

NOTE ON THE EIGHT SEASON OF THE ITALIAN ARCHAEOLOGICAL MISSION IN THE KINGDOM SAUDI ARABIA, DŪMAT AL-JANDAL (ANCIENT ADUMMATU)

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*Introduction*

The eight season of the Italian archaeological mission in Saudi Arabia took place between October 16<sup>th</sup> and November 18<sup>th</sup> 2016. Participants were: Romolo Loreto (archaeologist, Università degli studi di Napoli "L'Orientale" - UNIOR), Andrea Marcolongo (architect), Bruno Marcolongo (National Research Council of Italy, Inst. of Applied Geology -I.R.P.I.-, Padova), Simona Berardino (student, UNIOR), Roberto Bottiglieri (student, UNIOR), Valentina Cozzolino (student, Università di Ferrara), Maria Laura Nappi (student, UNIOR), Marilena Polosa (student, UNIOR) and Vincenzo Regine (student, UNIOR). Following the main topic of the definition of the prehistorical and historical phases of the northern Arabia al-Jawf region and the oasis of Dūmat al-Jandal, the 2016 program focused on two main research paths: 1) prehistoric researches addressed to the Neolithic (VIII-VI millennium BCE) and the Chalcolithic (V-IV millennium BCE) evidence and 2) historical era researches focused on the I millennium BCE to the I millennium AD in the core of the ancient oasis of Dūmat al-Jandal. On the prehistoric side the study of the al-Jawf paleo-environment for the detection of Neolithic evidence related to the VIII-VI millennium BCE "Green Arabia" was led by a geoarchaeological approach based on the implementation of a GIS predictive platform and field surveys. In addition, study of the lithic materials related to the Neolithic sites of Asfān (detected during the 2011-2014 field seasons) were carried out. On the historical era side different topics were followed: 1) to go on with the excavation in the historical oasis by the enlargement of Trench 1, the ancient urban settlement; 2) to go on with a new extensive excavation area (Trench 10) inside the medieval Hayy ad-Dira' quarter, west to the 'Umar ibn al-Khattāb mosque; 3) to go on with the study of the pre-Islamic pottery collected from the excavation of trenches 1-9 (2009-2015); 4) to go on with the study of the Islamic pottery collected from Trench 1 (2009-2010 excavation seasons).

*Prehistoric Researches Related to the Neolithic (VIII-VI Millennium BCE) and the Chalcolithic (V-IV Millennium BCE)*

Field Surveys

During the 2016 season the field surveys for the detection of prehistorical sites focused to the Jabal Nejma and at-Tawil formation located 60km south of Dūmat al-Jandal.<sup>1</sup> This environment represents an example of landscape exploitation by prehistoric communities and climate changes during the last 10 millennia. 150 ca. archaeological site, proto villages or compound made of rounded stone chambers, were identified around the Jabal Nejma, spread along the natural glaciers following a common pattern in an environment characterized by a number of paleo lakes and paleo water flows (Figs. 1-2). This evidence testifies of humid conditions during the Holocene (Neolithic) and hunter-gatherers community. A small excavation was conducted inside one of the identified structures (compound 10). The collected artifacts (in total 21) are unipolar cortical flakes, debris and cores (method *Système par surface de débitage alterné*). The lithic materials confirm the Neolithic attribution, perhaps with a final occupational that involved also the IV millennium BCE; further study will be conducted both on site and on the materials.

Lithic Material Study

During this season the detailed study of the Asfān Neolithic sites was conducted by a more incisive collection of lithic materials from the sites identified in 2011 (Charloux, Loreto 2013; Loreto 2013). The sites, six in number, are located along the northeastern slope of the Asfān paleo lake (Fig. 3). They appear as no more than 50m in diameter areas particularly rich of lithic assemblages. In total, the detailed collection gave back 8773 Neolithic lithic artifacts from six concentrations (C1, C2, C3, C4, C5, C6) that consists of 67 cores, 298

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<sup>1</sup> Previous remote sensing analyses focused also on the Harrat al-Harra formation along the northern limit of the wādī al-Sirhān (Charloux, Loreto in press; in preparation).

retouched tools (mostly scrapers and arrowheads), 5581 flakes and 2881 débris.

*Historical Era Researches - from the I Millennium BCE to the I Millennium AD*

Excavation in the Historical Oasis with the Enlargement of Trench 1, the Ancient Urban Settlement

A northern enlargement of Trench 1, at the foot of the Mārid Castle, was planned in order to improve the extensive archaeological area. New details about the Nabataean urban phase and early Islamic era have been collected. It is now possible to distinguish two Nabataean buildings (A and B) and a clear Early Islamic quarter. The enlargement of Trench 1 is going on in a northern direction in order to investigate the second Nabataean building (Building B) identified in 2015 (Fig. 4).

In light of the definition of the ancient Adummatu cross cultural role in north Arabia and the cultural syncretism of the ancient north Arabian oasis two artifacts came to light, an Ellenistic tradition kourotrophos deity of III cent. BCE and a Mesopotamian tradition altar foot decorated with a zoomorphic relief of the middle I millennium BCE (Fig. 5).

New Extensive Excavation Area (Trench 10) Inside the Medieval Hayy ad-Dira' Quarter, West to the 'Umar ibn al-Khattāb Mosque

A first trench was opened west of the 'Umar ibn al-Khattāb mosque (Figs. 6-7). After having identified the Nabataean occupation east of the Mārid Castle and inside the castle itself, i.e. the ancient acropolis, it is now a major issue to explore the Hayy ad-Dira' area, the historical core of the oasis. The excavation is going to assume the shape of an extensive excavation from which very promising results came to light. The excavation identified at least three Islamic occupation phases and one Byzantine; identification of these periods can be done on the basis of the small findings. Among the most interesting feature is the detecting of a hypogeum (a well entrance or a chamber) just under the main identified building Lb2.

Moreover, the excavation is going on at least 1.50 m under the floor level of the 'Umar Mosque, where a Nabataean level (structures and pottery) and a pre-Nabataean level can be recognized (the related materials are different

from the others recognized in the oasis and need to be studied).

*Study of the Pre-Islamic Pottery Collected from the Excavation of Trenches 1-9 (2009-2015)*

A detail study of the Nabataean and Roman-Byzantine pottery identified during 2009-2010 campaign is going on by quantification and typological analysis of the potsherds recorded and preliminary assigned. Our aim is to carry out a complete chrono-typological analysis of the whole pre-Islamic pottery record. During this preliminary phase the sherds kept in the storage have been counted, both assigned and unassigned; then, they have been associated to each corresponding chronological level. 425 diagnostic fragments have been counted, among which at least two groups from the Nabataean Level 10 divided on the basis of typology and morphology (rim and bases). We proceeded to the identification of the sherds in the graphic and photographic documentation. We integrated the documentation with new photographs and drawings. For each level we reported: the number of assigned sherds and unassigned sherds, the *sigla* of the missing sherds (due to the removal of all the materials from the old museum to the new one), the new graphic and photographic documentation.

*Study of the Islamic Pottery Collected from Trench 1 (2009-2010 Excavation Seasons)*

The study of the Islamic pottery still focused on the sherds collected during 2010 campaign. 1.850 non-diagnostic fragments and 700 diagnostic were processed: 41 new surface treatments and 113 new forms were recognized. At this stage of the research it is possible to recognize a vast majority of common ware locally made; small Sasanian-Islamic glazed jars and possible presence of *torpedo jars*, characterized by a bituminous coating aimed to waterproofing of the container. Furthermore, it emerges a number of large pots' fragments that were used as braziers rather than food containers for cooking: the fire is lit inside and the food is placed on the walls. This assumptions could explain the presence of very thick bottoms and walls too thin in proportion to them, functional to the fast heat conduction, the presence of charred internal surfaces and the absence of terracotta *tannur*.

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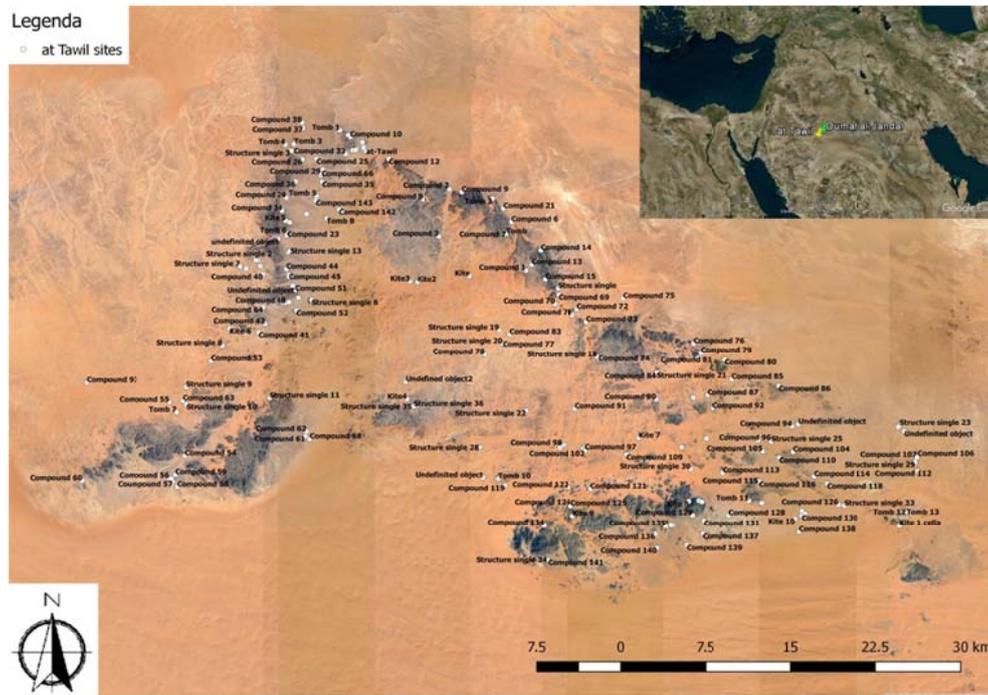


Fig. 1 - Archaeological sites identified by remote sensing analyses around the Jabal Nejma (R. Bottiglieri - B. Marcolongo)



Fig. 2 - An example of a compound (compound 10) located on the borders of a paleo wādī



Fig. 3 - Assemblages' perimeter of the Asfān Neolithic sites (R. Bottiglieri - V. Cozzolino)



Fig. 4 - Ortorectified photogrammetric 3D model of Trench 1: on the left, plan; on the right, axonometric view from North. On both images: on the top the Building A (after consolidation process), on the bottom the Early Islamic quarter above Building B



Fig. 5 - On the left, Ellenistic tradition kourotrophos deity of III cent. BCE; on the right, Mesopotamian tradition altar foot decorated with a zoomorphic relief of I millennium BCE

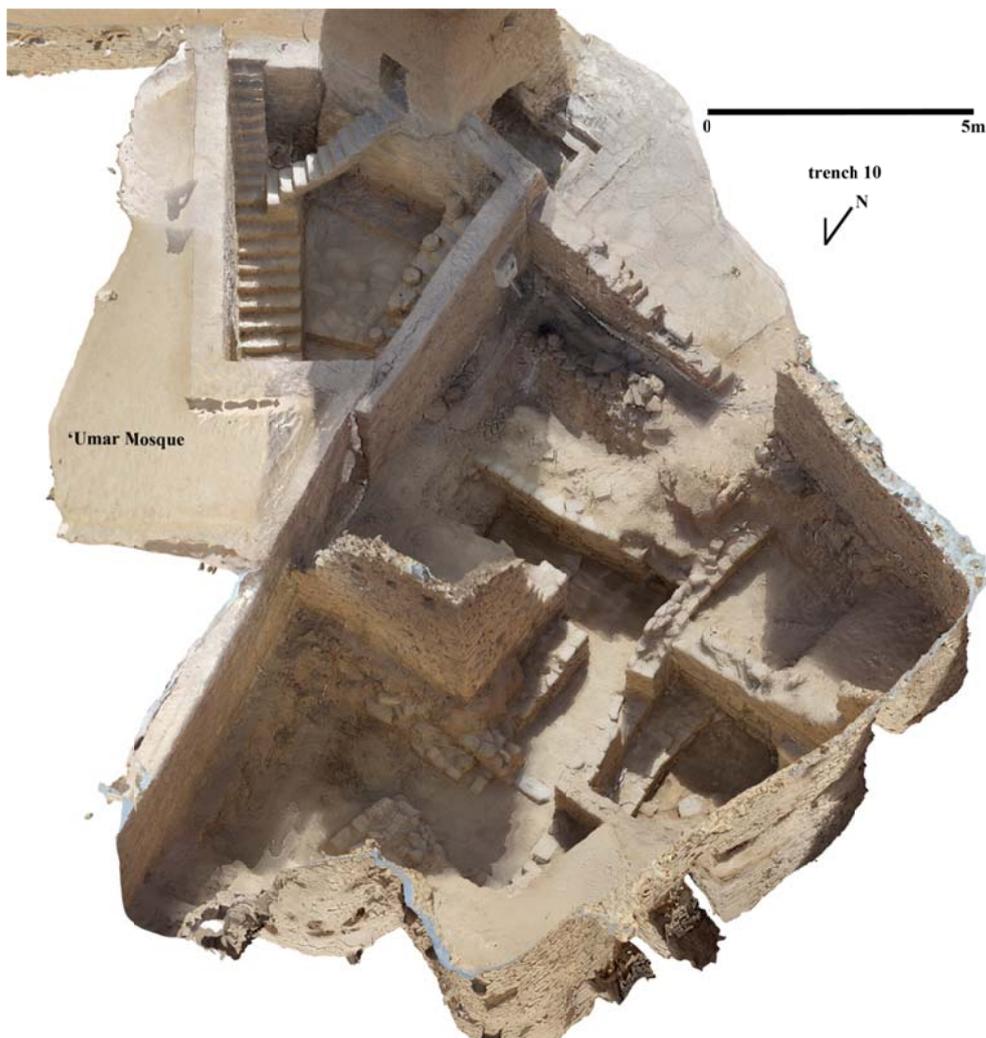


Fig. 6 - 3D model of the Trench 10 in the Hay ad-Dira' quarter, west to the 'Umar ibn al-Khattāb VII cent. AD mosque. North-West axonometric view

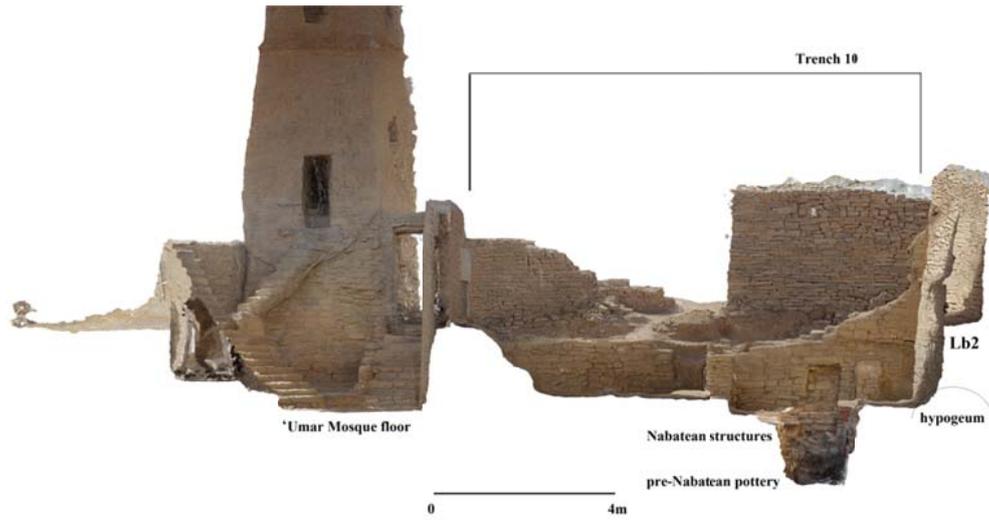


Fig. 7 - Orthorectified section of Trench 10 in the Hay ad-Dira' quarter, west to the 'Umar ibn al-Khattāb VII cent. AD mosque. East-West section, view from North