

Sayadin Roman Farm House Project

Purpose

During the 2009 season the Barqa Landscape Survey project identified an area to the south of the Barqa, off the main byroad to Namlah, as a potentially rich archaeological area. It's a farmstead owned by Mr. Sayadin and contains a perennial spring, which creates a rare oasis environment surrounded by the arid conditions of the Wadi 'Arabah.



Figure 1 Reservoir (photo HF facing north)

During the initial survey it was noted that a large square stone structure was visible from the surface. Surrounding the structure was a rich layer of cultural material and the majority of the pottery found here dated to the Roman\Byzantine period. Given the square shape of the structure and the finds on the surface, an initial hypothesis was formed that the building dated to the Roman\Byzantine period. The purpose of the 2010 pilot season was to confirm this hypothesis and to also conduct a survey of the surrounding area; which involved a partial excavation of the structure, and X-ray fluorescence (XRF) analysis.

Survey of the Surrounding Area

The Farmstead is located in the Barqa region, an area to the south of Faynan best known for its copper mines and industry, which started in the Bronze Age and continued until the Islamic era. We conducted a preliminary survey on the farmstead and the nearby fields in order to better place the square stone structure into the context of its surroundings. The structure itself is a small 2 meter high rise located north of the reservoir. Upon further study, it was proposed that this rise is actually a small tell; because more features were visible from the surface, including a mudbrick wall 50m to the north of the stone structure that had been exposed by looting activity. The stone structure we explored this season appears to be one of many and further work, perhaps with Ground Penetrating Radar, would help identify additional evidence of human settlement in the area.

We also concentrated on examining the surrounding fields; because last year while plowing, Mr. Sayadin found sherds of thin walled pipes with overlapping lips sealed with a hydraulic plaster/concrete. During our own survey we found more

sherds. These are similar in typology to Late Roman/Byzantine hydraulic pipes used for military bathhouses but the pipes could date anywhere from the Late Roman to Islamic periods (pers. comm. Robert and Erin Darby and John Hayes.) The use of ceramic pipes makes this site unique in the Faynan/Barqa region as it is the only attested case of irrigation by pipeline.

Structure

Having a better understanding of the landscape, we commenced excavation on the 23rd of June and continued until the 9th of July. We found a layer of modern occupation near the surface. This included an ephemeral wall made from stones taken from the larger stone building and pits lined with plastic. It also included a burn event which could be identified from the large amount of ash and the remains of posts burned in situ. In addition to these initial explorations, we also identified a mudbrick wall (60cm thick) composed of headers and stretchers unrelated to the modern occupation. To explore the stone structure and its relationship to the mudbrick wall we created three trenches; two in the west interior of the structure to the south and north of the mudbrick wall, and one in an area outside the stone structure.



Figure 2 Final trenches (photo HF facing south)

We found underneath the modern occupation was a layer comprised of sand blown fill with few pottery sherds of mixed context dating to the Early Bronze Age, Roman, Byzantine and Islamic periods. The sand fill continued for 1 meter until the floor surface was reached. This floor layer was hard compact sand, over 10cm thick, and was found in all three sections. The stone building proved to be six courses high (75cm wide) and was abutted by the six course mudbrick wall.



Figure 3 Mudbrick wall (photo HF facing north)

It is possible that both of these walls were taller in the past because the top courses of mudbrick were badly eroded and the stones from this building had been reused to form burial cairns (now located to the north-west).

During our excavation the XRF analysis was conducted by Professor John Grattan of the University of Aberystwyth. Multiple samples were tested relating to the modern occupation, fill and floor of the stone building. These analyses revealed no industrial activity took place at the site. The pollution levels recorded were similar to those generally found in the surrounding Faynan and Barqa regions; being slightly polluted due to proximity to copper production but not sites of industry themselves.

Conclusion

Due to time limitations, we were unable to dig the entire structure or excavate below the hard sand floor surface. While initial surface finds and the visible structure indicated this was a Roman/Byzantine date, no evidence was gathered during this pilot season that could firmly confirm this. Most certainly the pottery found in the fill suggests that human occupation in the area covered a range from the Early Bronze, Nabataean, Roman, Late Roman, Byzantine and Abbasid periods. Looking at the architecture alone we believe that the stone structure dates to the Classical/Late Antique periods. The use of a mudbrick interior wall with alternating headers and stretchers however might suggest an Islamic period date. This is further suggested by the finds of applied relief Abbasid cream ware, which has never before been attested to in the Faynan region. More work will be required to date this structure securely but the potential of the region has been demonstrated.

What this pilot season has confirmed is that unlike many other substantial buildings of the Faynan and Barqa region this site was agricultural and not involved in the copper industry. The nearby spring is an especially important resource because it has been a permanent water source since the Paleolithic. During periods of climatic change, such as the dryer hotter spell beginning during the Byzantine period, these water resources were especially valuable because it freed farmers from relying solely on precipitation. If this building correlates to the Byzantine or Islamic periods this

could explain why such a large amount of effort was expended into the planning and construction of the thick walls of the building and the infrastructure of the water pipes in the surrounding fields. If, as the pottery suggests, this is an area with a long occupational history, it provides a unique opportunity to better understand how humans interacted with a vital water resource in this arid environment over long periods of time.

Acknowledgments

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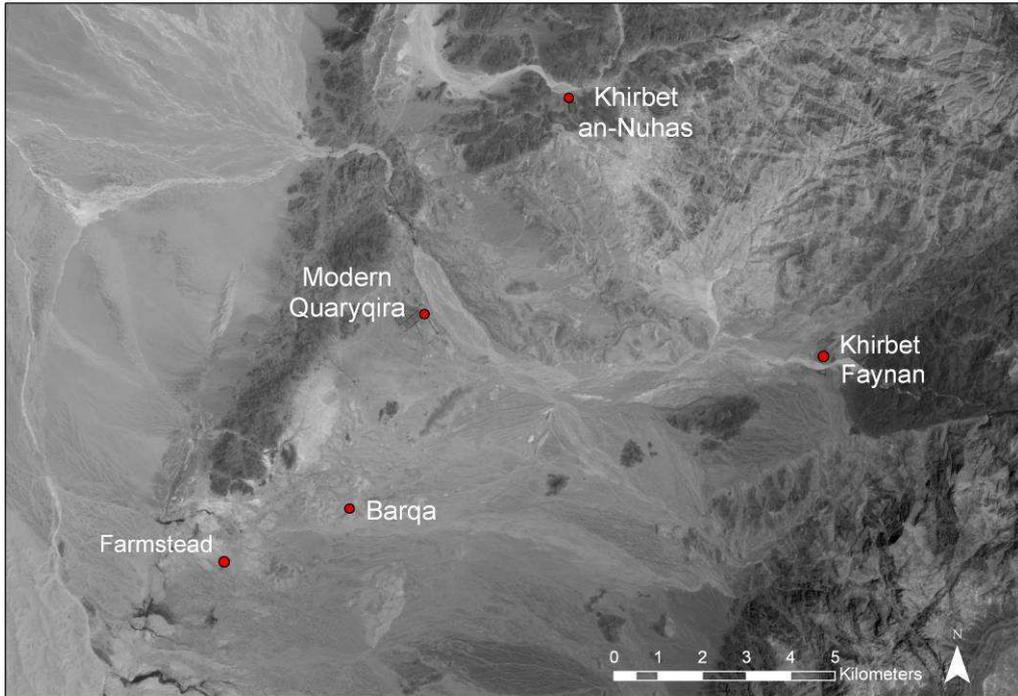


Figure 4 Faynan Region including the location of Mr. Sayadin's farmstead

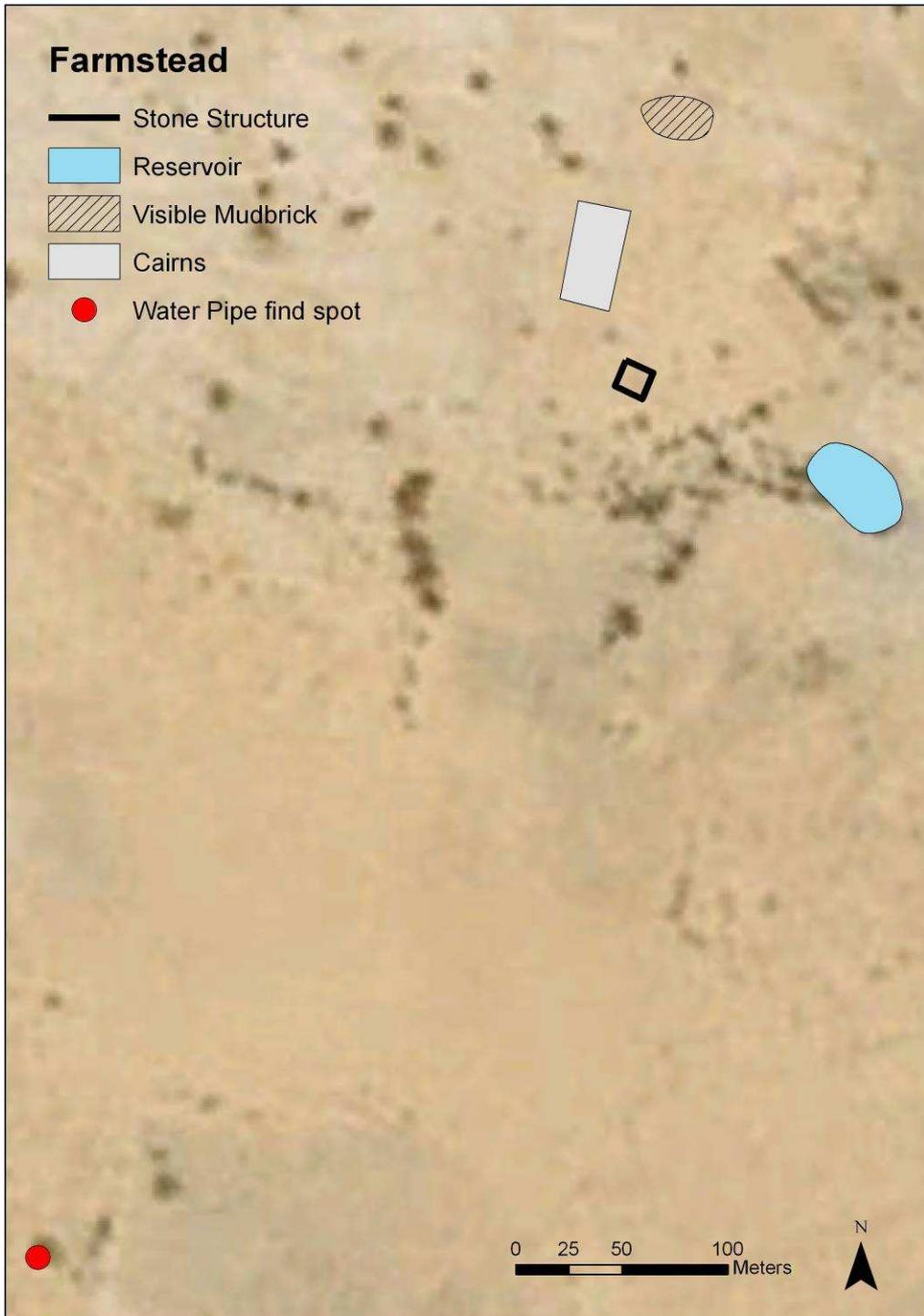


Figure 5 Archaeological features of Mr. Sayadin's farmstead