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Borderland Projects of Sasanian Empire: Intersection of Domestic and Foreign Policies

Abstract: The landscapes of the Sasanian Empire have been studied in detail and have been remarkably well interpreted during past few decades. Recent research in borderland areas has also increased our knowledge of Sasanian policies in borderlands. The Sasanian Empire is well known for massive construction work. Projects such as construction of fortifications and defensive walls, irrigation systems, fortified towns and cities in the Sasanian period usually are attributed to the reigns of Kawad I and his son Husraw I Anushirwan in the sixth century. This attribution mostly derives from historical documents in which Husraw is seen as primarily responsible for these massive projects. Recent archaeological researches in the Gorgān plain in the northeast of Iran and in Mughan Steppe in Iranian Azerbaijan have demonstrated the possibility of dating these projects earlier in the fifth century. This is significant because it may shed more light on the socio-political dynamics of the Sasanian Empire. Focusing on the Caucasus, especially on data acquired from the Mughan Steppe projects, I will try to place this new data and information in its socio-political context and reconsider earlier notions on borderlands of the Sasanian Empire. Regardless of insecurity in borderlands, the Sasanian Empire heavily invested in these areas. In this article, reviewing historical documents and archaeological data, I will argue that the imperial investments in the borderland areas represent a multi-purpose plan.

Keywords: Sasanian Empire, Iran, Caucasus, Borderland Politics, Landscape Transformation

DOI 10.1515/jah-2014-0015

In the history of human exploitation of the environment, irrigated agriculture is a resource of unusual social power. Under systems of irrigation, agricultural intensification has had a remarkable impact on social complexity, urban origins and development, and the origins of early states.[1] If the construction and operation of

1 Hunt and Hunt (1976), 389.

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large irrigation systems are to be successful, it is generally believed that a centralized management and centralized authority is required.[2] The Sasanian Empire is one such state that heavily invested in large scale irrigation systems, perhaps to a greater extent than any other state in the entire history of the Near East. In the course of its ambitious transformation of both its territory and population, the empire, known to contemporaries as *Ērānšahr*, stimulated an expansion of cities, other significant settlements, and large-scale irrigation systems.[3]

The state-directed expansion of settlement and irrigation agriculture is well documented in the landscape studies of the Diyala region, the southern Mesopotamian plain, and Khuzistan.[4] Generally, these massive projects have been attributed to two of the Sasanian kings of kings, Kawad I (488–496, 498–531 CE) and, especially, his son Husraw I Anushirwan (531–579 CE). There are several reasons that scholars have attributed these projects to the reigns of these kings. Firstly, ancient and medieval historians such as Procopius, Hamza al-Isfahani, Tabari, and Mas'udi have explicitly recorded their construction of fortification walls, cities, and irrigation systems.[5] Secondly, the projects appear to have been components of a single integrated plan. Thus implicitly and explicitly these projects, especially the irrigation systems, have been considered part of the land reform that, according to the same historiographers, Kawad and Husraw I Anushirwan directed. Thirdly, there has been an assumption that such massive projects could only have been achieved during a long period of peace, and we know that such conditions prevailed between the Sasanian and Roman empires during the reign of Husraw I. Scholars have therefore generally attributed the massive state-directed Sasanian projects to Husraw I Anushirwan.[6]

Based on recent studies of Sasanian landscapes in the borderlands, the intensification of agriculture through irrigation went beyond the agencies of a subsistence economy to contribute to state formation. In Late Antiquity, particularly in Sasanian Iran, irrigated agriculture was the backbone of the economy and the imperial infrastructure, playing profound roles in politics, the maintenance of security, the practice of warfare, and even social changes. Although the landscapes around the two principal political centers of the Empire, south-western

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2 Hunt (1988) argues that these two ideas generally are not confirmed yet but they have been widely used by scholars in archaeology, history, and ethnography.

3 Christensen (1993), 247; Neeley (1974); Wilkinson (2003), 92–97.

4 Adams (1965); Wenke (1987); Wilkinson, et al. (2012).

5 Adams (2006); Ahmadov (1997); Alizadeh and Ur (2007); Frye (1977); Pourshariati (2008), 231; Wilkinson (2003), 93.

6 For more discussion on this see Alizadeh (2012a); Alizadeh (2012b).

Iran and southern Iraq, known as the "heart of Ērānšahr," have been examined in detail, most of the Empire's vast territories remain poorly studied. Studies in borderland areas of the Sasanian Empire reveal that Sasanian investments were not limited to areas that were traditionally agriculturally productive or politically strategic. Recently, our knowledge of frontier regions of the Empire, especially in the Caucasus and northeastern Iran has significantly expanded. This knowledge has forever changed our understanding of the infrastructure of the empire that successfully rivaled the Roman Empire. To elaborate on the nature of its infrastructural strength, the present article draws on archaeological and historical data from the Sasanian period on the Mughan Steppe in Iranian Azerbaijan as a case study of the socio-political dynamics behind irrigation systems, fortification walls, landscape transformations, and their relation with imperial politics in borderlands.

I Northern Borderlands of the Sasanian Empire

With a focus on the northeastern borderlands, Sauer and others have brought together a large body of information from an area and time period that archaeologists had often neglected.[7] Since 2005 their research has centered on the Gorgān and Tammīsheh Walls and documented the Sasanian landscapes, sites and off-sites. During a joint archaeological fieldwork project from 2005 to 2009, the team under Sauer's direction concentrated specifically on the Gorgān Wall, an ancient barrier stretching eastward from the Caspian Sea for some 200km (Fig. 1). They argued that "the Gorgān Wall is superlative in terms of scale not just in a Near Eastern context, but is amongst the most ambitious and sophisticated frontier walls ever built world-wide."[8]

Aside from the Gorgān and Tammīsheh Walls, Sauer and others have documented a complex of landscape transformation such as defensive mechanisms, irrigation canals, ditches, settlements, and the hydraulic landscape of the Sasanian era.[9] In contrast with the chronologies that had previously been suggested, all radiocarbon dates obtained from various soundings in some brick kilns on the Gorgān and Tammīsheh Walls suggest that the wall was constructed in the fifth century. There is a clear association between the walls and some fortified settlement complexes and the main structures of their ancillary irrigation systems, as well as other landscape features. The results suggest that most of the landscape

7 Sauer, et al. (2013).

8 Nokandeh, et al. (2006); Omrani Rekavandi, et al. (2007); Omrani Rekavandi, et al. (2008a); Omrani Rekavandi, et al. (2008b); Omrani Rekavandi, et al. (2010).

9 Sauer, et al. (2013).

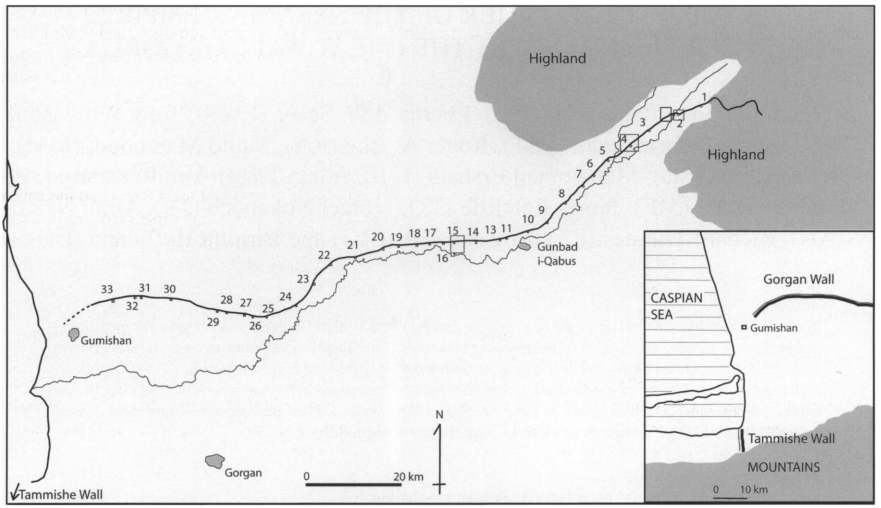

Fig. 1: The Gorgān Wall (after Omrani Rekavandi, et al. 2007)

transformation and the traces visible on Corona imagery, aerial photographs, and images from geophysical surveys are to be dated to the Sasanian period. Sauer and others argue that fifth century Sasanians oversaw the construction of the Gorgān and Tammīsheh Walls, in addition to their neighboring large fortified settlement complexes and canal systems, suggesting that the massive operation may have spanned the reign of more than one king, likely Yazdgird II (438–457 CE) and/or Peroz (457–484 CE).[10]

Q2 In the northwestern frontier of the Sasanian Empire (Fig. 2), the Caucasus was a strategic region that played a crucial role in relations between the Sasanian and Roman Empires, and between the Sasanians, Huns, and the Turks.[11] The imperial powers showed great interest in the Caucasus because they wanted to engage in trade and also because of the necessity to protect the frontier against attacks from the north.[12] Newly conducted surveys and excavations in the Caucasus suggest that the Darband Wall and fortifications reveal only a small portion of the projects the Sasanians undertook in the region. Irrigation systems and fortified settlement complexes are two more major features of the Sasanian landscape in the Caucasus.

10 Sauer, et al. (2013), 599.
11 Dignas and Winter (2007), 188.
12 Dignas and Winter (2007), 189.

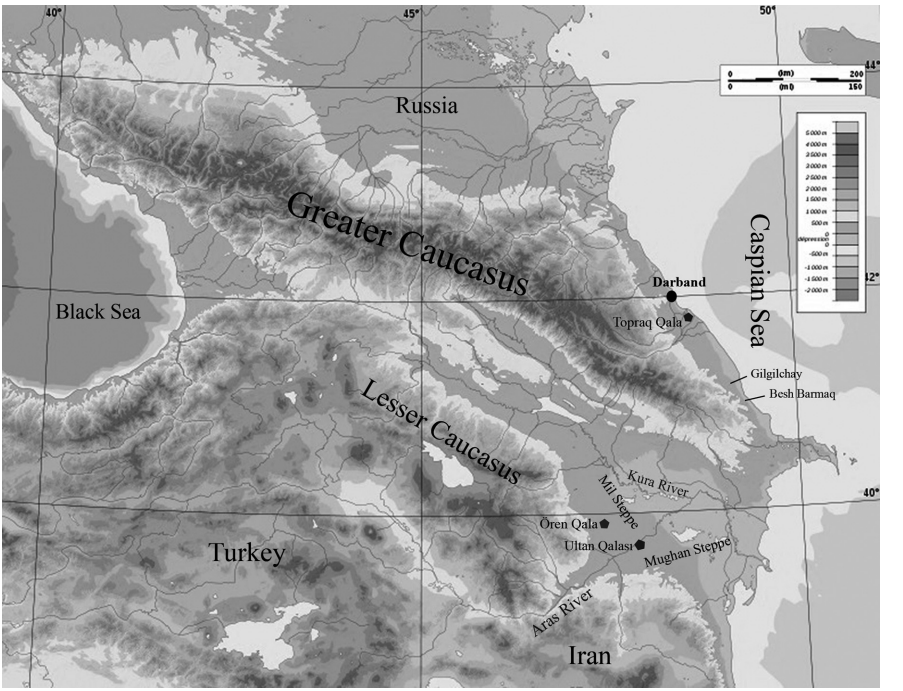

Fig. 2: Topographic map of Caucasus, location of major sites, and fortification walls (base map from en.wikipedia.org)

The fortification of Darband consists of two parallel walls composed of stone, a citadel, and a town that was built between these two walls (Fig. 3). The walls themselves and their defensive structures formed a barrier that stretched from the seashore up to the mountain.[13] The contemporary town of Darband is located on top of a medieval and Sasanian town, and since 2003 the citadel, ancient city, and the fortress has been classified by UNESCO as a World Heritage Site.[14] Since the 1970s, the Darband complex has been excavated by archaeologists. Based on archaeological evidence as well as historical texts and the thirty-two Middle Persian inscriptions on stones of the fortification wall, archaeologists have attributed the foundation of the town to the Sasanian period and especially to the reign of Husraw I Anushirwan. However, more excavations carried out during the late 1980s and early 1990s, especially stratigraphic excavations in the citadel and

13 Ghodrat-Dizaji (2011), 317.
14 Kasumov (2007), 18.

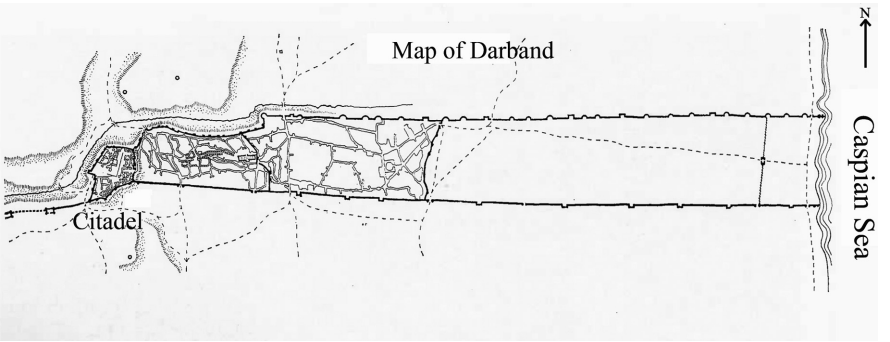

Fig. 3: Darband fortification (after Khan-Magomedov 1979)

along the walls, suggest that the stone fortification was erected on top of a mud-brick fortification, which represents the first phase of construction at the site and, like the upper fortification, stretched from the sea up to the mountain. Archaeological evidence associated with the first phase facilitated the dating of the earlier fortification and numismatic evidence from the reign of Yazdgird II points to the foundation of the fortification during the second quarter or middle of the fifth century.[15]

In 2002 an Azerbaijani-Daghestani-American team conducted a survey that identified two more fortification walls further south, in the northeast of the Republic of Azerbaijan. The Gilgilchay and Besh Barmaq walls, with more than 300 towers and several fortified settlements along their length, also represent the significant investment of the Sasanians in the protection of the eastern passages of the Caucasus. Scholars have dated these defensive walls and associated fortified settlements to the second half of the fifth century.[16] Moreover, some Sasanian fortified settlements, namely ancient Ganja in the Ganja-Gazakh plain and Ören Qala (ancient city of Beylaqan) in the northeastern and eastern piedmont of the Lesser Caucasus Range respectively, were identified along irrigation canals with surrounding moats.[17] In the northern areas of the Aras River, in the Mil Steppe, the Sasanians constructed a canal 120 km in length, which according to Ahmadov was used not only for irrigation and agriculture, but also as a source of water for the cities along the canal. He argued that the Sasanian kings of kings first constructed the canals of the

15 Gadjiev (2008), 2; Kudriavtsev (1993), 23.
16 Aliev, et al. (2006).
17 Ahmadov (1997), 21–22; see also Ricci (2012) for the most recent surveys.

Mughan Steppe and then those in the Mil Steppe in the era of Husraw I Anushirwan.[18]

II The Archaeological Landscape of Sasanian Mughan

The Mughan Steppe in northwestern Iran hosted archaeological investigations in 2004 with soundings at Ultan Qalası, a fortified site on the south bank of the Aras (Araxes) River.[19] Three seasons of excavations at Ultan Qalası, and one season of stratigraphy at Nadir Tepesi (a multi-period site) have improved our knowledge of the ancient landscape of the area. In addition, in 2005 an initial season of survey was undertaken by the Iranian Center for Archaeological Research (ICAR). This initial survey was conducted intensively in the western part of the steppe around Aslandouz, but elsewhere via extensive reconnaissance methods. Our survey targeted several discrete zones for more detailed observation, including the walking of transects.[20]

The initial results of the survey revealed that the largest settlement complex on the Mughan Steppe is the site of Ultan Qalası, which is perched on the south bank of the Aras River (Figs. 4, 5). The site is composed of a fortified part (the citadel), an extramural area, an associated moat surrounding the citadel, and a network of canals near the site. Its roughly square-shaped fortified citadel has been known since the early nineteenth century, and today its southeastern side is 720 m in length, its northeastern side is about 504 m, and its southwestern side is about 320 m.[21] Ultan's builders appear to have used the curving river-terrace edge to define the citadel's northwestern side, which extends for 745 m. Although a defense mechanism relying on the natural defenses offered by a river terrace has been documented in another Sasanian-period city, Bishapur,[22] it is possible that some of the northern walls of Ultan Qalası have been washed away by the Aras River. Unlike Ören Qala in the Mil Steppe and Leilan in the area to the southeast

18 Ahmadov (1997), 21–22. Canals to the north of Araxes River in Mil Steppe and to the eastern portion of the Mughan Steppe in Soviet Azerbaijan were already documented in 1990s and earlier.

19 Alizadeh (2006/1385, 2007 and 2011); Alizadeh and Ur (2007).

20 Alizadeh and Ur (2006 and 2007).

21 Monteith (1833), 29–30.

22 Karimian (2010), 460.

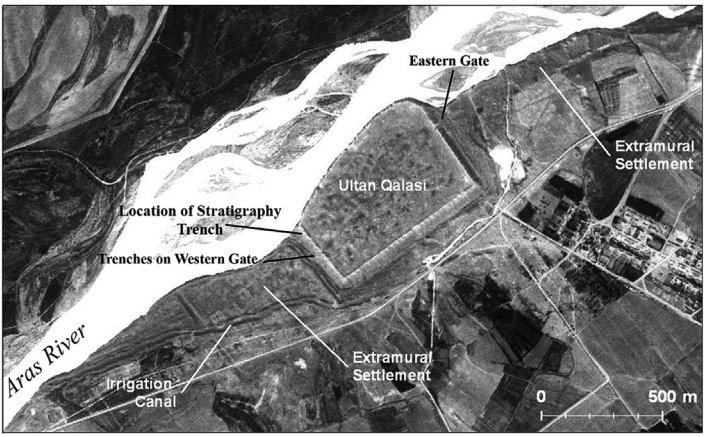

Fig. 4: Ultan Qalası and associated canal features. Corona satellite photograph (1103–1057DF073, 5 May 1968) courtesy of the US Geological Survey.

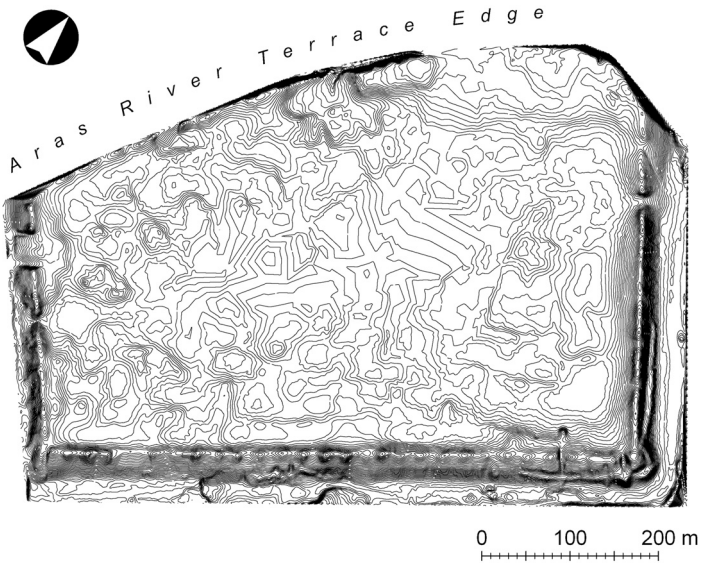

Fig. 5: Topography of Ultan Qalası (Alizadeh 2007)

of Lake Urmia, none of the corners of the citadel are precisely right-angled, but each points to one of the cardinal directions.[23]

23 Kleiss (1986); Ahmadov (1997); Ricci (2012).

Interestingly, the extramural area in the southwest of the citadel, on the terrace edge, is divided into several sectors by a network of ancient canals. The citadel is about 33 ha in size, but when the citadel and extramural area (the *Rabad*, or exterior part of the city) are taken together, the site covers more than 70 ha. Traces of other canals joining the moat suggest that there was once a network of canals and subsidiaries for either irrigation or supplying water to the Ultan. During recent decades, the moat at the southwest side of the citadel has been reused as part of the sewer system of a sugar factory up in the south of the steppe and a new modern canal has been constructed at that area of the site. In size and settlement morphology, Ultan Qalası is very similar to its contemporary fortified settlement at Ören Qala (ancient Beylaqan), which also lay on a long canal coming from the Aras River.[24]

In an initial season of survey in 2005, our main aim was to characterize the general nature and condition of archaeological remains on the steppe. Initial observations showed that Ultan Qalası was the largest of a series of rectangular fortified complex sites on the steppe. Among different type-sites, we could identify and map major elements of the state-directed settlement system of the Sasanian period which was a system of fortified settlements surrounded by extramural areas and canals (Figs. 6, 7) on the steppe.[25] Sites and landscape features identified from Corona satellite photographs and aerial images were then visited on the ground. Large Sasanian settlement complexes were easily recognized through Corona images. During the survey we visited nine of these fortified sites but our analysis through aerial and Corona images shows that many others exist within Iranian Mughan and to the east in the Republic of Azerbaijan. Apart from Ultan Qalası, Ören Qala, and a large site beyond the Azerbaijani frontier, the other fortified sites are rarely as much as 100 x 100 m. In most cases, these fortified sites were accompanied by an adjacent extramural area (Figs. 6–7). Extramural areas were often plowed and leveled, which makes difficult the determination of their internal structure through sherd distribution or topography. The ceramic collections from the surfaces of these sites have parallels in the ceramic forms found in the first phase of the stratigraphic sounding at Ultan Qalası, which was dated to the Sasanian era. Recent C14 dating results corroborated the preliminary relative dating of the Ultan Qalası, showing that the city had been founded during the first half of the fifth century.[26]

24 Ahmadov (1997).

25 Alizadeh and Ur (2006 and 2007); Ur and Alizadeh, in press.

26 Alizadeh (2011).

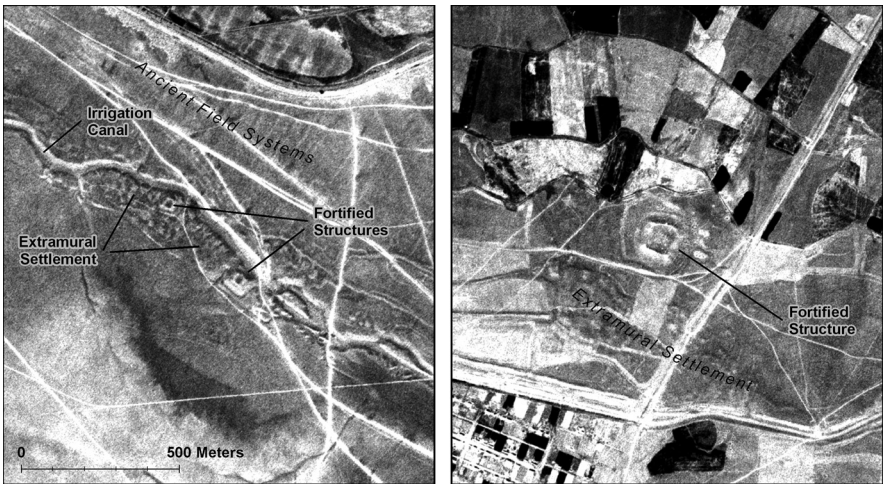

Fig. 6: Fortified structures with extramural settlement remains at Sites 15 and 18 (Kara Tavara). Corona satellite photograph (1103–1057DF074, 5 May 1968) courtesy of the US Geological Survey.

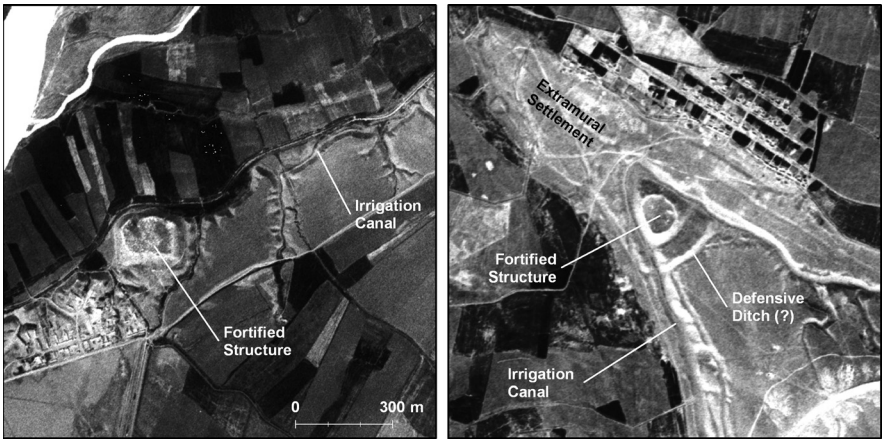

Fig. 7: Sasanian fortified settlement complexes at Site 19 (Aq Mazar, on the Aras River terrace edge) and Site 16 (Nadir Tepe). Corona satellite photographs (1103–1057DF073 and F074, 5 May 1968) courtesy of the US Geological Survey.

Oddly lacking from surface collections were the distinctive glazed ceramics that are well known throughout the Early Islamic levels of Ultan Qalası. In fact, the team did not encounter any Islamic ceramics at the sites along canals. Surprisingly, with the exception of Kura-Araxes sites such as Nadir Tepesi near Aslanduz, no earlier sites have been found along canals, even during the intensive

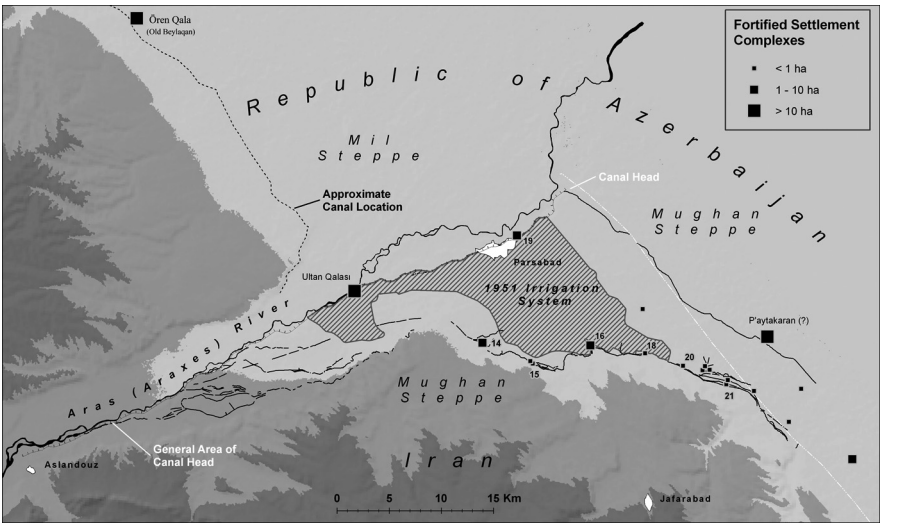

Fig. 8: The major ancient feeder canal on the Mughan Steppe, with associated sites and off-takes.

component of our survey around Aslanduz. However, ceramics similar to those of the Chalcolithic, Late Bronze Age, Iron Age, Achaemenid, and Parthian periods can be found on some Kura-Araxes sites and a few others like Shah Tepesi and Pasgah Tepesi.[27] There were, nevertheless, hints of earlier occupations (Parthian and Achaemenid periods) at some sites, and we therefore avoid ruling out pre-Sasanian occupation at any of these sites until we have a reliable ceramic sequence from the steppe and a typology of diagnostic types from earlier periods. In all cases, these Sasanian settlement complexes were in close association with the remains of irrigation canals. The survey recovered traces of a long branching network of feeder canals stemming from the Aras River to the east of Aslanduz and also dendritic systems from its secondary off-takes (Figs. 8–9). It seems that in the Mughan Steppe we face an agricultural intensification in the form of a massive irrigation system or "land development" prior to the modern development program directed by the last king of Iran under the name of the "White Revolution."[28] The 1971–1973 irrigation system has removed traces of the ancient canals in most of the areas, but in a few cases the planners of the modern irrigation system consciously incorporated the ancient canals as drains.[29]

27 Alizadeh (2007 and 2011); Alizadeh and Ur (2006 and 2007); Ur and Alizadeh, in press.

28 Pahlavi (1345/1966).

29 See Hawaiian Agronomics Company International (1971), 4, 10; Schweizer (1974), 136.

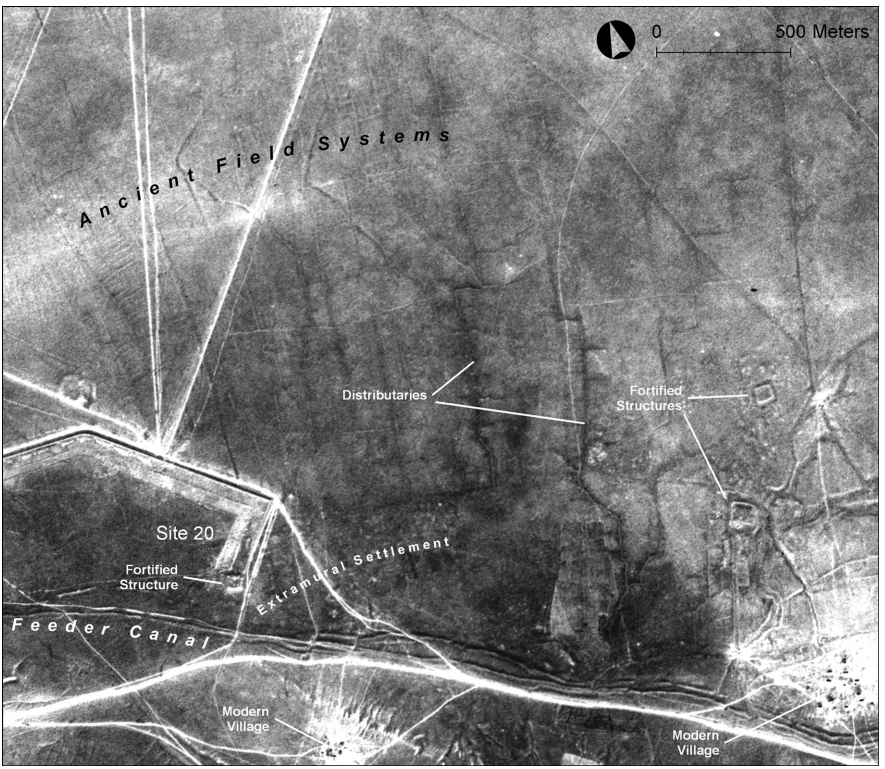

Fig. 9: Traces of ancient irrigated fields in the region north of Site 20 and an uncollected settlement complex with two fortified structures. White lines are modern tracks; the polygonal structure at left is a fishery under construction. Corona satellite photograph (1103–1057DF074, 5 May 1968) courtesy of the US Geological Survey.

Since there is a clear association between the fortified settlement complexes and the major elements of the irrigation system, most of the traces visible on Corona imagery and aerial photographs seem therefore to be dated to the Sasanian period.[30] Although the chronology of the Sasanian agricultural activities and landscape transformations on the Mughan steppe is initially dependent on surface ceramics, it is possible to attempt to put the settlement and irrigation systems within its socio-economic and socio-political contexts.

In addition to fortified settlements such as Ultan Qalası in the northwestern borderland and Qal'eh Kharābeh and Dasht Qal'eh in the northeastern borderland

30 Alizadeh (2007); Alizadeh and Ur (2007); Ur and Alizadeh, in press.

that are dated to the fifth century, the reinforcement of the northern frontiers at Darband, Gorgān and Tammīsheh Walls are firmly placed in the fifth century as well, most likely during the reigns of Yazdgird II or/and Peroz.[31] If historical texts suggest that later Sasanian kings of kings such as Kawad I and Husraw I Anushirwan also carried out large-scale projects, these were the continuation of initiatives begun in the preceding century. It seems logical that these walls would have provided not only greater protection than client or buffer states, but also would provide greater security for the state's investments in revenue-producing agricultural systems. Now fieldwork in Mughan and Gorgān is uncovering precisely such an intensification of investment in cultivation.

III Discussion

Although large-scale agricultural systems and the use of innovative techniques of irrigation preceded the Sasanians, the empire significantly expanded the structures of agricultural exploitation and their attendant settlements and canals. Through the construction of the massive irrigation systems, the Sasanians transformed the landscapes of large parts of Mesopotamia and Khuzistan. The technologies of irrigation, moreover, were ever more widely applied, such as *qanat*, through which the cutting of ridges of rock and the digging of tunnels with vent holes were combined.[32]

The repeated patterns we find in the settlement of the Mughan Steppe, where irrigation systems and fortified settlements were intertwined, likely reflect Sasanian social and political practices. Complexes with one or more fortified structures and an extramural settlement in association with irrigation structures appear to approximate the archaeological signature of the *dastkart* ("handmade"), which were properties or estates belonging to the Iranian nobles and kings of kings.[33] Late Sasanian inscriptions indicate that such estates were not necessarily royal. Pigulevskaya argued that "such a domain, royal or not, must have included a residence, various other buildings, canals, and the like."[34] Without comparing physical traits of settlements, in the case of a similar landscape in Mesopotamia, Adams has stated that,

31 Alizadeh (2011); Aliev, et al. (2006); Gadjiev (1997); Gadzhiev and Kasumova (2006); Kettenhofen (1994a); Kudriavtsev (1982 and 1993); Sauer, et al. (2013).

32 Adams (1965), 75; Wilkinson (2003), 92–93.

33 Eilers (1983), 490; Ur and Alizadeh, in press.

34 Cited in Gignoux (1994), 105–106.

> "while surface evidence alone must remain inconclusive, all of this is not suggestive of a 'feudal' society, with peasant villages hugging the flanks of the high, fortified seats of a landed nobility. Instead, it seems to imply a considerable degree of internal peace and central control, with major fortifications limited to those maintained around the capital city for defense against dynastic upheavals or Byzantine incursions involving large bodies of troops."[35]

To achieve such projects, labor investment was critical. Boserup argues that "where water is lifted from the rivers, tanks, and wells and spread over the field by means of human and animal labor, the work of watering alone may require more human labor days than all the operations with dry crop added together."[36] And if Hunt's hypothesis is accepted that intensification of food production requires more human energy and labor investment rather than less, it seems that the Sasanian Empire needed more labor investment to construct and maintain its canal networks and also for cultivation in associated areas of irrigable lands in the Mughan Steppe.[37] In fact, if they needed more yields and more taxes simultaneously, they had to intensify agriculture through precisely the massive irrigation systems we have encountered, requiring still more labor. Hence, by the deportations of Romans the Sasanians frequently directed one means of acquiring the laboring population necessary to construct irrigation canals.[38] As Wilkinson has observed,

> "[i]nvestment in agricultural schemes together with the application of the appropriate technology had become a major factor in landscape development, and this entailed the construction of sophisticated installations that could have been built only by or with the aid of engineers. Thus the Sasanian policy of expansion entailed not only investment and the mobilization of vast quantities of labor, but also the employment of skilled engineers, diviners, and artisans."[39]

In this respect, prisoners and captives during the Sasanian period were valuable and in demand for their skill and technological benefits.[40]

Hence, the Sasanian Empire resumed the deportation and compulsory resettlements that had been practiced for a long time by their predecessors in the Near East. According to courtly historiographical sources, namely surviving versions of the *Xwadāy-nāmag*, large-scale population transfers were a significant part of an

35 Adams (1965), 73.
36 Boserup (2005), 39–40.
37 Hunt (2000).
38 Adams (1981), 201.
39 Wilkinson (2003), 95.
40 Kettenhofen (1994b).

imperial program of colonization. Population transformation was escalated two times in the Sasanian era in correspondence with two peaks of Sasanian colonization; first, in the third century that also continued to the fourth, and again in the sixth century.[41] Among the populations the Sasanians are known to have transferred are the "people from the East" settled in Hisar-Shapur, the 12,000 Iranians that Shapur II (r. 309–379) brought from Fars to Nisibis after a peace treaty with the Roman emperor Jovian in 363,[42] and the Roman captives systematically deported during the wars of the third through sixth centuries. In his inscription at Naqsh-e Rustam, Shapur I stated that he had brought Roman captives and "non-Iranians" to Fars, Parthia, Khuzistan, and Mesopotamia and resettled them in areas under direct government control.[43] Morony also points out that because of labor shortages caused by drought, famine, disease and warfare, the empire needed to deport the population of conquered Roman cities such as Dara, Apamea, and elsewhere and to repopulate the above-mentioned regions.[44]

The settlement of the indigenous transhumant and pastoral nomads of the region could have also been a complementary strategy of securing labor. Our knowledge about subsistence of local residents of the region before and at the time of the Sasanian land development project is limited. There are some hints about nomadic groups of the Iranian Plateau during the Sasanian Empire but nothing related to the Mughan Steppe.[45] Given the apparent lack of permanent settlement in the pre-Sasanian period it appears that the irrigation system on the Mughan Steppe was not an indigenous solution to subsistence problems, but rather an imposition of the central government. It was, in essence, a top-down phenomenon that required an enormous influx of population, obtained through deportations and/or the settlement of pastoral nomads.[46]

In light of their socio-political context, the fifth century Sasanian kings of kings were relatively weak. The nobility and the Zoroastrian clergy were at least as powerful and influential as the royal house. Economically, the empire faced several problems. On the one hand, the Hephthalites demanded enormous tribute on the central Asian frontier,[47] while, on the other hand, drought, famine, rebellions in Armenia, and tiresome wars were undermining the infrastructures of the empire. Moreover, the wars with the Romans yielded no victories that

41 Christensen (1993), 67–72.
42 Kettenhofen (1994b).
43 Christensen (1993), 69.
44 Cited in Daryaee (2008), 79.
45 Daryaee (2009), 40–41.
46 For more discussion on this topic, see Thurston and Fisher (2007), 6.
47 Bivar (2003), 198–201.

allowed the Sasanians to collect gold from sacked cities.[48] Despite these serious issues, the Sasanian state invested heavily not only in the construction and strengthening of fortifications and defensive walls, but also in the construction of long irrigation canals and the establishment of fortified cities along their axes. These developments took place in the face of increasingly frequent attacks by northern invaders, such as the Huns in the Caucasus, especially during the reigns of Yazdgird II and Peroz. According to Procopius, the Huns had settled in the southern Caucasus and frequently invaded Persian and Roman territories.[49] Their presence rendered the protection of the Caucasian passes a crucial issue for both empires.[50] Because of their shared interests, the Romans and Sasanians agreed to cooperate on the construction of fortifications and defensive walls to keep the Huns at bay.

The fortifications of Darband, Gilgilchay, and Beshbarmaq were therefore constructed during the first half of the fifth century in order to protect the Sasanian territories from nomadic groups and invaders from the northern regions of the Caucasus. Despite the empire's control of most of the region, the Huns, other northern nomadic groups, and later the Khazar Turks continued to invade.[51] In order to achieve the large-scale projects evident in the Mughan and Mil Steppes, military security and a substantial laboring population were required. Neither precondition existed in the Caucasus of the fifth century, even if the Sasanians tried to secure this region through the construction of fortifications. It thus seems that the establishment of new infrastructures inspired the Sasanians to resume the deportations and compulsory resettlements that their predecessors had practiced. The identities of those resettled in the Mughan Steppe remain unknown. However, given that the Sasanians often transferred people from the borderland areas to heartlands and vice versa, the populations installed in the Mughan Steppe were likely from the central regions of the empire, as well as resettled nomads.[52]

Recently, the last Shah of Iran adopted a similar strategy in the Mughan Steppe. During the 1960s and under the "White Revolution" a massive system of

48 Daryaee (2008), 66–67; Greatrex and Lieu (2002), 56.

49 Dignas and Winter (2007), 188; Frye (2000).

50 Dignas and Winter (2007), 192.

51 Greatrex and Lieu (2002), 56; Pourshariati (2008), 299–300.

52 We do know that later kings such as Husraw I, after the Lazic war between the Sasanian and Roman Empires, in which the Huns served the Sasanians as auxiliaries, constructed several fortifications around Tiflis-Gardman, Sughdabil, and al-Lal and settled huge number of Iranians in this region. Moreover Husraw I secured the frontiers across the Caspian coastal plain by settling some tribes, as well as using local ones. See Brunner (1983), 764–765 on the basis of the historical work of Hamza al-Isfahani.

irrigation was installed in the region.[53] Documents indicate that one of the major, politically motivated, objectives of the plan was the settlement of the Shahsevan Tribal Confederacy who populated the Mughan Steppe during the winter period of six months with their huge flocks of sheep, goats, and camels.[54] Since the early eighteenth century Mughan Steppe has hosted the winter camps of the Shahsevan Tribal Confederacy, who migrated annually between pastures in Mughan (both Iranian and Soviet Mughan) and on the slopes of Mount Sabalan.[55] The corresponding reduction in pasture, as well as pressures from the Iranian government, has resulted in the almost complete settlement of the Shahsevan tribes. Moreover, after the installation of irrigation canals, the area received an influx of settlers because of its higher and more reliable agricultural yields.[56]

The Mughan Steppe is a broad low plain along the south bank of the Aras River, toward the end of its course where it meets with the Kura and flows into the Caspian Sea. The soils of the steppe are well developed with good agricultural potential and its topographic characteristics also offer an excellent context for the development of irrigation based agriculture. Due to the same characteristics, and the fact that it is located close to perennial water sources, the Mughan Steppe was utilized as winter pasture by various tribes during the centuries after the collapse of Sasanian Empire. The collapse of the intensive Sasanian irrigation system created a void on the steppe, which was eventually filled by pastoral nomadic groups, and most recently by the Shahsevan Tribal Confederacy. In the twentieth century, after at least a millennium-long interval of primary use as pasture, the land-use pendulum has swung back in the direction of intensive agriculture under a powerful centralized state. After 1884, the Shahsevan tribes became increasingly troublesome for the Iranian government through continuous raiding. During Reza Shah's 'Wooden Door' programme of the 1930s, many Shahsevan were settled, and later planning for agriculture on the Mughan Steppe began under the "White Revolution."[57]

IV Concluding Remarks

I would argue that the imperial investment in borderland areas such as the Caucasus and Gorgān Plain was a multi-purpose plan. In addition to bringing

53 Pahlavi (1966/1345).
54 Schweizer (1974), 134–136.
55 Tapper (1979 and 1997).
56 Hawaiian Agronomics Company International (1971), 33–34.
57 Tapper (1979); (1997), 291–294; Alizadeh and Ur (2007); Schweizer (1974).

economic benefits such as agricultural surplus and tax revenue, the establishment and colonization of large fortified cities complemented the military organization of the Sasanian Empire against invaders from northern regions while simultaneously enhancing their position in negotiations with the Roman Empire. Despite a shortage of the security and labor required for the achievement of massive infrastructural projects, the Sasanian Empire invested heavily in the borderland regions of the Caucasus in the fifth century. The goals of the imperial investments in such areas were twofold: firstly, the control and protection of the borders of the empire against attacks from the northern regions of the Caucasus; and secondly, increasing agricultural production and tax revenue. The empire organized these projects not on account of its security or readily available supply of labor, but rather in order to achieve economic and military security at the same time. In other words, the infrastructural projects of the Caucasus were not the consequences of a supposedly peaceful, prosperous situation in the sixth century. They were rather components of the policies that secured the wealth and welfare of the region in the late Sasanian era.

In analyzing an imperially organized project, the perspective of the state is the most revealing. From the perspective of the Sasanians, the agricultural colonization of the borderlands was tied to the basic questions of security, economic development, and social change and control. If protecting the region from the nomads of the north was the paramount concern, agricultural colonization was a complementary strategy.[58] The population movements that accompanied the construction of fortifications, whether the introduction of laborers from outside the region or the settling of local nomads, attest to the remaking of society under the direction of the state.

Without downplaying the role of autonomous or semi-autonomous ethnic groups or smaller polities in the Caucasus and other borderland areas, especially in a power vacuum, the data at our disposal indicate that Sasanians reshaped the region of the Mughan and Mil steppes.[59] It also demonstrates how effectively power was centralized in the Sasanian Empire.[60] New bodies of information suggest that

58 Breyfogle, et al. (2007), 8.

59 Unfortunately in most of the cases we do not see in the archaeological record those ethnic groups and small polities that are described in historical accounts. This might be partially because of the static nature of archaeological record. But regardless of deficiencies in the archaeological record, it is important to ask why these small polities are not seen in the archaeological record. In addition, we are also to ask to what extent invisibility of these smaller polities is because of deficiencies in historical accounts that reflect only their political role in the Caucasus but not cultural differences.

60 See also Lukonin (1983); Pourshariati (2008); Sauer, et al. (2013), 616–619.

we need to reconsider our understanding of the nature of the Sasanian Empire in Late Antiquity. Examining the socio-political dynamics behind the infrastructural projects in the core of the empire and its borderlands indicates that existing narratives of its political organization – and of the role of the empire in Ancient Near Eastern history – have been too simplistic. The perspective of the Iranian borderlands contributes not only to our understanding of the politics and society of the Sasanian Empire, but also to the geopolitics of Late Antiquity more generally. Borderlands were as important as heartlands for the maintenance of internal order within the empires of the period.

Acknowledgments: I would like to thank the co-organizers of the workshop Richard Payne and Mehrnoush Soroush for their gracious invitation to participate in the workshop and the hospitality extended by ISAW, and I am grateful for the opportunity to participate in the workshop and contribute to this volume. Many thanks to the participants in the workshop and commentators especially Emily Hammer for her comments on an earlier draft of this chapter. I benefited greatly from the comments of and conversations with St. John Simpson, Donald Whitcomb, Scott McDonough, Jairus Banaji, and James Howard-Johnston. All errors are, of course, mine. I thank the participants of the workshop for their stimulating contributions to our deliberations about the Sasanian politics. My especial thanks go to Jason Ur who inspired and assisted me in the early stages of this research. This paper is based on research funded by the Iranian Center for Archaeological Research (ICAR). I thank the ICAR and its late director, Dr. Massoud Azarnoush for funding and permission to carry out surveying and excavations in Mughan Steppe. Without that funding and support, this work would not have been possible.

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