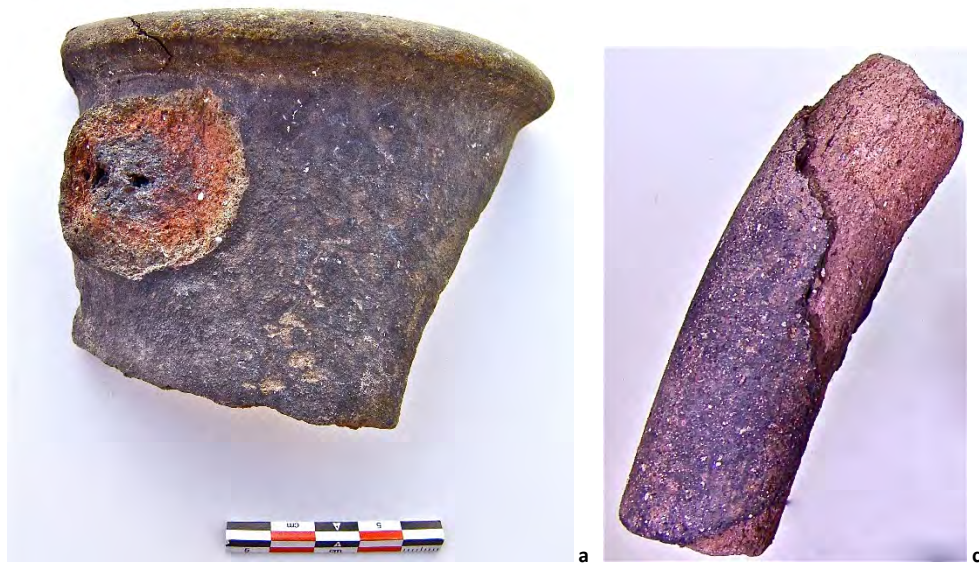


Figure 3. Archaic amphoras of Lesbian types. Basic visual fabrics. Lesbian black-smoked with red core.



Figure 4. Archaic amphoras of Lesbian types. Basic visual fabrics. “Lesbian red” standard.

As for the “Lesbian red” series, scarcely represented among the finds of the island, its range of shades does not exceed bright orange tones in intensity.

In ancient written sources, transport jars are quite rarely given a colour designation. It turns out that it is the case for two batches of containers referred to as Lesbian in the Zenon Archive / PSI 535, viz. *διλέσβια λευκά* and both *ἐλαιών Λέσβια Αἰθιόπια* and *οἴνου Λέσβια Αἰθιόπια*⁵³. How to interpret these colour details? Are they given due to their unusual look? Concerning the former ones, the term *λευκός* can hardly refer to standard grey jars. Accordingly, an alternative would be to interpret it as referring to the above-mentioned beige variety, for lack of a Greek term for “beige”, or to the orange one, somewhat abusively labelled “Lesbian red”. As for the exotic label *Αἰθιόπιον*, supposedly allusive to the sunburn skin of the Ethiopians and accordingly usually translated under the designation ‘red-brown’ or ‘fiery-red’⁵⁴, does it necessarily refer to the suntanned containers of “Lesbian red” type? It is far from obvious indeed: according to Diodorus (III, 8, 2), most Aethiopians established along the Nile banks are reported as black-skinned (*μέλανες*) and, in his *Prometheus Unbound*, Aeschylus also calls the Aethiopians “μελανστέρφων γένος”⁵⁵. The fact that the label *Αἰθιόπιον* applied to transport amphoras is only preserved on a papyrus from Egypt reminds us of the fascination of the Greeks for the black kingdom of Meroe⁵⁶, thus inviting to wonder about its exact meaning, which might well have to be interpreted as darker than ‘red-brown’ or ‘fiery-red’, indeed even ebony black or so, in other terms rather applied to the Lesbian dark grey lineage instead to the red one. Moreover, the fact that the

batch of these *Λέσβια Αἰθιόπια* is recorded as including both oil and wine containers would also agree with it: judging from the above-mentioned Silenus relief mask applied on the neck of the above-mentioned two early “Lesbian red” jars from Odessos and Olbia, one has every reason to doubt that this lineage of containers might have been also intended for the delivery of an oil content. Accordingly, the Zenon Archive / PSI 535 account referring to *διλέσβια λευκά* and *Λέσβια Αἰθιόπια* would rather express the basic distinction between light and dark containers of Lesbian types.

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⁵³ Kruit, Worp 2000, p. 88–89, 130–131.

⁵⁴ See LSJ, *Αἰθιόπιον*. See also Capponi 2009, esp. p. 95–96.

⁵⁵ Aesch. Fgt. 389.

⁵⁶ See Thompson 1969.

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