THE BRONZE AGE - IRON AGE TRANSITION AT MITROU IN EAST LOKRIS: EVIDENCE FOR CONTINUITY AND DISCONTINUITY

The site of Mitrou is a small tidal islet located in East Lokris on the North Euboean Gulf (fig. 1). It is situated 20 km north of Orchomenos and Gla, 50 km north of Thebes and 60 km northwest of Lefkandi. The University of Tennessee and the 14th Ephorate of the Greek Archaeological Service are carrying out a 5-year collaborative program of excavation and survey of the site under the direction of the authors. We have now completed 4 seasons of excavation, from 2004 through 2007.

The islet of Mitrou has a surface area of 3.6 ha. It is quite flat, rising gently to the north to about 12 m above sea level (fig. 2). Archaeological remains cover the entire islet and continue below sea level for about 50 m to the east and west to a depth of 3 m. Thus sea level in antiquity must have been at least 3 m lower than at present and the site probably was not an islet but situated on a low rise close to the shore. Mitrou had never been excavated before the current project. No articulated architecture is visible on the present surface, but two geophysical surveys, carried out by us in 2003 and 2005, showed buried walls and possibly roads covering the entire islet (fig. 3: Tsokas et al. forthcoming). A pick-up survey conducted in 1988-1989 by Cornell University revealed that the islet was strewn with pottery from the Neolithic through Late Roman periods, the large majority dating to the Late Bronze Age and Protogeometric period (Kramer-Hajos – O’Neill 2008). This suggested that it had been occupied for a long time. In addition, natural scarps created by the sea on the east and west sides of the islet showed deep stratigraphic sequences with readily identifiable architectural features. In the summers of 2006 and 2007 we cleaned a 45-m stretch of the east scarp and found a succession of 25 occupational levels down to sea level (fig. 4). The pottery from those levels ranges in date from Early Helladic II to the Late Helladic III period.

Because of its seemingly uninterrupted oc-
cupation throughout the Bronze Age and Early Iron Age, Mitrou is an ideal place to study crucial and poorly understood periods of Aegean prehistory, such as the transition from the Late Bronze Age to the Early Iron Age—a subject to which Willy Coulson has devoted a considerable part of his scholarly life, and the topic of this symposium honoring his memory. Situated on the coast of the Euboean Gulf, which was a major passageway by land and sea between northern and southern Greece, Mitrou is an excellent site at which to study developments, as well as possible movements of people, goods, and ideas during this period of transition.

Our excavation focuses on two sectors in the northeast and northwest of the islet, chosen because of impressive architectural remains detected here by our geophysical surveys (Tsokas et al. forthcoming). Before discussing the Late Helladic IIIC and Protogeometric periods at Mitrou, it is necessary to present briefly the preceding phases, because they are important for understanding the significance of the Late Helladic IIIC occupation.

FORMATIVE PERIOD OF LATE BRONZE AGE PALATIAL SOCIETY AND BEGINNING OF PALATIAL PERIOD (Late Helladic I through Late Helladic IIIA:2 Early; ca. 1600 - early 14th century BC)

The earliest architectural remains we have exposed at Mitrou thus far date to the Late Helladic I phase. From this phase until Late Helladic IIIA:2 Early, Mitrou had an urban settlement with rectilinear buildings arranged along wide orthogonal streets. The most important structure of this period so far exposed is Building D in the northeast excavation area (figs. 5-6). Even though it is not very large in area, only 13.5 × 8.25 m, Building D has a monumental appearance for several reasons. Its wall socles measure 1.00 to 1.20 m in thickness and are much thicker than the walls of any other building at the site or—for that matter—of any contemporary building on the Greek mainland (Darcque 2005). Moreover, they were constructed with roughly cut limestone blocks that are larger than any others used at Mitrou. Thus it is clear that the building was intended to impress. For reasons still unknown, Building D and its adjacent structures were destroyed by fire early in the Late Helladic IIIA:2 phase, roughly at the beginning of the palatial period.

PALATIAL PERIOD: Late Helladic IIIA:2 Late through Late Helladic IIIB

Following this destruction there was a nearly total absence of building activity in the excavated areas at Mitrou in the Late Helladic IIIA:2 Late and Late Helladic IIIB phases. It appears that Building D and its adjacent settlement areas were left as visible ruins for some 170 years. Evidence for human activity in this period is limited to a few informal surfaces, pottery dumps, and some flimsy wall fragments (fig. 5). Pottery is still plentiful and of high quality, including Argive imports. Thus we know that Mitrou was not abandoned, but that its use had changed in a way as yet not understood.

POST-PALATIAL PERIOD: Late Helladic IIIC through Late Protogeometric

After the demise of the Mycenaean palaces, and possibly as early as Late Helladic IIIC Early, the excavated settlement area at Mitrou was rebuilt in its Prepalatial form—at least in the northeast excavation sector. On top of ruined Building D a new structure, Building B, was constructed, apparently as its successor (figs. 5-6). To judge from the partially preserved remains, Building B was rectangular and similar in size to Building D. The very southwest corner of Building B is missing, so we do not know whether its west wall formed an angle with the south wall or continued to form a south porch.
With a width of 70-80 cm, the rubble wall socles of Building B are less impressive than those of Building D, but more substantial than the walls of any other LH IIIC building at Mitrou. This as well as its location on top of Building D suggests that Building B was an important building in the Late Helladic IIIC settlement despite its apparently modest size and simple construction. Not much is known about its interior or its function. Two superimposed earthen floors (at c. +5.30 and c. +5.45) have been identified in its interior space north of wall 5, but neither had floor deposits. The interior space south of wall 5 has been much disturbed by the construction of apsidal Building A in the Protogeometric period. A construction date of Late Helladic IIIC Early for Building B is tentatively indicated by the latest pottery fragments found below a cobbled exterior surface just west of Building B, against which the west wall of the building had been set as a terrace wall (Rutter 2007, 289). Building B must have gone out of use by Late Helladic IIIC Late at the latest, because in that subphase a small structure, Building C, was set on top of its northwest corner (Lis 2009, 209-210).

To the west of Building B, the gaps between large stones that had fallen on top of the pebbled street were filled some time in LH IIIC, and rough gravel and cobbled road surfaces were laid at a higher elevation (ca. +5.30/5.70), forming a broad straight road about 3 m wide, a poor successor to the much better constructed pebbled Prepalatial street below. Elsewhere in the settlement, Late Helladic IIIC walls often were built on top of earlier, Prepalatial walls. This resumption of the Prepalatial settlement pattern after a gap of about 170 years is remarkable and it could be argued that a collective memory was maintained of property boundaries and settlement organisation (Van de Mooter 2009, 361-362). Unfortunately, none of these walls can be dated to a specific subphase of the Late Helladic IIIC period, and we have very few floor deposits. Until further study of the material we cannot say much more specific about the history of the settlement in this period nor about the activities that took place there. The fact that we have two or three architectural phases in the Late Helladic IIIC settlement indicates that it was quite long-lived.

Some time during Late Helladic IIIC Late phase, before the very end of the Bronze Age, we see a marked change in the quality of the architecture and the layout of the settlement at Mitrou. Up to now we had sturdy rectilinear buildings fronting directly onto roads, with open-air activities presumably taking place in interior courtyards. In contrast, new structures built in Late Helladic IIIC Late and later are isolated buildings and often have non-rectilinear, flimsy walls. In a radical departure of previous practice they have exterior courtyards with utilitarian structures, and activities taking place in full view of passers-by. It is argued here that these changes represent a shift from urban to rural occupation. The new buildings as a rule also have sunken floors, which is a feature already seen in Building B.

A typical new structure is Building G, constructed south of abandoned Building B in the Late Helladic IIIC Late phase (figs. 5-8). Only its northernmost space lies within our excavation sector and has been excavated. Building G has irregular and very flimsy walls, only 40-50 cm thick. Little of a mudbrick superstructure or collapsed roofing was found, and thus this space appears to have been a low-walled courtyard visible from the road rather than an interior room. Its main features are two circular cobbled platforms, 94 cm in diameter, the northern platform slightly overlapping the southern one. Both platforms had been covered by a thin layer of soil on top of which was a layer of clay. On top of the layer of soil, at the northern end of the upper platform, a large fragment of a pottery tray with 5 smaller vase fragments had been set upright to form a vertical edge. These pottery fragments likewise were covered with clay, and were resting against the north wall of Building G. The function of these platforms needs further investigation, but it is likely that
they were ovens or silos. They had been covered with a clay roof that had melted over the platforms and their immediate vicinity. The clay included many black streaks of burning, and the platforms show traces of burning as well, which makes their interpretation as ovens more likely (Blackwell 2007). The earthen surface of this courtyard is located at ca. +4.60-4.75, and is 70 cm lower than the contemporary road surface to its west, ca. 50 cm lower than the earthen surface to its north, and 10 cm to 15 cm lower than the earthen surface to its east.

To the west, on the other side of the broad cobble-and-dirt road, most of Building F was abandoned except for the southernmost exposed part of wall 31, which was rebuilt in a more flimsy way than before. A rough cobble courtyard was laid adjacent to the street, over walls 32 and 85 of the former staircase (fig. 5 right). Over the northern area of Building B, wall fragments 40 and 41 appear to be the remains of another flimsy, curvilinear building with a sunken floor, which was largely destroyed by subsequent activities (Building J). This new form of occupation with isolated, flimsy structures and outside courtyards located next to the road no longer has an urban character but is rural, and represents a marked departure from the layout of the earlier settlement. This rural character continues into the Protogeometric period with the construction of apsidal Building A in the Early Protogeometric phase, which likewise had a sunken floor and an exterior courtyard to its north, and with Late Protogeometric rectilinear Building E, which reused part of Building A as its exterior courtyard (see below). Similar changes in the character of settlements from urban to rural have been noted elsewhere in mainland Greece, including by Willy Coulson himself at Nichoria, in the southwest Peloponnese (McDonald – Coulson 1983; Whitley 2001, 77-80, 84-90; Desborough 1964). However, at many sites this change is preceded by a hiatus in occupation. At Mitrou there is no evidence for such interruption, and thus it cannot readily be argued that the shift to a rural life-style had been introduced by a new population. At present we do not know why the character of Mitrou’s settlement changed, but we will investigate its possible reasons through careful study of all available categories of evidence.

The change from an urban to rural settlement is accompanied by a marked shift in burial practices with the reappearance of intramural graves, which had not been seen at Mitrou since the Late Helladic I phase. These Postpalatial graves are mostly cist tombs made in the ruins of abandoned earlier structures. From 2004 through 2007 we excavated 30 graves and burials dating from the Late Helladic IIIC Late phase to the Late Protogeometric phase. Nearly all are cist graves, and most belonged to children, but some contained adults (e.g. cists 6, 22, 28, 33). Grave goods were seldom present and limited primarily to a few clay vessels and occasionally one or two metal pins. A Late Helladic IIIC Late cist grave (no. 5) was found ca. 15 m northwest of Building C and belonged to an infant. Situated in the west scarp of trench LL786, this grave has been only partially excavated. It is dated by a linear cup (LL786-030-011) found inside it (Lis 2009, 210, fig. 9:1). Two or three contemporary cist graves (Nos. 32, 38, and possibly 35) were placed in the rough cobble courtyard over Building F’s staircase. Several other graves cannot be dated more closely than LH IIIC/PG (cists 6, 7, 8, 9, 14, 16, 17, 35, 46). Thus it is not possible to establish whether the transformation of living areas into burial grounds happened fairly rapidly or was a gradual process.

After Building B went out of use, a small rectangular structure labeled Building C was constructed over its northwest corner during the Late Helladic IIIC Late phase. Its architecture and contents have been discussed in detail elsewhere (Van de Moortel 2009, 362-363; Lis 2009, 209-210; Van de Moortel – Zahou 2003-2004, 44, fig. 6). Its small size and the presence of 22 to 26 miniature drinking and serving vessels as well as a cooking pot containing the carefully stacked thighbones of piglets indicate that
Building C was a special structure. It may well have been used for group ritual, perhaps in relation to nearby burials.

There is no evidence for a chronological hiatus between the Bronze Age and Early Iron Age at Mitrou. All pottery phases of this transitional period are represented, and we see continuity in burial practices and occupation. Building G went out of use before the end of the Late Helladic IIIC phase, and was covered by two layers of cobbles, one dating to Late Helladic IIIC and one to the Early Protogeometric phase. An adult was buried on its floor probably still in Late Helladic IIIC (grave no. 45), and had been disturbed in the Early Protogeometric phase, although an Early Protogeometric date for the initial burial cannot be excluded. An Early Protogeometric amphora (LM782-015-011) was placed in a pit near the grave presumably as a marker (fig. 8). Some 5 m to the northeast, in trench LO783a Submycenaean painted stirrup jar (LO783-007-014) was found in the plow zone over Building A; it presumably comes from a grave as well (Rutter 2007, 295, fig. 10). Several graves are datable to the Early Protogeometric phase. A particularly rich grave (no. 42) was found north of Building B, and contained a child buried with two bronze fibulae, a ceramic cup (LP785-080-012), a lekythos (LP785-080-013), and a small ceramic tripod (LP785-080-014). South of the grave, closest to the head of the child, an Early to Middle Protogeometric hydria (LP785-061-012) with a cup (LP785-061-011) as a lid had been placed into the edge of a large heap of stones, ostensibly again as a grave marker (figs. 9, 10). Partially overlapping this grave to the west was an unusual cis grave constructed of mudbricks (no. 33) with the flexed skeleton of an adult but no grave goods (fig. 11). Grave 33 in turn was partially overlapped by a Late Protogeometric cis grave (no. 36), which contained an infant buried with the other of two necklaces: one was made of pierced seashells and green faience disc beads and a larger central bead made of blue faience. The faience beads are identical to beads found at Lefkandi (G. Nightingale personal communication). With those were a cup (LP785-039-019), a juglet (LP785-039-018), a kalathos with impressed triangles (LP785-039-020), 3 pieces of an iron dress pin (LP785-039-011) and an indeterminate metal object (LP785-039-022).

Late Helladic IIIC and Protogeometric graves are clustered in groups, which often are located within the ruins of a former building. Through osteological analyses we hope to find out if people in those groups were related and whether or not a case can be made for continuity in land ownership between the Late Bronze Age and Early Iron Age. The spatial distribution of the graves is remarkable in that none have been dug inside Building B, and nearly all graves stay at least 3 m away from that particular building (fig. 5). This is shown most clearly by the layout of the row of cis graves 26, 27, 33, 36, and 42 located north of and parallel to Building B, and by the fact that graves were placed into the streets beyond Building B (fig. 9: e.g. cis graves 13, 44, 46). Thus it appears that the area of Building B was avoided for burial in this period.

A notable exception to this pattern is formed by four cis graves (nos. 29, 30, 39, 48) placed very close to Building B on its south side (figs. 5, 7, 8, 12). Three of the graves, two large (nos. 29 and 30) and 1 small (no. 39), had been constructed of conglomerate slabs, a material rarely used at Mitrou. These three graves date to the Early Protogeometric phase and predate Building A. The large graves had been thoroughly disturbed and robbed, but still held a few bones of adults. A tiny gold spacer bead with spiral engraving (LN782-174-011) was found in grave 29. The small conglomerate grave no. 39 held the body of a child without grave goods. The fourth grave, dug deeply into the wall of Prepalatial Building D, was constructed of limestone slabs and held another child buried with a Middle to Late Protogeometric clay cup (LO782-220-013). Even though the adult graves were found almost empty, the use of conglomerate and their position close to
Building B may signify that they belonged to prominent members of Mitrou’s society. Similar pairs of prominent graves, one belonging to a warrior buried with weapons, and the other presumably to his female consort buried with an unusually large amount of jewelry, and sometimes accompanied by a prominent child’s grave, have been found in the Late Protogeometric to Early Geometric cemetery at Atalante as well as in the Middle to Late Geometric cemetery at Tragana, 3 km south of Mitrou, and perhaps in the Late Geometric cemetery at Anavra-Fournos in Epiknemidian Lokris (Dakovası 1993, 119-120; Onasoglou 1981, 14-23; for more references, see Van de Moortel 2007, 251-252). The much richer Middle Protogeometric burials from the Lefkandi Heroon fit into the same pattern (Popham et al. 1993). A comparable phenomenon has been noted by Kilian-Dirlmeier and Deger-Jalkotzy in cemeteries elsewhere in Greece dating from the Late Helladic IIIC Middle phase into the Early Iron Age, and has been interpreted by them as indicating the existence of a simple society with a small warlike aristocracy comparable to Homeric society (Kilian-Dirlmeier 1998; Deger-Jalkotzy 2006). The three Early Protogeometric conglomerate graves from Mitrou may be part of the same phenomenon, but are too much disturbed to allow a firm conclusion.

During an advanced stage of the Early Protogeometric phase, apsidal Building A was constructed inside the southern room of Late Helladic IIIC Building B (figs. 5, 6, 13: Van de Moortel 2009, 365). Only its apsidal part survived, with a preserved length of about 4.5 m and a maximum width of 6.9 m. Its wall is 60 cm thick. Building A was much disturbed in the Late Protogeometric phase, presumably by activities associated with Building E (see below). However, at several locations evidence was preserved for two superimposed clay floors (at ca. +5.10 and +5.15) representing two architectural phases. In the first phase, the building had a single wooden support, set on a rectangular stone base (sb1) in the center of the apse. In the second architectural phase, dating to the Middle Protogeometric phase, two rows of rectangular support bases were set across the apse for reasons as yet unknown. Building A went out of use in the early Late Protogeometric phase, leaving a substantial deposit of this date. Building A is one of only a dozen apsidal structures known from the Early Iron Age Aegean and one of four with substantial associated deposits (Van de Moortel – Zahou 2003-2004, 45-46). Thus it is expected to provide valuable new insights into the function of these buildings in Early Iron Age society. Preliminary study of its architecture and artifacts suggests that its occupants enjoyed a high status. The pottery from Building A included pedestalled cups, deep bowls or skyphoi, jugs, kraters, and pithoi. Fragments of five large kraters – more than are needed for an ordinary household – suggest that feasting took place on a scale that surpassed that of the household (Rückl 2007). Part of a bovine skull together with a blue stone bead, stone tools, and a loomweight were found in the center of the apse. Other finds possibly associated with Building A include a large plain bronze finger ring presumably belonging to a male. In all these respects, Building A fits the criteria set forth by Mazarakis Ainian for the identification of an Early Iron Age leader’s dwelling (Mazarakis Ainian 1997, 271-276). It is too early to conclude, however, that Building A indeed held such prominent status. To the south, geophysical mapping by G. Tsokas has detected buried curved walls close to the surface (Tsokas et al. forthcoming). It remains to be seen whether these were contemporary with Building A and were of equal or lesser status. If Building A can indeed be shown to have been a leader’s dwelling, its location inside the southern room of Building B would provide a unique example of spatial and functional continuity between the final Bronze Age and Early Iron Age in the Aegean.

In the Late Protogeometric phase, a substantial rectangular building, labeled Building E, was constructed over the southeastern part
of Building A, destroying all but its apse (figs. 5-6). The walls of Building E are 0.60 m thick and made of large roughly cut stones that resemble those of Buildings A, B, and D, and may well have been reused from those structures. However, whereas the large stones of those earlier buildings were laid flat, those of Building E had been set on their edge. The function of Building E is unknown because its floor was removed by later plowing, and no artifacts were found in its interior that can be associated with this building. To the west of Building E, the occupants made the apsidal area of Building A into an exterior courtyard. A major activity that took place here was Murex dye manufacture. A rough stone platform set against the western wall of Building E contained many fragments of crushed Murex shells (Veropoulidou personal communication). Against its eastern edge a pi-shaped enclosure of unknown use had been set. In the northern part of the apse were three hearths--two placed on top of each other--that may have been used for boiling the shells. Many cooking pot fragments were found in this area as well. Two saddle querns (LN783-322-011 and LN783-322-012), found just south of hearths 2 and 3, may have been used for crushing Murex. A large pithos, at least 1 m high, had been partially sunk into the surface further to the west at this time or earlier to be used for storage or in relation to the purple dye operation (figs. 5 right, 13). Extracting purple dye from Murex shells creates most unpleasant odours, and it is possible that a dense layer of more than a thousand fist-sized cobbles found in the apsidal area had been placed here deliberately so that the area could be washed down occasionally without being reduced to a muddy pool (cf. Van de Moortel – Zahou 2003-2004, 45. A similar explanation for the cobble layer was first suggested by Mazarakis Ainian, personal communication). Building E went out of use in the Late Protogeometric phase, and this is also the date of the most recent graves at Mitrou, indicating that the site was largely abandoned in this phase. Pottery of later dates has been recovered in surface surveys, but is sporadic.

The findings presented here are preliminary, and it remains to be seen what the changes in architecture, spatial use, and burial practices at the transition from the Bronze Age to the Early Iron Age signify. During our future study of the material we will pay close attention to changes in behavioural patterns related to all aspects of life and death at Mitrou in hopes of being able to provide some answers to this question.

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**Fig. 1.** Map of central Greece with the location of Mitrou and other major prehistoric sites (B. Lis).

**Fig. 2.** Balloon image of the islet of Mitrou with the locations of the 2004-2007 excavation areas as well as the east and west sea scarps. The islet is oriented roughly north-south. August 2007 (K. Xenikakis).
Fig. 3. Results of 2003 and 2005 geophysical mapping of the islet of Mitrou. The open part in the northeast third of the islet was surveyed with electrical resistivity, and the wooded remainder of the islet with magnetometry (G. Tsokas).
Fig. 4. Deep stratigraphic sequence at the east sea scarp of the islet of Mitrou, recorded in 2006 and 2007 (A. Costic).
Fig. 5. Period plans of the northeast excavation sector in 2007; left: MH to LH IIIC Middle to Late; right: LH IIIC Late through LPG (A. Van de Moortel and G. Bianco).
Fig. 6. Balloon photo of northeast excavation sector in 2007, oriented north-south (K. Xenikakis).

Fig. 7. Balloon photo of courtyard of Building G in 2007, after most of its earthen floor had been removed. Immediately to its north are conglomerate cist tombs Nos. 29 and 30. Small conglomerate cist tomb No. 39 was dug through the north wall of Building G. Cist tomb 48, located to its east, and was dug through the south wall of Building D (K. Xenikakis).
Fig. 8. State plan of Building G and graves. Inside Building G is grave No. 45 of Late Helladic IIIC or Early Protogeometric date with Early Protogeometric amphora LM782-015-013 as a marker (G. Bianco).
Fig. 9. State plan of area just north of Buildings D and B with row of Protogeometric cist graves. From right to left: EPG grave No. 42 with MPG hydria LP785-061-012 as a marker; mudbrick cist grave No. 33; LPG graves Nos. 36, 27, and 26. To the far right is LH IIIC/PG cist grave No. 46 (G. Bianco).
Fig. 10. Rich child’s cist grave No. 42 of EPG date, with MPG hydria LP785-061-012 as a marker; the mouth of the hydria had been closed with a cup (LP785-061-011).

Fig. 11. Mudbrick cist grave No. 33 of PG date with an adult burial but no grave goods.
Fig. 12. Group of Early Protogeometric elite graves between Buildings A and G; for their locations, see figs. 5, 7, and 8.

Fig. 13. Balloon image of Building A with sunken pithos, hearths, and grinding slab of the LPG purple dye manufacturing installation (cf. fig. 5 right).