

# Azerbaijan Air-Bourne Archaeology

Landsker Archaeology

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# Foel Trigarn, Preseli Iron Age Hillfort

Ramparts, burial mounds, hut platforms and  
quarries can all be seen in great detail



# My Home in West Wales

Image taken in early June 2007 in the late afternoon.

Note the machine picking up grass and the low Sun shown by the shadows



## How much detail can be observed?

The sheep in the left bottom corner give the scale. This level of resolution is about as close as the Google Earth images can go

The light coloured car can be seen beside the house, but is there a dark car in front of it?  
Probably not, this is late afternoon, the dark car has gone to fetch the children from school



## Oblavka Kurgan Cemetery, Uralsk, West Kazakhstan

Four kurgan mounds after excavation by the West Kazakh Oblast Centre for History and Archaeology. The Ural River is the border with Russia on the north bank. A recent cemetery lies to the south east



## Kurgan Cemetery, Uralsk, West Kazakhstan

A linear cemetery of kurgan mounds. One of the mounds in the centre is undergoing excavation. Two recent rectangular nomadic structures can be seen south of the kurgans.

This slide illustrates the difference between the high and low resolution Google Earth images



# Azerbaijan

640 items in the database shown over the background of Azerbaijan (mainly from work on the pipeline)



# Pipeline Sites: Tovuzchai Bronze Age Cemetery KP378

Image 2006 after reinstatement. Very little additional information is visible



## Pipeline Sites: Zayamchai Bronze Age Cemetery KP356

Image 2006 after reinstatement. Traces of the many small burial mounds can be seen to the north, also the bridge footings in the river to the west. The effect of the reduction in working width to protect archaeology is visible.



# Identification: Gilgilchay Long Walls

As part of the work on the Northern Export Route in 1996, I visited the area around Tower P1. It was clear that this feature could be used as a key to start identification of features on aerial images. The place marks are those locations given to me by Phillip Kohl from his survey in 2002. With this data, it is possible to identify the physical remains of the walls without further ground survey.



# Identification: Gilgilchay Long Walls, Central section

Showing visible extent of walls. No additional information is visible when zoomed in on tower locations



# Identification: Gilgilchai Long Walls, East section to the coast

The wall cannot be seen on this image in the final kilometre or so to the coast. Does this represent evidence of a higher level of the Caspian Sea during the period of construction (c.7<sup>th</sup> century AD). Further work is needed to clarify this



# World Heritage Sites: Icheri Shaher, Baku

This type of image can be used to monitor for long term change



# World Heritage Sites: Gobustan

Overall view of the Reserve with GPS locations from a visit with Jafargulu Rustamov in 2003.



# World Heritage Sites: Kicik Dash, Gobustan

Petroglyph sites and Mesolithic and later settlement sites (North to the right of the image)



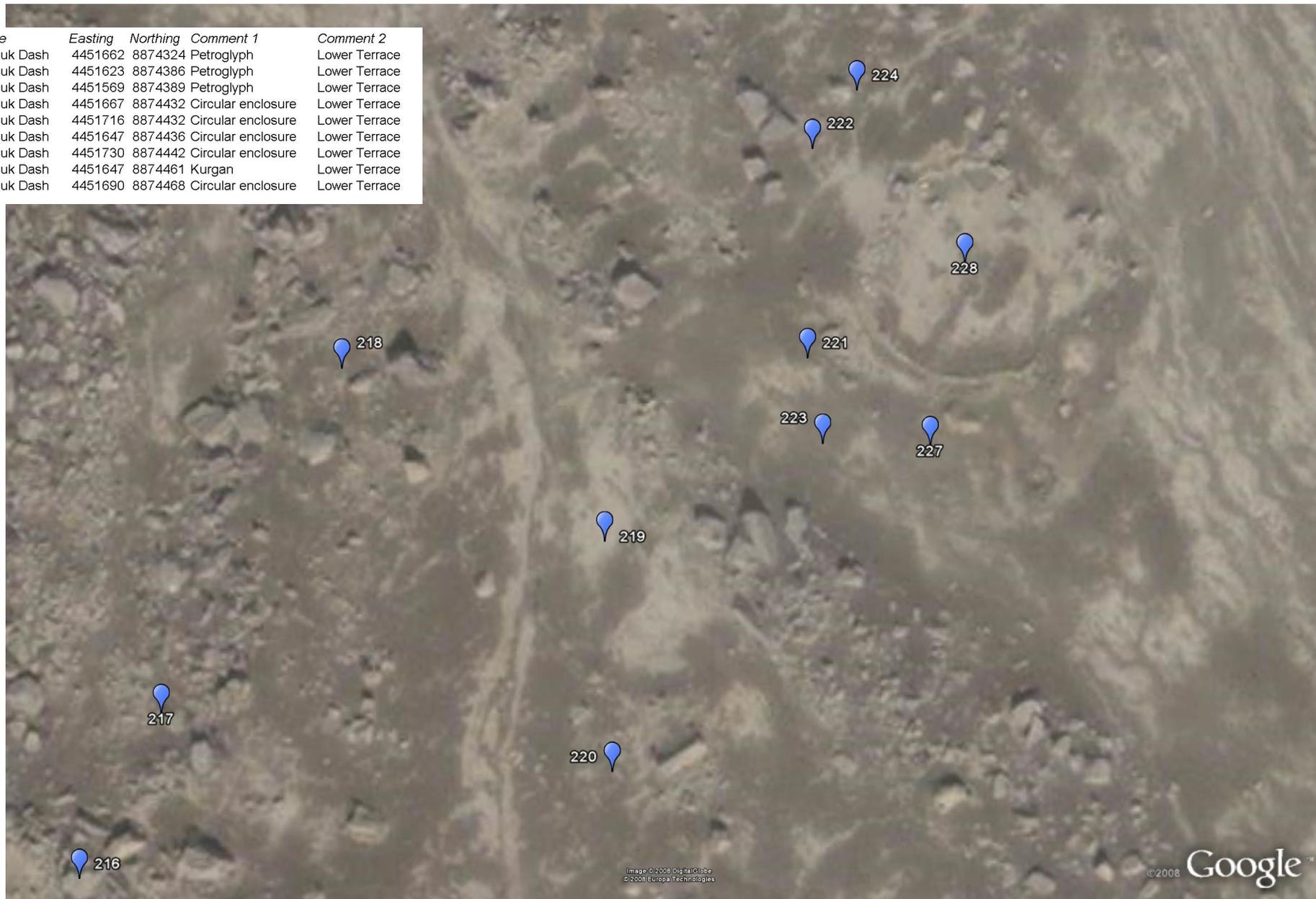
ID	Name	Easting	Northing	Comment1	Comment2
302	Kicik Dash	4446023	8874562	Petroglyph	Firuz Settlement
303	Kicik Dash	4446026	8874596	Petroglyph	Firuz Settlement
304	Kicik Dash	4445672	8875569	Petroglyph	Medieval settlement
305	Kicik Dash	4445820	8875659	Petroglyph	Firuz Settlement
306	Kicik Dash	4445795	8875678	Petroglyph	Firuz Settlement
307	Kicik Dash	4445791	8875690	Petroglyph	Medieval settlement
308	Kicik Dash	4444618	8875791	Petroglyph	Mountain
309	Kicik Dash	4444952	8875942	Petroglyph	Medieval settlement
310	Kicik Dash	4444840	8875981	Petroglyph	Mountain
311	Kicik Dash	4447177	8876113	Petroglyph	Firuz Settlement
312	Kicik Dash	4445236	8876295	Petroglyph	Medieval settlement
313	Kicik Dash	4445055	8876309	Petroglyph	Medieval settlement
314	Kicik Dash	4458353	8881112	Petroglyph	



# World Heritage Sites: Beyuk Dash, Gobustan

Petroglyph sites and Bronze Age kurgan (228)

ID	Name	Easting	Northing	Comment 1	Comment 2
218	Beyouk Dash	4451662	8874324	Petroglyph	Lower Terrace
219	Beyouk Dash	4451623	8874386	Petroglyph	Lower Terrace
220	Beyouk Dash	4451569	8874389	Petroglyph	Lower Terrace
221	Beyouk Dash	4451667	8874432	Circular enclosure	Lower Terrace
222	Beyouk Dash	4451716	8874432	Circular enclosure	Lower Terrace
223	Beyouk Dash	4451647	8874436	Circular enclosure	Lower Terrace
224	Beyouk Dash	4451730	8874442	Circular enclosure	Lower Terrace
227	Beyouk Dash	4451647	8874461	Kurgan	Lower Terrace
228	Beyouk Dash	4451690	8874468	Circular enclosure	Lower Terrace



## Monitoring Sites: Rahimli, Goranboy

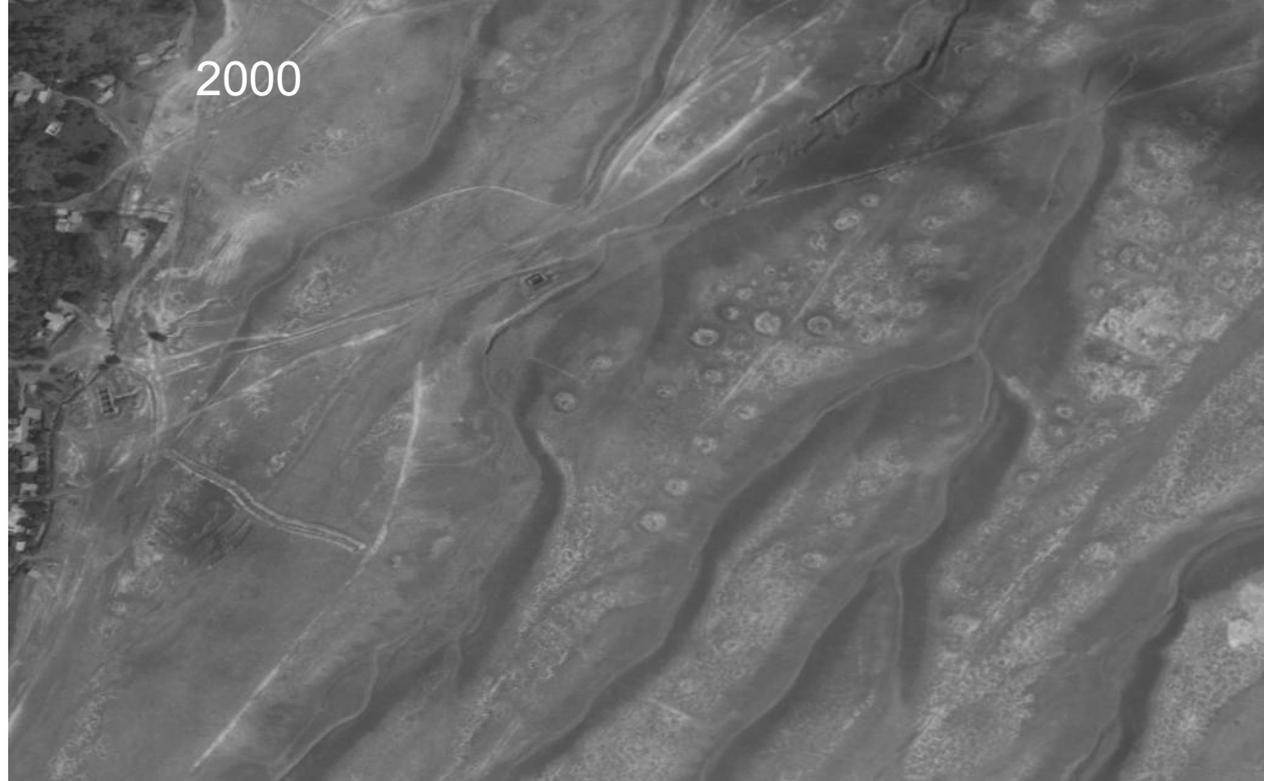
Part of an extensive kurgan field with more than 50 mounds. The area was first located on the 2000 black and white aerial photographs. Identifying the area on the Google Earth images, allowed the black and white photographs to be geo-referenced and changes over time identified. This area has only been visited for a short period.



## Monitoring Sites: Rahimli, Goranboy

Many of the mounds had been damaged prior to the discovery of the site on the 2000 aerial photograph. The 2007 Google Earth image shows that a channel has been constructed East to West across the lower part of the view, and in doing so has damaged at least two mounds with further damage to the east.

This area needs detailed ground survey to verify the features seen on the images. The areas of fresh damage should also be examined and recorded as it may provide dating evidence.



## Monitoring Sites: Shamkir Medieval town

This is a composite view of the black and white 2000 aerial photograph overlaid and geo-referenced to the Google Earth 2007 image. The citadel defences and the outer earth ramparts are easily seen. This image can be converted to a scaled map view of the town.



## Monitoring Sites: Shamkir Medieval town

During 2005, an irrigation ditch was opened up in the interior of the town and out through the northern rampart defences. The signs of this can be seen in the sequence of images

