# The Dynamics of Culture Contact in the Eastern Mediterranean Bronze Age: Evidence from Aghia Photia

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The intensification of interregional contacts between the Cyclades and Crete in the Early Bronze Age is often linked to the development of the first palace states on Crete ca. 1900 B.C.E. Emerging elites in the Cyclades and Crete established long-distance trade routes in order to secure access to prestigious items, including metals, needed to legitimize their authority. This phenomenon created an international spirit,<sup>1</sup> which involved both the movement of goods and the establishment of new sites at strategic locations. The cemetery at Aghia Photia on Crete is in a unique position to shed light on these processes, since the tomb architecture and contents have pronounced Cycladic parallels, and appear to indicate that those entombed there migrated from the Cyclades.

#### Archaeological Evidence for Culture Contact

Understanding the dynamics of culture contact is possible through a careful study of several kinds of archaeological material. Pottery is the most abundant material from Bronze Age sites, and it is well suited for this purpose. Mineralogical studies of pottery allow archaeologists to identify specific inclusions in the clay fabric. Since potters tend to use locally available materials, which are distinctive due to local geology, it is possible to determine whether a particular sherd is locally made or imported from elsewhere.<sup>2</sup>

Gold, copper and tin were used increasingly in the Bronze Age to make tools, weapons, and personal ornaments. The presence of metal artifacts is often associated with elite status, and linked to the intensification of interregional contacts in the eastern Mediterranean. Tin is an essential ingredient required to make certain kinds of bronze, yet is scarce in the Mediterranean. The closest known sources are located in Afghanistan and on the Iberian Peninsula. As demand for tin increased in the Early Bronze Age, so did the incentive for distant populations to engage with each other through long-distance trade. The abundance of metal artifacts in the Early Bronze Age Mediterranean, what Colin Renfrew refers to as *metallshock*,<sup>3</sup> indicates that long distance trade for both raw materials and finished products must have been intensive in this period.4

Burial customs provide additional evidence for culture contact in the Early Bronze Age. As Davaras and Betancourt point out, "tombs can confirm the cultural identity of a community and the ethnic affiliations of its members."<sup>5</sup> Despite the high degree of variation in burial styles in Early Bronze Age Crete, two main categories emerge: the house tombs of the north, and the circular tholos tombs of the southern Mesara region.<sup>6</sup> Populations from the Cycladic islands to the north, however, buried their dead in small cist tombs, maintaining their own distinctive burial practices despite increased contact with Crete.<sup>7</sup> The appearance of a new burial style in an area dominated by a different burial tradition can support hypotheses of culture contact, as discussed below.

#### Case Study: Aghia Photia

Aghia Photia is a site on the northeastern coast of Crete, 5 km east of modern-day Siteia. It consists of a settlement atop a small hill overlooking the Aegean Sea to the north, and a cemetery 200 m to the east. Radiocarbon dates and ceramic sequences indicate that Aghia Photia was occupied in the Prepalatial period of the Early Bronze Age. The cemetery at Aghia Photia, with 262 tombs, is the largest Bronze Age cemetery on Crete, and one of the largest in the Aegean. There are three types of tomb architecture present at the cemetery: cist tombs, pit graves and a rock shelter.<sup>8</sup> By far the most common type is the cist tomb, which consists of an antechamber and a burial chamber separated by a stone slab.

Although the burial chambers of cist tombs vary widely in shape (they can be rectangular, elliptical, circular, or irregular), they are similar in their orientation (most tombs face northeast, toward the sea), their construction (subterranean chambers dug into the limestone bedrock), and their small size (the largest being 2.35m in length).<sup>9</sup> A substantial amount of offerings (approximately 2000 vases) were found in the burials, usually near the head or body of the deceased individual.<sup>10</sup>

The cist tombs at Aghia Photia are very different from other Early Bronze Age burials on Crete. Typical Cretan tombs of this period are communal, so cemeteries have a small number of tombs in relation to the number of people buried there. The Cretan house tombs, such as those at Mochlos in northeastern Crete, were often constructed above ground against a cliff, and were built so that adjoining rooms shared common walls. They are also substantially larger (occasionally over 3.5m in length) than those at Aghia Photia and other Cycladic style cemeteries. Tholos tombs containing multiple inhumations in large circular chambers are also markedly different, in terms of size and architectural layout, than the cist burials at Aghia Photia.<sup>11</sup> As Davaras and Betancourt point out,

"The crucial characteristic of the built tombs used at Aghia Photia is that each construction consisted of two interconnected spaces, each with its own function. The usual Cretan burial practices could use either caves, single architectural spaces, or several interconnected or adjacent spaces...but they never had the two-part architectural design of the Aghia Photia built tombs." <sup>12</sup>

The significance of the Early Bronze Age cemetery at Aghia Photia lies in its connection with Cycladic burial traditions to the north. The strongest architectural parallels to the tombs at Aghia Photia are in the Cyclades, at sites such as Phylakopi on Melos, Chaliandrini on Syros, Agrilla on Ano Kouphonisi, and on the island of Thermi. Notably, Chaliandrini (with over 600 excavated tombs) is the only cemetery in the Aegean with more cist tombs than Aghia Photia.<sup>13</sup>

Ceramics provide additional evidence for a connection between Aghia Photia and Cycladic cultures to the north. More than 95% of the ceramics from the cemetery have close ties with the Kampos group of ceramics from the Cyclades, based on style, technology, shape and clay recipe.<sup>14</sup> Kampos pottery found at Aghia Photia has the same petrographical and technological composition as Cycladic pottery from Naxos, Paros and Amorgos, and is found in association with other materials like obsidian blades and "Pyrgos" bottles that are "definitely of Cycladic provenance."<sup>15</sup>

Metallurgical evidence at Aghia Photia points to Cycladic connections as well. Metal objects from the cemetery include a bronze axe/chisel, as well as long daggers with central midribs, chisels, saws, awls, fishhooks, and small animal-shaped figurines that all have Cycladic parallels.<sup>16</sup> Regular, long-distance trade for metals is attested by provenance studies that show the copper in these objects is of Cycladic origin.<sup>17</sup>

The Cycladic connection is strengthened because both crucibles from the cemetery, found in Tombs 10 and

45, show formal ties with Cycladic types.<sup>18</sup> They both have substantial residue from vitrification, a high degree of copper, and a low degree of iron, which indicates they were used to melt and cast copper that had already been smelted. This reveals that the residents of Aghia Photia were engaged in trade for copper that was smelted in the Cyclades, and that they manufactured the finished metal objects locally.<sup>19</sup>

## Conclusion

Taken individually, the ceramic and metallurgical discoveries at Aghia Photia may appear to indicate that the relationship between Crete and the Cyclades was simply one of intensive trade. Taken collectively, this does not adequately explain the number and types of objects found that are consistent with Cycladic material culture. In addition, if trade were sufficient to explain the finds at Aghia Photia, we would expect to discover strong evidence of other trading partners at Aghia Photia, which we do not. The lack of diversity in the objects found at Aghia Photia, and their parallels with remains found in the Cyclades requires a different explanation: Aghia Photia was built and occupied by a Cycladic population that migrated to Crete. In other words, the Aghia Photia discoveries call for a migratory explanation, not a trade one.

Propelled by an international spirit, driven by the desire to obtain prestigious imported metals, the residents of Aghia Photia may have established a settlement on Crete in order to exploit their access to valuable raw materials in the Cyclades and beyond, and bring them to a growing market on Crete. The introduction of metals to Crete may have fueled the development of social hierarchies, based on differential access to these prestigious items. Ultimately, metal objects played an important role in the palatial economies of Minoan society. Perhaps Aghia Photia was one of the earliest permanent settlements linking Crete with the valuable metal resources of the Eastern Mediterranean and beyond, which contributed to the rise of palace states around 1900 B.C.E.

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- <sup>2</sup> Hodges 2000,198, Renfrew 1969, 154.
- <sup>3</sup> Renfrew 1972, see also Tsipoulou 2007, 140.
- <sup>4</sup> Muhly 1985.
- <sup>5</sup> Davaras and Betancourt 2004, 4.
- <sup>6</sup> Davaras and Betancourt 2004, 235, Watrous 2001,172.
- <sup>7</sup> Day et. al. 1998,145-47, Davaras and Betancourt 2004, 235.
- <sup>8</sup> Davaras and Betancourt 2004, 232.
- <sup>9</sup> Davaras and Betancourt 2004, 232; Betancourt and Muhly 2007, 146; Day et al. 1998, 135.
- <sup>10</sup> Watrous 2001,164.
- <sup>11</sup> Davaras and Betancourt 2004:235-37, Watrous 2001:172.
- <sup>12</sup> Davaras and Betancourt 2004:236-237.
- <sup>13</sup>Broodbank 2000, 302; Davaras and Betancourt 2004, 5, 238; Day et al. 1998,136; Watrous 2001:164.
- <sup>14</sup> Betancourt and Muhly 2007:146, Day et al. 1998:133-136, Davaras and Betancourt 2004:231, Watrous 2001:164.
- <sup>15</sup> Day et al. 1998:139.
- <sup>16</sup> Betancourt and Muhly 2007:151.
- <sup>17</sup> Day et al. 1998:135-136.
- <sup>18</sup> Betancourt and Muhly 2007, Tsipopoulou 2007.
- <sup>19</sup> Betancourt and Muhly 2007:150.

<sup>&</sup>lt;sup>1</sup> Renfrew 1972.