An anomalous area – Trench 3 – at the northern tip of the hill revealed a lattice of partially preserved and partially collapsed walls associated with what appear to be non-residential, perhaps industrial, activities (Fig. 19). A small but persistent scatter of metallurgical-waste fragments, along with the grinder found in 2018 and the rather exceptional size of the pithos first identified there, point to production activities; the precise character of these may be revealed once soil samples have been fully analysed.

On the South Hill Trench 23 yielded evidence that habitation there started in the Early Iron Age and continued until the middle of the fourth century BC. There was probable evidence of the Persian destruction in 480 BC and the deepest level revealed Early Iron Age and prehistoric (possibly Neolithic) ceramics. A new trench (Trench 35) was opened to the north. Excavation data from the limited investigation in here strongly suggest that this area of the South Hill was inhabited in the Archaic and Classical periods. The few pieces of Early Iron Age pottery discovered here, and in Trench 23, provide evidence of the extent of Early Iron Age habitation on the South Hill.



19. Olynthos 2019: aerial view of the site showing trenches on the North and South Hills. © BSA/Olynthos Project.

Also on the South Hill, particularly its southwestern slope, surface collections indicated dense settlement in antiquity. The majority of the pottery dates to the Classical period, while in several squares adjacent to, but not on, the South Hill some of the earliest material from the site was detected in the form of Early Iron Age banded wares. On the slope at the southern end of the hill considerable quantities of Byzantine fine ware, medium ware, brick and tile were collected. The remains of a cistern were also observed, cut into the conglomerate of the upper slope.

The project has now carried out fieldwalking over its entire 8km² study area. A total of 408 fields were walked in 2019, with a focus on two strips to the north of the North Hill, where – 600m from the northern edge of the ancient city – large coarse ceramic wares with fabric and dimensions appropriate for water pipes were noted. These fields are on a ridge line running northeast from the site that Robinson suggested might represent the line of Olynthos' water supply, although he was uncertain of its exact path.

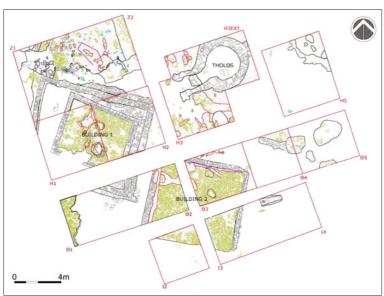
Four seasons of study (2020–2023) are now planned, leading to a complete publication, while more specialized publications will appear in the interim.

Moving south, the BSA's ten-year involvement at the site of **Koutroulou Magoula** in eastern Thessaly (Fig. 20), in collaboration with the Ephorate of Antiquities of Phthiotida and Evrytania, paused for study following a highly successful 2019 season (ID6891). Investigation began in 2005, under the direction of Nina Kyparissi-Apostolika (Director Emerita, EPS-Southern Greece); the collaborative project with the BSA, led by Dr Kyparissi and Yannis Hamilakis (Southampton, now Brown), and now also Vasilis Tsamis (University College London), had its first season in 2010. The site's main period of occupation is the Middle Neolithic (mid-sixth millennium BC, ca. 5800–5300 BC), although there is also a small Late Bronze Age tholos on top of the mound and at least two Byzantine burials.

The 2019 season was one of the most successful since the start of the collaborative project and its were presented in a press release by the Ministry of Culture and Sports (https://www.culture.gov.gr/el/Information/SitePages/view.aspx?nID=2875) and much covered in the Greek press (Fig. 21). Among notable finds was a partially preserved house model found in eight pieces in the same spot in trench Z2, most likely broken deliberately in situ (Fig. 22).



20. Koutroulou Magoula 2019: aerial view. © BSA/Koutroulou Magoula Archaeological and Archaeological Ethnography Project.



21. Koutroulou Magoula 2019: plan of excavations on top of the mound showing trench numbers. © BSA/Koutroulou Magoula Archaeological and Archaeological Ethnography Project.



22. Koutroulou Magoula 2019: house model in situ in Trench Z2. © BSA/Koutroulou Magoula Archaeological and Archaeological Ethnography Project.



23. Koutroulou Magoula 2019: Trench £15, area with probable kilns. © BSA/Koutroulou Magoula Archaeological and Archaeological Ethnography Project.

On top of the mound – the most complicated area of the excavation because of the intensity of occupation, many successive episodes of use, destruction, rebuilding and reuse, and modern animal and human activity – the team established that a partial building unearthed in Z1 from 2011 onwards forms part of a structure unearthed by the pre-2010 excavations, situated under later Building 1. It is the largest unearthed so far on site, and one of the largest known from this period in Greece (ca. 9m × 8m). In the same area (Trench Z2) a major pit filled with ashy material and large quantities of animal bone may have been a feasting pit.

In Trench Ξ 15, on the slope of the mound, the highest priority was to confirm the existence of kilns and to excavate and document in detail the best-preserved example, while clarifying whether any other potential kiln or oven features were present. A focus was placed on Kiln Feature 2, identified in prior seasons (Fig. 23). Painstaking excavation of the heavily burned, hardened, red-clay fill revealed the kiln floor after careful removal of the interior and exterior fills, the latter rich in cultural materials including pottery sherds, chipped stone, animal bone, clay architectural elements and ground-stone tools. The kiln's overall shape is that of a rounded trapezoid (ca. 1m across); its floor was well plastered with a buff-white layer of plaster and the kiln opening was at its southern end. Abutting the southeastern corner was an enigmatic, almost circular fired-clay object, possibly a platform or working surface. The excavators suggest that the superstructure of the kiln was a gently curved dome with a central chimney resting on its walls. In the southern half of the trench additional ovens/kiln features may exist, but it was not possible to define them clearly. It is nevertheless clear that the area contained a kiln complex; this is a find of major significance for this period, the third of this kind known from the Middle Neolithic. Samples for dating and determination of firing temperature were collected.

In Trench X16, opened in 2017 to verify the existence of a ditch identified by geophysical investigation at the edge of the mound, the goal for 2019 was to excavate fully and define the shape of the ditch. Excavation was constrained to a narrow area, while groundwater, encountered already in the previous season, continued to present problems. The ditch was U-shaped, stepped on the eastern and western sides. Five fill contexts were recognized, suggesting a complex history including periods of natural filling,



24. Koutroulou Magoula 2019: poster for end-of-season theatrical performance Woman and presentation of the season's results. © BSA/Koutroulou Magoula Archaeological and Archaeological Ethnography Project.

perhaps during abandonment of the site. The ditch does not seem to have been defensive, but one probable use was for water management for gardens in or around the settlement, and perhaps also for watering of animals. Another possible use, however, was for clay extraction. Its proximity to the area of the kilns, only 30–40m away, strengthens this possibility.

The project's theatre/archaeology programme continued with a performance conceived by Efthimis Theou and Electra Angelopoulou on the theme of *Woman* (**Fig. 24**) and involving the on-site participation of a group of women of various ages from the two closest villages, Neo Monastiri and Vardali. About 200 people took part in a site tour, the performance and the following feast.

Plans are under way for the long-term preservation of the site and its development as a heritage space open to the public through a collaboration with the University of Western Attica Conservation Department. The team is now focused on publication, including the proceedings of a two-day workshop held at the BSA in January 2019.

Finally, at **Knossos**, on Crete, the *Knossos-Gypsades Project*, in collaboration with the Ephorate of Antiquities of Heraklion, continued in 2019 to investigate a neighbourhood within the southern suburbs of the Bronze Age mega-city of Knossos, combining study with further investigation of the larger

site (**ID8570**). The 2014–2015 excavations of Building 1 and adjacent areas, combined with Sinclair Hood's nearby excavations and D.G. Hogarth's Houses A and B, revealed the contours of a Knossian neighbourhood. In 2018 a geophysical survey and geoarchaeological coring programme were carried out to situate this excavated neighbourhood within the wider context of the overall plot. The aim in 2019 was to complete geophysical survey of the remainder of the plot (**Fig. 25**).

Previous gradiometer and resistance surveys carried out in 2010–2011 did not offer a clear picture of the detailed layout of structures (AG 2011: 13, 71; ID1921, ID2813). Renewed geophysical survey in 2018 thus integrated three intensive, high-resolution geophysical survey techniques (magnetometry, resistivity and ground-penetrating radar [GPR]) to achieve a detailed mapping of subsurface features across the ca. 2ha expropriated plot. Work in 2019 focused on magnetometry and GPR, given the success of these techniques in the previous year. Survey was carried out on a 20m grid for both methods. Radargrams were recorded at 0.5m intervals, with measurements at 0.625m intervals. Magnetometer survey was carried out along lines spaced at 0.5m intervals, with measurements taken every 0.125m.



25. Knossos-Gypsades 2019: ground-penetrating radar survey in progress with Amy Bogaard (L) and John Pouncett (R). © BSA.