

NOTION ARCHAEOLOGICAL SURVEY, 2016

A. Introduction

The third season of the Notion Archaeological Survey began on 19 May and ended on 14 June 2016. The average size of the staff was 12 persons. The director was Christopher Ratté. The Representative of the Ministry of Culture was Murat Kalas, for whose collegiality and helpfulness we are very grateful.

B. Current Work

Notion is a coastal site approximately 35 ha in area, surrounded by 3 km long fortification walls (see fig. 1). It occupies a ridge running east-west and parallel with the coast, framed by two promontories projecting southward into the Aegean Sea. It is clear from the visible remains and from satellite imagery that Notion is a grid-planned city, oriented according to the cardinal directions. The promontories and the north and south slopes of the site are occupied by residential areas. The central ridge is dominated by a chain of public and sacred building complexes, set on terraces largely carved out of the native rock. These include, from west to east, the Temple of Athena, the Heroon, the Agora, the Theater, and the so-called East Agora. The highest point on the site is the hill east of the Theater, which rises to an elevation of 85 m asl.

Work in 2016 had the following emphases:

- 1) Geophysical prospection of the northern and western areas of the city
- 2) Documentation of civic and domestic architecture
- 3) Documentation of cisterns
- 4) Documentation of quarries and local geology
- 5) Collection and study of surface finds
- 6) Site management plan

- 1) Geophysical prospection

Two forms of geophysical survey were carried out in 2016: magnetic survey (continuing the program begun in 2014 and 2015), and electrical resistivity survey (undertaken for the first time in 2016). As in previous seasons, the geophysical survey was based on a grid of 30 X 30 m squares, laid out with a differential GPS system. A total of 64 full and 40 partial 30 X 30 m grid squares were surveyed with a Bartington Grad 601-2 fluxgate gradiometer, and a total of 8 full and 14 partial 30 X 30 m grid squares were surveyed with a Geoscan RM-15D Advanced resistance meter. The geophysical survey was directed by G. Tucker, a doctoral student in archaeology at the University of Michigan. The results of the survey are shown in fig. 2. Work concentrated on the area west of the Agora around the Heroon, on the terraces stepping down the north side of the city, and on the level fields just north of the city wall, between the wall and the modern coastal road (which forms the boundary of our survey area). This area may be connected with the ancient harbor. Of special interest are what appear to be a number of large structures on the south side of the area.

- 2) Documentation of civic and domestic architecture

Architectural documentation continued to focus on the Heroon and the Bouleuterion. Laser scans and 1:25-scale plans and section drawings were made of both buildings (see fig. 3). A laser scan was also made of the Temple of Athena, to serve as a basis for detailed architectural recording in a future season. The laser scans were made by topographer C. Kurtze, and the drawings by K. Toomasian, a graduate of the University of Michigan School of Architecture.

In addition, the program of systematic recording of all other visible architectural features begun in 2015 was continued. As noted in last year's report, a detailed aerial survey of the city was carried out in 2015 with the aid of lightweight drones. The imagery taken by these drones was used to generate an orthorectified photomosaic of the entire site to aid in mapping architectural remains. Over the course of the 2015-16 academic year, all the architectural features (walls, thresholds, etc.) visible in this photomosaic were traced in a GIS (Geographical Information System). In the 2016 field season, the GIS was loaded onto iPads, which were then taken into the field so that more detailed records could be made of every identified architectural feature (see figs. 4-5). A total of 1,313 such features have now been recorded both in the GIS and in a separate database. This recording program has clarified the street system, the organization of civic and sacred areas, the terracing of the city, and the layout of residential housing blocks. Fieldwork on the urban mapping program was coordinated by M. Naglak, a doctoral student in archaeology at the University of Michigan.

3) Documentation of cisterns

In 2015, laser scans were made of two of the 12 cisterns and probable cisterns initially noted in 2014. In 2016, laser scans were made of an additional six cisterns (see fig. 6). In addition, four previously unnoticed cisterns were discovered and recorded. The cisterns are being studied by A. Commito (Visiting Assistant Professor of Classical Archaeology, Union College). They are generally bottle- or carafe-shaped in section (typical of the Hellenistic period), expanding from a diameter of 1-2 m at the top to 3-4 m at the preserved bottom, and extending down to a depth of 5-7 m. As preserved, they range in capacity from about 4.5 to over 50 cubic meters – but since all the known cisterns are partially filled with earth and debris, they may originally have been much larger. Most of the known cisterns are located on the east-west ridge that runs through the center of the site. Prof. Commito suggests that they may have been much more numerous in the residential areas on the north and south slopes, where they have been buried by erosion. This suggestion is supported by the fact that the four cisterns newly discovered this year are all located on these north and south slopes.

4) Documentation of quarries and local geology

Geologist P. Knoop (IT specialist, University of Michigan) is making a detailed map of the local bedrock, which consists of marble, schist, conglomerate, and calcareous sandstone (see fig. 7). This study, undertaken by Knoop in concert with C. Steidl (a doctoral student in archaeology at Brown University), helps to clarify the transformation of the landscape that accompanied the development of Notion as a city (especially the leveling off of the terraces of the Agora and other public buildings), and the use of local stone in public and residential building.

5) Collection and study of surface finds

Collection and study of surface finds, begun in 2015, was continued in 2016 under the supervision of A. Commito. The finds collected in 2016 had the same date range as those collected in 2015, reinforcing the impression that Notion was a largely Hellenistic town, with only limited occupation extending into the Roman period. Of interest was the difference in the character of the finds from inside and outside the fortification wall on the north side of the city. The date range was the same, but the pottery collected outside the city wall consisted almost exclusively of storage and transport vessels, with much less tableware than that found inside the city (see figs. 8-9). The pottery was studied by A. Berlin (Professor of Archaeology at Boston University).

6) Site management plan

Architect K. Velikov continued her work on a preliminary site management plan, in cooperation with University of Michigan conservator S. Davis.

C. Conservation Needs

In addition to these research emphases, the survey team noted evidence for continued illegal excavation in several places and observed potentially damaging plant growth in a number of excavated or partially excavated monuments, especially the Theater. Open trenches should be filled in or fenced off, and the pine trees in the Theater should be cut and herbicides applied to prevent regrowth. With the permission of the General Directorate, the survey team would be prepared to oversee these operations in the next field season.

D. Conclusion

It has been a great privilege to continue work at Notion. In future years, we hope to continue the geophysical survey, architectural documentation, and conservation planning that have formed the main emphases of this season's work. We also hope to expand our work to include the cemeteries of ancient Notion, which have occasionally been subject to looting, as well as the surrounding region. We are very grateful to the Ministry of Culture of the Republic of Turkey for permission to study and document the remains of this remarkable archaeological site.

Illustrations

- Fig. 1 Plan of site
- Fig. 2 Results of geophysical survey
- Fig. 3 Plan and section of Heroon
- Fig. 4 View of survey team recording architectural features on iPads
- Fig. 5 Sample of architectural feature database entry
- Fig. 6 Profiles of cisterns made with laser scanner
- Fig. 7 Preliminary geological map of site
- Fig. 8 Selection of surface finds from inside city wall on north side of city
- Fig. 9 Selection of surface finds from outside city wall on north side of city

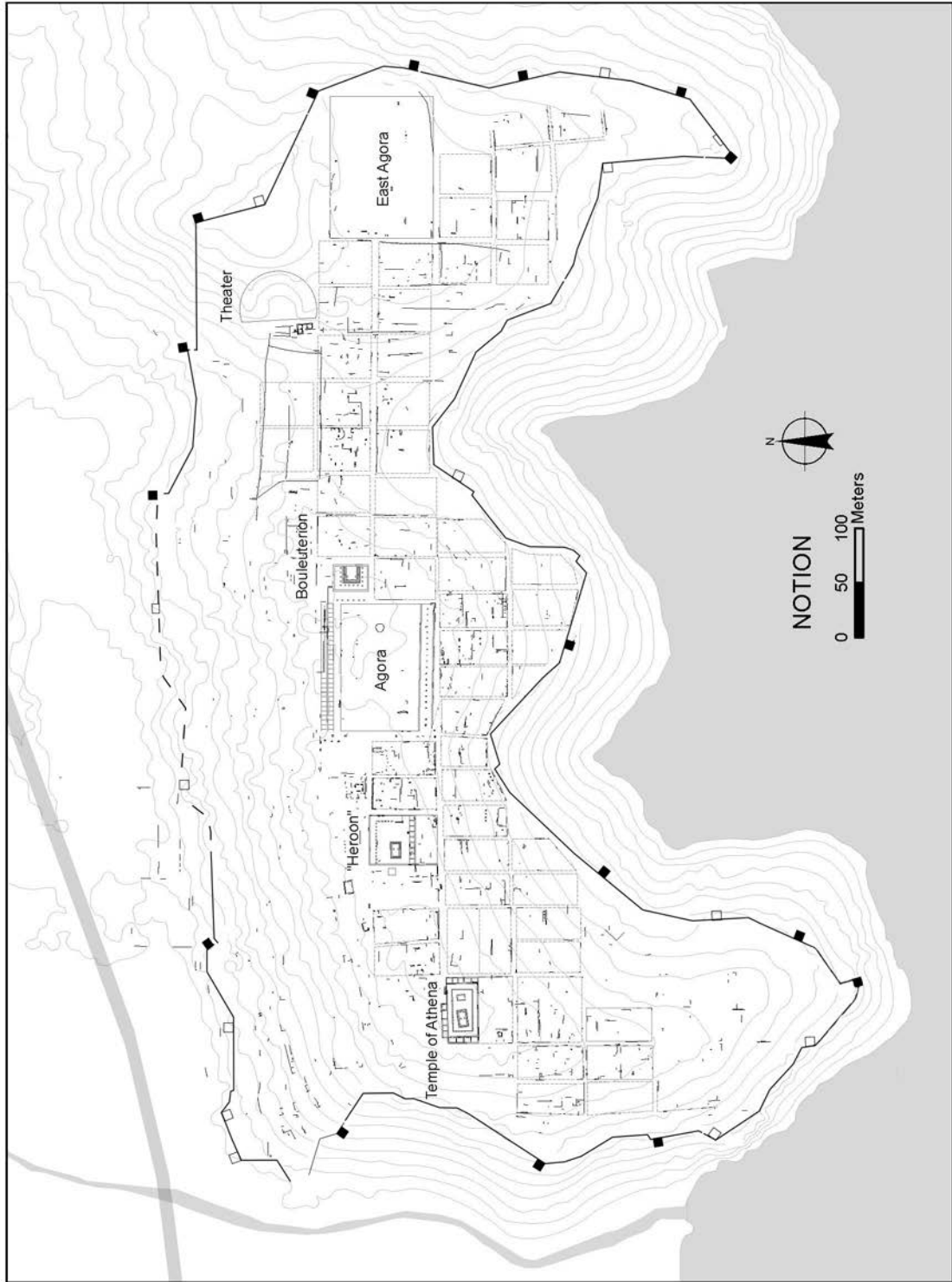


Fig. 1 Plan of site



Fig. 2 Results of geophysical survey

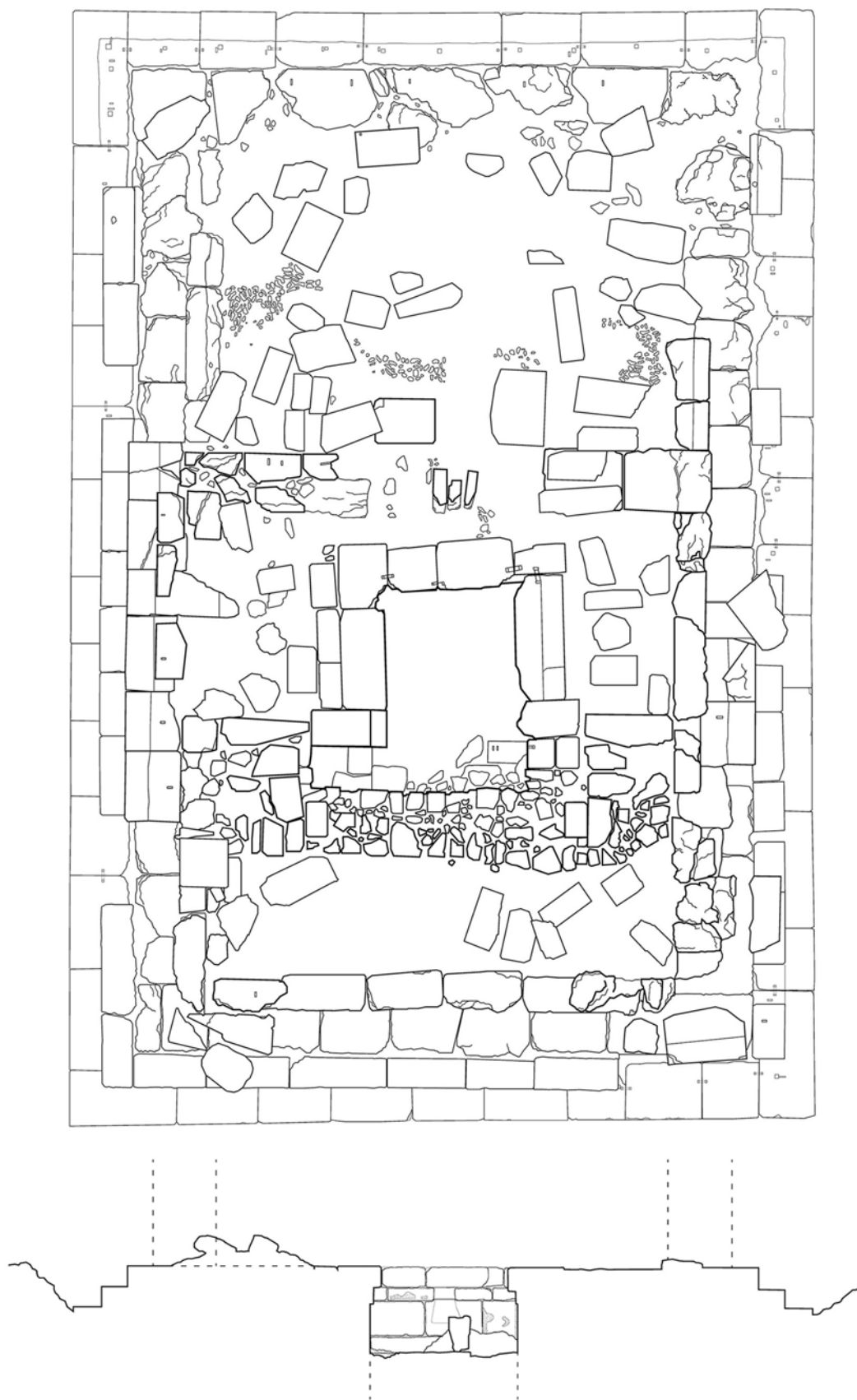


Fig. 3 Plan (redrawn in 2016) and N-S section of Heroon



Fig. 4 View of survey team recording architectural features on iPads

Notion GIS Recording Sheet In Progress

Basic Information:

Feature Unique #: 2015.0232 Date: 6/13/2015 Shot in with TS: Yes Not to be shot in Total Station Points: _____

First Temp Pt: G352 Photo #: tp130e_g351org352

Last TS Point (if req): _____

Feature Data:

Feature Type: Landscape Tomb Architectural Fortification Modern Agricultural Water

Feature Date: Prehistoric Classical Late Roman Modern Bronze Age Hellenistic Byzantine Iron Age Augustan/Early Imperial Ottoman Archaic High Imperial Early Modern

Specific Feature Type:

Landscape: _____ Tomb: _____

Architectural: **Threshold** Fortification: _____

Modern: _____ Agricultural: _____

Water: _____

Description: Conglomerate threshold running north-south and door turning to west. Set in wall on terrace below G351 (2015.231) in southern slope of East Agora. One square pivot hole. New garmin point in 2015. Picture most likely of 352, but also possibly 351.

Building and Construction Data:

Building Type: _____ Room Type: _____

Construction Details: _____ Building Element: _____

Building Material: **Conglomerate**

Threshold Data

Orientation: N-S E-W

Direction of Interior: N S E W

Door opens: In Out

In situ? Yes No

Fig. 5 Sample of architectural feature database entry

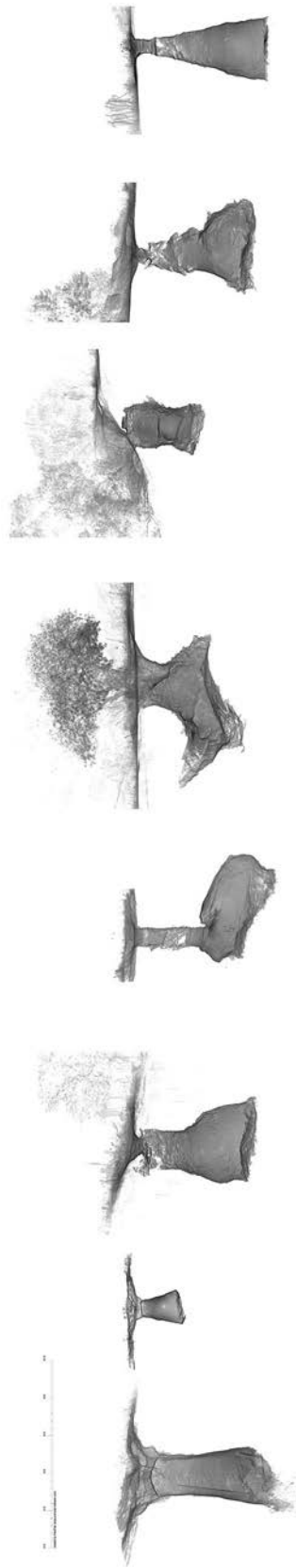


Fig. 6 Profiles of cisterns made with laser scanner

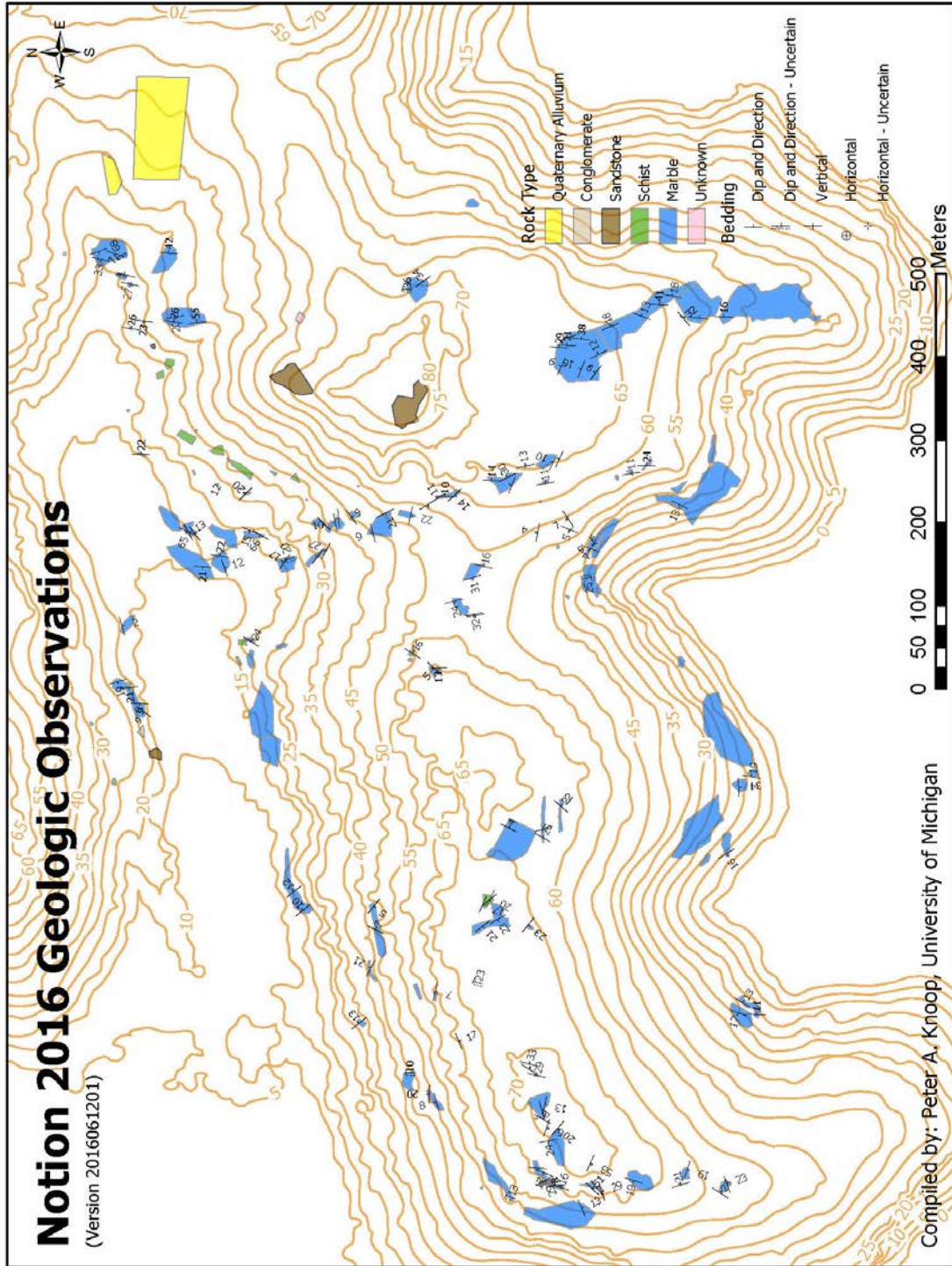


Fig. 7 Preliminary geological map of site



Fig. 8 Selection of surface finds from inside city wall on north side of city



Fig. 9 Selection of surface finds from outside city wall on north side of city