The expansion of the Kura-Araxes culture in Iran: what role for the Uruk?

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The expansion of the Kura-Araxes culture in Iran: what role for the Uruk?

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The interpretation of the expansion of the Kura-Araxes culture has been traditionally linked to a set of migratory mechanisms that were generated in the core of Kura-Araxes cultural region. Little attention has been dedicated to the role of other processes that took place in the Kura-Araxes "periphery", and in particular to the development, in the fourth millennium, of centralised early-state polities in Iran and Anatolia that were linked to similar developments taking place in the greater Uruk Mesopotamia. This paper will present two case-studies to highlight the structural premises that may have favored the Kura-Araxes "expansion" in Iran and Anatolia: Godin Tepe and Arslantepe. Between the late-fourth and the early-third millennium, these two sites recorded a strikingly similar cultural sequence consisting of the construction of large, possibly public, buildings characterized by a Uruk-related material culture that were replaced by an occupation of flimsy wattle and daub huts featuring a Kura-Araxes related material-culture. A thorough comparison of the developments illustrated by these two case-studies can suggest a new explanatory model for the Kura-Araxes expansion in the regions formerly involved in the Uruk "world". According to this model, the specialized pastoral groups that were generated by the centralised economies of the early-sate polities of the Uruk period in Iran and Anatolia may have played a key role in the following expansion of the Kura-Araxes culture in these regions.

L'interprétation de l'expansion de la culture Kuro-Araxe a été traditionnellement associée à des mécanismes migratoires générés dans son périmètre géographique. Jusqu'à présent, très peu d'attention a été dédiée au rôle que d'autres processus, qui se sont déroulés aux marges de la région Kuro-Araxe, pourraient avoir joué dans cette expansion, notamment, le développement en Iran et en Anatolie d'entités proto-étatiques centralisées datant de la seconde moitié du IV^e^ millénaire en connexion directe avec les développements similaires de la Mésopotamie "Urukéenne". L'objectif de cet article est de présenter deux cas d'étude (Godin Tepe et Arslantepe) pour mettre en évidence les conditions "structurelles" qui auraient pu favoriser l'expansion "Kuro-Araxe" en Iran et en Anatolie. Entre la seconde moitié du IV^e^ et le début du III^e^ millénaire ces deux sites témoignent d'une séquence culturelle identique consistant en la construction de grands bâtiments de tradition urukéenne, qui furent remplacés par des occupations à architecture légère caractérisées par une culture matérielle de tradition Kuro-Araxe. La comparaison entre les développements de ces deux sites pourrait suggérer un nouveau modèle explicatif de l'expansion Kuro-Araxe dans les régions précédemment impliquées dans le "monde" Uruk. Selon ce modèle, les groupes de pasteurs spécialisés, générés en Iran et en Anatolie par les économies centralisées des entités proto-étatiques de la période Uruk, pourraient avoir joué un rôle clé dans l'expansion de la culture Kuro-Araxe qui a succédé dans ces mêmes régions.

تفسیر گسترش فرهنگ کورا-ارس به طور سنتی به مجموعه ای از فرایند های مهاجرتی(کوچ نشینی) ارتباط دارد که در مرکز ناحیه فرهنگ کورا-ارس اتفاق افتاده است. در مقایسه با مرکز فرهنگ کورا-ارس، به نقش دیگر فرایندهای رخ داده در محیط پیرامونی کورا –ارس کمتر توجه شده است؛ به طور خاص، تحولات هزاره چهارم، سیاستهای تمرکز گرایی حکومت های اولیه در ایران و آناتولی در ارتباط با پیشرفت های مشابهی است که در بین النهرین در دوره اروک بزرگ اتفاق افتاده است. در این مقاله، برای روشن ساختن مقدمات ساختاری گسترش فرهنگ کورا-ارس در ایران و آناتولی، به مطالعه موردی دو محوطه گودین تپه و ارسلان تپه، اشاره

شده است. حدود اواخر هزار چهارم و اوایل هزار سوم، در این دو محوطه توالی فرهنگی مشابهی دیده می شود که شامل ساخت بناهای بزرگ احتمالا با کاربری عمومی، با ویژگیها و مواد فرهنگی منتسب به اروک از آن گزارش شده است. این دوره، با یک دوره استقراری متشکل از کلبه های گلی و چپر با مواد و مصالح کم دوام، منتسب به مواد فرهنگی کورا-ارس جایگزین شده اند.
مقایسه کامل از تحولات اتفاق افتاده در مطالعه موردی این دو محوطه، می تواند یک الگو تبیینی جدیدی را برای گسترش فرهنگ کورا-ارس در مناطقی که قبلا تحت سیطره جهان اوروک بوده پیشنهاد دهد. طبق این الگو، گروهای تخصصی شبانی(کوچرو) که از طریق سیاست اقتصادهای متمرکز حکومت های اولیه دوره اروک در ایران و اناتولی به وجود آمدند احتمالا یک نقش کلیدی به پیروی از توسعه فرهنگ کورا-ارس در این نواحی ایفا کرده اند.

Historically, the Uruk and Kura-Araxes are two different phenomena, characterized by radically different cultural traditions that were rooted in two very distant and disparate ecological regions of the Near East, that developed almost contemporaneously during the second half of the fourth millennium BC.

The Kura-Araxes cultural tradition, which owes its name from the main rivers of the southern Caucasus, developed from 3500 BC (ca.) and was the expression of small village communities living in the regions of mountains and highlands of southern Caucasus and eastern Anatolia.

The Uruk cultural tradition developed in southern Mesopotamia, owes its name to the largest centre of the Mesopotamian alluvium in this period, the city of Uruk-Warka (*fig. 1*) and was the expression of the earliest urban and state societies of this region. During the second half of the fourth millennium BC, the Uruk culture and its model of political and economic centralisation spread well beyond the geographic boundaries of Mesopotamia reaching as far the highlands of Anatolia and Iran. This process, also known as the Uruk expansion[1], was the result of a complex process of interaction between expansive trade relations and territorial strategies triggered-off by Mesopotamian centres and indigenous trajectories of local development where the emulation of the Mesopotamian models certainly played an important role[2]. Yet, at the end of the fourth millennium BC, in the Anatolian and Iranian regions, the end of the Uruk "expansion" coincided with the progressive expansion of the Kura-Araxes culture, highlighting that these regions were the "theatre" of a diachronic intersection between these two phenomena.

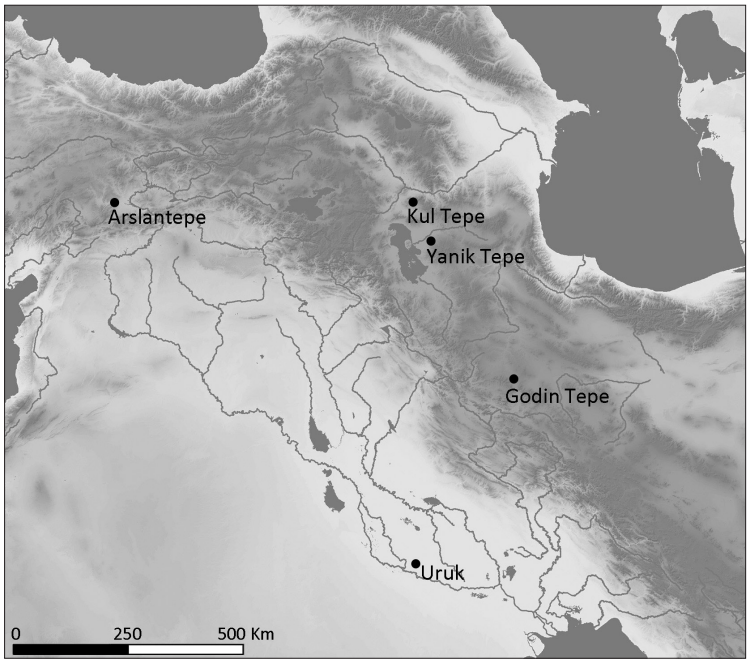

Fig. 1 – Map of the Near East with the main sites mentioned in the text.

1. Algaze 1989.
2. Algaze 2001; Schwartz 2001; Stein 2001; Frangipane 2001.

The traditional explanations put forward to explain this replacement of Uruk with Kura-Araxes "systems" have resorted to movements or migrations of Kura-Araxes people from their homeland to surrounding regions. However, the current evidence of the Kura-Araxes phenomenon may provide an alternative explanation of what was most probably a complex process of circulation, transmission and adoption of the Kura-Araxes model and its cultural traits (see next paragraph).

This is because such processes did not take place in a cultural vacuum. As I have already pointed out elsewhere[3], in order to fully understand this process we need to adopt a larger historical point of view, one that considers the social, political and economic conditions that created the socio-economic context where this "expansion" took place.

This paper will present two case-studies to highlight the importance of the structural premises that may have favoured the Kura-Araxes "expansion": the sites of Arslantepe, in the Anatolian Upper Euphrates Valley and Godin Tepe, on the Iranian Zagros, in the Kangavar Valley. Despite their distance apart and different geographical location, these two sites display a strikingly similar history revealed in a twin sequence of occupation dating between the second half of the fourth and the first centuries of the third millennium BC. A thorough comparison of the developments illustrated by these two case-studies can tell us some very important things about the dynamics at play during the Kura-Araxes expansion in the Anatolian Upper Euphrates and in the Kangavar Valley and the vectors that could have played a key role in this process.

The Kura-Araxes culture in the southern Caucasus

From the middle of the fourth millennium BC, the material culture of the southern Caucasian communities show radical changes from those of the Chalcolithic period (4800-3500 BC ca.). This new cultural tradition, in spite of a marked regional variability, features anyway a set of technological, some cultural and symbolic markers that were shared and reproduced through space and time[4].

These markers are clearly visible in the architectural traditions, where monocellular or bicellular dwellings emphasise a spatial and symbolic centrality of the fire-places often decorated with anthropomorphic or zoomorphic motifs, suggesting that ritual practices were part of the activities taking place in the domestic space[5]. New metallurgical repertoires also help to define the Kura-Araxes traditions, recognisable by very specific body ornaments (such as hair-spirals and double-spiral headed pins)[6]. Finally, ceramics were probably the most common and widely diffused marker of these traditions[7]. Grit or mixed-tempered and hand-made, the Kura-Araxes ceramics are distinguishable by the special attention given to surface treatments, such as consistent burnishing. Monochrome in the very early phases, towards the end of the fourth millennium BC the Kura-Araxes ceramics often feature a contrasting red-black effect between external and internal surfaces of the same vessel. It is worth noting that Kura-Araxes Red-Black Burnished Ware were always black on their external surfaces and red to light-brown on their inner surfaces[8]. The Kura-Araxes vessels from the southern Caucasus were often embellished with different decorative techniques (relief, incision, impressing or

3. Palumbi in pres
4. Greenberg and Palumbi 2014.
5. Sagona 1998; Smogorzewska 2004; Simonyan and Rothman 2015.
6. Courcier 2007.
7. Rothman 2014.
8. Palumbi 2008a, p. 205.

grooving) reproducing a large array of geometric (double spirals) and figurative motifs among which birds and caprids were certainly the most common. Finally, Kura-Araxes ceramics morphological repertoires were also innovative, certainly more homogenous in earlier phases. Typically, we see bell shaped or truncated-conical necked jars, large S-shaped bowls and circular lids invariably fitted with handles that have come to represent the most recognisable markers of the Kura-Araxes potting traditions, called Nakhichevan lugs. Research suggests that the Kura-Araxes communities were based on an agro-pastoral economy characterized by cereal agriculture and non-specialized husbandry strategies which, as is argued later in this paper, strongly contrast with the specialized pastoral model of the Uruk communities[9]. The absence of any markers of status, rank or vertical stratification in the funerary structures and related burials as well as the lack of any form of differentiation in the architectural evidence, seems to suggest that the Kura-Araxes communities were structured on the socio-economic centrality of the household and probably on kinship-based social relations[10].

The Kura-Araxes culture in Iran

It is commonly believed that the Kura-Araxes culture first originated in the southern Caucasus then spread to surrounding regions and thus is usually considered a tradition exogenous to Iran. However, the latest results of research at Kul Tepe Jolfa in northwestern Iran reveal that this region has probably been home to the Kura-Araxes culture since the early stages of its formation[11].

What is more, Iran has always been "home" to the Kura-Araxes in terms of the history of research on this culture. Excavations at the sites of Geoy Tepe, Yanik Tepe and Haftavan Tepe and later at Gijlar Tepe in the region of the Urmia Lake were among the first to record a cultural package that was clearly reminiscent of the Kura-Araxes traditions of the neighbouring regions of southern Caucasus and eastern Anatolia.

Among these sites, Yanik Tepe (*fig. 1*) is still the most extensively excavated in the region and its occupational sequence provides a fundamental reference for reconstructing Kura-Araxes developments in northwestern Iran[12]. In particular, phase II at Yanik Tepe has an uninterrupted sequence of occupational levels with circular buildings often equipped with fire installations and work areas, most probably domestic structures (*fig. 2a*). The fragment of a portable andiron[13] bearing anthropomorphic decorations (*fig. 2b*), which recalls analogous items from the southern Caucasus, stresses the impact that the Kura-Araxes model also had on the domestic sphere of the Yanik Tepe community.

In terms of its ceramic traditions, pottery from Yanik Tepe II is characterized by accurately burnished black surfaces, its morphological repertoires includes truncated conical or cylindrical necked jars with loop-handles (*fig. 2c-g*): clear parallels can be drawn with the contemporary Kura-Araxes potting traditions from southern Caucasus and eastern Anatolia. According to Summers, a development of these potting traditions is observable throughout the sequence at Yanik Tepe; ceramics from the earlier levels, corresponding to Yanik Tepe phase IIA, are characterized by incised or excised decorations filled with a white paste (*fig. 2c-g*), while in the following phase IIB these ceramics are mainly undecorated[14].

9. Piro 2009; Sagona and Zimansky 2009, p. 191.
10. Sagona 2004, p. 480-481; Palumbi 2007.
11. Abedi and Omrani 2015.
12. Burney 1961; Burney 1962; Burney 1964; Summers 2013b.
13. Burney 1961, pl. LXXIV: 60.
14. Summers 2013a, p. 168.

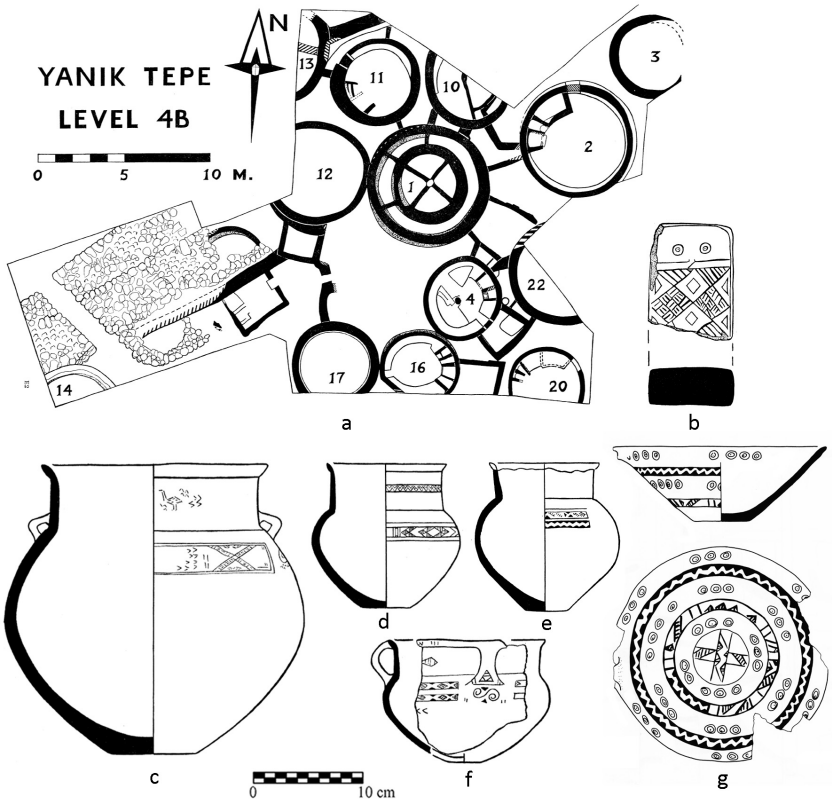

Fig. 2 – Yaniktepe.
a. Plan of level 4; b. Anthropomorphic andirion; c-g. Kura-Araxes related pottery (a-f: Burney 1961; g: Summers 2004, fig. 9).

It is worth recalling that the decorative tradition of incisions/excisions filled with white paste is typical and apparently exclusive to the Iranian region with no comparisons in nearby areas. Decorative motifs usually comprise chevrons or geometric patterns and, more rarely, single or double spirals, birds and caprids[15], the latter clearly reminiscent of the motifs found on the Kura-Araxes ceramics of southern Caucasus and eastern Anatolia.

As for the absolute chronology, the newly calibrated radiocarbon dates point to 3000-2900 cal BC as a reasonable starting date for the earliest levels of phase IIA at Yanik Tepe. The only reliable date for phase IIB (characterized by plain non-decorated ceramics) place its beginnings at around 2750 cal BC[16]. As no Kura-Araxes contexts that predate Yanik Tepe IIA have been discovered so-far in the region of Urmia, it is generally assumed that an already developed Kura-Araxes culture arrived here around 3000 BC[17].

However, new data from Kul Tepe near Jolfa, some 90 km north of Yanik Tepe, reveals levels containing Kura-Araxes ceramics dating as early as 3350 BC ca.[18]. This data suggests that, in the northernmost stretches of the Iranian region, some communities were involved in the developments of this cultural tradition from its earliest stages, no later than the earliest evidence of this culture in the neighbouring southern Caucasus[19]. Interestingly, the Kura-Araxes ceramics from Kul Tepe near Jolfa – dating to the last quarter of the fourth millennium BC – do not have the incised and

15. Rothman 2014, fig. 5a.
16. Summers 2013b, p. 174-182.
17. Summers 2013a, p. 170.
18. Abedi and Omrani 2015.
19. Badalyan 2014; Sagona 2014.

excised decorations filled with white paste such as those recorded in phase IIA at Yanik Tepe, thus suggesting a diachronic evolution of the Kura-Araxes ceramic traditions in northwestern Iran, with such decorated ceramics appearing in this region from the very beginning of the third millennium BC and disappearing around 2750 BC ca.

If the chronology for these decorated ceramics in the Urmia region dates between 3000 and 2750 BC, it is possible that this same chronological framework can be hypothesized for analogous ceramics that were found in the remaining Iranian regions outside of Urmia stretching from northwestern Iran to the Caspian Sea as far as the mountains of the Central Zagros [20].

East of Urmia, such incised decorated ceramics are found in the region of Gilan [21], in the mountainous region of the Alborz [22] and in the Qazvin Plain [23]. To date, the easternmost site where this ceramic tradition has been found is in the southeastern area of the Qazvin Plain, on the Central Iranian Plateau, at Qoli Darvish [24]. The same ceramics were found at Tepe Pissa in the Hamadan Plain [25] and further south on the Central Zagros, where there are several sites, such as the well-known site of Godin Tepe [26]. The southernmost evidence of this ceramic tradition known to date is found south of Godin Tepe, in the region of Marzaki, at Tapeh Qal'eh-ye-Sarsakht [27].

Unfortunately, in spite of this wide geographic distribution, most of the evidence comes from surface collections or small test excavations that do not provide information on the contexts of these ceramics. In fact, the present evidence does not help us to understand either the types (permanent or temporary) of sites or the nature and function of the contexts (domestic, cultic, private, public or funerary) of the ceramics. In most cases, we do not know if these ceramics were associated with a larger material assemblage linked to the Kura-Araxes traditions (architecture, anthropomorphic andirons, clay figurines, metals) or if they coexisted with other assemblages and ceramic traditions (as is, for instance, suggested at Tepe Shizar in the Qazvin Plain) [28].

Finally, the lack of absolute dates for this period does not allow to define a clear picture of the chronological distribution of this ceramic tradition in such a large area of Iran. In fact, apart from Yanik Tepe, one of the northernmost examples of this tradition, Godin Tepe in the Kangavar Valley (*fig. 1*) is the only site that has a reliable set of absolute dates from a large horizontal excavation, allowing us to clarify the chronologies and contexts of provenance of these "Kura-Araxes" ceramics.

Godin Tepe in the Kangavar Valley

Excavations at Godin Tepe were directed by Cuyler Young and the Royal Ontario Museum from 1965 to 1973 [29]. The literature on the site has recently been enriched by new data [30] that allows us to build a larger and more organic picture of its developments during the fourth and third millennium BC.

20. Piller 2012.
21. Fahimi 2005.
22. Piller 2012, p. 445-446.
23. Fazeli Nashli and Abbasnezhad Sereshti 2005, p. 22; Piller 2012, p. 449; Fazeli Nashli, Valipour and Azizi Kharanaghi, 2013, p. 123.
24. Azarnoush and Helwing 2005, p. 207-208.
25. Mohammadifar, Motarjem and Torabzadeh Khorasani 2009.
26. Young 2004; Rothman 2011.
27. Abedi et al. 2014, p. 106.
28. Fazeli Nashli, Valipour and Azizi Kharanaghi 2013, p. 121-126.
29. Gopnik 2011, p. 1.
30. Gopnik and Rothman 2011.

The importance of Godin Tepe as a key site in understanding the dynamics of expansion of the Kura-Araxes culture in Iran also lies in the fact that it has a long sequence of occupation stretching into the fourth millennium BC including an occupation of the Uruk period. As the title of this paper suggests, one of the possible keys in understanding the dynamics and the directions of expansion of the Kura-Araxes culture is to look at the role of the Uruk phenomenon and at the transformations that came with it.

Godintepe VI:1. The "Uruk" occupation

The Uruk occupation at Godin Tepe (phase VI:1) consists of the construction of a large compound, later surrounded by an oval enclosure, comprising several adjoining rooms built around a central courtyard (*fig. 3a*).

Among the different structures in the Oval Compound, the northernmost building, possibly a public reception hall[31], may have also hosted administrative functions, judging from the large number of numerical tablets found inside (*fig. 3a*). However, accountancy and administration were not the only activities carried out in the Oval Compound: the abundant material found in situ suggests that weaving, flint-knapping and metallurgical activities were also carried out, as were the storage and intensive consumption of food (as indicated by the large amounts of beveled rim bowls and wheel-made mass-produced bowls)[32]. Evidence of Uruk traditions in the Oval Compound can be found in: several architectural features (such as the decorative niches that according to Forest mirror a process of adoption of the Uruk domestic architectural model re-adapted to a public function)[33]; the technologies applied to accountancy and administration (numerical tablets and cylinder seals)[34]; the iconography of the seals and clay sealings (*fig. 3b-c*); and, finally, the manufacturing techniques of the ceramics (fashioned with the fast-wheel) and the repertoires of the wheel-made pottery (*fig. 3d-h*)[35]. As for the latter, it has been pointed out that only a part of the most typical Uruk repertoire is present at Godin Tepe[36] and that in the ceramic production from phase VI:1 several elements linked to earlier local Chalcolithic traditions persisted[37]. Nevertheless, ceramics from phase VI:1 include a handful of Kura-Araxes decorated vessels found in the last phase of the Oval Compound (VI:1a), which could point to interaction with the northern communities of Iran since the final years of the fourth millennium BC[38].

Finally, another important aspect linked to the primary economy are the husbandry strategies at Godin Tepe during phase VI:1. The faunal data from this period shows a marked predominance of caprines (82%) over the rest of the reared species, with kill-off patterns indicating that while goats were mainly exploited for their meat, sheep may have been raised for the production of wool[39]. Data from Godin Tepe follows the same trend – towards specialized pastoralism focused on caprines – recorded in all the regions that were part of the Uruk phenomenon during the second half of the fourth millennium BC[40]. It is widely agreed that the process of specialization recorded in several

31. Weiss and Young 1975, p. 4-5; Forest 1999, p. 174-175.
32. Badler 2002, p. 84.
33. Badler 2002, p. 83-84; Forest 1999, p. 174-175.
34. Matthews 2013, p. 343-348.
35. Badler 2002, p. 84-87.
36. Badler 2002, p. 87.
37. Badler 2002, p. 83; Matthews 2013, p. 341.
38. Badler 2002, p. 83; Rothman and Badler 2011, p. 92.
39. Crabtree 2011a, p. 109.
40. Zeder 1988, p. 21; Vila 1998, p. 90-91, p. 123-129; Frangipane and Siracusano 1998, p. 242-243; Porter 2012.

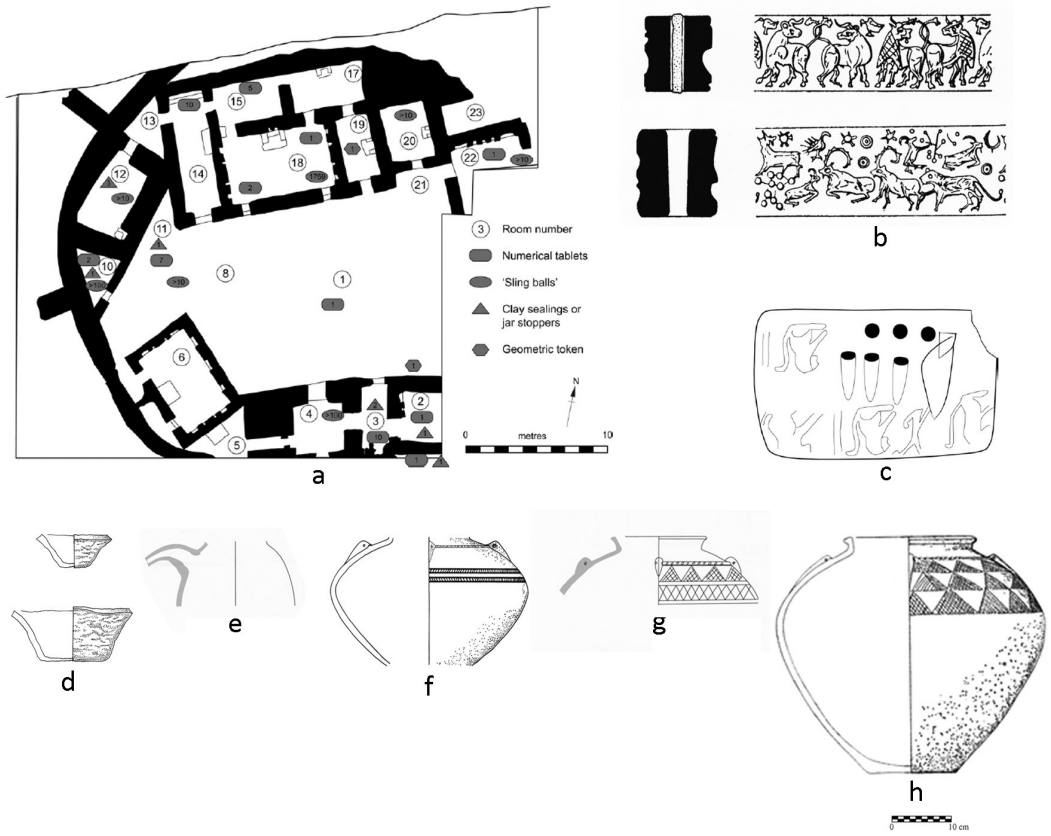

Fig. 3 – Godin Tepe phase VI:1.
a. Plan of the Oval Compound; b. Seals in Uruk style (not to scale); c. Tablet with pictogram (not to scale); d-h. Uruk related pottery (a, c: Matthews 2013; b-d, f, h: Weiss and Young 1975; e, g: Rothman and Badler 2011).

sectors of primary and secondary production in the Uruk period was related to the emergence of a temple-based tributary economy in the earliest cities of the Mesopotamian alluvium[41]. In these early-state societies, the specialized organisation of labour may have been encouraged by the political institutions and controlled through a bureaucratic apparatus to intensify production. In the context of this centrally administered economy, primary and secondary animal products, such as wool, hair, milk and cheese, may have been employed in exchange for labour, used to feed an increasing specialized textile production[42], and accumulated by groups in power as surplus to be reinvested into other activities or exchanged for other luxury goods. In such a scenario, a pastoral sector may have emerged as a fundamental economic component of the early fourth millennium BC city-states' centralised economies[43]. It would follow, then, that the tablet bearing a pictographic sign which looks like a container for dairy produce from Godin Tepe (*fig. 3c*) may be evidence of the importance of secondary animal products in the economic activities that were administered inside the Oval Compound (nonetheless, according to Badler this pictographic sign represents a beer jar) [44].

41. Pollock 1999, p. 93-96.
42. Breniquet 2008, p. 303-313.
43. Porter 2012, p. 6-88.
44. Matthews 2013, p. 346; Badler 2011.

Several authors have pointed out that forms of nomadic pastoralism existed in the Iranian region far earlier than the Uruk period[45]. However, this in itself does not refute the importance that such a new economic role could have played in the Uruk period. Indeed, one could argue that specialized pastoralism may have found fertile ground in Iran, where the socio-economic environment was already structured and receptive to the adoption of strategies and practices of mobility connected to this type of production.

Several hypotheses have been proposed for the nature and function of the Oval Compound and for the socio-cultural identity of its inhabitants: a trading post of merchants from Susa engaged in commercial transactions with their "homeland"[46]; the enclave of southern Mesopotamian bureaucrats controlling local production[47]; or, finally, the "secure" residence of an indigenous elite who was in contact with Mesopotamia through trade and who was in charge of the politic, economic and symbolic coordination of the local community[48]. While at present the state of documentation does not allow to exclude any of these options, there is however little doubt that Godin Tepe in the second half of the fourth millennium was an important regional centre hosting a "bureaucratized" political and economic institution whose power was founded on several resources at the same time: control of local production, distribution of staple products, interregional trade and finally external political and/or ideological legitimization.

Godintepe IV. The "Kura-Araxes" occupation

The collapse of this institution of power, that took place around or slightly after 3100 BC[49], is materially marked by the abrupt abandonment of the Oval Compound. After the hiatus of close to a century[50], the site was re-occupied. According to the reconstruction recently proposed by M. Rothman, phase IV at Godin Tepe was composed of at least two different main occupations, with the earliest one (phase IV:2) dating, on the basis of one single sample, between the very end and beginning of the third millennium BC, while the later phase dates between 2900 BC and 2750-2600 BC[51].

Evidence from phase IV:2 at Godin Tepe contrasts strongly with that of earlier traditions of the Uruk period. The architectural evidence from phase IV:2 comprises flimsy remains of structures built in light materials such as *pisé*, wood or wattle and daub (*fig. 4a*)[52]. Unfortunately, this evidence is insufficient for outlining any clear architectural plan, but according to Rothman this very sketchy architectural evidence is more probably the result of the speed of the last excavation season, than of the lack of clear architectural plans[53]. However, the presence of a series of bins and of a fire-place analogous to those found in the levels of phase II at Yanik Tepe, may suggest that these structures were domestic in function and further strengthen the connections Godin Tepe had with this northern site. The artefact distribution shows that both "domestic" and craft activities took place in the structures from phase IV:2, such as flint-knapping, metallurgical and textile production[54]. As Rothman points out, the widespread use of light architecture suggest that these structures may not have been intended as permanent occupations, and certainly they were radically different in nature and function from the more substantial mud-brick buildings of the Uruk compound.

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45. Alizadeh 2010.
46. Weiss and Young 1975, p. 14.
47. Matthews 2013, p. 349.
48. Rothman and Badler 2011, p. 119.
49. Rothman and Badler 2011, p. 85.
50. Rothman 2005, p. 14; Rothman 2011, p. 162-163.
51. Rothman 2005, tab. 5.2.
52. Rothman 2011, p. 160.
53. Rothman 2011, p. 160.
54. Rothman 2011, p. 182.

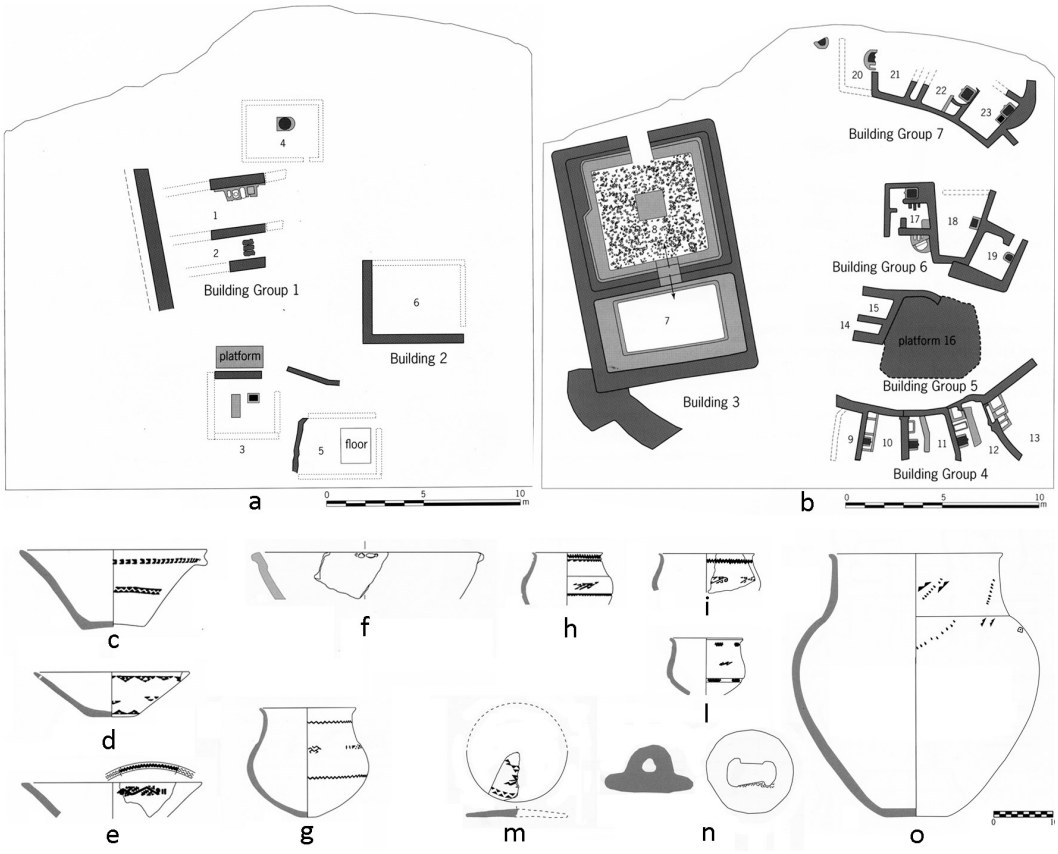

Fig. 4 – Godin Tepe phase IV.
a. Plan of phase IV:2; b. Plan of phase IV:1; c-o. Kura-Araxes related pottery (a-o: Rothman 2011).

The flimsy occupations of phase IV:2 were followed by more substantial mud-brick architecture in phase IV:1. The latter has at least three different occupational levels including a large two-roomed rectangular building (Building 3), interpreted as a public or ritual building, and a radial complex of rectangular rooms, equipped with bins and fireplaces (*fig. 4b*)[55].

The radical changes in the architectural traditions between phases VI and IV are mirrored elsewhere. Starting with the ceramics; there is a radical shift towards the Kura-Araxes traditions. Pottery from phase IV is often characterised by burnished surfaces in black or grey and in terms of morphology: jars and lids that recall some of the most typical Kura-Araxes profiles (*fig. 4g-o*), as do the single or double handles applied on both closed and open shapes[56]. Finally, another distinctive aspect of the ceramics from phase IV at Godin Tepe are the incised and excised decorations filled with white paste (*fig. 4c-o*)[57]. These decorations feature both geometric and more rarely spirals and zoomorphic motifs and are strikingly similar to those from phase IIA at Yanik Tepe and from the other previously mentioned Iranian regions.

As far as the remaining archaeological evidence is concerned, there are two further and possibly interrelated pieces of data that should be mentioned. The first is the presence, in proximity of the fireplaces, of clay animal figurines (cattle, sheep or rams); this animal-fireplace connection was

55. Rothman 2011, p. 161-162.
56. Rothman 2011, p. 167-172.
57. Rothman 2011, p. 189-193.

a characteristic symbolic trait of the Kura-Araxes culture[58]. The second is the "real" animals: the faunal data which points to husbandry strategies that were as specialized as those of phase VI:1 with caprines as the main (85%) reared species, showing strong continuity with the animal strategies of the former Late Uruk period[59].

But who was this community that began to "appear" at Godin Tepe at the very beginning of the third millennium BC, who occupied the site in light and possibly temporary forms, who carried out specialized pastoral strategies and whose material culture recalled the Kura-Araxes traditions?

The traditional explanation for phase IV at Godin Tepe is that this occupation is evidence of the arrival of new "Kura-Araxes" populations from the north, peoples who were originally extraneous to the Kangavar Valley[60].

However, if the appearance of a new culture in the Kangavar Valley was the result of a migratory flow from the north, the settlement patterns should have provided evidence of some changes in the region. Yet although there is a clear disruption in the settlement pattern of the third millennium BC when compared to the fourth millennium BC settlement patterns, there is no clear and sustained increase in the population residing in the region throughout the fourth and third millennium BC[61].

Uruk and Kura-Araxes in Iran

While data on the settlement patterns in the region cannot be considered as conclusive and need to be more deeply explored, those published so-far do not confirm unquestionably the hypothesis that new people arrived in the Kangavar Valley at the beginning of the third millennium BC.

While the "migratory" hypothesis cannot be ruled out, however this latter alone may not be sufficient to explain the radical cultural change taking place in this region of Iran at the very beginning of the third millennium BC. A possible key that may shed new light and possibly provide an answer to these questions may be found by looking at the dialectic between Uruk and Kura-Araxes "expansions" in Iran from a different angle. This dialectic has been so-far interpreted in the framework of two mutually exclusive, if not even directly competitive, phenomena. According to Young, it was the arrival of these Kura-Araxes newcomers who established the control over the main routes of communication and compromised the trading function of the Oval Compound at Godin Tepe, leading to its abandonment[62]. In contrast, according to Summers, the expansion from the north of the ETC/Kura-Araxes was linked to the collapse of the Uruk phenomenon in the south and should be seen as a consequence of the Uruk demise in Iran rather than as its cause[63]. I think that both Young and Summers' intepretations have merit in that they point out the existence of what has been defined a "*convergence*"[64] between these phenomena. However, the dynamics underlying the expansion of the Kura-Araxes traditions in Iran may be different to those so-far hypothesised.

Recently, my attention has been drawn to certain aspects of the expansion of the Kura-Araxes culture, namely by the fact that two regions were simultaneously involved in the Kura-Araxes expansion in Anatolia (the Upper Euphrates) and in Iran (the Kangavar Valley) at the very beginning of the third

58. Sagona 1998; Rothman 2011, p. 179-180, fig. 5.41, 5.44; Simonyan and Rothman 2015.

59. Crabtree 2011b, p. 178.

60. Young 2004, p. 657; Rothman 2011, p. 195-197.

61. Young 2004, p. 653-659; Rothman 2005, p. 15; Rothman 2011, p. 195-197.

62. Young 2004, p. 659; Rothman 2005, p. 15.

63. Summers 2013a, p. 170.

64. Summers 2013a, p. 170.

millennium BC, which were also among the most northern sites with evidence of Uruk expansion. The analogies between the cultural processes that took place in the Kangavar Valley, as described at Godin Tepe, and in the Anatolian Upper Euphrates, as recorded at Arslantepe, draw two identical trajectories worthy of comparison as they can offer a different view of the dynamics underlying the expansion of the Kura-Araxes culture in these regions.

The Upper Euphrates Valley in the fourth millennium. Arslantepe VIA

During the second half of the fourth millennium BC, the Anatolian Upper Euphrates was the northernmost area affected by Uruk expansion and its impact is clearly recorded in phase VIA at Arslantepe, one of the most important regional centres during this period. During phase VIA at Arslantepe, a monumental architectural complex (*fig. 5a*), probably the residence of a local elite, was constructed. The influence of the Uruk culture is clearly visible in this building: in some repertoires of the wheel-made ceramics (*fig. 5d-e*); in the iconographic traits and narratives of the glyptic (*fig. 5b*); and, finally, in the motifs and paintings decorating the long corridor (*fig. 5c*), the main axis of communication in the monumental complex[65].

The hundreds of clay sealings found in this complex testifies to the existence of a complex apparatus of functionaries in control of economic transactions consisting of the centralised storing of products, presumably food, that was later redistributed (as it witnessed by ubiquitous and abundant presence of ration bowls) [*fig. 5f*][66]. The development of a centrally controlled economy at Arslantepe was also coupled with an increasing specialization in craft and primary production. Both ceramics (wheel-made and mass-produced) and metals (the hoard of weapons found in one of the rooms of the monumental building) provide clear evidence of these changes[67].

However, wheel-made pottery inspired by Uruk repertoires did not make up the majority of ceramic production at the site, as there was a significant component of Red-Black Burnished Ware (RBBW). This production shows analogies with the repertoires from contemporary Central Anatolia (*fig. 5g*) and also shares an important technical-aesthetic feature with the latter region, namely the "alternate" red-black pattern. In the "alternate" red-black pattern (different from the Kura-Araxes "fixed" red-black pattern), the colour black "shifts" from the internal to the external surface of the vessel according to the function of the container: open shapes feature black interior surfaces and red exterior surfaces, while closed shapes feature black external and red internal surfaces (*fig. 5h*)[68].

As for primary production, faunal data reveals a marked change towards specialization. The husbandry strategies at Arslantepe VIA see a steep increase in caprines (70%) when compared to the first half of the fourth millennium BC[69]? As has been observed at Godin Tepe, these specialized husbandry strategies are fully consistent with the trend seen widely in regions affected by the Uruk phenomenon in the second half of the fourth millennium BC, where centralised economies were becoming prominent during this period.

At the very end of the fourth millennium BC, the public complex at Arslantepe was destroyed by heavy fire and, like the Oval Compound at Godin Tepe, was never reconstructed.

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65. Frangipane 1997.
66. Frangipane 2007.
67. D'Anna and Guarino 2012; Hauptmann et al. 2002.
68. Palumbi 2008b.
69. Frangipane and Siracusano 1998; Bartosiewicz 2010; Palumbi 2010.

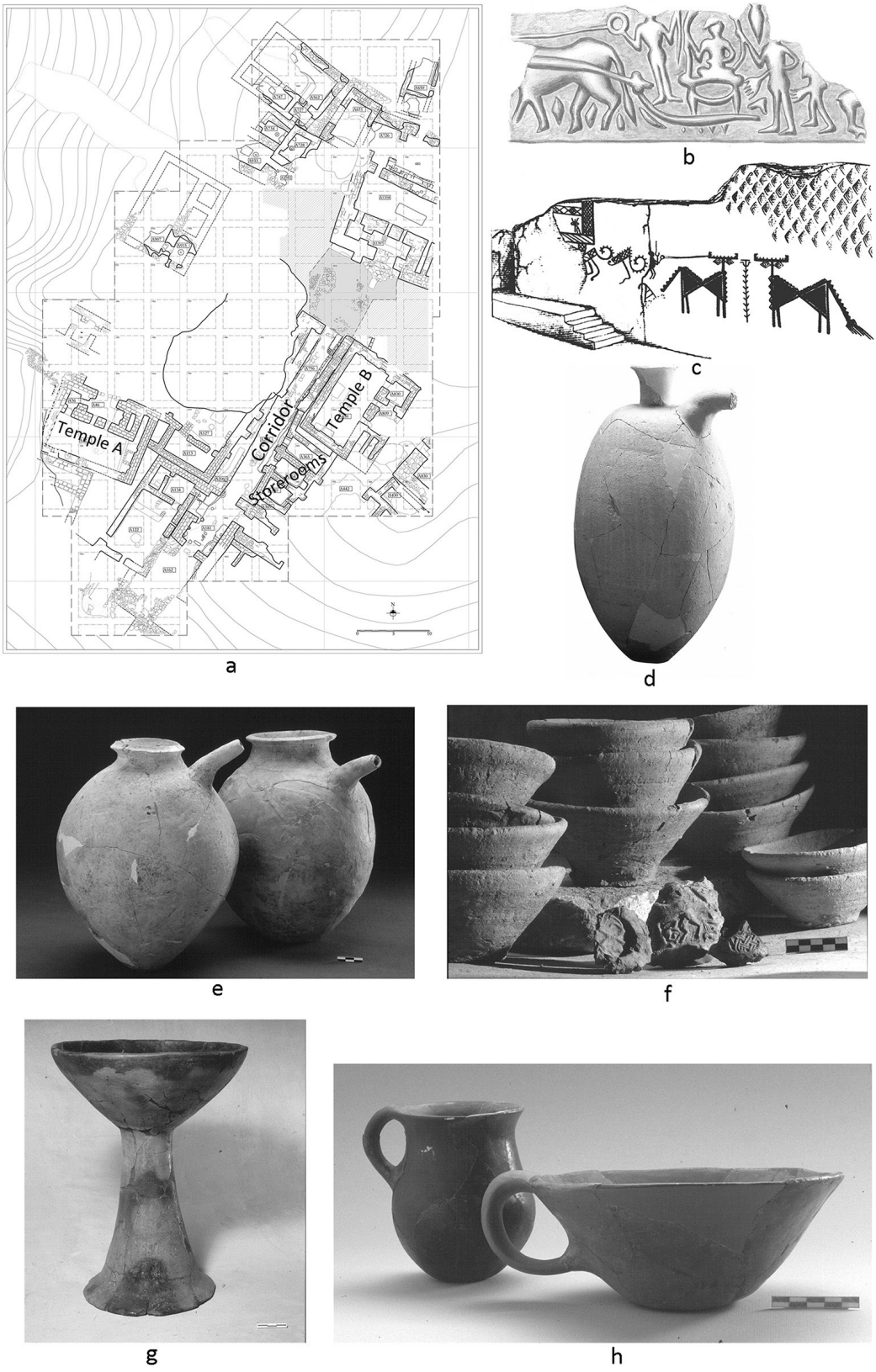

Fig. 5 – Arslantepe phase VIA.

a. Plan of the Monumental complex; b. Clay sealing in Uruk style; c. Wall paintings of the corridor; d-e. Uruk related pottery; f. Wheel-made mass produced bowls and clay sealings; g-h. Red-black Central Anatolian related pottery (a-h: Archivio Missione Italiana ad Arslantepe).

Arslantepe VIB1

The following phase – VIB1, dating to 3000-2900 BC – marked a sharp break from the past. The phase consisted of several levels of occupation. Like at Godin Tepe, the earliest of these was characterised by "light" forms of occupation: wooden and wattle and daub architecture employed for the construction of huts and fences (*fig. 6a*)[70]. Some of these huts were internally furnished with round fire-places with a central hole analogous to former chalcolithic fire installations. Like at Godin Tepe, this first level – possibly connected with a temporary occupation of the site – was followed by more substantial architectural evidence, probably connected with more permanent forms of occupation. Probably the most substantial of these structures is a large mud brick building (Building 36) [*fig. 6b-d*] composed of a long rectangular room with a large circular fireplace (A1000) and of a smaller adjoining room (A1369) that – as it contains large numbers of pithoi and jars – can be unequivocally interpreted as a storage room[71]. It has been suggested that the functions of this building, where two metal spear-heads were also found, were linked to ceremonial or ritual activities, thus further strengthening the analogies with Godin Tepe, where a large two-roomed ceremonial ritual building was constructed in phase IV:1b.

During phase VIB1 at Arslantepe there is also a radical break in the ceramic traditions compared to the wheel-made Uruk-related ceramics of phase VIA. During phase VIB1, the ceramics were all hand-made and Red-Black Burnished Ware made up the majority of the assemblage[72]. These changes went hand in hand with changes in the morphological repertoires, which, like at Godin Tepe IV, recall typical Kura-Araxes traits (*fig. 6c*). Clearly recognizable are: the jars with cylindrical necks; the circular lids; and, finally the consistent presence of handles on both closed and open shapes. All of the above are a clear "signature" of Kura-Araxes material culture. In spite of these changes, the RBBW of phase VIB1 maintains an element of continuity with the red-black traditions of the earlier phase VIA, namely in its fundamental technique: the persistence of the red-black alternate pattern in the open shapes (*fig. 6e-f*), already in use in the fourth millennium BC. Red-black ceramics from phase VIB1 at Arslantepe seem to be a hybrid production mingling local traditional manufacturing techniques (red-black alternate pattern) with the new Kura-Araxes traditions[73].

Finally, there is another extremely important element of "structural" continuity that links phase VIB1 to the earlier phase VIA: the husbandry strategies. Faunal data from phase VIB1 has been interpreted as evidence of specialized strategies focusing on caprines (70-90%), as specialized as those of the Uruk period[74]. This, coupled with "light" architecture possibly linked to temporary forms of occupation, may indicate that the community at Arslantepe was pastoral and possibly transhumant during phase VIB1.

Owing to the clear Kura-Araxes influence visible in the ceramic repertoire, this community has been traditionally interpreted, like phase IV at Godin Tepe, as a foreign Kura-Araxes community that migrated into the region of the Upper Euphrates at the very beginning of the third millennium BC. However, data on the settlement patterns of the Malatya region and of the Upper Euphrates Valley in general at the very beginning of the third millennium, does not reveal significant changes that can be interpreted as evidence of the arrival of newcomers.

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70. Frangipane 2012; Frangipane 2014.

71. Frangipane 2014.

72. Palumbi 2008a.

73. Palumbi 2012.

74. Siracusano and Bartosiewicz 2012; Siracusano and Palumbi 2014.

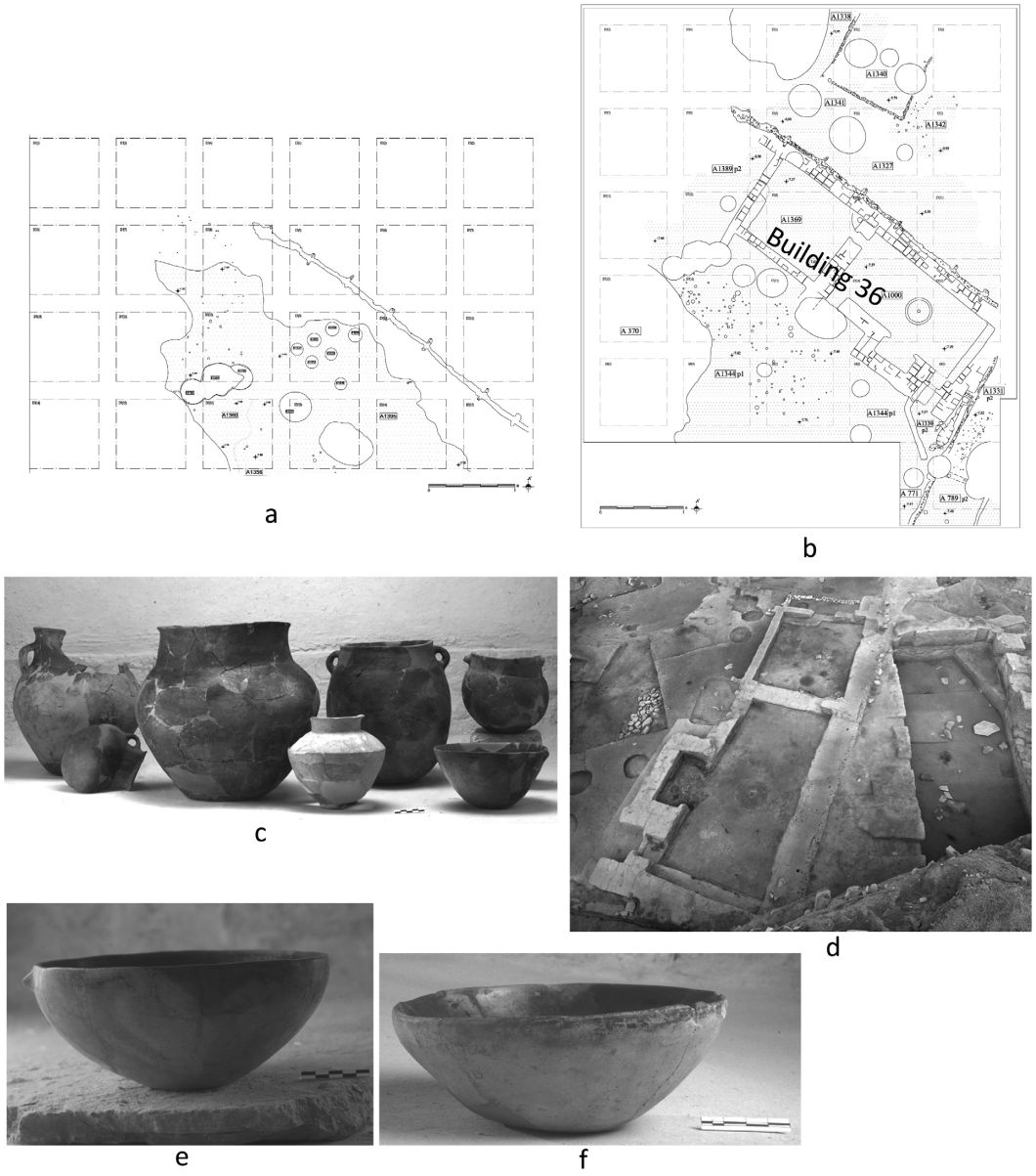

Fig. 6 – Arslantepe phase VIB1.

a. Plan of the earliest occupation (VIB1/1) with pits and post-holes; b, d. The ceremonial building (Building 36); c. Kura-Araxes related pottery from Building 36; e-f. Bowls featuring the red-black alternate pattern (black interior surface) [a-f: Archivio Missione Italiana ad Arslantepe].

Comparing Godin Tepe and Arslantepe. Concluding remarks

A set of striking analogies can be made between the occupational sequence and the cultural developments that took place between the second half of the fourth and the beginning of the third millennium BC at the Iranian site of Godin Tepe and at Arslantepe in the Anatolian Upper Euphrates Valley (*tab. 1*).

Both sites are among the northernmost settlements of the so-called "Uruk expansion", both are substantial in size and both have large architectural complexes with evidence of administration connected to the management of the local economy. The emergence of a specialized pastoralism at both sites could be a measure of the capacity of the local administrators to control local economies. At Arslantepe there is sufficient data to prove that this control was exerted in the context of a centrally

administered economy, and from this point of view the available data at Godin Tepe, even if less substantial than at Arslantepe, does not undermine the hypothesis that a similar model could have been adopted at this site. At the end of the fourth millennium BC the destruction of these architectural complexes marks the disappearance of these Uruk-related bureaucratic powers and of their economies.

Not long after, at the very beginning of the third millennium BC, new and possibly temporary settlements, built with "light" materials, are found at both Arslantepe and Godin Tepe. At both sites, these "light" occupations are associated with specialized husbandry strategies focusing on caprines, a strong element of continuity with the same specialized pastoral trend of the Uruk period. Finally, during the early-third millennium BC, in occupational layers interpreted as pastoral at both Godin Tepe and Arslantepe, we find the large scale introduction of a Kura-Araxes style material culture, especially in ceramic repertoires. This evidence argues for the importance of the role of these early-third millennium BC specialized pastoralists played as vectors of the Kura-Araxes cultures at Godin Tepe and Arslantepe.

But who were these pastoralists, what were their origins and from which regions did they come?

Before answering these questions, it must be stressed that several archaeozoological works have pointed out that specialized pastoralism focused on caprines was not part of the mode of subsistence and economic strategies of the Kura-Araxes communities of the southern Caucasus and eastern Anatolia, where it is possible to record in each region diversified rearing strategies possibly aimed, as several authors have suggested, at minimizing risks and enhancing the stability of the local economies[75]. So, specialized pastoralism in the fourth millennium BC is more likely to be linked with the centralised economic models that were part of the Uruk "model".

I have already pointed out in previous works that the characteristics of the material cultural assemblage of the pastoral community of phase VIB1 at Arslantepe – a mixture of local, central Anatolian and Kura-Araxes traits – calls into question the interpretation that this was a foreign Kura-Araxes community that migrated in the Euphrates Valley at the very beginning of the third millennium BC[76]. Rather, the continuities linking these groups to the local cultural traditions of the fourth millennium (RBBW with the alternate pattern, circular fireplaces) and the fact that these groups carried out the same specialized pastoral strategies as those of the Uruk period substantiate the hypothesis that this could have been a local community, even possibly a direct descendant of the specialized pastoralists that populated the Upper Euphrates Valley during the Uruk period.

Going back to phase IV at Godin Tepe, the striking analogies with the occupational and cultural dynamics that took place in phase VIB1 at Arslantepe has been stressed in several parts of this paper. Taking into account these analogies, is it legitimate to propose a similar conclusion to that proposed for Arslantepe VIB1?

Were these people foreign Kura-Araxes pastoralists that migrated to the Kangavar Valley from the "north", or was it a local community descending from the same specialized pastoralists of the Uruk period who, during the early third millennium BC, started a process of radical re-orientation towards the Kura-Araxes cultural sphere?

A conclusive answer to these questions probably does not exist, and without doubt more data is necessary to solve this "enigma". Indeed, the presence of Kura-Araxes ceramics in the later levels of occupation of the Oval Compound suggest that there was already some interaction with the northern regions by the late fourth millennium BC. It is possible, as Rothman suggested[77], that these interactions with the communities of skilled Kura-Araxes metallurgists were encouraged by the opportunities offered by the Uruk networks of interregional trade, however it cannot be excluded, and this second hypothesis is not in contrast with the former, that the practices of specialized pastoralism that emerged at Godin Tepe in the Uruk period could have further strengthened the interactions with the northern regions of Iran.

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75. Sagona and Zimansky 2009, p. 191.

76. Palumbi 2012.

77. Rothman 2011, p. 158.

Periodisation and absolute chronology	Godin Tepe	Arslantepe
Late Uruk **3400 - 3100 BC**	**Phase VI:1** **Oval Compound** (Administrative activities, economic centralization?) Late Uruk influence Specialised pastoralism	**Phase VIA** **Monumental Complex** (Administrative activities, economic centralization) Late Uruk influence Specialised pastoralism
3100 - 3000 BC	Destruction of the Late-Uruk monumental buildings	Destruction of the Late-Uruk monumental buildings
Early Bronze Age I **3000 - 2850 BC ca.**	Reoccupation on the top of the Late-Uruk buildings **Phase IV:2** Light Architecture **Phase IV:1** Construction of the ritual building (Shrine) Kura-Araxes-related pottery Specialised pastoralism	Reoccupation on the top of the Late-Uruk buildings **Phase VIB1/1** Light Architecture **Phase VIB1/2** Construction of the ritual building (Building 36) Kura-Araxes-related pottery Specialised pastoralism

Table 1 – Comparison of the occupational and cultural developments between Godin Tepe and Arslantepe during the Uruk and Kura-Araxes phases of occupation.

The strong continuity in specialized husbandry practices that began in the Uruk period and continued in the Kura-Araxes phase IV support the assumption that the early-third millennium pastoralists of Godin Tepe were the direct descendants of the specialized pastoralists of the Uruk period. Taking into consideration this element of "structural" continuity, the possibility that the Kura-Araxes culture reached the Kangavar Valley not because it was brought by exogenous northerly Kura-Araxes people who migrated into the region at the beginning of the third millennium BC, but because this culture was adopted in the region by local communities of pastoralists may represent another possible hypothesis.

The arguments presented in this paper cannot and do not want to exclude the possibility that the settlements Kangavar Valley in the third millennium BC could have received flows of "Kura-Araxes" people coming from the northern regions. As Rothman has pointed out, a single easy explanation cannot account for the variability of highly complex cultural changes connected to the expansion of the Early Transcaucasian Culture[78]. The development, transmission and "expansion" of the Kura-Araxes culture in Iran could have been the result of multiple dynamics played out by simultaneously by different actors. However, the paradigm of the northern migration for the expansion of the Kura-Araxes culture in the Kangavar Valley may not be the only explanatory model and the present data suggest that local pastoralists played a fundamental role in this expansion.

I suggest that it was the transformative impact of the centralised Uruk model over the societies and the economies of the Iranian highlands that activated a synergy between Uruk pastoralists and northern Kura-Araxes communities in the fourth millennium BC, and it was this that was the structural prerequisite for the expansion of the Kura-Araxes culture in the Kangavar Valley during the early-third millennium BC.

78. Rothman 2005, p. 10.

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