

BTC Pipeline 2005

Work overseen by 4 western archaeologists Using planning frames and total station





BTC Pipeline 2005

State of the art high angle photography







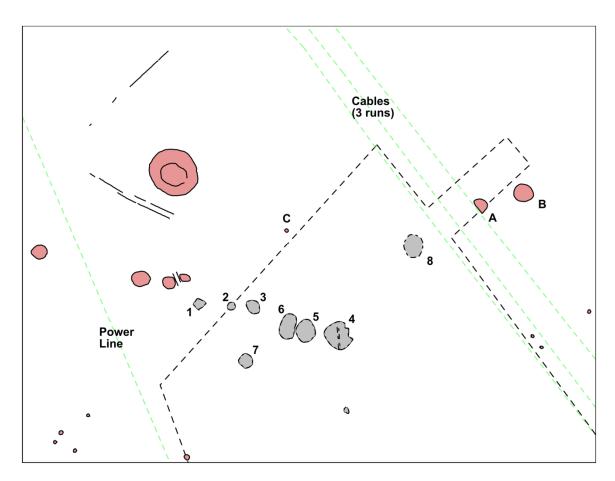
SCPX Pipeline 2016

- Single western Archaeologist
- No total station or planning frame
- Approximately 20 excavations, mostly evaluation
- Majority of the work was in 4m by 4m units on the trench line
- These were laid out using RTK GPS, so there was a good framework for recording



Borsunlu Camp Bronze Age Kurgan Cemetery

- Later work was conducted in wider areas, without local survey control
- Remotely triggered camera mounted on a 3.5m pole used to record excavated features
- Agisoft Photoscan software used to process the images
- Objective to produce a 2D plan of the recorded features
- 3D information not important, the photographic archive can be processed at a later date to acquire this



Borsunlu Kurgan 8





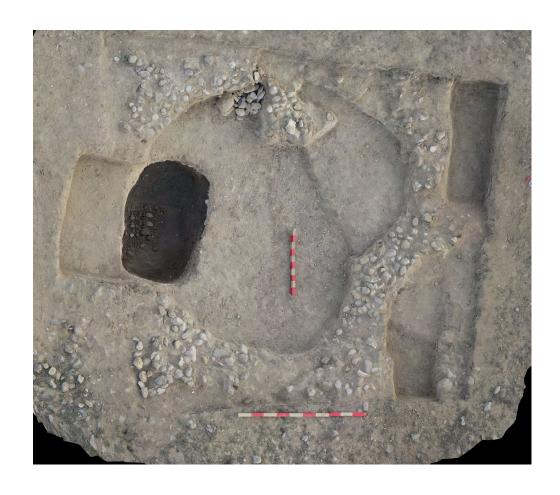
Borsunlu Kurgan 4





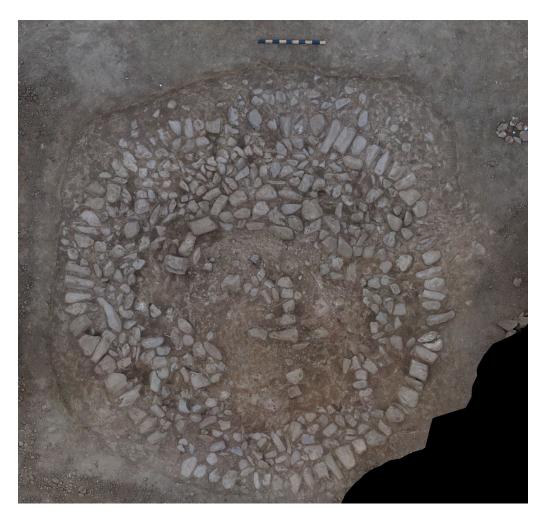
Borsunlu Kurgans 1 and 2





Zayamchai Kurgan 3





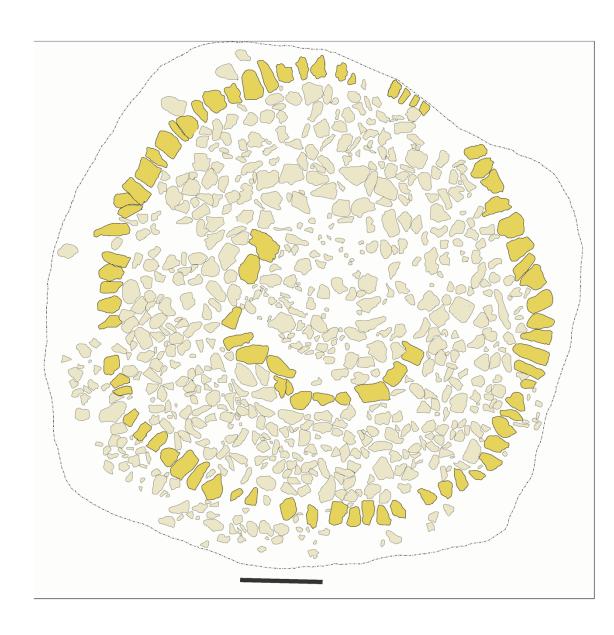
Zayamchai Kurgan 3

After processing images in Photoscan:-

The composite image can be placed in the appropriate position in the GIS

Or,

The interpretation image can be used in the GIS or reports.



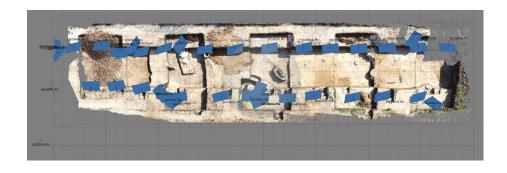
Poylu Chalcolithic Settlement





Poylu Chalcolithic Settlement





North to bottom of image

15 June 2017, 4pm in relatively cloudy conditions

Sony A7 camera, 19mm Sigma lens,

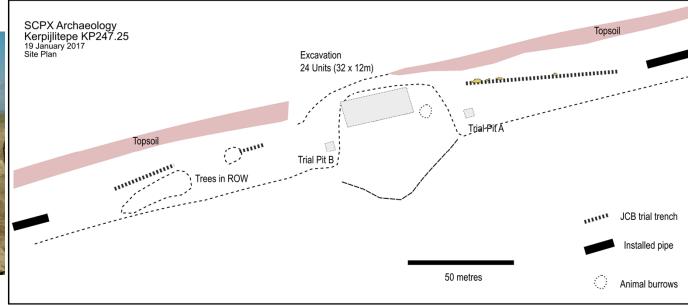
43 Photos, Align Photos: High, Dense Cloud: Low, Model: 36,260 faces.

Lenovo i7-5600U CPU@2.6 GHz, 12GB RAM, 3 hours processing



Kerpijlitepe Medieval Settlement





Kerpijlitepe Medieval Settlement



Kerpijlitepe Medieval Settlement



Yaldili Antique (Classical period) Jar Grave Cemetery





Issues implementing the technique

- Photographer needs to have some understanding of what images are suitable for the software
- Detailed views of individual graves are better taken as single images using the pole and then added to the GIS
- Choosing the appropriate time during the excavation to take images
- Strong sunlight
- Dust and untidy work scenes
- Lack of a suitable scale and fixed reference points



Successes with the technique

- Good for overall recording of the nature of a site, either stone or soil
- Recording on site can be very rapid
- Images can be sent by Dropbox to the UK and processed overnight, so a completed record is available next morning in Azerbaijan
- Allows the record to be used for multiple interpretational purposes
- Labourers like using the equipment

