

El-Markha Plain as an access for Pharaonic Mining Expeditions to South Sinai

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Abstract

This paper displays the recent excavation's works in El-Markha Plain beside what was discovered over the past years. The ruins in this site can be concluded in Sites 346, 346-a, 346-b, 346-c and 345 (Ras Budran). A fort in site 346 had been discovered and dated to the New Kingdom; an additional fort had been discovered in Ras Budran and dated to the Late Old Kingdom. Investigations on the Red Sea Coast at Ayn Soukhna brought to the light the discovery of a new harbor complex from the Old Kingdom attached to a nature anchorage at Wadi Al-Jarf in 2008. The site is located on the western coast of the Gulf of Suez. Inscriptions from Ayn Soukhna reveal that turquoise and copper mining expeditions sometimes utilized Ayn Soukhna as a way-station on route to South Sinai.

Introduction

El-Markha Plain is an archaeological site which is considered a key coastal region providing an anchorage and a direct access via wadi systems through hills and mountains to the inland and maritime ancient Egyptian expeditions that had been travelled to the copper and turquoise mining regions in South Sinai.¹

It is situated at South Sinai governorate (Lat. $28^{\circ} 59' 20''$; Long. $33^{\circ} 11' 0''$). It extends 14 miles Southward with an average width of 4 miles. It is about 130 Km south of Suez.²

In 1947-48, the California Africa Expedition explored the Sinai Peninsula: W. F. Albright examined the Proto-Sinaitic texts and discovered a New Kingdom anchorage in Markha Plain. Rothenberg directed surveys in Sinai during 1956-57 and 1967-73, reporting further pharaonic materials in Markha Plain. He designated Albright's pharaonic "sea port" as site 346 and observed an additional, possible pharaonic site no. 345 (fig. 1).³

In 2002, 2004, and 2008, Mumford also investigated Rothenberg's southern coastal site (345) in Markha Plain and continued the discoveries of the site as the search will display later.⁴

According to the 1948 discovery of Albright of a fort in site 346, he dated it to the New Kingdom, maybe to 1500 B.C. In 1970, Beno Rothenberg discovered the site 345 and suggested an additional fort in Ras Budran (fig. 2), and George Mumford continued studying the site and dated it to the Late Old Kingdom, and according to the pottery evidence that had been discovered over the site (fig. 3), the construction of the fort and the main phase of its use was dated by G. Mumford to the late Old Kingdom.⁵

Nature of Monuments

The archaeological site itself is divided into five main sites:

Site 346: In 1948, W. F. Albright and H. Field discovered this 'Eighteenth Dynasty' coastal site beside a Bay at the northern end of el-Markha Plain. B. Rothenberg later designated this site without publications about it. Field described the seaport at the Bay of el-Markha as lying 5 Km south of (old) Abu Zenima.⁶

The University of Toronto project examined the surface debris on the site in the summer of 2000 and 2001, and observed New Kingdom pottery, copper slag, grinding stones and pounders. The 2002 excavations at site 346 revealed copper smelting furnace and New Kingdom and Roman pottery without publishing the details.⁷

The Site itself was said to represent a low settlement mound, located upon a low hillock that lay on the northern edge of el-Markha Plain, just over 100 m from the Gulf of Suez. Field noted that it lays beside a protected cove perfect for anchorage.⁸ Although Field and Albright described the site's size as 50 by 100 m, Rothenberg later estimated it to be 50 by 110 m. The lowest part of the settlement mound lay about 2 m above the Red Sea high tide mark and generally the mound lies between 4 and 5 m above the sea level.⁹ Site 346 can be reconstructed as a transitory coastal camp site with direct access to a nearby small protected bay where ships could anchor for several months. The evidence of furnaces, crucibles, charcoal, and lumps of copper slag, suggest some refining of copper prior to loading ingots onto ships bound for the west side of the Red Sea.¹⁰

The absence of structures implies a temporary camp, presumably using cloth tents with stones weighing down the base. The excavated pottery vessels include closed forms for the storage of liquids and solid food products. The grinding stones reveal the preparation of flour from sacks of grain, while some moulds, cooking pots, and bowls represent utensils for baking, cooking and eating (Fig. 4). Two copper smelting furnaces and a trench in the eastern area of the mound were excavated in the 2002 examination.¹¹

Sites 346-a, 346-b, and 346-c: The June 2001 surface survey examined a 50 m stretch extending 3 Km south of site 346 and discovered two more New Kingdom sites along the foothills (346-a and 346-b). These contained

only a collection of sherds from broken amphorae, representing transitory rest points on route to the mining region.¹²

Both rest points lie on higher ground, adjacent to Wadi Beds, and the foot of the hills bordering the plain. These rest stops, and other similar site placements, imply prudent winter travel during which experienced trekkers avoided stopping in Wadi Beds. Expeditions may have minimized the time spent traversing Wadi Beds which bears deadly flash floods in winter. Site 346-c also contains a scatter of sherds and stone tools and lies to the west of the Plain.¹³

Site 345 (Ras Budran): Rothenberg reported one potential pharaonic site no. 345 to the south of the site no. 346, at the northern end of El-Markha Plain. This site is described as lying 200 m from the Red Sea with potsherds and jars, evidence of copper smelting (Figs. 5, 6), and traces of a large structure below the sand. During the 2002 season, the University of Toronto expedition relocated this site 1.76 Km to the south of site 346.¹⁴

The 2008 and 2010 excavation seasons located a late Old Kingdom, circular, stone coastal fort measuring 42 m in diameter, and contained 5 m wide walls (preserved up to 3.5 m) and a western entry and bastion, and lies nearby an anchorage at Ras Budran in South Sinai have refined to understand the nature and role of this site in turquoise and copper mining operations during the late Old Kingdom (Fig. 7).¹⁵

The 2008 excavation of part of the eastern remaining half of the interior courtyard revealed an intervening layer of windblown and hardened sand separating the upper and last occupation layer from an earlier Old Kingdom. The uppermost layer appears to contain a variety of activities near the northern interior wall face. The courtyard's interior northwest quadrant displays some working and polishing of raw turquoise nodules, while marine mollusk plates to the north of a central, stone slab paved hearth suggest the roasting and consumption of a few red sea Chitons.¹⁶

An entry passage and adjacent staircase lie along the western side of the courtyard, near a western "buttress" that was traced 22 m. The Southwest quadrant also contained the remains of post holes that once supported an awning around two-thirds of the excavated western half of the interior courtyard, shading an area that yielded mostly storage jars that may have held such products as grain, meat, wine and water. The interior part of the southwest quadrant also yielded some evidence for copper smelting (fig. 6).¹⁷

The relation between El-Markha Plain and the site of Ayn Soukhna

Investigations on the Red Sea Coast at Ayn Soukhna, a team from the University Paris-Sorbonne and the French Institute in Cairo discovered a new harbor complex from the Old Kingdom attached to a nature anchorage at Wadi Al-Jarf in 2008. The site is located on the western coast of the Gulf of Suez, about 20 Km south of the modern town of Za'farana. In the Middle and New Kingdoms, several inscriptions from Ayn Soukhna reveal that turquoise and copper mining expeditions sometimes utilized Ayn Soukhna as a way-station on route to Wadi Maghara and Serabit el-Khadim.¹⁸

Since 1999 up till 2002, eight Middle Kingdom rock-cut inscriptions at el-Ayn el-Sukhna had been recorded, some of which attest to copper and turquoise mining expeditions reaching this region on the route to south Sinai.¹⁹ The June 2011 excavations by IFAO at Wadi al-Jarf on the east coast of the Red Sea, immediately opposite Ras Budran in southwest Sinai, have revealed a substantial Old Kingdom anchorage dating mainly from Dynasty 4 to early Dynasty 5.²⁰

Wadi al-Jarf is closely linked with the Old Kingdom turquoise mining anchorage at Ras Budran, which is 50 Km to the east across the Red Sea and has yielded many identical examples of marl storage jars.²¹

Conclusion

The ruins in El Markha Plain can be concluded in Sites 346, 346-a, 346-b, 346-c and 345 (Ras Budran). A fort in site 346 had been discovered and dated to the New Kingdom, and an additional fort had been discovered in Ras Budran and dated to the Late Old Kingdom. In 2008, investigations on the Red Sea Coast at Ayn Soukhna brought to the light the discovery of a new harbor complex from the Old Kingdom attached to a nature anchorage at Wadi Al-Jarf, beside some inscriptions had been discovered between 1999 to 2002 which referring to mining expeditions to the South Sinai. Hence, it would be suggested that royal mining missions departed the King's residence during the Old, Middle, and New Kingdoms heading overland to either Ayn Soukhna (i.e., in various periods), or Wadi al-Jarf (in the Old Kingdom), initially crossing the Red Sea to an earlier anchorage somewhere along the coast of El-Markha Plain. They then proceeded to the late Old Kingdom fortified at Ras Budran (site 345). In later periods expeditions utilized a Middle-New Kingdom site (no. 346) in Markha Plain, and subsequently follow Wadi Ba'Ba inland to Wadi Nasb, Rod el-'Air, Serabit el-Khadim, Wadi Kharig and possibly Wadi Reqeita in south-east Sinai.²²

Appendix of Figures

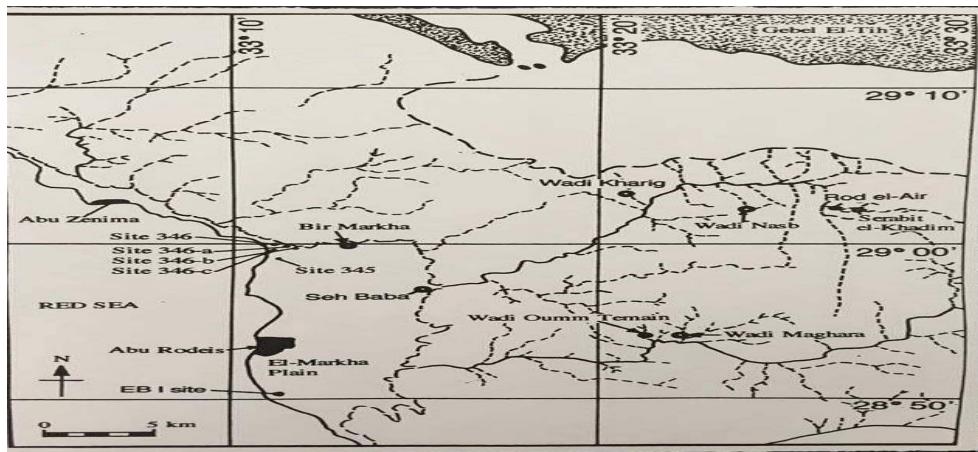


Fig. 1: A Map showing the archaeological sites of El-Markha Plain.

Gregory Mumford and Sarah Parcak, 'Pharaonic Ventures into South Sinai: El-Markha Plain Site 346', *The Journal of Egyptian Archaeology* 89 (2003), p. 94.

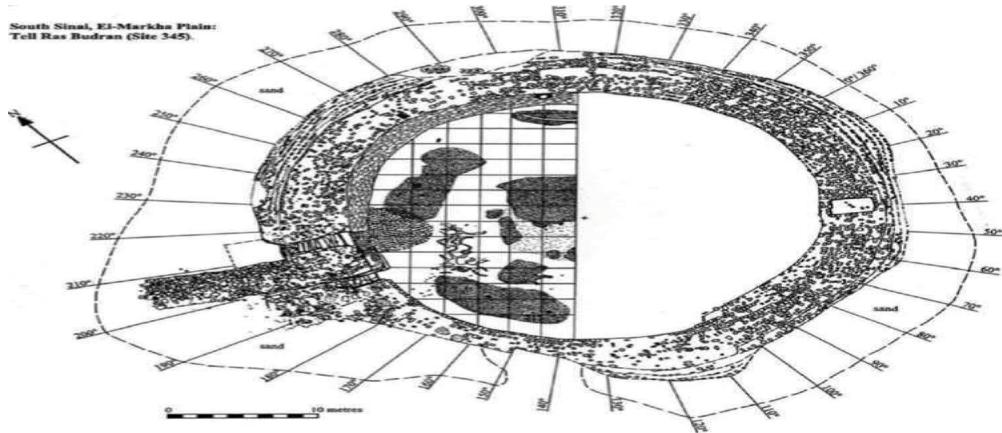


Fig. 2: A Top plan of a late Old Kingdom fort (site 345).

Gregory Mumford, 'Ongoing Investigations at a Late Old Kingdom Coastal Fort at Ras Budran in South Sinai', *Journal of Ancient Egyptian Interconnections*, Vol. 4, No. 4 (2012), p. 21.



Fig. 3: Pottery jar top - RB. 662 made of local clay from Sinai.²³



Fig. 4: Late Old Kingdom pottery bread mold fragment RB. 659 made of local clay from Sinai (Mumford, 2015b; op. cit., p. 14)

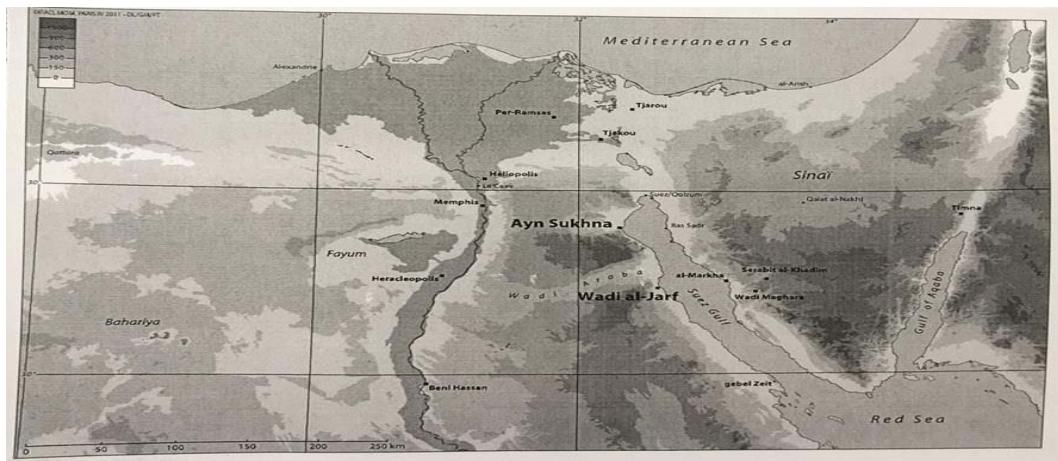


Fig. 4: A Map displaying the location of al-Ayn Sukhna to South Sinai.
Pierre Tallet, 'Ayn Sukhna and Wadi el-Jarf: Two newly discovered Pharaonic harbors on the Suez Gulf',
BMSAES 18, 2012, P. 155.



Fig. 5: Late Old Kingdom storage jar fragment.
Mumford, 2012: op. cit., p. 24.



Fig. 6: Late Old Kingdom copper alloy mortise
chisel fragment Mumford, 2012: op. cit., p. 25.



Fig. 7: West side of the courtyard with entry passage and stairway to battlements (site 345).
Gregory Mumford, 'Ongoing Investigations at a Late Old Kingdom Coastal Fort at Ras Budran in South Sinai',
Journal of Ancient Egyptian Interconnections, Vol. 4, No. 4 (2012), p. 26.

الملخص العربي

تهدف الورقة البحثية إلى إثبات وجود إحدى الطرق التي استخدمتها الحملات التعدينية التي أرسلها ملوك مصر الفرعونية لاستخراج الفيروز والنحاس من مناجم جنوب سيناء. تبني الفكرة على ربط منطقتي العين السخنة وسهل المرخا ببعضهما البعض خلال مسار الحملات التعدينية وكلاهما يقع على ساحل خليج السويس في كلا جانبيه. فنجد أن منطقة سهل المرخا بجنوب سيناء قد خضعت لبعض أعمال الحفريات في أوقات مختلفة وكانت نتائج أعمال الحفريات تحديد موقعين رئيسيين في هذه المنطقة بخلاف المواقع الثانوية، فكان الموقع الأول والذي أعطي رقم 346 عبارة عن بقايا قلعة تطل على ساحل خليج السويس داخل هذه المنطقة وتعود إلى عهد الدولة الفرعونية الحديثة، والموقع الثاني أعطي رقم 345 وهو عبارة عن بقايا قلعة فرعونية تعود طبقاً لنتائج أعمال الحفريات إلى أواخر الدولة الفرعونية القديمة (أواخر الأسرة الخامسة - أوائل الأسرة السادسة) وهي تقع بمنطقة تسمى رأس بدران. أما عن منطقة العين السخنة فإن مكتشفات هذه المنطقة بناء على تقارير أعمال الحفريات في عام 1999 و 2002 و 2008 كما وردت ضمن المراجع التي اعتمدت عليها الورقة البحثية فقد كشفت عن ميناء فرعوني يعود إلى عهد الدولة الفرعونية القديمة وغالباً عهد الملك خوفو (منطقة وادي الجرف)، وكذلك عن بقايا بعض المراكب التي استخدمت في هذه المنطقة، كما تم الكشف أيضاً عن بعض النقوش التي تشير إلى أعمال الحملات التعدينية إذ أن بعض النقوش ذكرت أسماء بعض أعضاء الحملات التعدينية وتشابهت بعض هذه الأسماء مع تلك التي اكتشفت في منطقة روض العير ومناجم المغارة بجنوب سيناء كما دونها العالم جارندر في مجلدين "النقوش السيناوية 1952 ، 1955". وبناء على المكتشفات في كلتا المنطقتين فيستنتج البحث أن منطقة العين السخنة كانت بمثابة محطة رئيسية في مسار الحملات التعدينية التي أرسلها ملوك مصر في أثناء الدولة القديمة والوسطى والحديثة إلى مناجم جنوب سيناء لاستخراج الفيروز والنحاس وغيرها من المعادن، حيث استخدمت المراكب لعبور خليج السويس باستخدام الميناء الفرعوني المكتشف بمنطقة وادي الجرف للوصول إلى ميناء مواز له على ساحل خليج السويس أيضاً والذي قد يكون الميناء والقلعة المكتشفة في منطقة رأس بدران ثم السير براً وصولاً إلى منطقة المناجم.

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