# The Hellenistic Mouldmade Bowl Production at Priene – A Case Study Concerning the Reception of Ephesian Examples

### Nina Fenn

### Introduction1

At Priene,<sup>2</sup> as at almost every Hellenistic site around the Mediterranean, and presumably the Black Sea, local pottery production included mouldmade bowls with relief decoration. Despite many relief bowls being found at Priene, the output of the local workshops is still almost completely unknown.

### History of research

So far, R. Zahn has been the only scholar to engage in a more detailed study of Hellenistic mouldmade bowls from Priene. In his publication of the 19th century excavations and finds from this city, he incorporated 26 relief bowls as entries in his thorough catalogue of the pottery. This included a short description of the fabric, form and decoration of the pieces. According to Zahn, all relief bowls with the exception of one example, which he convincingly attributed to Athens, were composed of the same micaceous fabric. Zahn located this fabric in or within the area of Priene. La Raeder re-published the finds from Priene and assigned all of the mouldmade bowls to a single local workshop.

My own examination of the excavated material from Priene, now stocked at the storerooms of the Antikensammlung in Berlin,<sup>6</sup> shows that the relief bowls are not all composed of the same fabric and vary greatly in quality. Most of the relief bowls can be identified as local products, while others are imports from Ephesos.<sup>7</sup>

F. Courby was the first to try to differentiate between fabrics, but he went wrong in identifying two of the bowls found at Priene as belonging to the Delian class, i.e. the Ephesian workshops.<sup>8</sup> Apart from a short notice in J. Schäfer's publication of the Hellenistic pottery from Pergamon,<sup>9</sup> there has been no scientific study of mouldmade bowls from Priene. For this reason, I would like to present a wider spectrum of the mouldmade bowls produced at Priene. Although the local pottery was probably produced mainly for the local market, it is also helpful to identify possible exports from Priene.

In order to characterise the Hellenistic mouldmade bowl production of Priene, I have focused on the finds from the recent excavations at Priene, which were conducted by the Johann Wolfgang Goethe-University Frankfurt am Main under the direction of Prof. Dr. Wulf Raeck.<sup>10</sup>

#### Context A

One of the most important findspots at Priene was a late Hellenistic deposit from the South Stoa of the Athena sanctuary, which yielded 380 mouldmade bowl fragments. This rich pottery assemblage, called Context A, came to light during the excavations in 2000. The sanctuary of the city's goddess Athena, including its South Stoa, was enlarged by half the width of an insula (i.e. almost 18 m). The material of Context A consists of filling from behind the retaining wall of the terrace on which the eastern end of the newly-enlarged stoa was built. Therefore, the dating of the material in the filling provides a *terminus post quem* for the elongation of the South Stoa towards the middle of the 1st century BC.<sup>11</sup> About one-third of all mouldmade bowls from the South Stoa are composed of local fabric. More than twice as many mouldmade bowls were imported from Ephesos, whereas imports from other sites as such Athens<sup>12</sup> or Miletos<sup>13</sup> are scarce (Fig. 1).

#### Context B

Another Early Imperial pottery context considered here contained a significant proportion of Hellenistic mouldmade bowls (126 fragments),<sup>14</sup> which complement the picture presented by the South Stoa material. Context B comes from the residential quarter Insula E5, located within the northwest district of Priene, where excavations began in 2002. The insula was abandoned after its destruction and was covered by a thick layer of debris. Judging from the coins and ceramic material, the deposit has a closing date in the Augustan period.<sup>15</sup> Unlike Context A, mouldmade bowls from Priene in the deposit

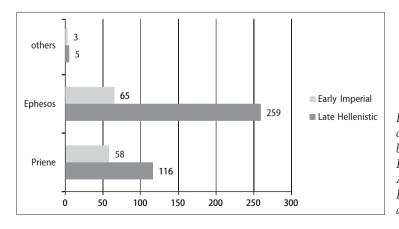


Fig. 1: Provenance of the mouldmade bowls from the Late Hellenistic Context A and the Early Imperial Context B at Priene

are as frequent as imported examples from Ephesos. The number of other imported examples in the deposit is comparably low (Fig. 1).

The two contexts represent the largest assemblages of Hellenistic mould-made bowls at Priene, and greatly exceed the number of examples found elsewhere in the city. Considered together, these two contexts can provide a representative picture of locally produced mouldmade bowls and the spectrum of imported ones.<sup>16</sup>

### Characteristics of the local mouldmade bowls

#### **Fabrics**

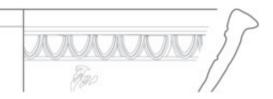
Several rim fragments of a mould from the South Stoa material attest to mould-made bowl production at Priene. <sup>17</sup> The mould shows an Ionian kyma in the rim zone, and judging from a related wall fragment, its middle zone was decorated with dolphins (Fig. 2). <sup>18</sup> The eggs are impressed without separating darts, a simplification of the motif, which made it easier to make the mould as well as the bowls. The omission of the separating element seems to be a typical feature of local mouldmade bowls from Priene.

Further mould fragments are known from the residential quarter in the northwest area of Priene.<sup>19</sup> Above all, the chemical analysis of the mould from the South Stoa confirms a local fabrication of Hellenistic mouldmade bowls. Its elemental composition fits the fingerprint of local pottery, which is based on X-ray fluorescence analyses of other pottery and raw clay.<sup>20</sup> At the same time, its chemical composition is clearly different from that of the Ephesian bowls.<sup>21</sup>

As a rule, the local mouldmade bowls<sup>22</sup> from Priene are shallow, hemispherical and have the slightly inturned rim that is typical of the Ionian bowls (Figs. 3-4). Sometimes the rim is upturned. The diameter varies from 10 to 15 cm, but usually measures around 12 cm. A common macroscopic characteristic of the local pottery of Priene is an extremely high quantity of mica



Fig. 2: Fragmentary mould from Context A at Priene



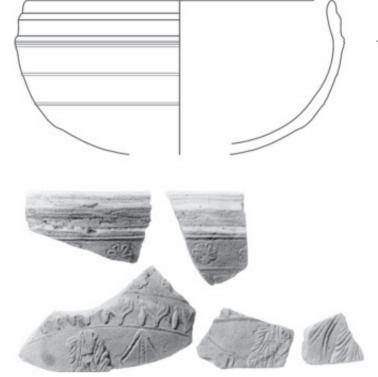


Fig. 3: Representative profile of local mouldmade bowl from Priene

in the clay, resulting in a soft fabric and, in most cases, an intensive reddish brown colour (e.g. body Munsell 7.5YR 6/6, slip Munsell 2.5YR 4/6).

# Motif repertoire<sup>23</sup>

# Main decoration zone, floral bowls

Floral bowls prevail among the local mouldmade bowls. There are two leaf motifs used in the main zones, which are not local inventions but are modelled on Ephesian examples.

## Typical leaf

The so-called typical leaf type depicts the leaf of the acanthus plant with an overhanging tip, and was adopted from Ephesos (Fig. 5.1).<sup>24</sup> One bowl (Fig. 3) shows the typical leaf alternating with lotus leaves (Fig. 5.2) and two rim zones, the upper with rosettes and the second with a Lesbian kyma.<sup>25</sup> It seems to be a direct copy of Ephesian examples, but it is unclear whether it was made in an imported or locally-produced mould.

Fig. 4: Representative profile of local mouldmade bowl from Priene



#### Lotus flower

The lotus flower, on the other hand, often occurs as a distinctive motif with straight sides on local mouldmade bowls. It is rounded at the top and pointed at the bottom, like a broad petal. The leaf is framed on each side by a slender overhanging element. The example shown here (Fig. 4) is the only local mouldmade bowl of which the profile and the combination of the decorative motifs can be reconstructed entirely including a double rosette at the bottom. In the rim zone there is an Ionian kyma, in this case with separating elements; in the middle zone are bunches of strongly stylised laurel leaves, with no exact parallels among the Ephesian examples; and in the main zone is the lotus flower motif alternating with a fernlike leaf (Fig. 5.3-4).

This lotus motif is also known from Ephesian workshops. Laumonier nicknamed it 'naja', the French word for cobra, as the framing leaves at the sides reminded him of snakes. In contrast to the Ephesian examples, the framing

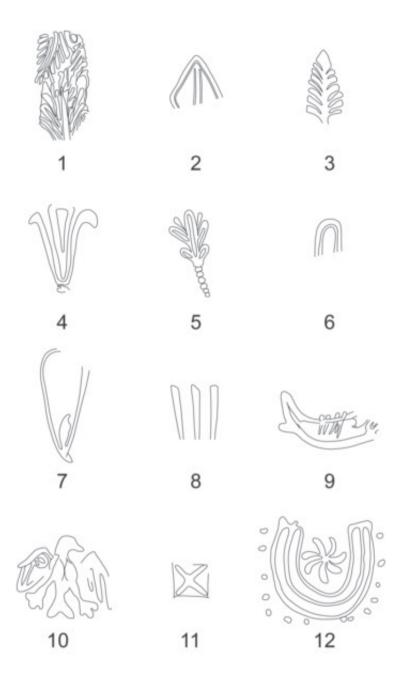


Fig. 5: Motifs in the main zones of local mouldmade bowls at Priene

elements are not twisted on the local mouldmade bowls from Priene. Again, one can argue either for a simplification or a local peculiarity.

This motif does not play a major role on examples from Ephesos where it was mostly used together with different motifs in the main zone. The combination with the fern-like leaf can therefore be seen as typical for floral bowls from Priene, or at least as typical of one local workshop. Floral bowls with the lotus flower motif alternating with fern leaves appear in both Contexts A and B.

### Ship (Fig. 5.9)

An example showing the same lotus motif, but this time in combination with a ship, is related to the floral bowls of Priene. No crew is visible on board the ship. The piece can be linked to a group of bowls with Homeric representations known, for example, from Olympia and Samos.<sup>27</sup> In Asia Minor, a ship motif is known on Ephesian mouldmade bowls as well as in a group formerly associated by Greifenhagen with Rhodos. Furthermore, a manned rowing boat occurs in a mould from the Aiolian city of Kyme.<sup>28</sup> Note that on the Samian example the ship and warrior are from different punches. In our case the ship motif was either used alone or an additional person has broken off.

### Palm tree (Fig. 5.5)

A distinctive palm tree motif, combined with single long petals in the main decorative zone, occurs in Context B (Figs. 5.5-6). The fabric is clearly local, but the single motifs as well as their combination also occur on a few pieces from Ephesos and Miletos.<sup>29</sup> Either they are imports from Priene, or the floral bowl with palm tree in combination with long petals was commonplace. The second example, from Insula E5, is a bowl with the palm tree motif alternating with the so-called typical leaf, its overhanging tip pointing to the right. The middle zone is filled with an Amazonomachy (Fig. 6.4),<sup>30</sup> which is so far unique at Priene.

### Eagle

An eagle is found on the wall fragment of either a relief bowl whose colour coating inside the vessel is lost or a closed vessel form (Fig. 5.10). Eagles appear on Ephesian bowls,<sup>31</sup> but in a slightly different style. Two moulds from Insula D2 may confirm that this eagle motif was typical for Priene. One mould shows the eagle motif as a bottom medallion, on the other it is integrated into the floral frieze of the main zone.<sup>32</sup>

### Main decoration zone, other motifs

Apart from floral bowls, other motifs in the main decorative zone are not frequent. There is only one tiny piece of an imbricate bowl that is presumably of local origin.<sup>33</sup> Bowls with long-petal leaves are known only in a single local example with very broad leaves and tongues surrounded by a simple frame (Fig. 5.7). Whereas at Ephesos, long-petal bowls with slender



Fig. 6: Motifs in the middle zones of local mouldmade bowls at Priene

tongues are common,<sup>34</sup> parallels for bowls with broad petals come from Sardis<sup>35</sup> and Labraunda,<sup>36</sup> other non-Ephesian workshops. Further attested motifs in the main decoration zone are needles (Fig. 5.8)<sup>37</sup> and the pine-cone pattern (Fig. 5.11).<sup>38</sup> From other contexts at Priene are known net<sup>39</sup> and shield decoration (Fig. 5.12).<sup>40</sup>

#### Middle zone

Individual examples, as mentioned, bear bunches of laurel leaves in the middle zone (Fig. 6.1). Context B enriches the repertoire with dolphins (Fig. 6.2)<sup>41</sup> and a little dog (Fig. 6.3),<sup>42</sup> which appear between the main and rim zone.

### Rim zone

Concerning the rim zones of local mouldmade bowls, half of the examples carry an Ionian kyma (Fig. 7.1). As already mentioned, eggs without separating elements are typical for Priene (Fig. 7.2). They were even impressed upside down in the rim zone (Fig. 7.3). The astragal motif is less common (Figs. 7. 4-5) and there are only three bowls with a Lesbian kyma (Fig. 7.8). Rosettes (Figs. 7.6-7), however, make up one-third of the rim motifs of local mouldmade bowls of the South Stoa material.



Fig. 7: Motifs in the rim zones of local mouldmade bowls at Priene

# Mouldmade bowls imported from Ephesos

Most of the relief bowls can be attributed to Laumonier's 'Ateliers ioniens'. According to scientific studies, the place of origin of these bowls is now identified as Ephesos. Most of the Ephesian bowls come from the so-called ΠΑΡ-Monogram atelier, half as many from the workshop of Menemachos, and only some bowls from the workshop of Philon. Other Ephesian workshops are not attested, although many fragments cannot be attributed.<sup>43</sup> In what

follows, the imported relief bowls from Ephesos are analysed according to their decorative motifs. $^{44}$ 

Imports from other production centres are either not present in these contexts (e.g., there are no imported relief bowls from Pergamon or Knidos at Priene) or are present in insignificant quantities.<sup>45</sup>

### Main decorative zone, floral bowls

There are only a few floral bowls among the imported mouldmade bowls from Ephesos. The only example with figural decoration in the main zone is a tiny wall fragment with two heads underneath the overhanging tip of a leaf. It is comparable with a floral bowl from the workshop of Menemachos with various motifs in the main zone, including, amongst others, a leaf with overhanging tip and inscribed scene showing a couple.<sup>46</sup>

The bottom of a black-glazed floral bowl is a typical product of the  $\Pi$ AP-Monogram workshop with alternating leaf motifs in a systematic rhythm. It shows the so-called typical leaf with overhanging tips pointing alternately to the left and to the right interspersed with oval and pointed lotus leaves. The rosette is formed of rounded and pointed leaves and belongs to one of the four most common types of the  $\Pi$ AP-Monogram workshop. The rosette is formed of rounded and pointed leaves and belongs to one of the four most common types of the  $\Pi$ AP-Monogram workshop.

#### Imbricate bowls

Imbricate bowls are decorated with strongly stylized leaves, with either rounded or pointed tips, arranged in scaled order on the vessel body. There are many examples from Ephesos in the South Stoa material.

A miniature imbricate bowl, which measures only a little less than 9 cm in diameter and a bit more than 5 cm in height, belongs to the category of greyware. It has a plain bottom, big rounded leaves as main decoration and an Ionian kyma in the rim zone. The vessel dimensions, the motif combination, as well as the size of the leaves find parallels amongst mouldmade bowls from the ΠΑΡ-Monogram workshop.<sup>49</sup> Amongst the imbricate bowls with rounded leaves occurs the only special form from Context A, a goblet with a high foot drawn separately on the wheel and added to a mouldmade bowl.<sup>50</sup> The vessel is fired in an oxidizing atmosphere except for the upper zone where the glaze has an irregular black hue. Its decoration consists of small leaves with rounded tips irregularly pressed into the mould.

Several examples of imbricate bowls with pointed leaves are also present. Two bowls with small sharply pointed leaves in the main decoration zone, which are separated from the Lesbian kyma in the rim zone by means of a row of points, are products from the workshop of Menemachos.<sup>51</sup> Imbricate bowls with pointed leaves are not only typical for Menemachos but also for Philon. The undecorated bottom of an imbricate bowl with pointed leaves presents the first characters of an inscription, incised before burning, which can be completed to the potter's name of Philon.<sup>52</sup>

### Long-petal bowls

In addition to the above-mentioned, the South Stoa material includes many Ephesian examples with long-petal decoration. They follow the common scheme showing simple framed tongues arranged with or without rows of points between the stylized leaves. One rim fragment shows a flower probably on top of a row of points between the petals. Its combination with a wave motif, the so-called running dog, in the rim zone most likely attributes this relief bowl to the  $\Pi$ AP-Monogram workshop. Plain bottoms without decoration are typical for long-petal bowls and are also common among the imported pieces.

### Bowls with other decoration

Ephesian mouldmade bowls with net, pine-cone or shield decoration are present in the South Stoa material with only one example each. The production of net-patterned bowls did not begin until the end of the 2<sup>nd</sup> century BC,<sup>57</sup> whereas pine-cone bowls are generally not frequently found.<sup>58</sup> The shield filling of our piece with a swirling petal consisting of nine arms is unique.<sup>59</sup>

#### Middle zones

There are no true figural bowls among the imported examples from Ephesos with humans or animals recurring in narrative scenes or in combination with leaves in the main decoration zone. Instead, the figural decoration is restricted to the middle zones between rim and main zone.

A wall fragment probably shows a warrior stepping forward overlapping a typical leaf in the main decoration zone. According to many known examples from Ephesos, the figure could belong to a battle between Greeks and Amazons, in which both of the combatants wear a short garment.<sup>60</sup> Erotes are more common. For example, on a rim fragment, underneath a row of rosettes with open leaves, an Eros likely drives a horse chariot.<sup>61</sup>

Besides human figures there are also animals attested on the imported Ephesian bowls as on one rim fragment with a dolphin beneath a kyma. From the so-called ΠΑΡ-Monogram workshop there are known bowls with antithetic dolphins facing a rosette like the ones on our fragment.<sup>62</sup> Furthermore, there are other motifs attested in the middle zones of imported Ephesian mouldmade bowls as tendrils,<sup>63</sup> bunches of laurel or oak tree leaves,<sup>64</sup> etc.

#### Rim zones

There are one or two, sometimes even more, rim zones. From the great variation of motifs and their combinations I briefly mention only those that do not occur on the local mouldmade bowls but do occur on the Ephesian examples. Among others a plaited band,<sup>65</sup> a meander<sup>66</sup> and a pattern of crossing point rows alternating with filled lozenges<sup>67</sup> are worth mentioning, the last one typical for Menemachos.

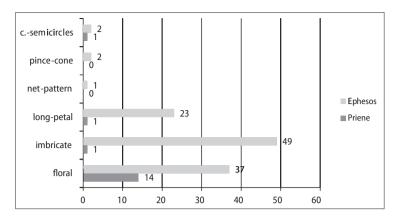


Fig. 8: Motifs in the main zone of the mouldmade bowls from Context A at Priene

### Conclusion

In a late Hellenistic deposit from the South Stoa of the Athena sanctuary (Context A), the imports from Ephesos form about two-thirds of the total mould-made bowls, whereas one-third are locally produced (Fig. 1).<sup>68</sup> Considering the close geographical position of the two cities, this is no surprise. In an Early Imperial context from the living quarter Insula E5 at Priene (Context B), the number of mouldmade bowls from Ephesos and Priene are equal (Fig. 1).<sup>69</sup> There seems to be a shift around the turn of the century in the proportions of imports and local products.

The statistical analysis of the motifs of the mouldmade bowls from the late Hellenistic Context A is quite instructive. In the main decoration zone (Fig. 8) most of the imported Ephesian examples show imbricate decoration (43%), while floral bowls take second place with 32%. Long-petal bowls also have an important share of 20% of the total bowls; whereas net, pine-cone and shield bowls do not exceed 1 or 2% of the total each. In contrast, the local bowls are almost exclusively decorated with floral motifs – often a lotus flower in combination with a fern-like leaf – while imbricate or long-petal bowls are as infrequent as net-pattern, pine-cone or shield bowls. In comparison to the

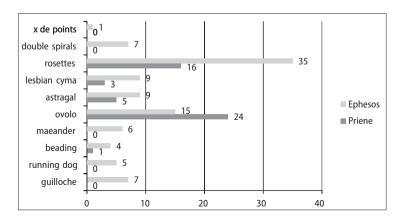


Fig. 9: Motifs in the middle zone of the mouldmade bowls from Context A at Priene

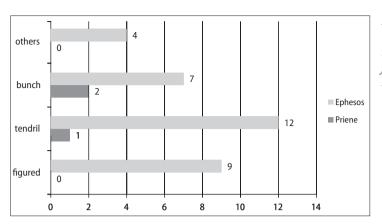


Fig. 10: Motifs in the rim zone of the mouldmade bowls from Context A at Priene

imported bowls from Ephesos, the very low share of imbricate and long-petal bowls among the local mouldmade bowls is striking. It seems, at least for the imbricate bowls, that the pattern was quite complicated to produce and that imbricate bowls were therefore more often imported. It was mainly floral bowls from local workshops that competed with Ephesian products. Among the examples from Context A, decoration in the middle zone was more common on Ephesian than local bowls (Fig. 9). The imports show tendrils, figures, bunches and other motifs in the middle zone; the local bowls only bunches of leaves and to a lesser extent tendrils, which were more complicated to produce. The same is noticeable with respect to the motifs in the rim zones (Fig. 10). Local mouldmade bowls are simply decorated with Ionian kyma, rosettes or astragals, while more detailed motifs, such as plated bands or meanders, as seen on the Ephesian examples, are completely missing. It was probably due to the soft quality of the local clay after burning that complex motifs were avoided or were simply impossible to produce.

To sum up, the Hellenistic mouldmade bowl production at Priene was deeply indebted to the Ephesian-Ionian circle.<sup>72</sup> The imports come almost exclusively from Ephesos and the local products depended strongly on them in their general form and decorative system. Even single motifs were mostly borrowed from the patterns of Ephesian mouldmade bowls, being either closely copied or simplified.<sup>73</sup> Nevertheless, the preference for peculiar motifs, their free arrangement in new combinations and single punches are the chief characteristics of the locally produced mouldmade bowls from Priene.

# Inventory numbers and credits for illustrations

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Fig. 1	N. Fenn
Fig. 2	Inv. PR 00 So1 (Context A)
Fig. 3	Inv. PR 00 K126 (Context A)
Fig. 4	Inv. PR 00 K515 (Context A)
Fig. 5.1	Inv. PR 00 K132 (Context A)
Fig. 5.2	Inv. PR 00 K126 (Context A)

Fig. 5.3 Inv. PR 00 K515 (Context A) Fig. 5.4 Inv. PR 00 K124 (Context A) Fig. 5.5 Inv. PR 02 K193 (Context B) Fig. 5.6 Inv. PR 02 K256 (Context B) Fig. 5. 7 Inv. PR 00 K127 (Context A) Fig. 5. 8 Inv. PR 02 K182 (Context B) Fig. 5. 9 Inv. PR 00 K136 (Context A) Fig. 5. 10 Inv. PR 03 K054 (Context B) Fig. 5. 11 Inv. PR 02 K188 (Context B) Fig. 5. 12 Inv. PR 01 K003 (Priene, Insula D2) Fig. 6. 1 Inv. PR 00 K515 (Context A) Fig. 6. 2 Inv. PR 02 K186 (Context B) Fig. 6. 3 Inv. PR 02 K187 (Context B) Fig. 6. 4 Inv. PR 02 K193 (Context B) Fig. 7. 1 Inv. PR 00 K121 (Context A) Fig. 7. 2 Inv. PR 00 K122 (Context A) Fig. 7. 3 Inv. PR 00 K129 (Context A) Fig. 7. 4 Inv. PR 00 K120 (Context A) Fig. 7. 5 Inv. PR 02 K256 (Context B) Fig. 7. 6 Inv. PR 00 K126 (Context A) Fig. 7. 7 Inv. PR 02 K256 (Context B) Fig. 7. 8 Inv. PR 00 K126 (Context A) Fig. 8-10 N. Fenn

### **Notes**

- 1 The linguistic revision of the paper I owe to Philip Kiernan, SUNY Buffalo.
- 2 For Priene in general, see Wiegand & Schrader 1904; Kleiner 1962; Rumscheid 1998; Raeck 2003; 2005.
- 3 Zahn 1904, 401-408, 410-421 nos. 20-46 figs. 528-531. The excavations were undertaken by the Königliche Museen Berlin between 1895 and 1899.
- 4 Zahn 1904, 399. 401.
- 5 Except Raeder 1983, no. 154, all relief bowls had already been published by Zahn, see Raeder 1983, 42-46 fig. 9a colour pl. II. He is at least right in excluding a Pergamene origin of the bowls.
- 6 I would like to thank Dipl.-Ing. U. Kästner for the opportunity to study the fragments.
- 7 Ephesian examples are most likely Zahn 1904, 401-404, 406 nos. 20, 21, 23, 28, 29, 33, figs. 528-530. Compare especially the colour plate Raeder 1983, no. 142, pl. II. It underlines the quality of the Ephesian bowls.
- 8 Courby 1922, 401, nos. 23, 26, 27, fig. 85. Only the first one is probably an import from Ephesos, the other two are products of Priene.
- 9 Schäfer (1968, 7) spoke of a "local variation" of relief bowls at Priene.
- 10 The subject of my paper is linked to my thesis "Studies on provenance and production of Late Hellenistic and Early Imperial pottery at Priene/Turkey". I worked on the material within the graduate school called "Archäologische Analytik" at

- the Johann Wolfgang Goethe-Universität Frankfurt am Main. I finished my work in summer 2007, and it is currently being prepared for publication.
- 11 Most of the material comes from the same context, which I communicated at the 7th scientific meeting on Hellenistic pottery at Aigion, Greece in 2004 (Fenn 2011). For a short characterisation, see Fenn 2009, 102.
- 12 Context A yielded a most probably residual single fragment of an imported Attic bowl with swirling petals separated by jewelled lines, cf. Thompson 1934, 383, no. D 41, fig. 72; p. 411, no. E 85, fig. 97. Context B yielded no Attic imports.
- 13 Only two floral bowls may be identified as imports from Miletos.
- 14 The question remains as to why there are still a lot of mouldmade bowls in this Early Imperial complex: either they are all residual or they rather document a production throughout the 1st century. I would like to put forward the hypothesis that after the decline of the Ephesian mouldmade bowl production the potters from Priene had to fill the gap for their local market.
- 15 For a short characterisation, see Fenn 2008, 249; 2009, 102.
- 16 Mouldmade bowl fragments turn up in almost every sondage at Priene, but never before in these quantities. An overall study of every find is still missing and cannot be done in this context. Yet, it would add only a few motifs and combinations. The same goes for the material from the old excavations.
- 17 See Fenn 2009, pl. 1a; 2011.
- 18 This identification is due to Sergej Kovalenko, Department of Coins and Medals, Pushkin Museum of Fine Arts, Moscow.
- 19 Rumscheid & Rumscheid 2007.
- 20 See Fenn 2009, 102-106, figs. 1-4. The chemical fingerprint of all supposed local samples shows, for example, low silicon and high magnesium values depending on the soft and micaceous fabric. The clay does not seem to have been prepared by the potters because there is quite a variation of the element concentrations.
- 21 See Fenn 2009, 108, fig. 6. The geological situation in southern Ionia is such that it was not self-evident that the local production of Priene could be easily distinguished from the products of the neighbouring cities. Comparison was attempted between existing reference data and my own analyses of imported examples. While the fabrics from Ephesos and Priene are chemically clearly distinguishable, the macroscopic identification depends on qualitative differences.
- 22 Apart from the hemispherical bowls, one other special form is attested in a single sherd in the Late Hellenistic complex, probably the bottom fragment of an open vessel judging by the colour coating on the interior. It was made from a bowl by adding a foot. Unfortunately, there is no further decoration preserved on it apart from the bottom rosette.
- 23 The classification of the decoration types follows the structure of Laumonier's (1977) catalogue in order of main, middle, and rim zones and their motifs. The focus is on the locally used punches, not their combinations, which seem endless. As only one bottom is entirely preserved (Fig. 3) the bottom motifs are not considered.
- 24 For the typical leaf, see Laumonier 1977, 129; Rogl 2001a, 100-101.
- 25 Laumonier 1977, 135, no. 449, pl. 30; p. 142, no. 1180, pl. 32 (both Lesbian kyma rosettes floral zone).
- 26 For this combination, see Laumonier 1977, 123-124, no. 395, pl. 28 (Annex des Atelier du Comique à la canne); pp. 146-147, nos. 1432, 478, pl. 33; p. 163, no. 1143, pl. 36 (Monogram).
- 27 Greifenhagen 1963, figs. 46.4, 50, 52, 55; Laumonier 1977, 102, nos. 3386 and 3399, pl. 23; Hausmann 1986, 198-202, fig. 1, pl. 36, 4 (Ephesian relief bowls); Greifen-

- hagen 1963, 55-57, fig. 59 (Calenian bowls); Hausmann 1996, 52 and 55, pl. 18 (mouldmade bowl from Elis). Maybe it is an abbreviation of Odysseus on his Skylla adventure.
- 28 Bouzek & Jansová 1974, 47, 54, no. MB 20, figs. 1, 9, pl. 4 (mouldmade bowl from Kyme).
- 29 From Delos: Laumonier 1977, 268, no. 2038, pl. 62 (Philon); p. 318, no. 955, pl. 75 (Atelier du Plagiaire). From Ephesos: Dereboylu 2001, 34, no. RB 53/81, pls. 16, 109; 25, 2. Laumonier 1977, 384, no. 4840, pl. 92. From Miletos: Kossatz 1990, 38, no. M 249, pl. 13; p. 70, no. M 503, fig. 33, pl. 12; pp. 79-80, no. M 666, fig. 38, pl. 13.
- 30 Laumonier 1977, 143, nos. 3352, 3396, pl. 32 (Monogram); p. 304, no. 2426, pls. 71, 128 (Heraios).
- 31 For an eagle motif used in different Ephesian workshops, see Laumonier 1977, 166, nos. 3043, 9204, pl. 37 (Monogram); p. 185, nos. 9318, 3049, pl. 40 (Monogram); p. 226, nos. 3038, 3039, 3041, 8917, pl. 50 (Apollonios); p. 306, no. 3482, pls. 72, 129 (Heraios). Their bodies appear in profile as well, but the birds stride to the right or left. The eagle motif from Priene has a more heraldic character.
- 32 See Rumscheid & Rumscheid 2007, figs. 1 (the two moulds together with our bowl fragment), 5-10 (no. 1 with eagle as medaillon), 11-15 (no. 2 with eagle in the main zone).
- 33 Imbricate bowls were being produced only in small quantities at the Demetrios workshop in the Bosporan Kingdom, too, see Kovalenko 1996, 53-54.
- 34 Comparably broad leaves: Laumonier 1977, 196, no. 4676, pl. 43.
- 35 Rotroff & Oliver 2003, 124, no. 521, pl. 90.
- 36 Hellström 1965, 23, 64-65, no. 151, pl. 11.
- 37 Laumonier 1977, 298, no. 4997, pl. 69.
- 38 Laumonier 1977, 482, no. 9736, pl. 112.
- 39 See mould, Rumscheid & Rumscheid 2007, 320-321, no. 4, figs. 22-27 from Insula D2.
- 40 This example comes from Insula D2, too, see Rumscheid 2003, 371, fig. 38. Compare also Zahn 1904, 406, no. 34, fig. 530.
- 41 Laumonier 1977, 185, nos. 8806, 3018, pls. 40, 126 (annexe of the Monogram workshop); p. 352-353, nos. 8581, 8558, 3006, pl. 84 (CI workshop); Raeder 1983, 45, no. 156, fig. 9a on top (local).
- 42 Laumonier 1977, 151, no. 3053, 3054, pl. 34; p. 153 no. 3058, pl. 34; p. 156, no. 3050, pl. 35, 125 (all from the Monogram workshop).
- 43 The assignment of sherds to workshops was only successful for some of the mouldmade bowls as most of them are not preserved well enough, and a comprehensive catalogue of the Ephesian motifs constitutes a desideratum.
- 44 The Late Hellenistic material from the South Stoa of the Athena sanctuary provides a sound statistical basis. With the exception of one goblet all other fragments represent bowls.
- 45 For sporadic pieces from Athens and Miletos, see above.
- 46 See Laumonier 1977, 34, no. 1343, pl. 3.
- 47 For the typical leaf, see above, footnote no. 24.
- 48 See Laumonier 1977, 208.
- 49 Laumonier 1977, 130 (sizes), 189, no. 100, pl. 41 (example). Compare also a mould from Ephesos: Rogl 2001a, 108, no. RB 9, pls. 61, 67.
- 50 For goblets from the Monogram workshop, see Laumonier 1977, 140, no. 589, pls.

- 31, 132; p. 176, no. 588, pl. 38. Unfortunately, he did not publish the "Série des Grands vases" so that there is almost no comparison.
- 51 See Laumonier 1977, 50, no. 5031, pl. 10.
- 52 See Laumonier 1977, 247, 253, no. 8689, pl. 56.
- 53 Long petal bowls are one of the typical products from the workshop of Philon, although without preserved rim zone decoration they cannot be identified with certainty, see Laumonier 1977, 247.
- 54 Laumonier 1977, 455, nos. 4831, 8677, pl. 105; Gassner 1997, 75, no. 216, pls. 15, 84, 79; no. 219, pls. 15, 84.
- 55 See Laumonier 1977, 207, no. 9544, pl. 47.
- 56 Dereboylu 2001, 30.
- 57 For Ephesos, see Gassner 1997, 82-83, no. 249, pls. 19, 86 (only one example from the end of the 2nd century BC); for Athens, see Rotroff 1982, 39 (examples from the 1st century BC).
- 58 See Gassner 1997, 81, nos. 244, 245, pls. 19, 86; Dereboylu 2001, 35.
- 59 See Laumonier 1977, 484 (swirling petals with four up to eight elements); Rogl 2001, 108, Kat. RB 11 Taf. 62, 67 (mould with swirling petal composed of five arms).
- 60 Laumonier 1977, 139-140, nos. 3343, 3441, pl. 31.
- 61 Laumonier 1977, 39, no. 3141, pl. 5; p. 43, no. 1396, pl. 8 (both workshop of Menemachos).
- 62 Laumonier 1977, 165, no. 3010, pl. 37 (dolphin to the right); no. 9620, pl. 37 (dolphin to the left).
- 63 For the classical type, see Laumonier 1977, 203. Compare with the mould fragment Tuluk 2001, 68, no. 28, pl. 44.
- 64 Laumonier 1977, 206 ("bouquets de laurier ordinaire"). One example with oak tree leaves is without comparison.
- 65 Compare for example Laumonier 1977, 207, no. 8024, pl. 47.
- 66 See moulds from Ephesos: Rogl 2001, 109, nos. RB 15, RB 16, pls. 63, 68; p. 110 no. RB 19, RB 21 pls. 64, 69; Tuluk 2001, 69, no. 31, pl. 45.
- 67 E.g. from the workshop of Menemachos: Laumonier 1977, 62, no. 8742, pl. 13 ("X de points alternant avec des losanges à point central"). Compare from Ephesos: Mitsopoulos-Leon 1991, 74, no. D 60, pl. 88.
- 68 The situation seems comparable at Knidos where quantified deposits from the beginning of the 1st century BC contain two to three times as many Ionian as Knidian relief bowls, see Kögler 2005, 51. At Iasos, the Ephesian-Ionian production is the most frequent one, see Pierobon-Benoit 1997, 376.
- 69 Compare the situation at Pantikapaion where Ionian bowls represent 50% of the total finds, but where other imports else from Asia Minor, Pergamon, Samos, Rhodos (?), Athens and the workshop of Kirbeis are also present, Bouzek 1990, 78, 80 f., figs. 19 left, 32, 33, pls. 17-22.
- 70 Notice the different situation on the Black Sea littoral, where more than 80% of Bosporan relief bowls are decorated with the chronological late motifs like long petal, shield and net-pattern ornament, see Kovalenko 1996, 56.
- 71 At least the mould attests local bowls with dolphins in the middle zone.
- 72 See Rogl 2001a, 105-106.
- 73 The same goes, e.g., for the production of Hellenistic mouldmade bowl production in the Bosporan Kingdom, where "the influence of the Ionian specimens is evident," see Kovalenko 1996, 54. He speaks of monotony, simplified motifs and nothing new or original.