

# Kolonna on Aigina: The Development of a Fortified Late Middle and Early Late Bronze Age Settlement

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**Abstract:** The present paper summarises research and excavation work regarding the late Middle Bronze Age and early Late Bronze Age development of the prehistoric settlement at Kolonna on Aigina. The starting point is the studies undertaken between 2002 and 2011 in the area of the large building complex of advanced Middle Bronze Age date. There the gradual development of Aiginetan pottery production and the sudden appearance of a clear period of ‘Minoanisation’, manifested in the monumental building, Minoan imports, and the local production of Minoanising pottery in the advanced Middle Bronze Age, could be demonstrated by stratigraphic observations. At the beginning of the Late Bronze Age a new trend in terms of pottery production and consumption is traceable, characterised by the appearance of Aiginetan and Mainland Bichrome-Painted pottery and other classes of pottery, including very small amounts of Mycenaean pattern-painted pottery. This process of the ceramic ‘Mycenaeansation’ is completed with the adoption of Mycenaean forming techniques in LH IIIA and seems enduring.

**Keywords:** Kolonna, Aigina, Middle Bronze Age, Late Bronze Age, Mycenaeanisation

## Introduction

The aim of this paper is to provide an overview of research and excavations at Kolonna on Aigina<sup>2</sup> concerning the second part of the Middle Bronze Age and the beginning of the Late Bronze Age.<sup>3</sup> The site of Kolonna is a major Early and Middle Bronze Age centre of the central Aegean that flourished after the middle 3<sup>rd</sup> millennium BC.<sup>4</sup> The ideal geographical setting of the island between the mainland, the Cycladic islands and Crete as well as the continuous habitation of the Kolonna settlement are the key elements for approaching the phenomenon of Kolonna.<sup>5</sup> The settlement has a basically planned regular layout from the late 3<sup>rd</sup> millennium BC and a fortification system that was exceptional in the central Aegean for a couple of centuries. The internal organisation of the site does not seem to change much after the developed Early Bronze III

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<sup>2</sup> Research and excavations at Kolonna relevant for this paper were part of the SCiem 2000 project. Excavation reports on the 2002 to 2010 excavations, see Felten et al. 2003, 54–63; Felten et al. 2004, 114–126; Felten et al. 2005, 23–35; Felten et al. 2006, 29–38; Felten et al. 2007a, 111–119; Felten et al. 2008, 66–76; Felten et al. 2009, 98–108; Felten et al. 2010, 59–65; Felten et al. 2011, 61–72.

<sup>3</sup> General on Middle and Late Bronze Age Kolonna on Aigina: Hiller 1975; Walter – Felten 1981; Wohlmayr 1989; Rutter 1993b, 775–780; Wohlmayr 2000; Lindblom 2001; Gauß 2006; Gauß 2007a; Gauß – Smetana 2007a; Gauß – Smetana 2007b; Wohlmayr 2007a; Wohlmayr 2007b; Gauß – Smetana 2008; Deger-Jalkotzy 2009; Felten 2009; Gauß 2010; Gauß – Smetana 2010; Pruckner 2010; Gauß et al. 2011a; Pruckner 2011a; Pruckner 2011b; Gauß 2018. Regarding Late Bronze Age research on Aigina apart from Kolonna, see Kalogeropoulos 2005; Gauß 2007b; Sgouritsa 2009; Sgouritsa 2010; Eustratiou – Polychronakou-Sgouritsa 2016; Polychronakou-Sgouritsa 2012; Salavoura 2014; Sgouritsa 2015; Salavoura 2018; Vokotopoulos – Michalopoulou 2018; Gauß 2019a; Gauß 2019b; Gauß – Knodell 2020. Regarding research on the absolute chronology at Kolonna, see Wild et al. 2010.

<sup>4</sup> On Early Bronze Age II Kolonna, see in particular Walter – Felten 1981, 12–22; Felten 1986; Berger 2003; Berger 2004; Felten – Hiller 2004; Berger 2011; Berger – Gauß 2016.

<sup>5</sup> The importance of its geographical setting has been stressed regularly, see with further references Klebinder-Gauß – Gauß 2015.

phase of Kolonna V, whereas the fortification system is continuously modified, strengthened and extended.<sup>6</sup>

Previous research regarding Bronze Age Kolonna often focused on the definition of the local production of pottery, the distribution of Aiginetan pottery and the range of imports<sup>7</sup> as well as on the definition of a stratigraphically well-based ceramic development and its link with the sequence of settlement and fortification phases.<sup>8</sup> Occasionally, however, questions have been raised, such as to what extent Kolonna is a Helladic or a Mycenaean site,<sup>9</sup> and furthermore, if it is, when did it become Helladic or Mycenaean, and is it possible to characterise this process in more detail?

### Middle Bronze Age Kolonna

The middle and beginning later part of the Middle Bronze Age (this is Kolonna settlement Phase IX) is a clear peak of importance in our current understanding of the site.<sup>10</sup> A new massive fortification wall was built in front of the primary fortification wall and on top of the first line of defence.<sup>11</sup> This change in defensive strategies resulted in a significant raising of the entrance ways and the level of the gateways leading to the innermost settlement.<sup>12</sup> Furthermore, and in consequence thereof, the original main fortification wall of the Kolonna VIII settlement now formed a platform that was used for housing (Fig. 1).<sup>13</sup> The newly built Kolonna IX fortification was unique in two respects: the wall comprised three individual parts and the building technique consisted of a combination of stone and mudbrick in the lower zone and half-timber and mudbrick in the upper zone which was not previously attested at Kolonna.<sup>14</sup> The reasons for these changes in building techniques are unknown and seem not to have had a long-term impact. It is, however, noteworthy that new features in the material culture, such as the local production of Minoan-style pottery (see below), are traceable roughly at the same time, and one wonders if external influences may (in part) have also stimulated these presumably short-lived building techniques.

Another major change at that time is the extension of the settlement towards the east and its subsequent fortification.<sup>15</sup> The layout, phasing, construction details, and the date of the eastern extension and its fortifications are currently under study,<sup>16</sup> and several architectural phases have

<sup>6</sup> Walter – Felten 1981; Felten – Hiller 2004; Gauß 2010. The Bronze Age fortification system is summarised in Gauß 2018; Gauß 2019b.

<sup>7</sup> Rutter 1993b, 776, 777, fig. 12; Lindblom 2001; Mommsen et al. 2001a; Gauß – Kiriatzi 2011; Pruckner 2011a; Pruckner 2011b; Pruckner 2013; Gauß et al. 2015a; Klebinder-Gauß – Gauß 2015; Lindblom et al. 2015; Gauß et al. 2017; Gauß – Knodell 2020.

<sup>8</sup> E.g. Gauß – Smetana 2007a; Gauß – Smetana 2007b; Gauß – Smetana 2008.

<sup>9</sup> Regarding the Middle Bronze Age, see Stefan Hiller's statement: "Although Aegina is certainly part of the Helladic, i.e. mainland cultural sphere, vivid Minoan and Cycladic relations exist, especially during the Middle Bronze Age" (Hiller 1989, 139). See also Jeremy B. Rutter's statement on the special role of Kolonna: "The careful disentanglement by Walter and Felten of several stages of EH III and MH defensive systems at the site, together with their presentation of some of the ceramic evidence for dating them, has made abundantly clear how atypical Kolonna is for either a mainland Greek or a Cycladic site of the later third and early second millennia B. C." (Rutter 1993b, 776 and n. 135).

<sup>10</sup> Wild et al. 2010, 1020, tab. 3; Gauß 2019a, 1109, fig. 2.

<sup>11</sup> Walter – Felten 1981, 72–82; 74, fig. 58; 76, fig. 60; Gauß 2018, 52.

<sup>12</sup> Walter – Felten 1981, 74, fig. 58.

<sup>13</sup> Walter – Felten 1981, 72, fig. 56; Gauß 2018, 52. However, one has to note that remains of the houses found on top of the fortification wall and attributed to the settlement phase of Kolonna IX lack associated finds.

<sup>14</sup> Walter – Felten 1981, 76, 81, figs. 60–61, 65, pl. 64.2. For general remarks on this building technique, see Naumann 1971, 91–117; Küpper 1996, 67–69.

<sup>15</sup> First evidence for settling outside the main fortifications are attributed to the Kolonna VIII settlement phase (Walter – Felten 1981, 70), but its size is yet unknown.

<sup>16</sup> The documentation and study of the eastern extension started in 2012 under the direction of Katja Sporn and Lydia Berger and have been continued since 2014 by the late Wolfgang Wohlmayr and L. Berger. Regarding previous research, see Wohlmayr 1989; Wohlmayr 2000; Kilian-Dirlmeier 1997, 67–82; Wohlmayr 2007a.



Fig. 1: Kolonna on Aigina. The settlement of Kolonna IX with its fortifications and the large building complex (after Walter – Felten 1981, pls. 10–11, with additions; plan: H. Birk, W. Gauß; ÖAW-ÖAI)

already been noted by the excavators in the 1970s.<sup>17</sup> The system of communication between the main settlement and the eastern extension are not yet clear, nor are the number or layout of the gateways of the extension. The effort undertaken to separate and protect this relatively small extension is notable, and the location of a potter's kiln here may indicate that the eastern extension functioned as a separate, especially protected workshop area.<sup>18</sup> Another remarkable feature of that time is the burial of a member of the social elite with exceptionally rich gifts in a shaft grave situated in front of the fortifications of the settlement extension.<sup>19</sup> The 22- to 26-year-old man was buried with precious metal gifts, a gold diadem, a sword and a dagger, and other metal finds as well as a number of ceramic containers.<sup>20</sup> The photograph and plan of the grave after its recovery may cast doubt on the reconstruction of a boar's tusk helmet.<sup>21</sup> It seems as if the boars' tusks were found next to and alongside the sword, partly also lying under the sword and on top of

<sup>17</sup> Walter 1976, 151; Walter 1977, 185–186.

<sup>18</sup> Interestingly, Valerios Stais already assumed that this part of the settlement may have been used as a workshop area. Noteworthy is the fact that a Minoan type potter's wheel-head of non-local clay was found next to the kiln together with locally produced pottery of Minoan type during the excavations of the 1920s (Gauß 2006, 441 with references; Gauß – Kiriati 2011, 176–177). A life-size model of the reconstructed kiln is displayed in the Museum at Kolonna (Walter 2001, 124–125, fig. 110).

<sup>19</sup> Walter 1981/1982; Walter 1981/1983; Hiller 1989, 139; Kilian-Dirlmeier 1997; Hubert 2016.

<sup>20</sup> Walter 1981/1982; Walter 1981/1983; Hiller 1989, 139; Kilian-Dirlmeier 1997, 13. Five complete or almost complete vessels were found at the lower end of the grave: three matt-painted Aiginetan jars (Hiller 1989, 139; Kilian-Dirlmeier 1997, 66, cat. no. 19) and two beaked jugs of Cycladic, presumably Keian origin (Hiller 1989, 139; only one jug is illustrated by Kilian-Dirlmeier 1997, 57, cat. no. 12, figs. 29.12; 33.12). Some of the other pottery illustrated by Kilian-Dirlmeier joins with fragments found by the pre-World War II excavations outside the grave shaft. It needs to be determined whether these pieces were part of the original burial gifts, or whether they originate from the fill of the shaft, as already pointed out by Hiller 1989, 139.

<sup>21</sup> Kilian-Dirlmeier 1997, 35–40, fig. 3.1, pl. 1; Buchholz 2010, 122, 196 and n. 627, fig. 110.

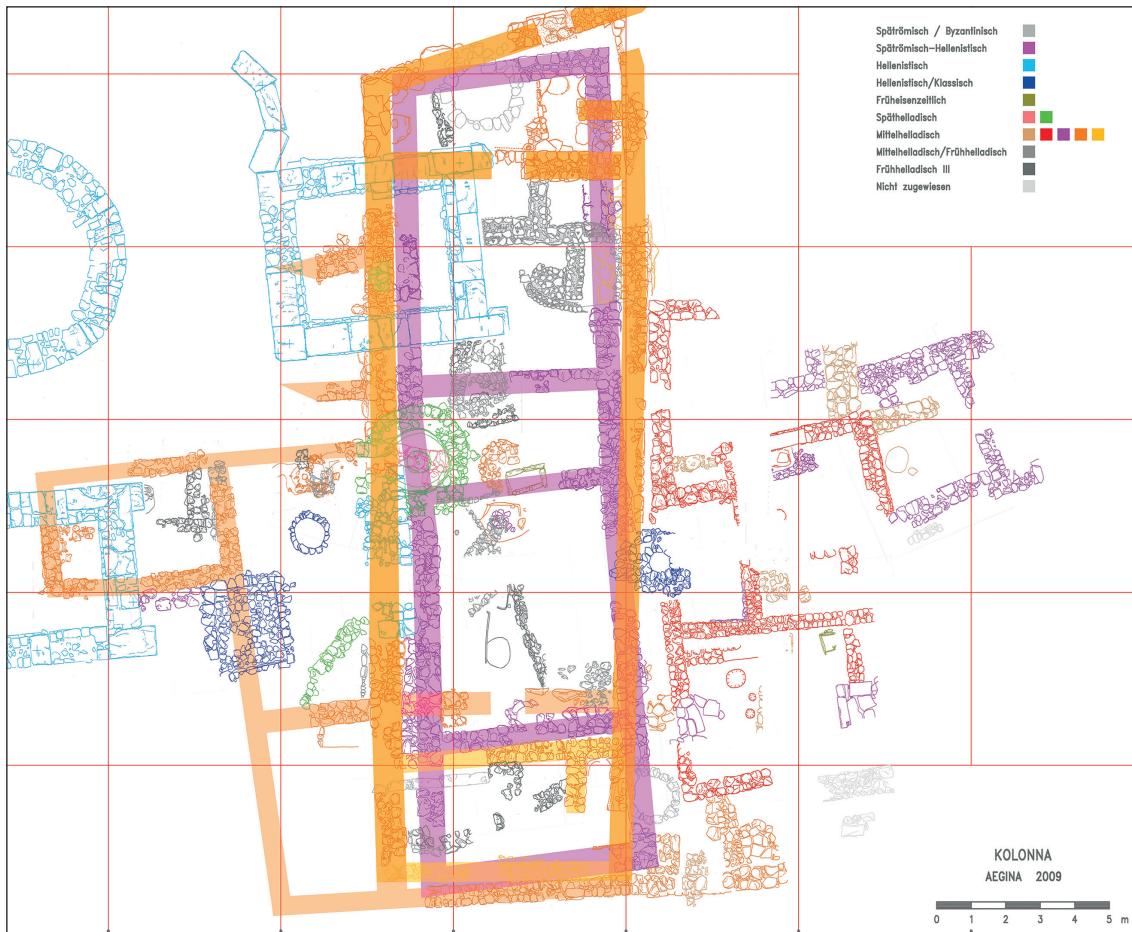


Fig. 2: Plan of the large building complex with its main architectural phases (plan: H. Birk, W. Gauß; ÖAW-ÖAI)

the right arm.<sup>22</sup> In particular, the apparent arrangement of a number of boars' tusks in pairs at the lower part of the sword may also indicate alternative explanations, e.g. as part of the scabbard, chape or chest band.<sup>23</sup>

The most important building inside the innermost fortifications, the so-called large building complex, is by far the largest individual building at the site and presumably the administrative centre of the settlement.<sup>24</sup> Very large limestone blocks were used for its lowermost courses, and three major modifications can be distinguished within its period of use (Figs. 2–3). Based on the grave goods, the aforementioned shaft grave is contemporary with the second phase of the monumental building.<sup>25</sup>

<sup>22</sup> Kilian-Dirlmeier 1997, 35: "Die Eberzahnlamellen waren, wie die Fundlage zeigt, im Verband, d.h. auf eine Unterlage aufgenäht, ins Grab gelegt worden. Nach dem Befund – es liegen Plättchen auf den Knochen des rechten Arms und unter der Schwertklinge – muß aber mit Verlagerungen innerhalb der Grabkammer gerechnet werden."

<sup>23</sup> See Kilian-Dirlmeier 1997, fig. 3.1, pl. 1. Regarding scabbards, chapes or chest bands, see Buchholz 1980, 239–240; note also the reference to Odysseus' scabbard of ivory (Hom. Od. 8, 404); Buchholz 2012, 170–173, 201. On Early Bronze Age Cycladic male marble figurines with shoulder strap see e.g.: Zervos 1957, fig. 253; Renfrew 1969, 18, cat. nos. IV.C.17–19; Buchholz – Karageorghis 1971, 100, cat. no. 1201; Getz-Preziosi 1987, 20, fig. 11f, g; pl. 11A1, 12A1; Getz-Gentle 2001, pl. 49; Badisches Landesmuseum Karlsruhe 2011, 281–282, cat. no. 73.

<sup>24</sup> Gauß et al. 2011a.

<sup>25</sup> Hiller 1989, 39: "According to the pottery deposited in the grave it should be dated to the developed MH period, but – in my opinion, at least – still before the shaft grave period proper." Kilian-Dirlmeier 1997, 66: "Der Kantharos lokaler Herstellung (Abb. 27, 10; 32, 10), der minoische Brückenskyphos (Abb. 27, 16; 28, 16), die Schnabelkanne (Abb. 29, 12; 33, 12) und die Schale von Melos (Abb. 31, 15; 32, 15) datieren die Bestattung in die Zeit



Fig. 3: The large building complex during the excavations: 1. View from the north towards the south; 2. View from the west towards the east (photos: W. Gauß, M. del Negro)



Fig. 4: Kolonna on Aigina. The settlement of Kolonna X with its fortifications and the large building complex (after Walter – Felten 1981, pls. 10–11, with additions; plan: H. Birk, W. Gauß; ÖAW-ÖAI)

Regarding the material culture remains, the evidence for a selective adoption of Minoan practices that are particularly associated with the monumental building is most interesting.<sup>26</sup> In terms of pottery production the traditional hand-built pottery with prefireing marks still constituted the absolute bulk of the material.<sup>27</sup> At the same time, wheelmade pottery made of local clay is also manufactured in small quantities and in a limited repertoire of shapes, mainly small-sized tableware.<sup>28</sup> The shapes of this new kind of pottery are unattested in the previous and contemporary production of hand-built vessels and furthermore, they lack potter's marks, suggesting that the production was differently organised. Interestingly, the use of the potter's wheel and of rotational kinetic energy<sup>29</sup> in vessel forming was not adopted by the traditional potters on Aigina.<sup>30</sup> As far as we can tell, the technique was used only on a small scale in this phase of the Middle Bronze Age for the specific production of Minoan-type pottery.<sup>31</sup> Afterwards it seems to disappear and, at the same time, the number of Cretan imports drops. One of the reasons for the rejection of the new foreign technology could have been associated with its consumption by a small part of the population, the local elite, in its attempt to emulate selected aspects of a Minoan lifestyle.<sup>32</sup> Only

der Siedlung IX von Kolonna, der Älteren Paläste auf Kreta und der Siedlung II von Phylakopi auf Melos. Nach der konventionellen Terminologie ist dies die Stufe MH/MM/MK II".

<sup>26</sup> Gauß – Kiriati 2011, 176–177; Lindblom et al. 2015, 228–232. Regarding diet and subsistence, see also Forstenpointner et al. 2010; Galik et al. 2010; Galik et al. 2013.

<sup>27</sup> The study of the finds from the 2002 to 2010 excavations inside the large building complex is not yet finished, therefore no absolute numbers in sherd counts and percentages can be provided.

<sup>28</sup> Gauß – Smetana 2007a, 64–65; Lindblom et al. 2015, 241, fig. 5.

<sup>29</sup> E.g. Roux – Corbetta 1989; Courty – Roux 1995; Roux – Courty 1998; Roux – Jeffra 2015.

<sup>30</sup> Lindblom et al. 2015, 229.

<sup>31</sup> Lindblom et al. 2015, 232.

<sup>32</sup> Lindblom et al. 2015, 232.



Fig. 5: Pottery associated with the large building complex of the late Middle Bronze Age  
(photos: W. Gauß, R. Smetana; ÖAW-ÖAI)

much later, in the course of the Late Bronze Age, and then most likely under the influence of workshops on the Mycenaean mainland, was the potter's wheel adopted by local potters and this time used more extensively.<sup>33</sup>

The later and final stages of the Middle Bronze Age and the beginning of the Late Bronze Age correspond to the Kolonna X settlement phase.<sup>34</sup> The monumental building was extended, presumably at the beginning of the Kolonna X settlement, i.e. in the later stages of the Middle Bronze Age, and covers an area at least 5–10 times larger than other contemporary houses at the site (Fig. 4).<sup>35</sup> The fortifications of Kolonna X are less clear and comprise reinforcements of Kolonna IX walls, as well as major changes in the access to the inner settlement.<sup>36</sup> Posterns and narrow passages between the Kolonna IX settlement area and the Kolonna IX fortification wall were blocked and filled, and thus enlarged the settlement area considerably. As a consequence, new, higher gateways connected the eastern extension of the settlement and the innermost settlement, but the form of the gates remains unknown.<sup>37</sup>

Although a number of contexts from the monumental building and other residential areas can be attributed to this phase, only a few complete vessels could be mended so far (Fig. 5).<sup>38</sup> In this phase, interestingly there is almost no evidence for ceramic Minoan imports and the local Minoan type production seems to have stopped. Furthermore, there is no clear indication for the use of the wheel in the local production, and imported 'Minoanising' sand-tempered pottery is very rare.<sup>39</sup> Keian imports are far less common than in the preceding phases, whereas Thera/Melian pottery seemingly increases and Cycladic panelled cups become common.<sup>40</sup> Interestingly this shape is immediately adopted and produced in local clay on Aigina (Fig. 5.1).<sup>41</sup>

<sup>33</sup> Lindblom et al. 2015, 232 n. 30 and below. See also Gauß 2007a; Gauß – Kiriatzi 2011, 220–227, 231–232, 234–236; Gauß et al. 2017. On the use of the wheel in Mycenaean times, see also Berg 2013.

<sup>34</sup> Walter – Felten 1981, 83–85.

<sup>35</sup> Gauß – Smetana 2010, 169; Gauß et al. 2011a, 76.

<sup>36</sup> Walter – Felten 1981, 83; Gauß 2018, 56.

<sup>37</sup> On the situation at Kolonna X, see Walter – Felten 1981, 82–85; Gauß 2018, 52.

<sup>38</sup> Fig. 5; see also Gauß et al. 2011a, 83, fig. 4.2.

<sup>39</sup> Walter – Felten 1981, pl. 123, cat. no. 454; Gauß – Smetana 2007a, 78, fig. 10 no. XXVIII-8; Gauß – Kiriatzi 2011, 178–180. General on 'Minoanising' sand-tempered pottery: Kiriatzi 2010.

<sup>40</sup> Cycladic panelled cups: Gauß – Smetana 2007a, 65, 78, fig. 10 no. FG 87-11; 79, fig. 11 nos. Q3/40-8, Q3/50-1.

<sup>41</sup> Walter – Felten 1981, pl. 122, cat. nos. 446–447; Gauß – Smetana 2007a, 65, 78, fig. 10 nos. XXXVIII-6 and -7. General on panelled cups see Davis 1978.

### Late Bronze Age Kolonna

The next stage in the development at Kolonna took place in the beginning of the Late Bronze Age. The monumental building must have suffered some severe damage and was rebuilt by partly using the walls of the earlier building as foundations,<sup>42</sup> and a number of successive floor horizons can be attributed to this building. On one of the later, but not latest, floors, a deposit of Late Bronze Age pottery was found (Fig. 6).<sup>43</sup> The best comparisons for the imported pottery come from the shaft graves of Lerna that should be dated to a later stage of LH I.<sup>44</sup> It is the first time that lustrous decorated Mycenaean pottery is noticed at Kolonna, admittedly in very small amounts of about 1 % of the total amount.<sup>45</sup> Also, Mainland Polychrome-painted pottery makes its first appearance,<sup>46</sup> and a special find is one of the few southeastern Aegean imports known from Kolonna.<sup>47</sup>

The large building complex remained in use probably as late as LH IIA, even though the amount of pottery and the number of floor deposits that can be attributed to its final stages are very few (Fig. 7).<sup>48</sup> The almost complete vessel to the left was found lying on one of the top-most floors and shows similarities to goblets from the Menelaion in Lakonia.<sup>49</sup>

Within this early stage of the Late Bronze Age the settlement of Kolonna once more extended towards the east.<sup>50</sup> This new extension of the settlement was again fortified with a massive wall of very large limestone blocks (Fig. 8).<sup>51</sup> It shows various modifications that may actually indicate a sequence of fortification walls in the eastern part of the site.<sup>52</sup>

Typical Aiginetan pottery of that time is hand-built and not wheelmade, and bears potters' marks.<sup>53</sup> Open vessels are mostly solidly painted with a dark burnished surface. Matt-painted motifs continue in the Middle Bronze Age tradition but now display a less strict horizontal and vertical organisation of the patterns. Aiginetan Bichrome-Painted pottery is an innovation of the early Late Bronze Age.<sup>54</sup> This kind of pottery seems to be restricted to a limited repertoire of shapes, and has a narrow range of patterns that most commonly consist of two wavy bands on the shoulder of open vessels. Another category, the Aiginetan kitchenware, is also widely distributed in the Late Bronze Age.<sup>55</sup> It is actually the only Aiginetan ceramic product that continues to be

<sup>42</sup> Gauß et al. 2011a, 82–83.

<sup>43</sup> Fig. 6; see also Gauß – Smetana 2007a, 65, 80, fig. 12.

<sup>44</sup> Lindblom 2007; Lindblom – Manning 2011.

<sup>45</sup> Also, Mycenaean-style pottery (imported and/or locally produced) occurred only in small quantities in the easternmost extension of the site, as indicated by Wohlmayr 2007a, 48. Furthermore, Mycenaean-style pottery was also exceptionally rare in Well SH B1/06 (Pruckner 2010, 74–78). The chronological relation between the filling of Well SH B1/06 and the last phase of the large building complex, respectively Ceramic Phases J and K, needs to be established (regarding the definition of Phases J and K, see Gauß – Smetana 2007a, 65). Cf. also Lindblom – Rutter, this volume.

<sup>46</sup> Gauß – Smetana 2007a, 65 and n. 70 with references. General on Mainland Polychrome pottery: Mathioudaki 2010.

<sup>47</sup> A number of southeast Aegean fragments, including large-sized ones, were found during the pre-World War II excavations and now lack stratigraphic information. On southeast Aegean imports on the Greek mainland now also Davis 2015; see also Huber et al., this volume.

<sup>48</sup> Fig. 7; see also Gauß et al. 2011a, 84, fig. 4.3–4.

<sup>49</sup> E.g. Catling 2009b, 88, fig. 92, ET57, ET63; 152, fig. 156, TH23–28; on monochrome LH II goblets from the Menelaion cf. also Catling 2009a, 347–348.

<sup>50</sup> Current evidence indicates an extension in LH IIA, see Wohlmayr 2000, 127–128; Wohlmayr 2007a, 44, attributes the early Mycenaean extension to the settlement phase of Kolonna XI; in general also Felten 2007, 18 and n. 29.

<sup>51</sup> Wohlmayr 2000, 127, fig. 61; Wohlmayr 2007a, 45.

<sup>52</sup> The results of the excavations conducted by the University of Salzburg under the direction of the late W. Wohlmayr together with L. Berger will contribute greatly to our understanding of the spatial organisation of this area as well as to the chronology and phasing of the newly built fortifications.

<sup>53</sup> Regarding Late Bronze Age Aiginetan potter's marks, see Lindblom 2001, 112–117.

<sup>54</sup> See also Lindblom – Rutter, this volume.

<sup>55</sup> E.g. with further references Gauß et al. 2017; Gauß – Knodell 2020; cf. also Lis 2012.



Fig. 6: Pottery associated with the large building complex at the beginning of Late Bronze Age (photos: W. Gauß, R. Smetana; ÖAW-ÖAI)

exported on a large scale in the Mycenaean palatial world, whereas the export of all other categories of Aiginetan pottery seems to cease within the LH IIIA period.<sup>56</sup>

LH I Mycenaean pottery imports to Kolonna seem very rare, as at many other sites.<sup>57</sup> We are not yet able to present definite statistics but a share of less than 3 % of the total amount seems most likely.<sup>58</sup> Nevertheless, more and larger deposits than those excavated in the monumental building are needed to confirm our observations. In addition, deposits from other contemporary residential areas would be extremely helpful to illustrate similarities and differences to the depositional practices and material culture remains at different parts of the site.

LH II imports seem very rare at Kolonna too, and the Ephyraean goblet, a hallmark of LH IIB pottery,<sup>59</sup> is an exceptional find.<sup>60</sup> Thus, from a ceramic point of view, Late Bronze Age I and II Kolonna does not seem to be very ‘Mycenaean’ in character. When does Kolonna become Mycenaean in terms of its pottery – either by the takeover of the Mycenaean-mainland potting traditions to their own local repertoire – or by the abundance of Mycenaean imports?

It seems as if local potters tried to imitate or emulate Mycenaean style pottery from LH IIA at the latest.<sup>61</sup> However, Aiginetan potters continued their traditional forming techniques for creating Mycenaean shapes – they did not use the wheel, and occasionally even potmarks appear. Furthermore, the pattern-painted decoration is not lustrous as on the Mycenaean imports, but matt, dull

<sup>56</sup> Regarding the distribution of Late Bronze Age matt-painted Aiginetan pottery, see Maran 1992, 192–195; Rutter 1993a, 82–84; Gauß – Kiriati 2011, 243–247. Regarding the distribution of Bichrome-Painted Aiginetan pottery, see Pruckner 2011, 244 n. 27–35. Regarding Late Bronze Age Aiginetan cooking pottery and its distribution, see Gauß et al. 2017.

<sup>57</sup> Rutter 1989; Maran 1992, 205; Rutter 2010, 417; Dickinson 2014.

<sup>58</sup> See also Lindblom – Rutter, this volume.

<sup>59</sup> E.g. Mountjoy 1983; Rutter 2010, 418.

<sup>60</sup> Hiller 1975, 54.

<sup>61</sup> Generally Hiller 1975, 51–54.



Fig. 7: Pottery associated with the large building complex in the early Late Bronze Age (photos: W. Gauß, R. Smetana; ÖAW-ÖAI)

at the most.<sup>62</sup> The degree of this emulation is not yet clear, neither in terms of quality, e.g. an exclusive emulation of pattern-painted Mycenaean pottery, nor in terms of quantity, e.g. are these emulations the exception to the rule or rather common? Again, statistics on the frequencies of the various classes of pottery from well-stratified deposits would be of enormous importance.

Regarding the manufacturing processes necessary to produce Mycenaean-looking pottery on Aigina, one should note that some manufacturing techniques are easier to perceive and to adopt than others.<sup>63</sup> Thus, some clearly visible manufacturing stages such as decoration or shape are easily transmissible, whereas other techniques that do not leave distinct traces on the finished product or rely on specialised gestures cannot be adopted without additional information.<sup>64</sup> This could

<sup>62</sup> E.g. Hiller 1975, 51, pl. 2, cat. nos. 21–22; pl. 11, cat. nos. 152–153.

<sup>63</sup> Gosselain 1998; Arnold 2000, esp. 351; Gosselain 2000, esp. 191–193; Gauß et al. 2015b, 8.

<sup>64</sup> Gosselain 2000, esp. 191–193; Gauß et al. 2015c, 8.

mean that the potters who created Mycenaean emulations on Aigina did not necessarily need special knowledge in Mycenaean-mainland pottery techniques.

This situation changes abruptly in the following period, when the amount of traditional Aiginetan pottery, i.e. hand-built vessels in traditional forms and matt-painted decoration, is no longer dominant. It seems as if only a few classes of pottery continued to be produced and even fewer were exported in LH IIIA: the exported containers are cooking pottery<sup>65</sup> and medium-sized closed vessels, e.g. amphorae and hydriae with a matt-painted decoration.<sup>66</sup> Such vessels are still found in Athens, Keos and a few other sites in the closer proximity of the island, but this ceramic class seems to vanish soon afterwards.<sup>67</sup> Cooking pottery continued to be manufactured in hand-building techniques and carried potters' marks throughout its period of production, which, according to our current knowledge, includes the Postpalatial period of LH IIIC Early.<sup>68</sup>

The majority of the now locally produced Aiginetan pottery is Mycenaean wheelmade unpainted and solidly painted and even pattern-painted pottery.<sup>69</sup> We now assume a complete takeover of Mycenaean forming techniques and probably also the ability to create a lustrous paint. This sketched picture coincides perfectly with the construction of a potter's kiln that was built right on top of the walls of the large building complex.<sup>70</sup> Regrettably, and due to later disturbances of the Archaic and Classical sanctuary, it is not clear if there is a hiatus between the end of the large building complex and the construction of the kiln, or if its abandonment was caused by the kiln. In any case, the construction of a kiln on top of a former power structure could be interpreted as a deliberate break with former traditions. The construction of the kiln and its period of use should be dated to LH IIIA1<sup>71</sup> (Figs. 9–10).<sup>72</sup> Nos. 1–3 on Fig. 10 illustrate pottery that was found in between the raised floors of the firing chamber, all local according to macroscopic analysis, and nos. 4–8 in the same illustration form a representative selection of pottery from underneath the ashy walking horizon that led to the entrance of the firing chamber.



Fig. 8: Fortification wall of the easternmost extension of the settlement, view from the north to the south (photo: W. Gauß; ÖAW-ÖAI)

<sup>65</sup> Gauß – Kiriatzi 2011, 243–247 (with references); Gauß et al. 2017.

<sup>66</sup> Gauß – Kiriatzi 2011, 243–247 (with references).

<sup>67</sup> Rutter 1993a, 82–84 (with references); Gauß – Kiriatzi 2011, 243–247 (with references). Regarding a possible Aiginetan import to Troy VIg (LH IIIA1), see Mommsen et al. 2001b, 183, fig. 14; 184, cat. no. 9.

<sup>68</sup> Gauß – Kiriatzi 2011, 223–224, 243–247 (with further references); Gauß et al. 2017. The results of the excavations conducted by the University of Salzburg under the direction of the late W. Wohlmayr together with L. Berger will contribute greatly to our understanding of this area.

<sup>69</sup> Lindblom et al. 2015, 232 n. 30.

<sup>70</sup> Gauß 2007a; Karkanas et al. 2019.

<sup>71</sup> RMDP, 493, notes that LH IIIA1 pottery is barely represented at Kolonna.

<sup>72</sup> Fig. 10; see also Gauß 2007a, 171, figs. 3–4.



Fig. 9: Mycenaean potter's kiln on top of the large building complex (photo: W. Gauß; ÖAW-ÖAI)



Fig. 10: Pottery associated with the period of use of the Mycenaean potter's kiln (photos: W. Gauß, R. Smetana; ÖAW-ÖAI)

## Conclusion

To conclude, there seems a continuous development at Kolonna throughout the Middle and early Late Bronze Age. The site received imports from various regions throughout time. Two factors influencing the development of the site are, however, most striking: first, in the advanced Middle Bronze Age there is a clear period of ‘Minoanisation’ manifested in the monumental building, Minoan imports, and the local production of Minoanising pottery. The distribution of the latter seemed to be limited to the monumental building and presumably elite consumption associated with the building. Minoan imports and manufacturing techniques seem to disappear after a relatively short period.

The second process seems to have developed in stages. In ceramic terms the beginning of the Late Bronze Age is characterised by the appearance of Aiginetan and Mainland Bichrome-Painted and other classes of pottery including very small amounts of Mycenaean pattern-painted pottery. The latter class of pottery seems to have inspired local potters, and emulations of Mycenaean shapes and patterns in the local ceramic traditions began, as it were, the ignition spark of the ‘Mycenaeansation’ of Kolonna. This process was completed with the adoption of Mycenaean forming techniques in LH IIIA and seems enduring.

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## Illustrations

Fig. 1: Kolonna on Aigina. The settlement of Kolonna IX with its fortifications and the large building complex (after Walter – Felten 1981, pls. 10–11, with additions; plan: H. Birk, W. Gauß; ÖAW-ÖAI)

Fig. 2: Plan of the large building complex with its main architectural phases (plan: H. Birk, W. Gauß; ÖAW-ÖAI)

Fig. 3: The large building complex during the excavations: 1. View from the north towards the south; 2. View from the west towards the east (photos: W. Gauß, M. del Negro)

Fig. 4: Kolonna on Aigina. The settlement of Kolonna X with its fortifications and the large building complex (after Walter – Felten 1981, pls. 10–11, with additions; plan: H. Birk, W. Gauß; ÖAW-ÖAI)

Fig. 5: Pottery associated with the large building complex of the late Middle Bronze Age (photos: W. Gauß, digital remastering: R. Smetana; ÖAW-ÖAI)

Fig. 6: Pottery associated with the large building complex at the beginning of Late Bronze Age (photos: W. Gauß, digital remastering: R. Smetana; ÖAW-ÖAI)

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Fig. 8: Fortification wall of the easternmost extension of the settlement, view from the north to the south (photo: W. Gauß; ÖAW-ÖAI)

Fig. 9: Mycenaean potter's kiln on top of the large building complex (photo: W. Gauß; ÖAW-ÖAI)

Fig. 10: Pottery associated with the period of use of the Mycenaean potter's kiln (photos: W. Gauß, digital remastering: R. Smetana; ÖAW-ÖAI)