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# Western Greek amphorae produced at Himera

#### Introduction

Due to its geographical location at the northwestern edge of an ample and fertile plain, Himera's agricultural and farming characteristics are undoubted. Notwithstanding historically close relations between the colony and its hinterland inhabited by native communities, at present no archaeological evidences testify to a local amphorae production destined to the commercialization of an agricultural surplus. The on-going research on the provenances of 560 western Greek amphorae re-used in enchytrismos burials of the necropoleis of Himera has now allowed for the identification, on the basis of archaeological and archaeometric arguments, of an amphora series produced in the Dorian-Chalcidian colony. This highly significant scientific outcome has been preliminarily discussed in three previous papers. Furthermore, the entire corpus of local transport vessels will be published in detail in the monograph on the western Greek amphorae from the cemeteries of Himera. By consequence and within the scope of this eight edition of FACEM focused on western Greek amphorae produced in Sicily, this contribution will therefore be limited to a short overview of the hitherto obtained results.

Most probably, pottery production at Himera started already with the first generation of colonists during the last quarter of the 7th century B.C.E. and continued until the city's destruction in 409 B.C.E. In 2011, preliminary ceramic provenance studies undertaken within the framework of FACEM, have led to the publication of several fabrics of fine wares, coarse wares, pithoi and building materials found in the western necropolis and attributed generally to the 'region of Himera'. This selection of about 30 samples of presumed local fabric built the starting point for the present research on transport amphorae.

#### 1. Previous archaeometric research

Combined, archaeometric and archaeological studies undertaken in the late 1990s of the last century have allowed for the characterization of the raw materials of the 'Formazione Terravecchia' used for local ceramic artifacts, up to the present time extracted in a modern cave located in the resort of Garbinogara, in the valley of the river Himera Settentrionale, very close to the ancient city. Within the frame of the same research, reliable archaeometric evidence has been

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<sup>1</sup> Vassallo 2005, 21-2, 90-3.

<sup>2</sup> Most recent: Valentino 2018; Vassallo 2014, both with earlier references.

<sup>3</sup> For this topic, see in detail Sourisseau 2011, 147, 220.

<sup>4</sup> For the most recent in-depth discussions of this class: Sacchetti 2012, 49-8; Sourisseau 2011, 173-229, both with earlier literature.

<sup>5</sup> For the archaeological and historical aspects: Bechtold et al. 2019; Bechtold 2020c; for the complete archaeometric characterization of the amphorae fabrics of Himera, see Montana et al. 2020.

<sup>6</sup> Vassallo 2013, 275.

<sup>7</sup> Trapichler 2011.

<sup>8</sup> Most recent: Montana et al. 2009, 104-6; previously: Alaimo et al. 2000; Alaimo et al. 1999.

<sup>9</sup> Vassallo 2005, 266, 275, fig. 1,1; Montana et al. 2020, 7-8, fig. 5.

provided for the attribution of the late archaic class of kylikes 'lato K480' to workshops of the Greek colony of Himera.

#### 2. Evidences for pottery kilns at Himera

At present, the kerameikos of the Greek colony has not been identified. Archaeological structures which would be possibly linked to a small ceramist's workshop have been found in block XIII, in the lower city, but no assessment can be made on the concrete activity of this facility. About 40 meters South to this location, a bell-shaped kiln cut into the lower part of the bedrock has been mainly destroyed in the 1970s of the last century by an excavator.<sup>11</sup>

3. Western Greek amphorae produced at Himera: archaeological and archaeometric data The systematic fabric study of the entire corpus of 560 western Greek amphorae yielded by the eastern and western necropoleis of Himera<sup>12</sup> has allowed for the identification of an assemblage of 36 amphorae<sup>13</sup> which showed evident, macroscopic affinities with the majority of the fabrics in 2011 attributed to the region of Himera (see above, introduction). The macroscopic study of this selection has led to the distinction of a coarser fabric HIM-A-1 and a finer/very fine fabric HIM-A-2.<sup>14</sup> Petrographic and chemical analyses undertaken on five samples of the former and 11 samples of the latter group have confirmed our hypothesis regarding a local origin of the whole assemblage which matches the archaeometric fingerprint of the 'Formazione Terravecchia' raw materials used at ancient Himera.<sup>15</sup>

The earliest amphora of local production belongs to form  $1\alpha^{16}/Randform\,1^{17}$  (fig. 1,1) and should be dated, by context and on the basis of morphological comparisons, to the third quarter of the 6th century BC. It shows a sub-ovoid body on a large, flat basis, a cylindrical neck characterized by a ridge on its upper part and an elongated rim. A second amphora is provided with an ovoid-shaped rim of  $Randform\,2$ , a short, cylindrical neck and a quite large, flat basis (fig. 1,2). For morphological reasons, this item should be placed in between the earliest and the late archaic group discussed below, dating approximately somewhere within the second half of the 6th century B.C.E. Remarkably, all vessels characterized by  $Randformen\,1-2$  show the coarser fabric HIM-A-1.

During the last two decades of the 6th and early 5th century BC, local potters commence the production of sub-globular and heart-shaped amphorae of form  $2^{20}$  with *Randform*  $3^{21}$  in two variants: with massive, semi-ovoid rims (fig. 1,3-6) or with elongated, semi-ovoid rims (fig. 2,1-4). In the necropoleis of Himera, local form 2 is abundantly documented by about 30 items and well dated – by the association within three of the tombs of two black-figure lekythoi and a local kotyliskos – to the late Archaic period. The majority of amphorae of this group is manufactured in

<sup>10</sup> For all archaeological aspects in detail: Vassallo 1999b.

<sup>11</sup> Montana et al. 2020, 3; Vassallo 2013, 269-75; Pisani 2012, 318-19, fig. 7.

<sup>12</sup> For an overview of the ample bibliography on the necropoleis of Himera: Vassallo 2018.

<sup>13</sup> Bechtold et al. 2019, 15-7, fig. 7.

<sup>14</sup> In detail, see Ferlito 2020.

<sup>15</sup> In detail: Montana et al. 2020, 4, tab. 1: macro-fabric HIM-A-1 corresponds to micro-fabrics MPP-2 and MPP-3, while macro-fabric HIM-A-2 matches almost perfectly micro-fabric MPP-1; for first observations, see Bechtold et al. 2019, 4-5.

<sup>16</sup> Sourisseau 2011, 178-85, figs. 7-12.

<sup>17</sup> Gassner 2003, 180-81, fig. 91.

<sup>18</sup> Most probably, among the selection from Himera this earliest shape is documented by only two items.

<sup>19</sup> Gassner 2003, 180-81, fig. 91.

<sup>20</sup> Sourisseau 2011, 176, 189-90, fig. 6.

<sup>21</sup> Gassner 2003, 181-82, fig. 91.

fabric HIM-A-2, but more than a third still presents the earlier fabric HIM-A-1.

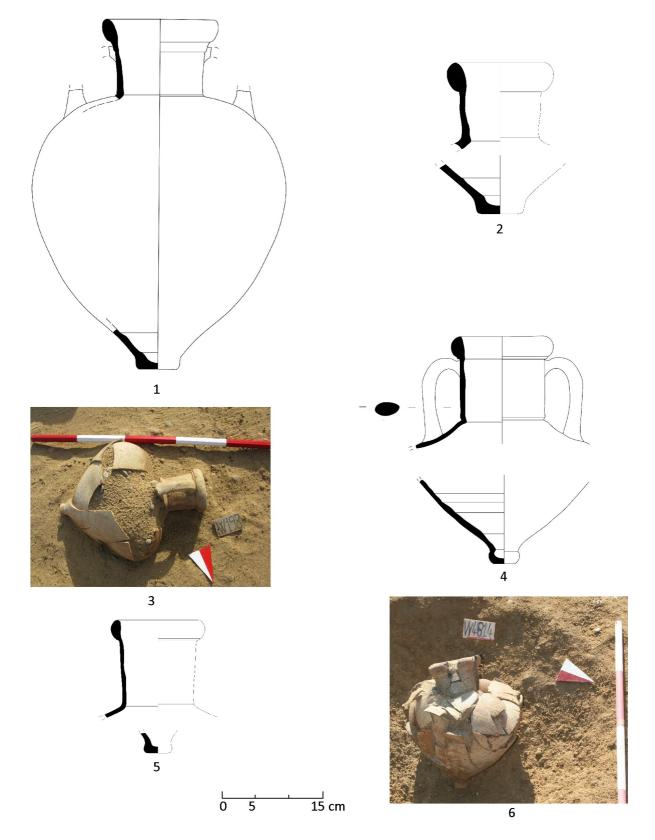


Fig. 1. Archaic western Greek amphorae produced at Himera. Form  $1\alpha$ : 1. W3647 Randform 2: 2. RO1352 Form 2 with Randform 3 (massive variant): 3.-4. W198 5.-6. W4814.

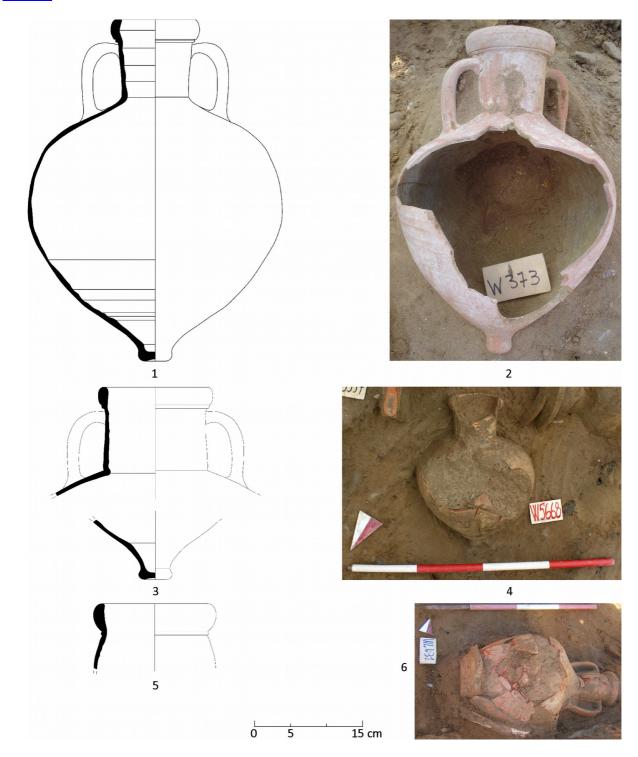


Fig. 2. Late archaic western Greek amphorae produced at Himera. Form 2 with *Randform* 3 (elongated variant): 1.-2. W373 3.-4. W5668 Late-classical *Randform* 7: 5.-6. W4431

To date, no reliable evidences are available for Himera regarding amphorae produced during the second or third quarter of the 5th century B.C.E. Local production is attested again towards the last decade of life of the colony. This latest issue of the Himerian workshops is documented by two amphorae characterized by elongated, ovoid bodies, more or less convex necks and rims of *Randform* 7 underlined by a marked ridge (fig. 2,5-6).<sup>22</sup> Both items show a very fine variant of fabric HIM-A-2.

<sup>22</sup> Gassner 2003, 181-82, fig. 91.

## 4. Preliminary observations on Himera's production of western Greek amphorae

The identification of an amphora production at Himera is of crucial importance for a better understanding of the economic development, from the mid-6th to the late 5th-century B.C.E., of the colony itself and more generally of the whole region. The main historical and archaeological implications of the genesis of a local series have been discussed in detail in an earlier paper.<sup>23</sup> In this context, it should be sufficient to re-assume briefly the main issues in part still unresolved.

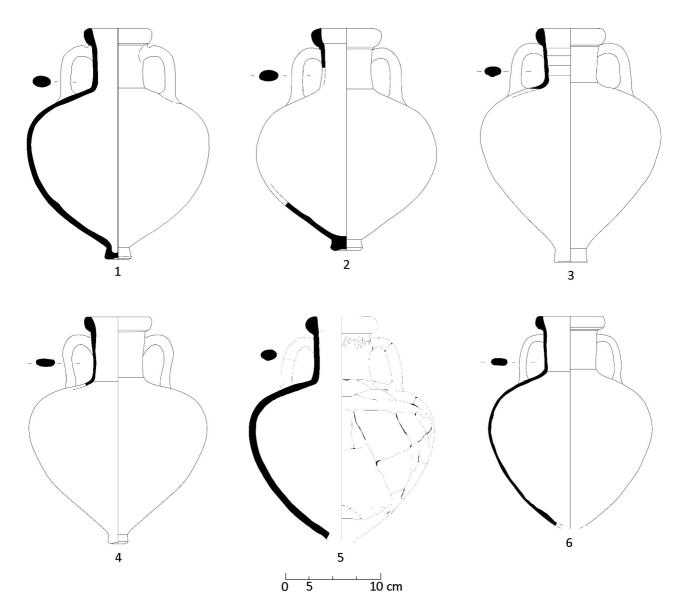


Fig. 3. Western Greek form 2 amphorae with a volume of 19-21 liters and a height of 45-50 cm. 1. A99 production of Sybaris/Kroton (from: Santos 2008, fig. 123) Productions of southern Calabria: 2. W7627 3. R0145 Production of Himera: 4. W962 Production of Panormos/Solus: 5. W1751 Production of Akragas: 6. W4716.

FACEM inv.	Site inv.	Туре	Fabric FACEM	Height (cm)	Ratio H:max. diam.	Volume (lit.)	Archaeometry	Published	Fig.
80/7	A99	Randform 3-form 2	CAL-A-8 Sybaris-Kroton	49.2	1.27	19-22	Petrography, heavy mineral analysis	Santos 2008, 133, fig. 123; Gassner and Sauer 2008, 365 (fabric Bh)	3,1
80/6	A98	Randform 3-form 2	CAL-A-8 Sybaris-Kroton	50.5 ca.	1.28 ca.	19-22	Petrography, heavy mineral analysis	Santos 2008, 135, fig. 125; Gassner and Sauer 2008, 362 (fabric B)	
179/437	W7627	Randform 3-form 2	CAL-A-1 SW Calabria	46.8	1.23	20			3,2
179/173	RO145	Randform 3-form 1α	CAL-A-1 SW Calabria	49.4	1.29	20.8			3,3
	LF5	Randform 3-form 2	Calabria? (hypothesis)	54	1.47	18.5-19		Polizzi 1999, 222, 225, fig. 221, cat. 403	
	LF4	Randform 3-form 2	NW Sicily? (hypothesis)	49.5	1.4	15.6		Polizzi 1999, 222, 226, fig. 221, cat. 404	
179/396	W984	Randform 3-form 2	HIM-A-1 (Himera)	44.2	1.15	20.7		Bechtold et al. 2019, 7, fig. 4,2a-b	
179/327	W962	Randform 3-form 2	HIM-A-2 (Himera)	48	1.28	19.3	Petrography, chemestry		3,4
179/158	W373	Form 2/Randfor m 3	HIM-A-2 (Himera)	47.7	1.33	19.4	Petrography	Bechtold et al. 2019, 8, fig. 5,1a-b; Montana et al. 2020, fig. 3A-B	2,1-
179/398	W178	Randform 3-form 2	HIM-A-2 (Himera)	51.2	1.35	21		Bechtold et al. 2019, 7, fig. 4,1a-b	
179/39	W1751	Randform 2-form 2	PAN-SOL-A-1 (Panormos- Solus)	47.7 ca.	1.25 ca.	19.1	Petrography, chemestry	Bechtold and Vassallo 2018, 153-55; Bechtold 2020c, fig. 4,1.	3,5
	N.I. 32872	Randform 2-form 2	Panormos? (hypothesis)	44.5	1.46	9.6-9.8		Palermo Punica, 154, 330, cat. 183	
	N.I. 33710/5	Form 2/ <i>Randfor</i> m 2	Panormos? (hypothesis)	53.2	1.34	20.7		Palermo Punica, 330, 333, R4	
179/168	W4716	Randform 3-form 2	AKR-A-1 (Akragas)	45.15 ca.	1.28	18.2	Petrography, chemestry		3,6

Tab. 1. Calabrian and Sicilian form 2 amphorae with similar metric characteristics. Items indicated in bold are published in the database of FACEM.

The first question concerns the possible prototypes of the local archaic series. As a working hypothesis, these have been identified in western Greek amphorae of Sourisseau's forms  $1\alpha$  and 2, abundantly imported to the colony from the area of Sybaris<sup>24</sup> and southern Calabria (Rhegion?)<sup>25</sup> since the second quarter of the 6th century B.C.E.<sup>26</sup> Particularly interesting appears a possible

<sup>24</sup> For a very recent archaeometric characterization of this series, see Finocchiaro et al. 2018; for a detailed synthesis of the archaeological issue of this presumably earliest production of western Greek amphorae, see Sourisseau 2011, 204-6; Gassner 2015, 352-54; Gassner 2011, 4: fabric CAL-A-6.

<sup>25</sup> For this production, see Gassner 2011, 2-3: fabrics CAL-A-1 to CAL-A-3.

<sup>26</sup> On-going research within the frame of the project mentioned in note \*. For first statistical data referring to the late

metric correlation (tab. 1) between the volumes calculated for an, admittedly still small, selection of late archaic form 2 amphorae produced in the area of Sybaris/Kroton (fig. 3,1), in southern Calabria/Rhegion (?) (fig. 3,2-3) and in Sicily at Himera (fig. 3,4), Solus/Panormos (fig. 3,5) and Akragas (fig. 3,6). All these items show sub-globular or heart-shaped bodies with a maximum height of 45-50 cm and a capacity of 19-21/22 liters. This group clearly differs from contemporaneous, more voluminous western Greek series attributed to the productions of Poseidonia and Corkyra.<sup>27</sup> Provided with a consolidation of this still limited data series by the means of further metric analyses, is it conceivable to imagine that the production of standardized transport vessels manufactured in southern and eastern Calabria and western Sicily indicate some kind of uniform economic market? More data are desperately needed in order to corroborate this hypothesis.

The second question regards a possible leading role of the Dorian-Chalcidian colony within the frame of the genesis of a regional amphora language. The identification of late Archaic and late Classical period-amphorae productions in the two Punic colonies of Panormos and Solus<sup>28</sup> and in currently two native inland sites (Entella and Monte Iato)<sup>29</sup> sheds light on a possible function of Himera as center of proliferation of technological knowhow and morphological models. Given the colony's precocious amphorae manufacture as a result of early economic interaction especially with the colonial milieu of Calabria, Himera's pioneering role in the transmission of prototypes to its non-Greek neighbors seems very likely. In the case of the already better-characterized series of the Punic towns, it is possible to hypothesize not only a morphological, but also a metric tie with the presumed Himerian models (see above and tab. 1).

The third issue is related to the socio-economic relations between Himera and the native communities<sup>30</sup> settled in its hinterland. According to the archaeological evidences, the regular distribution of indigenous pottery in the colony decreases rapidly after the mid-6th century B.C.E., most probably as a result of some sort of 'aggression of the Greek element' towards the Sicanian world. At the same time, the circulation, in the colony's chora, of Greek technologies, rites and ceramic objects increases steadily. Within the scope of the complex relationship between Himera and many of the neighboring, non-Greek communities between the late 6th and earlier 5th century B.C.E., a key-role has to be assigned to the indigenous elites whose "...cultural and social superiority..." is reflected, from an archaeological standpoint, by a deliberated, massive use of colonial material culture. Himera's late archaic amphorae production, probably to be related to the contemporaneous, local fabrication of kylikes of the 'lato K480' class, <sup>32</sup> matches a period of general economic wealth documented for the entire region. As a working hypothesis, it seems likely to identify the indigenous elites as one of the major consumers of Himerian wine-carrying (?) amphorae. A first indication in this direction is the wide-spread circulation of the abovementioned 'lato K480' bowls namely in the western Sicilian, native milieu.

The phase of crises stated for both the colony and the majority of sites belonging to its central-

Archaic period, see Bechtold 2020c, fig. 5a.

<sup>27</sup> On-going research within the frame of the study mentioned in note \*.

<sup>28</sup> Bechtold 2020a.

<sup>29</sup> Corretti and Michelini 2020, cat. 1.3 (probable production of Entella), cat. 2 (probable production of laitas). At present, this latter series is attested by just one earlier (?) 5th-century B.C.E. amphora rim of Gassner's *Randformen* 3-4 (M 187/47).

<sup>30</sup> For this topic, see Valentino 2018 and Vassallo 2010, both with full references.

For this vast and problematic issue, discussed on the basis of the case study of Monte lato, see Kistler and Mohr 2016, 83-93.

<sup>32</sup> For the identification and in-depth discussion of this class, see Vassallo 1999b.

<sup>33</sup> Most recently, see Bechtold and Vassallo 2020, 24; previously, Vassallo 2000, 994.

<sup>34</sup> For the 'banqueting culture' practiced by the indigenous chiefs, see Kistler et al. 2017, 170.

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western Sicilian hinterland for the period following the first quarter of the 5th century B.C.E.,<sup>35</sup> conspicuously coincides with the moment of a possible interruption of the local form 2 amphora production, as well as its supposed renewal towards the late 5th century B.C.E. (see above, ch. 3). Again, the issue of the manufacture and distribution of the local transport vessels seems closely linked to the broader, historical life conditions of the colony's chora, underlining the strong relationship between Himera and the native communities of its hinterland.<sup>36</sup>



Lastly, an initial and interesting indication for the regional circulation of the aforementioned commodities packed in local amphorae is the identification of one small rim fragment of a late archaic *Randform* 3 in fabric HIM-A-2 at Selinunte (tab. 2, fig. 4).

Fig. 4. Late archaic *Randform* 3 amphora produced at Himera and discovered at Selinunte (M 154/158).

Remarkably, the piece has been found in the major urban sanctuary located in the southern part of the acropolis. Specifically, is has been yielded in the preparation level for the late-classical (ca. 410-350 B.C.E.) occupation of the *adyton* of temple R which also contained, however, earlier 6th-5th-centuries B.C.E. materials. The discovery of this amphora produced at Himera in the acropolian sanctuary of Selinunte is particularly intriguing. Its documentation might rather hint at sociopolitical or religious than at commercial contacts between individuals or groups of individuals of the Dorian-Chalcidian and the Megarian colony in Selinunte's major sanctuary, which is understood to be a space for manifold, cross-cultural encounters.<sup>37</sup>

Site of discovery	FACEM inv.	Site inv.	Туре	Fabric FACEM	Archaeometric sub-fabric	Published	Fig.
Himera, necropolis	179/166	W3647	Form 1α/ <i>Randform</i> 1	HIM-A-1	MPP-3	Bechtold et al. 2019, 5, fig. 3,1; Bechtold 2020c, fig. 2,1; Montana et al. 2020, fig. 3A-B	1,1
Himera, necropolis	179/150	RO1352	Randform 2	HIM-A-1	MPP-2	Montana et al. 2020, fig. 3C	1,2
Himera, necropolis	179/157	W198	Form 2/Randform 3	HIM-A-2	MPP-1	Montana et al. 2020, fig. 3D	1,3- 4
Himera, necropolis	179/169	W4814	Form 2/Randform 3	HIM-A-2			1,5- 6
Himera, necropolis	179/158	W373	Form 2/Randform 3	HIM-A-2	MPP-3	Bechtold et al. 2019, 8, fig. 5,1a-b; Montana et al. 2020, fig. 4A-B	2,1- 2
Himera, necropolis	179/395	W5668	Form 2/Randform 3	HIM-A-2			2,3- 4
Himera, necropolis	179/230	W4431	Randform 7	HIM-A-2	MPP-1	Bechtold et al. 2019, 9, fig. 6,1; Bechtold 2020c, fig. 2,4; Montana et al. 2020, fig. 4C-D	2,5- 6
Selinunte, temple R	154/158	SL42092	Randform 3?	HIM-A-2	MPP-1		4

Tab. 2. Synopsis of data related to illustrated, western Greek amphorae produced at Himera. Items indicated in bold are published in the database of FACEM.

<sup>35</sup> Vassallo 2000, esp. 998-99, pl. CXCII.

<sup>36</sup> In detail, see Vassallo 2014 with earlier references.

<sup>37</sup> Marconi et al. 2015; for a similar function of the acropolic sanctuary of Segesta, see de Cesare 2015.

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