

New Uruk finds in NW Iran: Hasanlu VIII-VII and no Kura-Araxes culture evidence in southern parts of Lake Urmia

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ABSTRACT – During 2007 archaeological survey of Little Zab River in Sardasht district in northwest Iran, six typical Uruk (Uruk-related) sites were brought to light. One of the important ones is Tepe Badamyar Rabat, with typical Bevelled Rim Bowls pottery that is considered as the first evidence of Uruk materials in northwest Iran. In addition to Rabat, the Uruk materials found in Tepe Baghi, Tepe Waliv, Tepe Molla Yousef, Tepe Lavin and Tepe Goman provide an opportunity for studying the one millennium gap between Hasanlu VIII A (Pisdeli) and VIIC (Kura-Araxes) in the southern parts of Lake Urmia, which is seen as a key unknown period in the archaeology of NW Iran. The Uruk evidence found in the mentioned sites mainly belongs to the Middle and Late Uruk periods (3600/3500–3100 BC).

KEY WORDS – Little Zab River; Uruk, Hasanlu VIII A (Pisdeli)/VIIC (Kura-Araxes); NW Iran; borderland

Nove najdbe obdobja Uruk v SZ Iranu: Hasanlu VIII-VII in odsotnost dokazov o kulturi Kura-Araxes v južnih predelih jezera Urmia

IZVLEČEK – Pri arheološkem pregledu na območju reke Malo Zab v okraju Sardasht v severozahodnem Iranu so leta 2007 odkrili šest tipičnih najdišč obdobja Uruk (oz. z Urukom povezanih najdišč). Izmed teh je najbolj pomembno najdišče Tepe Badamyar Rabat, kjer so odkrili lončene skleds s poševnim robom, ki so pomembna značilnost materiala obdobja Uruk v severozahodnem Iranu. Pomemben je tudi vpogled v najdbe obdobja Uruk z drugih najdišč Tepe Baghi, Tepe Walvin, Tepe Molla Yousef, Tepe Lavin in Tepe Goman; le-te namreč omogočajo raziskave tisočletne prekinitve med fazama Hasanlu VIII A (Pisdeli) in VIIC (Kura-Araxes) na južnem delu jezera Urmia, ki je ključna neznanica pri preučevanju arheologije SZ Irana. Najdbe obdobja Uruk na teh najdiščih lahko datiramo v fazi srednjega do poznega obdobja Uruk (3600/3500–3100 BC).

KLJUČNE BESEDE – reka Mali Zab; Uruk; Hasanlu VIII A (Pisdeli)/VIIC (Kura-Araxes); SZ Iran; obmejno območje

Introduction

The transition process between the Late Chalcolithic and Early Bronze Age (Kura-Araxes phenomena) is one of the least known, yet most important eras in the ancient history and chronological table of NW Iran. Previous studies in NW Iran demonstrated that the 4th millennium BC (mid-4th to end of 3rd millennium BC) remains among the least understood periods of development in the prehistory of the region.

According to the Hasanlu chronological sequence, the period between Hasanlu VIII A (called as Pisdeli) and VIIC (EBA synchronic with Kura-Araxes culture) spans one thousand years, but the existence of only two periods (Pisdeli and Kura-Araxes) during this time raises some questions, because, based on recent excavations, four different periods and phases (LC1-3 and Kura-Araxes I) have been brought to light during Hasanlu VIII A and VIIC (*Maziar 2010; Abedi et al. 2014; 2015; Abedi, Omrani 2015; Abedi 2017*). This chronological problem is considered as one of the largest gaps in our understanding of the developmental sequence of NW Iran (*Voigt, Dyson 1992; Danti et al. 2004; Helwing 2004*). In northern parts of the Lake Urmia and especially in the Middle Araxes Basin, this chronological issue has been clarified and resolved due to absolute ¹⁴C radiocarbon dating of Kul Tepe Jolfa and Dava Göz Khoy for this time span (*Abedi et al. 2014; Abedi, Omrani 2015*). Also according to new research in the eastern and western parts of Lake Urmia, the new chronology can be applied for this interval in these regions. One of the most obscure parts of NW Iran during Hasanlu VIII A (Pisdeli) and VIIC (EBA) is the southern parts of Lake Urmia, with a millennium long (c. 4000/3900–3000 BC) gap in our understanding (*Voigt, Dyson 1992*). Several questions can be raised about this problem. First, were the southern plains of Lake Urmia during this time completely abandoned and vacant? If not, which cultures existed in this part of NW Iran? What was the nature of these cultures and what was their relationship with the Kura-Araxes and Uruk tribes? These were the questions raised by Michael Danti *et al.* (2014) after analysis of Hasanlu materials when identifying the transition from the Late Chalcolithic to EBA.

These findings not only established a good opportunity for revising the NW Iran chronological table, but also a good basis for studying the inter-regional relationships of NW Iranian communities with southern and northern Mesopotamian societies during the 4th millennium BC. This article aims to introduce sev-

eral newly found and typical Uruk sites in the southern part of the Lake Urmia, with detailed emphasis on new pottery, lithic and special finds at Tepe Badamyar Rabat. The present paper also aims to expose the position of Uruk phenomena in NW Iran chronological framework and the interregional relationships with adjacent areas.

The present study seeks to answer the questions raised above and aims to address the presence of Uruk (-related) culture in NW Iran, a topic that has not been addressed in any of archaeological research on this area. This research will introduce the typical Uruk-related site of Badamyar with its typical pottery items of Bevelled Rim Bowls (hereafter BRBs), and will also introduce all of the surveyed Uruk-related sites in NW Iran, and especially those in the Little Zab River basin, while the importance and distribution map of the region will be discussed.

Archaeological background of southern Lake Urmia

The first archaeological studies in the southern parts of the Lake Urmia were started in 1936 by Sir Aurel Stein, with a survey and six days of excavation at Tepe Dinkhah, where he found eastern Khabur items which were comparable with Hasanlu VI, and he systematically surveyed the Hasan-Ali Tepe in the connection road of Ushnaviyeh to Naghadeh, finding special Bronze Age painted ware (*Steint 1940*). His archaeological activities continued at Geoy Tepe Urmia. The first scientific archaeological studies concerning the EBA period in NW Iran began with the works of Frank Earp in 1903, who opened four Bronze Age tombs (*Crawford 1975*), and continued with the work of Theodore Bortun Brown in 1948 who spent six weeks excavating in eight separate trenches (*Brown 1951*). In 1949 Carleton Coon conducted a Palaeolithic cave survey in NW Iran, and started his excavation at Temtemeh cave at the Nazloo Chay River Basin close to Esmail Agha village (*Coon 1951*). Excavations continued at other sites, such as Hasanlu (*Dyson 1965; 1968; 1972; 1976; Dyson, Muscarella 1989*) in the southern Lake Urmia region, directed by Robert Dyson, Hajji Firuz (*Voigt 1983*), Dalma (*Hamlin 1975*) and Pisdeli (*Dyson, Young 1960*). Studies subsequent to these early excavations led to identification of the Late Neolithic period in Hajji Firuz (6th millennium BC), previously regarded as belonging to the cultural horizon of Hassuna in Mesopotamia (*Voigt 1983*). Research in the region was continued by Ralph S. Solecki in 1969 (*Solecki 1969*) and then by Regnar

Kearnton (1969), introducing around 300 archaeological sites from the prehistoric to Islamic periods. During 1971 a new survey was begun by Stuart Swiny (1975), who started from NW Iran and moved to the central Zagros, introducing 93 sites. The survey of NW Iran was continued by Wolfram Kleiss and Stephan Kroll, especially around Ushnaviyeh-Naqadeh, Piranshahr-Sardasht and Mahabad-Miandoab (Kroll 1994; 2004; 2005). After the Iranian Revolution several different projects were carried out in the region. In 2008 an archaeological survey was conducted by Ali Binandeh along the Little Zab River Basin and Simineh Rud revealed the settlement patterns of the region during the Neolithic to the Islamic eras (Binandeh et al. 2012). The excavation at Tepe Lavin should be considered one of the important excavation projects in the Piranshahr region (Binandeh et al. 2012). The excavations in dam archaeological projects such as Sardasht (Fallahian, Nozhati 2016) Silveh (Abedi 2017a) and Kanisib should also be considered important scientific projects for better understanding of the archaeology of the region from the Neolithic to the Islamic eras. However, the earliest and closest survey in the Sardasht region (where the research data come from) was launched at Tepe Rabat, and this revealed the best Manaeen evidence in NW Iran (Kargar, Binandeh 2009; Heidari 2006). During the second sea-

son of excavation at Tepe Rabat, the archaeological mission conducted a survey around the Rabat area, and they found the first evidence of BRBs and 17 archaeological sites (Heidari 2006). In 2007 a survey was also carried out to assess the settlement pattern of the region along Little Zab River, with 34 archaeological sites found during two seasons and six of these containing Uruk-related materials (Heidari 2007). The rescue project of the Sardasht Dam reported by Fallahian introduced five archaeological excavation sites, all of which are located on the banks of the Little Zab River. Both Tepe Baghi (Fallahian, Nozhati 2016) and Tepe Mollawosu (Binandeh 2016) were found to have Uruk-related materials during this project.

Tepe Badamyar Rabat, the Uruk-related site in NW Iran

Rabat is a city in the central district of Sardasht county, the west Azerbaijan province of Iran. In Rabat there are five archaeological sites numbered as 1, 2, 3, 4, and 5. Site number 4, which is called as Tepe Badamyar Rabat (45°32'13"E; 36°12'32"N; 1141m asl; Figs. 1–3) is located exactly 800m northeast of the city of Rabat. Tepe Badamyar Rabat is a single period Uruk-related site about 1ha in extent and is situated on the slope of a natural mound. The site

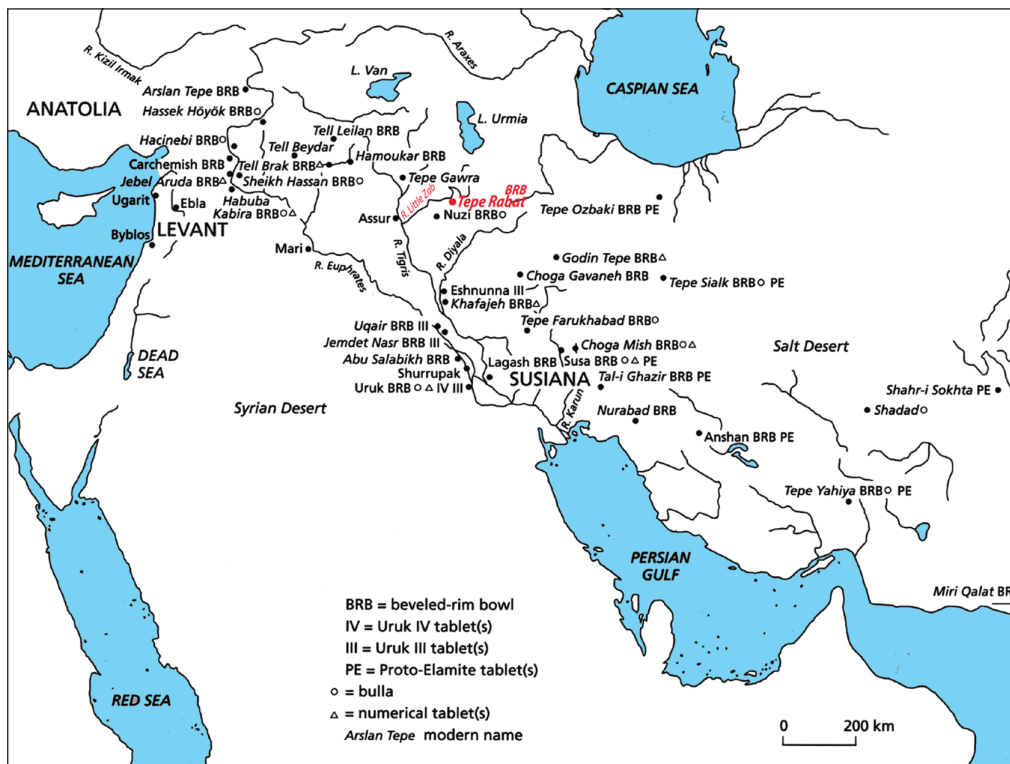


Fig. 1. Location map of Tepe Badamyar Rabat Sardasht and distribution map of Uruk and Proto-Elamite sites in Iran and Western Asia (after van de Mierop 2004:36, Map 2.2).

was originally discovered by an expedition to the Sardasht in western Azerbaijan province in 2006 and 2007 under the supervision of Reza Heidari (Heidari 2006; 2007), and was later reported by Ali Binandeh (2016) and R. Heidari and Reyhaneh Afifi (2011). They introduced Badamyar Rabat as a 4th millennium Uruk or Uruk-related site with typical BRBs. Afterwards, during a Little Zab River basin survey, Binandeh reported Badamyar as one of the typical Uruk sites in NW Iran and the Little Zab River basin (Binandeh 2016).

A recent survey carried out by the authors (Heidari 2006; 2007; Heidari, Afifi 2011) provided the opportunity for a detailed study of the site. Tepe Badamyar Rabat is a single period Uruk (-related) site with typical BRB pottery as a unique index for the comparative dating of the site to the Uruk period. As this site is a single period one it thus gives an opportunity for focusing on the data as derived from a single period (Figs. 2–3).

Uruk and Uruk-related evidence in Little Zab Basin, NW Iran

The Little (or Lower) Zab River, along with the Great (or Upper) Zab, constitute two major branches of the Tigris River. Little Zab originates from highlands of Piranshahr county in NW Iran and runs in the NW-SE direction, joining the Tigris just south of Al Zab in the Kurdistan region of Iraq. The river is approx. 400km (250mi) long and drains an area of c. 22 000km² (8500sq mi). This river is permanent and its water is drinkable (Khezri 2000:130). Despite the importance of this river in the formation of various archaeological settlements, and its mentions in Mesopotamian texts, only one important research-based archaeological survey has been done here (Binandeh et al. 2012; Binandeh 2016). Evidence of Uruk materials in the Sardasht region has been reported from Tepe Baghi, Tepe Waliw, Tepe Molla Yousef and Tepe Badamyar Rabat (Heidari 2006; 2007; Heidari, Afifi 2011). Binandeh also reported on Uruk materials in Tepe Lavin (Noberi et al. 2012), and introduced Tepe Gooman as another Uruk-

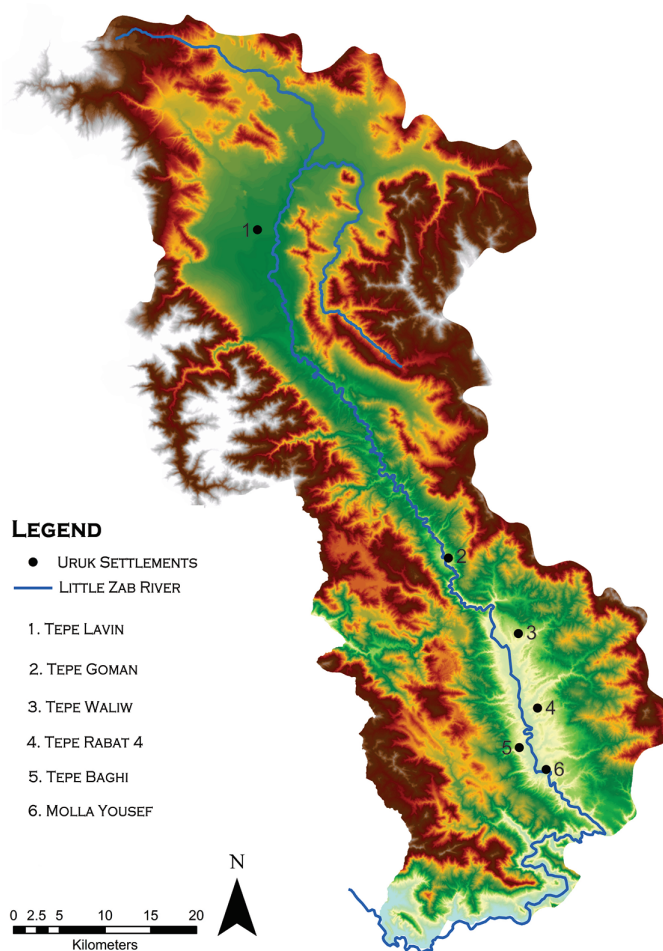


Fig. 2. Distribution map of Uruk (related) sites with BRBs in Little Zab River, NW Iran.

related site during a Little Zab River survey (Binandeh et al. 2012; Binandeh 2016) (Fig. 2).

The Uruk-related materials of Tepe Badamyar Rabat Sardasht

During 2006 and 2007 a surface survey was conducted (Heidari 2006; 2007; Heidari, Afifi 2011)

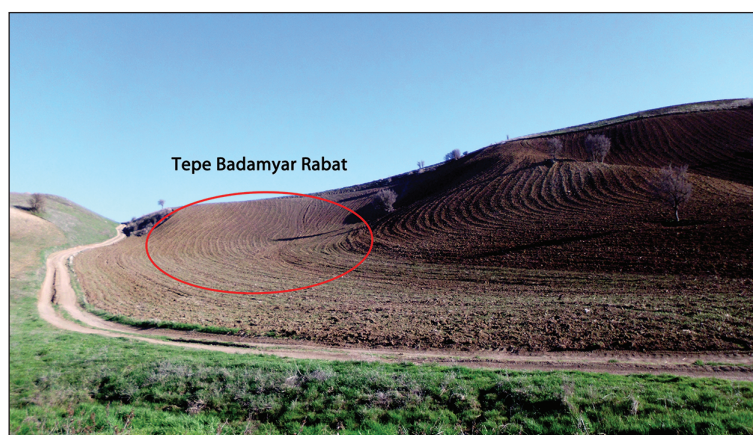


Fig. 3. Uruk-related site of Tepe Badamyar Rabat (view from NW).

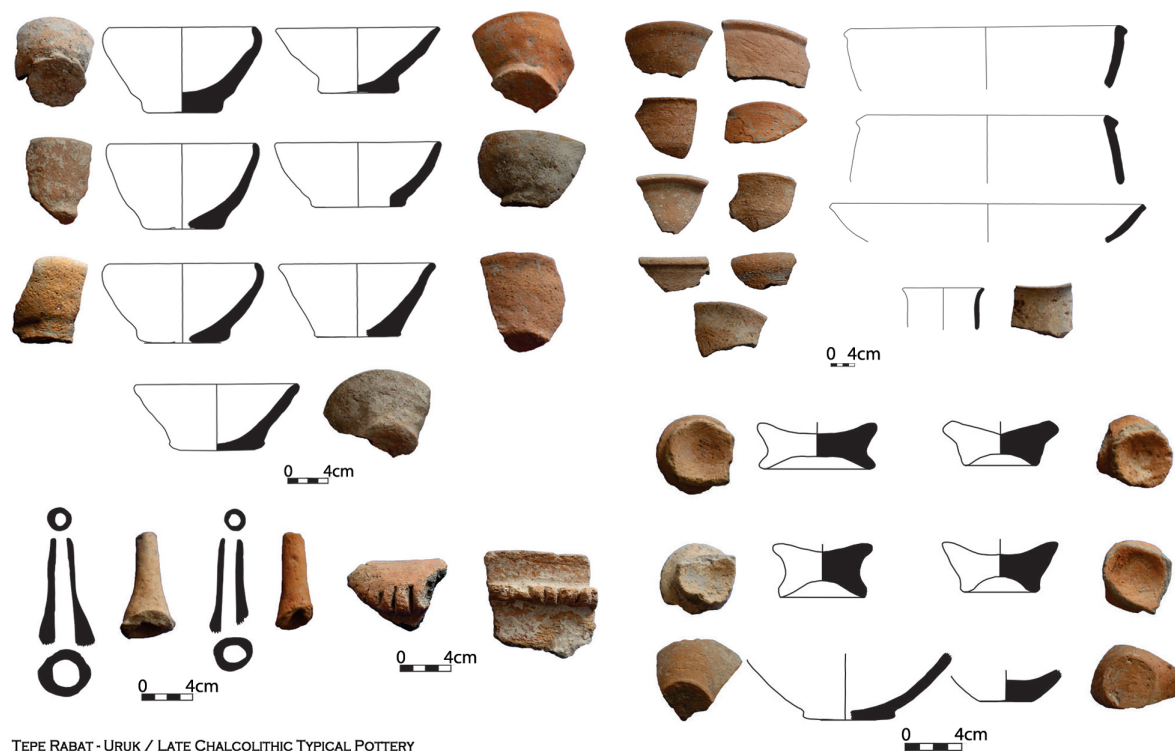


Fig. 4. Late Chalcolithic/Uruk pottery assemblage of Tepe Badamyar Rabat.

at the site to better understand the cultural materials and periodization of the site using the available evidence. In this regard typical materials have been found, among which Bevelled Rim Bowls (BRBs) could be considered as an important indicator of the relative chronology of the assemblages, attributing them to the famous Uruk period. Details of the findings will be discussed below, and these are mostly pottery, lithic artefacts and small items such as ornamental lithic beads.

Pottery assemblage of Tepe Badamyar Rabat

During the 2006 and 2007 survey, a total of 350 potsherds were collected and sampled from the Uruk period in Tepe Badamyar Rabat. The great majority of the pottery is handmade (97%). The fabric is characterised by mixed chaff and grit (331 = 85.5%) temper; in chaff-tempered cases, the chaff is fine to medium, which invariably produces a chaff-faced effect. Most of the pottery sherds are under-fired (84%), which indicates a lack of control of the heating of the kiln. The pottery is mostly orange coloured (5YR-7/8) (88%), while the colours of the monochrome ware range from orange and brown, to buff (12%). The section can be monochrome and show a grey core. Most of the potsherds are simple and undecorated, and in only two samples decoration is incised under the rim.

The majority of the samples are typical rim and floor sherds. Mostly the forms of rims are simple, but there are also different styles, with everted, inverted and vertical types of rim used during pottery production. Two different forms of footed and round and flat-based pottery (jars, bowls) are evident in the assemblages. Footed jars and bowls are predominant in the pottery assemblages. Spouted vessels could be considered as an important part of the ceramic findings. Three broad shape and form categories can be distinguished from the Uruk Period at the site: bowls, pots and jars. Small bowls and jar are most numerous in all strata, and there are also large storage jars (Fig. 4). What is most important in the pottery assemblage is the existence of 20 typical BRBs (Fig. 5). These all are handmade, coarse in treatment, under-fired with mixed inclusion temper. These BRBs have a close similarity with the Late Uruk Godin VI-V materials (Young 1969; Gopnik, Rothman 2011). BRBs were reported by Heidari (2006; 2007; Heidari, Afifi 2011) for the first time in NW Iran during the Little Zab River survey. Later, Uruk materials were found in another survey at Little Zab River (Binandeh et al. 2012) and Tepe Lavin Piranshahr (Noberi et al. 2012).

Lithic artefacts of Tepe Badamyar Rabat

During the 2006 and 2007 survey of the site, 32 lithic artefacts were collected in addition to pottery

(Fig. 6). The lithic assemblages contained blades, micro-blades, flakes, and cores. Almost all the lithic findings of the Uruk period in Tepe Badamyar are made of chert, though there are four obsidian pieces in the assemblage. In most archaeological sites of south of Lake Urmia, obsidian has been reported as an item imported from the north (Armenia) and northwest (eastern Turkey), as reported in Tepe Lavin Piranshahr (Noberi et al. 2012).

Small finds

According to the survey it seems that only a small part of the site can be interpreted as a cemetery located at the slope of the mound. Surface of the site has been gradually washed away because of rain and annual flooding, and nowadays the site is also disrupted as ploughing agricultural land causes the dispersion of bones, beads and pottery. In the cemetery part of the site a lot of human and animal bones are visible. A detailed survey of this part revealed six ornamental stone beads (Fig. 7).

Discussion

A social, political, technical and economic revolutions caused many changes in southern Mesopotamia (now southern Iraq) and Southwest Iran at the turn of the 4th and 3rd millennia BC. This period is marked by the appearance of the city, the state and writing, making the transition between these two millennia

a pivotal period in evolutionary thinking, and in that between prehistory and history.

The end of the 4th millennium BC in SW Iran is thus characterized by the emergence of state and writing, a period which was the outcome of the 'Proto-Urban Revolution' and the result of a long process beginning from the 5th millennium. The term 'Proto-Elamite' originally referred to a script system, different from the Mesopotamian one, at the end of the 4th millennium. It is currently used to describe a period, a 'culture' and a 'civilization'. Based on the Uruk model and its proto-urban expansion from south Mesopotamia (4th millennium BC), the term has also been used to refer to a parallel phenomenon in Iran between 3300/3100 and 2800/2600 BC. These two phenomena (Uruk and Proto-Elamite) are clearly different in terms of chronology, material culture, script, and artistic originality. Nevertheless they are undoubtedly connected. New discoveries and studies have led several scholars to a deconstruction of the Proto-Elamite phenomenon, whose terminology was used to define a theoretical generalization of the 'Urban Revolution' over a large area and during a short time period. This idea suggests a significant change in Iranian society, which is supported by the archaeological evidence (Naccaro 2017).

The Uruk culture from 4100 to 3200 BC spread from southern Mesopotamia and appeared along the Tigris and Euphrates in Syria, and distributed up to the



Fig. 5. Uruk-related Bevelled Rim Bowls pottery of Tepe Badamyar Rabat.



Fig. 6. *Lithic artefacts of Tepe Badamyar Rabat with four obsidian artefacts.*

west and southwest of Iran. Beside the whole material cultural, the Uruk phenomena is especially known for BRBs (*Wright, Johnson 1975; Oates 1985; Millard 1988*). Roughly 75% of all ceramics found with Uruk culture sites are BRBs, so two major aspects make them historically significant to archaeologists. First, they are one of the earliest signs of mass production of a single product in history. Second, their suspected use as a form of payment to workers is another historic milestone, because there is no evidence of rationed payments before these (*Millard 1988; Potts 2009*).

BRBs are small, undecorated, mass-produced clay bowls most common in the 4th millennium BC. They constitute roughly three quarters of all ceramics found in Uruk culture sites, and are therefore a unique and reliable indicator of the presence of the Uruk culture in ancient Mesopotamia. BRBs originated in the city state of Uruk in the mid-4th millennium BC. As the Uruk culture expanded so did the production and use of these bowls. Although BRBs are considered a characteristic Mesopotamian ceramic *leitfossil* of the mid- to late-4th millennium BC, the first BRBs ever reported were actually discovered in Iran, at Susa, during the seasons of 1897/98 and 1898/99 (*de Morgan 1900.Figs. 91, 118, 121*). In the winter of 1902/3 at least one complete BRB, later displayed in the Louvre, was recovered by Gautier and Lampre at Tepe Musiyan (*Burton Brown 1946.36*). The first BRBs in Mesopotamia were found at Tell Abu Shahrein (ancient Eridu) in 1918 (*Campbell Thompson 1920.Figs. 3.4, 4.10*), then six BRBs were found at Jamdat Nasr (*Mackay 1931.Pl. 67.22–23*). According to Marc Van De Mierop (2004) and Daniel Potts (2009), “Examples have been excavat-

ed in the Zagros Mountains (e.g., Godin Tepe, Choga Gavaneh), in northern (e.g., Tepe, Ozbeki, Tepe Sialk), central (e.g., Tepe Yahiya), and southern Iran (e.g., Nurabad). They were even found on the modern coast of Pakistan near the Gulf of Oman (Miri Qalat)” (Fig. 1).

During the Late Chalcolithic 1–3 (c. 4500–3700 BC) the most northern, western and southern parts of the Lake Urmia region had a close relationship with northern Mesopotamian societies. Shortly after LC3 (around 4000 BC) this connection pattern disappeared and most of the southern parts of the Lake Urmia were abandoned and vacated. During the mid-4th millennium BC a new connection was established between the western parts of Lake Urmia Late Chalcolithic societies and Eastern Anatolia (*Voigt 1989. 286*). At the end of the Pisdeli period (c. 4000 BC), the Ushnu-Solduz valley was abandoned by sedentary farmers for some time. In the Urmia plain there is also a chronological gap between the sites. Pottery evidence shows that during the second half of the



Fig. 7. *Lithic ornament beads of Tepe Badamyar Rabat.*

4th millennium BC, the northern Mesopotamian related material can be divided into three major zones.¹ As Danti *et al.* (2004), as well as Mary M. Voigt (1989), suggest, the Ushnu-Solduz valley acts as a border zone between different forms of socio-economic organization from south and north Mesopotamia and the Kura-Araxes culture of the northern parts. It seems clear that the important strategic location of this region that it can be considered as an important border zone. As already mentioned, there is a huge gap in our understanding of the area from the south of the Lake Urmia region, and especially Ushnu-Solduz, during Hasanlu VIIIA (Pisdeli) and VIIC (Kura-Araxes).

North-western Iran, and especially the southern parts where we know how it fits into the Hasanlu sequence, has strong Mesopotamian ties interspersed with episodes of northern, southern and eastern connection (Danti *et al.* 2004; Levine 1977; Dyson 1969). The distribution of related settlements within the Urmia basin suggests that Ushnu-Solduz was in some periods an important boundary area, a point of contact and sometimes conflict. In times of conflict the valley may have served as a buffer zone, its settlements abandoned and the countryside empty or used by nomadic herders (Danti *et al.* 2004:584). New Uruk findings in Sardasht and the Little Zab River basin demonstrate that the huge gap between Hasanlu VIIIA and VIIC could be the result of inaccurate and incomprehensive surveys in the whole of this region.

Conclusion

The Uruk phenomena is one of the well-known cultural periods in Mesopotamia, southwest and western Iran, but to date has not been reported in north-western Iran. A new survey in the Little Zab River basin and especially in Tepe Badamyar Rabat, which is probable single period site with typical BRBs in this region, has raised the importance of this phenomena in north-western Iran. According to the chronology of pottery material, it seems clear that the assemblage should be dated to the second half of the 4th millennium BC, and it shows close tie with the same material that has been found in western Iran, especially from Godin VI and V. BRBs help to date the assemblage to the Middle or Late Uruk pe-

riod, although we need more detailed excavation to better understand the site chronology and sequence.

The discovery of Uruk finds in NW Iran has presented a new research site that can help to overcome the current chronological ambiguities, although many of the issues may remain impossible to clarify. New archaeological evidence from Rabat and other Uruk-related sites in the Little Zab River basin will definitely change researchers' attitudes toward this large chronological gap between Hasanlu VIIIA and VIIC, and it is likely that, with further research, more details and new finds (*e.g.*, the Uruk culture) will emerge in the south Lake Urmia, which is often considered one of the most important archaeological and chronological ambiguities in this area and in northern Mesopotamia in general. The present study was able to clarify some of the potential trade-economic communications in the 4th millennium BC between the northwest of Iran, northern Mesopotamia and Eastern Anatolian communities, and it is hoped that with further excavation at this site the cultures of the area will be better identified and described. Based on discussion outlined above, the rich agricultural intermountain area as well as strategic location of the Ushnu-Solduz valley were, most likely, one of the main factors why this place was the boundary between the political and economic institutions of Mesopotamia and north-west Iran. Tepe Gawra shares numerous elements of material culture with the north-western Iran highland region; at the same time, the Gawra ceramic assemblage is surprisingly distinct from those of the surrounding Uruk/Jemdet Nasr settlements. One plausible interpretation of Gawra is that it was a trading centre linking the Anatolian/Azerbaijani zone with Mesopotamia during the 4th millennium BC. Finally, the emergence of the Kura-Araxes culture in the northwest of Iran and the Caucasus on the one hand, and the east of Anatolia on the other, created another border area between the land south of Lake Urmia, and especially the plains of Ushu-Solduz and the northern parts of Lake Urmia. This new findings suggests the coexistence of the Kura-Araxes in the north and the Uruk in the south.

¹ One zone, centred in the intermontane valleys of western Azerbaijan and eastern Anatolia, can be defined on the basis of monochrome painted pottery and distinctive moulded ceramics. The second zone, lying primarily in the lowlands and foothills to the south, has been defined based on well-known Uruk (and perhaps Jemdet Nasr) ceramic types. A third zone, located in the central Zagros mountains, can be tentatively defined based on the occurrence of ceramics best known as the Godin VI assemblage, found at sites from Luristan to eastern Azerbaijan (Voigt 1989:287).

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