

REPORT
ON THE FIELD ACTIVITIES OF THE
UPPER GREATER ZAB ARCHAEOLOGICAL RECONNAISSANCE PROJECT
IN YEAR 2013

Dr. Rafał Koliński
Adam Mickiewicz University

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GENERAL INFORMATION AND ACKNOWLEDGEMENTS

The Upper Greater Zab Archaeological Reconnaissance (UGZAR) is a scientific project aimed at a reconstruction of the settlement history of the Iraqi Kurdistan in its full historical extent, focusing on the area located in the upper part of the valley the Greater Zab, approximately between towns of Khabat and Qandil. The project, sponsored by the grant no. 2011/B/03/HS3/01472 of the National Center for Science, Republic of Poland, is scheduled for years 2012-2014.

The first field season of the UGZAR Project was carried out in the Erbil/Hawler province between September 20th and October 23rd 2012, when 37 ancient sites were evidenced, located in the territory between the Greater Zab and the Bastora Çay Valley.

The 2013 season of fieldwork was carried out on the territory of the Duhok province and lasted from August 23rd till October 13th.

The UGZAR team of the 2013 season consisted of the following members: Dr. Rafał Koliński (Adam Mickiewicz University), director of the Project, Dr. Dorota Ławecka (University of Warsaw), Mrs. Xenia Kolińska (Past and Present Foundation), Ms. Joanna Mardas, Ms. Agata Smilgin, Mr. Mikołaj Kostyrko (all Adam Mickiewicz University), Mr. Jakub Brochocki (University of Warsaw), Mr. Pieter Swart (University of Groningen) – archaeologists, and Mr. Dariusz Piasecki, photographer. The Antiquities Directorate of Kurdistan was represented by Mr. Hiwa Shimal Ahmad and Mr. Omar Hussein Sharif from the regional office of the Directorate of Antiquities in Akre. Mr. Lorwan Walika worked with the team throughout the season as a draughtsman.

The UGZAR team is greatly indebted to the authorities of the Kurdistan Regional Government, first of all to Dr. Hassan Ahmad Qasim, the Director of the Antiquities Service in the Duhok province, to Mr. Abubakir Othman Zinadin (Mala Awat), the General Director of the Antiquities of Kurdistan, and to Mr. Ziyad Raof, who represents the Kurdistan Regional Government in Poland. The team would like to express its gratitude to all the above mentioned persons, as well as to the *kaymakam* of Akre, Mr. Jahwar A. Aziz and to numerous *mukhtars* of villages located within our area of activities, who willingly offered their hospitality and shared knowledge of local archaeological sites and other heritage monuments. Our work was made easier due to endless efforts of Hadji Diyar Salah, who made us feel in his house in Akre as at home and of Mr. Masa'ud Nazir Muhammad.

INTRODUCTION: METHODOLOGY OF THE RESEARCH

According to the research plan, the second season of the fieldwork was carried out in the Duhok province, in a triangular area limited by the 43° 40' meridian in the West, Akra Dagh and Birat Dagh mountains in the North and the Greater Zab river in the East and South. The actual work has been executed in the western part of the above described territory, covering two roughly triangular areas: the northern one, marked out by the 43° 40' meridian in the West, Akra Dagh in the North, and Akre-Rovia road in the South and East, and the southern one, triangular as well, marked out by larger villages of Rovia, Çama and Daratu. The area surveyed during the 2013 season covered thus c. 500 km² (cf. adjoined map).

The use of satellite imagery

The second season of fieldwork, as it was in 2012, was prepared by study of the satellite imagery, carried out on the base of the past record (CORONA imagery of 1967 provided by Dr. Jason Ur, Harvard University, and of 1968, available via CORONA Atlas of the Middle East, University of Arkansas) and the recent one (GeoEye imagery from 2004, available via GoogleEarth™, and DigitalGlobe™ imagery from 2010 available on the Bing™ Maps web site). All the mentioned sources of satellite imagery were consulted during the season as well, in order to check the data (especially on previously unnoticed sites) and secure GIS information on the area.

The provisional list of sites identified on the base of satellite imagery set up in Poland was compared to the information provided by the “Atlas of Archaeological Sites in Iraq” (Salman 1976). The southern part of the surveyed area (*nahia* al-Ashair as-Saba'a) is covered by the map no. 51 of the Atlas, but no map covering either the area of Akre, or *nahia* Surjiyah was printed. In respect to this two areas a much less accurate information from the 2nd volume of the Atlas (especially from pages 287-292) was used to some extent.

In this situation, a considerable part of the verification work was carried out in the field, either by interviews with local population (first of all with *mukhtars* of visited villages) or by visiting the tentatively identified places, basing on their position determined from the georeferenced satellite imagery. As in the previous season, in the Erbil province, interviews turned out to constitute a very efficient way of discovering new sites. Occasionally, transects along the watercourses (be it perennial or seasonal) were performed, with very inconsistent results. In some parts of the researched area new sites were discovered in this way, but in other places transects didn't bring to light any unknown sites. The transects will be continued next season, especially in the area of the highest site concentration, between Rovia, Çama and Daratu. (cf. Map).

The on-site routines

Once an archaeological site was identified it was documented in the field in three ways. First, a description card was filled for each site recording its location, local conditions and the state of preservation of the site. Then the site was surveyed with Leica TC407 total-station using a temporary, local reference point. The measurements taken in the field were transferred to the QuantumGIS™ 1.8 program and the contour map of the site was prepared. The local reference point, as well as limits of collection areas were recorded by a handheld Garmin GPSmap 60 CSx instrument, both in respect to the WGT 84 and to the UTM 38S grid. This allows to establish the exact geographic location of the site and to put it both on the satellite images and on the traditional map. Finally, photographic documentation of the sites was executed, including a general and sometimes a panoramic view of the site and its surroundings, as well as documentation of damages and of archaeological features observable on the site. This documentation included photography of large movable objects found on the surface of the site, for instance querns, millstones, mortars and door sockets made of stone, and burned bricks as well (if complete, or nearly complete). Objects belonging to these categories were measured and described as well but, as a rule, were not collected.

An important part of the on-site activities was collecting of the pottery and other artifacts from the surface of the sites. The general rule was that the area of the site was never covered with collection areas in its entirety. This rule pertains, first of all, to extensive sites showing a high density of sherds on the surface. Small sites, or those representing low density of material were covered by collection areas to a much larger extent. Distribution of collection areas reflected morphology of the site; if extensive damages (pits or cuts) were present on the site, the affected part of the site was usually defined as a collection area (such areas provided richer and better preserved pottery material than areas located on the undisturbed surface of the tell).

As a rule, rim and base sherds were collected, as well as other characteristic vessel elements (as spouts or handles) and decorated sherds. In cases when the resulting material was abundant a selection of the pottery was carried out at the site. At this stage sherds whose state of preservation would preclude documentation and identification of the form were discarded. In case of repeating examples of the same type of decoration only the best preserved sherds/motives were taken; similarly, if a particular vessel type was represented by many examples, the most damaged ones were discarded. Consequently, while the studied pottery material gives hints at the presence of several cultural entities on the site, it does not provide grounds for statistical evaluation of the pottery assemblages.

The off-site routines

The collected material was transported to the house of the mission where it was washed, catalogued and documented (by drawing, and technological description, and, if required, by photography). Chronological determinations were done on the base of the Working Ceramic Typology, 7th edition (2013) prepared by Dr. Jason Ur of the Harvard University for all the projects cooperating in the framework of the Assyrian Landscapes Working Group.¹ The use of the same catalogue in differed field projects was agreed upon in aim to have as strong as possible correspondence between the results of all the involved projects, at least in respect of the chronology of settlement.

All the data concerning the archaeological sites and the archaeological material collected will be later browsed into a FileMaker™ 4.1 database.

A significant part of the projects was mapping of the sites and other features. A GIS data extracted from the satellite imagery, and from available maps were actualized in the field by GPS measurements, which in turn were used to correct geo-referencing of the available maps and imagery. This activity resulted in preparation of an updated archaeological map of the surveyed area (attached to the report) including a basic geographic data as well.

¹ Erbil Plain Archaeological Survey (EPAS), Land of Niniveh Regional Project (LoNRP), Upper Greater Zab Archaeological Reconnaissance (UGZAR) Project, and Eastern Khabur Archaeological Survey.

THE SUMMARY OF RESULTS

General overview

The period of the active survey of the 2013 season lasted seven weeks, from August 26th till October 12th. During this period of time an area of ca. 500 square kilometers was surveyed (squares A1-3, B1-5, C1-3, D1-2, E1, F1, G2-3 and H2-4 on Map 1). In this area as much as 62 archaeological sites are present (numbered S038-S099), however conducting a more intensive transects especially in squares F1, G2-3 and H2-3 may increase this figure considerably. 56 sites were fully recorded, while for six more only partial information was recorded, and usually no pottery collected. This situation was usually caused by a limited visibility of the archaeological material due to the presence of vegetation or structures, which could as well limit possibility of taking measurements necessary to draw a contour plan of the site (Table 1).

Sites fully documented	Sites catalogued only	Total of identified sites
56	6	62

Table 1. General information on the documented sites

As in the previous year, evaluation of recovery methods demonstrates that satellite imagery has a limited usefulness. Only 11 out of 62 sites identified during the season were earlier observed on satellite imagery (Table 2). Much higher positive identification ratio is typical for alluvial plain between Rovia and Daratu, where most of the mentioned sites are located. In the area West of Akre the positive identification factor was lower, but this feature was hinted at by the results of the 2012 season, carried out in a similar geographic setting. Relatively low number of identified sites known from the Atlas is biased by the fact, that only the part of surveyed area is covered by the atlas. As in the previous season, interviews with local population and transects turned out to be very effective method of the site identification.

	<i>Atlas of Archaeological Sites in Iraq</i>	Satellite Imagery	Interviews	Transects	Other literature	Number of identifications
Number	10	11	23	23	2	69
Percentage	14,5%	15,9%	33,3%	33,3%	3,0%	100%

Table 2. The site identification method efficiency during the 2013 field season

The site typology of the 2013 is much more heterogeneous than it was in the previous season. This is due to the fact, that the 2012 work was confined to a single morphological zone, of highlands, while the described season covered mountain valleys in the northern part of the surveyed section of the territory, rolling plains in the central part and the alluvial plain in the south. Among the documented sites tells dominated, followed by flat sites and by mounded sites with lower town area (Table 3). This last category was present exclusively on the alluvial plain. Types of sites and monuments which were not identified during the 2012 season include caves (S039 and S040), ruins of recent villages (S044, S057, S059, S071, S072 and S076), a monastery (S044) and a grave - shrine of Sheikh Abdelaziz al-Gailani (S043).

	Tell	Tell + lower town	Flat settlement	Ruined village	Castle	Cave	Monastery	Grave/ Shrine
Number	23	12	15	6	2	2	1	1
Percentage	37.1%	19,4%	24,2%	9,7%	3,0%	3,0%	1,5%	1,5%

Table 3. The site typology of the 2013 season

Similarly to the Erbil province, mounded sites (including those composed of a tell and a lower town/settled area at its base) constitute more than 50% of sites. In some cases, when a site is located on natural rise it was difficult to decide, whether the site is flat or mounded. All such situations were considered separately and concluded according to the situation at the site.

A significant difference in comparison to the results of the previous season concerns the size of the sites. The 2012 season sites were usually small and very small, only occasionally reaching more than 5 ha in area, and often smaller than 1 ha. In 2013 only sites located in the mountains and on the rolling plain tended to be small, in contrast to those identified on the alluvial plain, which were quite extensive. (Table 4). The biggest identified site, Xrabe Kilaşin (S074) has an area of approximately 30 ha, and is partly covered by a village. The entire extent of the site was settled towards the end of the 3rd Millennium BC, and only in the southern part of the site there are traces of later settlement present. The second in size is Xrabe Kanger (S60), having 16,6 ha in area. The site bears traces of a prehistoric settlement, but it has grown to its full extent during the earlier part of the 1st Millennium AD. This date pertains as well to the third large site, Xrabe Palasan (S097), composed of a round tell c. 250 m in diameter formed during the Bronze Age period, and an extensive lower city (14 ha in area), dating to the later part of the 1st Millennium AD.

Area	>20ha	20 – 10ha	4-10ha	2 – 4ha	1-2ha	0.5-1ha	<0,5ha	TOTAL
Mountain Valleys	-	-	-	3	5	2	1	11
Rolling plain	-	-	-	1	2	2	5	10
Alluvial plain	1	2	6	10	9	5	4	37
TOTAL	1	2	6	14	16	9	10	58
	1.7%	2.4%	10.3%	24.1%	27,6%	15,5%	24,1%	100%

Table 4. The area of the registered settlement sites (including castles).

The identified sites could be split into three groups according to their environmental setting, as already indicated in the introduction to this report. The northernmost zone encompasses mountain valleys, with the sites usually located between the main ridge of Akre Dagh and a much lower chain running on its southern side, reaching maximally 700-800 m above sea level, dividing the said valleys and the open rolling plain. These valleys have an oasis-like appearance, due to presence of numerous springs and streams, which however run dry before they reach the plain. The sites are located exclusively in the “oases”, close to high mountains, and are usually small, what is probably a reflection of scarcity of good agricultural land within narrow valleys. What is surprising, is that most of the sites discovered in this zone belongs to historical times; only Gridi Perbebi 2 (S047) yielded a few sherds which may hint at an earlier, Late Chalcolithic occupation of the site (cf. below, Table 5).

The second zone, composed of rolling folds separated by relatively deep valleys of seasonal streams, stretches from the foot of the Akre Dagh down to an area c. 4-5 km north of Rovia. Settlement in this area is scarce, especially in the northern half of this zone, which seems to be entirely deserted, both in prehistory and in historical times. Sites appear only in the southern part of this zone. They are usually small (cf. Table 4) and predominantly prehistoric, down to the early 2nd Millennium BC. This may hint at a conclusion that environmental conditions in the southern part of this zone could be much better in prehistory than in historical times and today, what allowed for founding villages and farms in the Neolithic, the Chalcolithic as well as in the Early and Middle Bronze period. Later on the conditions seem to deteriorate, and only a traces of settlements dating to the 1st Millennium BC and to the later period were evidenced.

The third zone is the one which was most intensively settled, with as many 37 identified sites on an area of ca. 105 square km (making c. 64% of all the recorded sites). They are distributed mainly along the Dolu Qūrebek, where they form numerous clusters of

sites. Another regularity concerns springs: two visited areas yielded clusters of sites around springs. One of them is located very close to Dolu Qūrebek and it is not clear which feature has stronger influence on its formation. Other identified sites of this zone are more or less evenly distributed in the flat area towards North, reflecting stable and homogenous environmental conditions within this zone.

The data presented in Table 4 demonstrate, that lack of larger sites in the first and the second zone may be related to less favorable environmental conditions, and that only the alluvial plain with abundant arable ground and water resources (springs and streams) provided conditions necessary for a more intensive settlement. From this point of view the area surveyed in 2012 in the Erbil province, which revealed a settlement structure similar to that evidenced in the first two zones should be understood as peripheral.

The settlement history

The 2013 season of fieldwork yielded some very interesting insights into the settlement history of the studied area (Table 5). First of all, there was a significant difference observed between the morphological zones identified within the survey area. The mountain valleys yielded mainly later settlements, dating to the Neo-Assyrian period and later. On the rolling plain zone, oppositely, settlements dating the Prehistoric times and Bronze Age appear quite often, but later settlements seem to be extremely rare. The third zone, of the alluvial plain, revealed a yet different picture, with both prehistoric and historical settlements evidenced. However, even in this zone a periods of more intensive and less intensive settlement could be distinguished. Among the first, the later 3rd Millennium BC period, featuring 20 archaeological sites, followed by the Middle Bronze (14 sites), the Neo-Assyrian (16 sites), the Parthian/Roman (14 sites), the Sasanian (16 sites) and the Late Sasanian/Early Islamic (14 sites) periods should be listed, while the Prehistoric period, the Post-Assyrian/Neo-Babylonian and the Seleucid/Hellenistic period feature a relative scarcity of settlements. This impression is further corroborated by the fact, that each of the three biggest sites discovered, already listed above, belongs to one of the periods of the most intensive settlement: Xrabe Kilaşın to the Late 3rd Millennium BC, Xrabe Palasan to the Parthian and the Sasanian period and Xrabe Kanger to the Parthian, the Sasanian and the Early Islamic period.

It needs to be remarked, that the conclusions presented above have interim character, as the survey in the area between Rovia, Daratu and Çama has not been concluded, and it is quite likely that identification of new sites during the 2014 season will improve the resolution

of the presented picture. On the other hand, I am deeply convinced that improved resolution resulting from the future fieldwork would not change the presented conclusions very much.

UGZAR Period	Cultural period	Mountain valleys	Rolling plain	Alluvial plain	TOTAL
0	Pre-Pottery Neolithic	0	0	0	0
1	Hassuna,	0	1	1 + 2	2 + 2
2	Halaf	0	2 + 1	4 + 3	6 + 4
3	Ubaid	0	3	2 + 4	5 + 4
4	LC1-2, Northern Early Uruk	0 + 1	1 + 1	6 + 1	7 + 3
5b	LC3-5, Northern Middle Uruk	1	2	4	7
5a	Southern Late Uruk	0	0 + 1	0 + 3	0 + 4
6	Ninevite V, ED I-II	?	2	6 + 4	8 + 4
7	Mid- and Late 3 rd millennium, Akkadian, Ur III	0	2	8	20
8	Khabur Ware, Middle Bronze Age	1 + 1	3	10 + 2	14 + 3
9	Mitanni	0	0	0	0
10	Middle Assyrian, Late Bronze Age	1 + 1	0 + 1	11 + 3	12 + 5
11	Neo-Late Assyrian, Iron Age,	1 + 2	1 + 1	14 + 6	16 + 9
12	Post-Assyrian, Neo-Babylonian, Achaemenid	0 + 1	0 + 1	3 + 5	3 + 7
13	Seleucid, Hellenistic	2 + 0	0	7 + 2	9 + 2
14	Parthian, Roman	0 + 3	0 + 1	14 + 3	14 + 7
15	Sasanian	2 + 0	0	14 + 2	16 + 2
16	Late Sasanian – Early Islamic	1 + 4	0 + 2	13 + 2	14 + 8
17	Early Abbasid	0	1	9 + 3	10 + 3
18	Middle and Late Abbasid	1 + 1	0	1 + 1	2 + 2
19	Late Islamic	4 + 2	0	6 + 5	10 + 7
20	Ottoman	1 + 1	0	4 + 2	5 + 3
21	Undifferentiated Islamic	2 + 3	2	4 + 3	8 + 6

Table 5. The chronology of the settlement in the surveyed area (settlements + traces of settlement).

TWO CASE STUDIES

The Gondk/Gunduk reliefs

Three rock reliefs cut in the wall of a large rock shelter above the village of Gondk constitute a very exceptional monument, for several reasons. First of all, they are most likely the oldest rock reliefs known from the territory of the Greater Mesopotamia. Secondly, depicted scenes seem to refer to religious activities of a kind, what is exceptional in the rock relief representations from Mesopotamia. Thirdly, the reliefs were only superficially studied. Finally, in 1996 treasure hunters, reputedly from Turkey, used dynamite to get to the supposed wealth hidden behind the relief and destroyed entirely the one figural panel and damaged seriously another one. A study of the Gondk reliefs and an attempt to date them and to interpret their meaning was recently published by Julian Reade and Julie Anderson (Reade – Anderson 2013).

The UGZAR team work in the area of Gondk allowed to clear some issues studied by the mentioned scholars. But even more important was the discovery of two fragments of the original relief (Register 2013, no. 1 and no. 2).

The first, larger fragment, measuring 0.35 by 0.37 m, belongs to the central part of the non-existing second panel, which is presently known from four different renderings executed during more than a century by Cooper (published in Layard 1853), Bachmann (1927), Amin (1948) and Börker-Klahn (1982) (Fig. 1). The recovered fragment shows legs of two sitting persons, facing one another, wearing long robes or skirts. Between them a semicircular item is placed, on which two figures executed in smaller scale are standing. The scene, although fragmentary, could be without doubt placed in the central part of the composition (Fig. 2) and it allows to exclude the rendering of the panel by Bachmann (Fig. 1, second from the top), who has seen in the middle of the scene a nondescript element, and that of Börker-Klahn (Fig.1, bottom), who saw there a scene of consumption beer from a vat. Semi-circular support and two human silhouettes, probably of wrestlers, were depicted by Layard (Fig. 1, top) and by Amin (Fig. 1, second from the top), but they differ in the placement of the central element. The recovered fragment is much closer to the drawing by Cooper, who put the semicircular support higher than Amin did. It seems that both Bachmann and Börker-Klahn based their drawings on a few photographs taken hastily, and in not very favorable light (cf. Reade – Anderson 2013, 81), that were later traced to get the outline of representations. Drawings by al-Amin are more accurate, because he probably spent more time in Gondk, and his photographer has opportunity to take different photographs in various

light conditions; al-Amin was in fact the first scholar to document the presence of the Panel 3 at Gondk. As for Cooper, his drawing is not based on photograph, but on careful tracing of the relief itself; one may expect, that he has attempted to climb the rock and made the drawing from close distance.



Fig. 1. Four different renderings of the panel 2 of relief at Gondk, according to Layard (top), Bachmann, Amin and Börker-Klahn (bottom) (after Reade – Anderson 2013, Fig. 24).

The second fragment, measuring 0.16 by 0.24 m could not be placed with certainty. It shows a part of a body covered with a robe provided with decorative fringe. It seems likely, that the depicted element is a fragment of a back of a standing person. There is possibility that it belonged to the Panel 1, however none of published photographs and drawings (Reade – Anderson 2013, Figs. 14-17, 19) suggest a presence of decoration on the skirt of the depicted person. Therefore it is assumed, that this fragment belongs to the Panel 2 as well. There are two likely positions to put in on the representation: as belonging to of the first standing figure from the left, or to the fifth person from the left, standing as well with upraised hands. The present author assumes that the first variant is more likely, on the base of the drawing provided by Börker-Klahn (Fig. 1, third from the top), showing a line parallel to the outline of the back of the standing person, which may mark a decoration of the robe of this figure. However, it could not be excluded that similar decoration was incised on the robe of the other figure but it was not noticed by any of the scholars inspecting the relief, exactly like the decoration on the robe of the sitting person, clearly visible on the larger of recovered fragments.

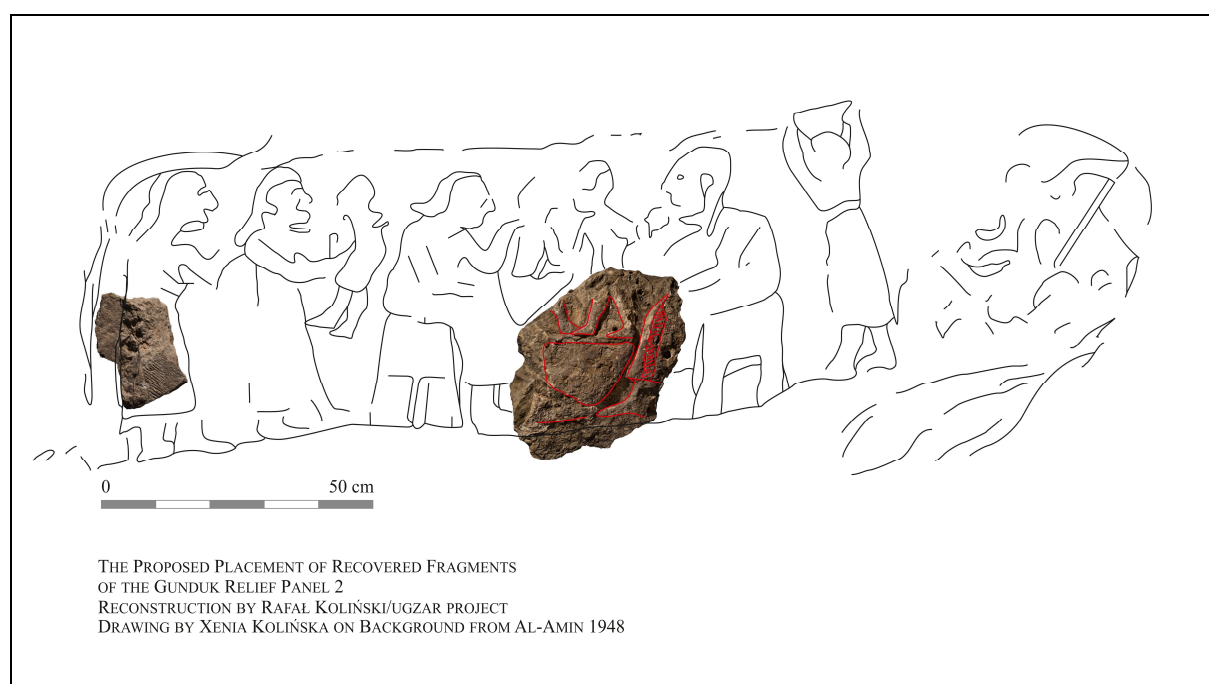


Fig. 2. Tentative placement of the recovered fragments of the Gondk Panel 2 (on the base of drawing provided by al-Amin 1948) ©UGZAR project.

The discovery of two fragments of the destroyed relief panel on the slope under the Gunduk rock-shelter allows for an assumption, that more fragments of destroyed

representations could have been retrieved from the area below the cave, once a thorough search would be conducted. This activity, however, needs a separate project focusing exclusively on this aim.

Preservation of archaeological sites

As in the previous season, one of the more important UGZAR team activities was recording the state of preservation of archaeological sites and of factors which may threaten their existence. A thorough study of the condition of archaeological sites needs to be postponed till the conclusion of the project, nevertheless I feel obliged to present some remarks pertaining to two groups of sites whose existence is in a real danger.

Generally speaking, flat sites and lower town areas of mounded sites are under moderate threat, caused mainly by agriculture. Only a few sites showed traces of a possible illicit digging for antiquities (S048, S075, S076, S080, S085, S089, S098). In one case we were not able to observe such traces, but villagers informed, that some time people were coming to the site and digging for antiquities (S074). It seems, that illicit excavations took place in a not a very recent past, as the likely robbery pits look at least some years old.



Fig. 3. The entirely leveled site Grdi Kalake 3 (S055).
(Phot. by A. Smilgin, ©UGZAR project).

A more grave is a situation of sites located in the villages. Those sites are usually cut to form terraces on which houses or household structures are built. On some sites these cuts

are of marginal importance (S063, S065) but in other cases they affect a considerable part of the area of the site (S049, S052, S056, S062). In the most drastic case (S055) the entire site, originally 4 m. high was leveled on its whole extent to allow a construction of three houses (Fig 3). The listed sites were damaged because of constant growth of villages; in some cases it was possible to date the damage by comparison of the present state of the site with their dated, recent satellite images, demonstrating that this process is continuous and takes place after year 2010 as well (S049).



Fig. 4. A villager digging for clay at Grdi Aşı Geure (S089), on October 13th, 2013.
(Photo by M. Kostyrko, ©UGZAR project).

The second category of damage was observed on high mounded sites located on the plain, between Çama and Daratu (S080, S082, S085, S089, S097, S098). All the listed sites are partly destroyed by very deep trenches resulting from digging for clay needed to maintain existing mud-brick structures. Larger sites, as S080 or S097 suffered a damage to a proportionally small extent, but in the case of smaller, mainly prehistoric sites as for instance Xrabe Çiaskan (S098) where one third of a mound dating to the Late Chalcolithic period is already gone, the damages are very big.

Digging for clay at the archaeological sites continues even presently. On October 13th the UGZAR team documented a person from the Daratu village excavating clay at the site of Grdi Aşı Geure (S089)(Fig. 4). At other sites, for instance Grdi Darbestan (not surveyed this year) a fresh traces of working with mechanical shovel were observed. The extent and intensivity of the mentioned activities puts many of the prominent archaeological sites in the area under a serious threat.

CONCLUSION

The second season of the field work of the Upper Greater Zab Archaeological Reconnaissance project yielded extremely interesting results. The field work was carried out in the Duhok province, in the western part of the work permit area. This setting of the activity area allows not only for evidencing its settlement history, but also for a comparison to the results from the area surveyed by the UGZAR team in 2012 (located in the Erbil province, to the North of Bastora Çay), and to the area surveyed in 2012 and 2013 by the team of the Land of Niniveh Regional Project,² covering territory located to the West of the UGZAR project permit.

The results of the fieldwork carried out by the UGZAR team in the 2013 season demonstrate that the western part of the work permit area is composed of three different morphological and environmental zones, each with a different settlement density and history. The zone of mountain valleys shows a limited settlement, confined to oasis-like, hidden valleys at the foot of the highest mountain ranges. The settlement there dates typically to historical period, starting with the beginning of the 2nd Millennium BC. Only isolated sherds collected at Grdi Perbebi 2 site (S049) may belong to earlier times. The next zone, of the rolling plain shows a limited evidence of settlement as well, but of different temporal attribution. Sites are distributed along seasonal streams, and located mainly in the southern part of this zone what makes an impression that between them and the mountain zone there is a wide belt of “no-men’s-land”. In this zone Prehistoric and Bronze Age settlements are present, while the evidence for later periods is very limited. The third zone, covering nearly flat, alluvial terrain, is the most intensively settled one and shows wide temporal and morphological range of archaeological sites. Among them are prominent high mounds showing evidence of a continuous presence of human settlement from the late 5th millennium BC till pre-modern times (Grdi Rovia, S063 or Grdi Çama Geure, S080). On the other hand, there are some small sites as well, showing evidence of a settlement confined to a single cultural period for instance Grdi Aşi Kuçka 3 (S087) or Grdi Aşi Geure 3 (S090).

The history of the settlement in the surveyed area does not represent a simple, linear development, but rather features three different zones following separate trajectories of development. The southernmost zone, covering the alluvial plain, represents a development of the settlement pattern similar to the one evidenced in the Land of Niniveh Regional Project (Morandi, forthcoming), featuring a steady increase of the number of sites since the origin of

² Directed by Professor Daniele Morandi, University of Udine, Italy.

the pottery Neolithic period. The first settlement peak appear in the later 3rd Millennium BC and continues through the most of the 2nd Millennium BC and the Early Iron Age. The second appears during the Parthian era, and covers the Sasanian period and Early Islamic era. In the LoBRP there is a clear cut domination of two periods: the Late Early Dynastic and the Neo-Assyrian. The Khabur, Middle Assyrian, Parthian, Sasanian and Early Islamic periods are well represented, though less abundant than the first two mentioned ones. However, there are some difference as well. First, the Ninevite 5 sites seem to be much more abundant in the UGZAR area. Secondly, the later 3rd Millennium sites tend to be rather of the Akkadian-Ur III period than of the ED III. Moreover, there are no sites yielding typical Mitanni material (ie. Nuzi ware, red-band plates etc.). Also a decrease of the number of settlements during the Post-Assyrian period is much more pronounced in the UGZAR area, than in the West. On the contrary, the Sasanian period, which seems to witness a significant decrease of the settlement number in the LoNRP area, shows abundant settlement density in the area surveyed by UGZAR team this year.

The northern zone, of the mountain valleys shows close affinities in the settlement history to the results of the UGZAR 2012 survey are in the Erbil province. The number of Prehistoric sites is very low, and the sites are generally of much smaller size than in the South. However, the number of documented sites located in this area is low, and the remarks presented above need to be confirmed by the future work, in the area located East of Akre, which was not covered by the fieldwork during the 2013 season.

Several of the surveyed sites represent very high scientific potential and would very likely host a particular research projects in the closest future. Among them are two sites with a settlement of the Middle Assyrian time (Grdi Cucar, S083, and Grdi Aşı Kçke 3, S087), as well as Grdi Aşı Kçke 2 (S086) with important settlement of the Hassuna period, overlaid only with a scanty remnants of Halaf and Ubaid period occupation and Grdi Aşı Geure 4 (S094), dating to the Halaf period, with no later occupation on the top. Yet another site of o high research interest is Xrabe Çiaskan, where high tell, encircled by a lower city of Sasanian-Islamic period shows evidence of a sequence of Late Chalcolithic 1-2 and 3-5 settlement just under the surface. This site has been very much affected by clay digging; approximately 1/3 of the original tell is presently gone, therefore the site deserves a rescue research project of a kind in the very near future.

The final remark concern state of preservation of the archaeological sites. Mounded sites located in villages are endangered within the entire surveyed area by building activities comprising of gradual cutting and leveling of the sides of the mound, leading sometimes to

complete destruction of the site, as in the case of S055. The existence of high mounded sites located in the plain but outside the villages is threatened as well, because they are permanently used by local population as a source of clay. The damages caused by this activity are quite extensive at the moment. Evidence of recent terracing at S049 and an example of a person caught while digging at the site S089 demonstrate that devastation of archaeological sites is progressing constantly and it is necessary for the Kurdish authorities to start actions aimed at stopping this damage. The only acceptable course seems to increase first the consciousness of the importance of the heritage monuments among the local, rural population of the Duhok province and only later introduce some administrative measures to prevent further destruction of archeological sites.

Akre, October 21st, 2013

Dr. Rafał Koliński
Adam Mickiewicz University
Poznań, Poland

BIBLIOGRAPHY:

- Al-Amin, M. 1948: “Archaeological discoveries in the north of Iraq”, *Sumer* 4/2, Arabic section, 180–219
- Bachmann, W. 1927: *Felsreliefs in Assyrien. Bawian – Maltai - Gundük*, WVDOG 52, Leipzig.
- Börker-Klahn, J. 1982: *Altvorderasiatische Bildstelen und vergleichbare Felsreliefs*, BaF 4, Mainz am Rhein.
- Layard, A. H. 1853: *Discoveries in the Ruins of Nineveh and Babylon*. London.
- Morandi, D. forthcoming: “Il paesaggio archeologico nel centro dell’impero assiro. Insedimenyo e uso del territorio nella ‘Terra di Ninive’”, *Atti Istituto Veneto di scienze, lettri e arti*, 172.
- Reade, J., Anderson, J. 2013: “Gunduk, Khanes, Gaugamela, Gali Zardak: notes on Navkur and nearby rock-cut sculptures, in Kurdistan”, *Zeitschrift für Assyriologie* 103, 68-122.
- Salman, A. 1976: *Atlas of the archaeological Sites of Iraq*, vols 1-2, Baghdad.

CATALOGUE OF THE RECORDED SITES

A KEY TO PERIOD DETERMINATIONS USED IN THE CATALOGUE:

PERIOD	DESIGNATION
PAL	PALEOLITHIC
PPN	PRE-POTTERY NEOLITHIC
0	PROTO-HASSUNA
1	HASSUNA, SAMARRA
2	HALAF
3	UBAID
4	LC1-2, EARLY NORTHERN URUK, POST-UBAID
5	LC3-5, NORTHERN MIDDLE URUK, SOUTHERN MIDDLE AND LATE URUK
6	NINEVITE V, EJ I-II, ED I-II
7	MID- AND LATE 3 RD MILLENNIUM, EJ III-V, ED III, AKKADIAN, POST-AKKADIAN, UR III
8	OLD BABYLONIAN, KHABUR WARE, MIDDLE BRONZE AGE
9	MITANNI
10	MIDDLE ASSYRIAN, LATE BRONZE AGE
11	NEO-LATE ASSYRIAN, IRON AGE,
12	POST-ASSYRIAN, NEO-BABYLONIAN, ACHAEMENID
13	SELEUCID, HELLENISTIC
14	PARTHIAN, ROMAN
15	SASSANIAN
16	LATE SASSANIAN – EARLY ISLAMIC
17	EARLY ISLAMIC (ABBASID)
18	MIDDLE ISLAMIC
19	MIDDLE-LATE ISLAMIC
20	LATE ISLAMIC
21	UNDIFFERENTIATED ISLAMIC