Chapter 13
The Coming of the Barbarians: Can Climate Explain the Saljūqs' Advance?

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Abstract The present study reviews recent interpretations of Central Asia's and Northern Iran's environmental and political history during the first half of the eleventh century. Namely, to cast light on the deficiencies in recent interpretations of Turkic *Volkswanderung*, and to advocate searching for political-social agents that would explain the Eurasian Steppe's history. In opposite to climatological reading of those years regional history, it aims at advancing a call for a more nuanced paradigm of the coming of the Saljūqs.

Keywords Ghaznavids · Saljūqs · Bulliet · Ellenblum · Historiography · Memory Environmental history

In this study, I will focus on the assumed influence of nature on human history. I will not touch upon questions concerning interaction between human modes of production and the climate, which is a common topic in modern environmental studies. Ecological policy and environmental ethics will also not be touched upon here.

For the purposes of the current contribution, I will define environmental history as the study of the effect of climate on society. Or, to use a more precise classification: the study of the consequences that freezing weather has on a certain region. I am using weather and not climate because the sources do not provide climate data. Weather is what we sense outside on any particular day. Climate is the average of that weather.

A second introductory comment concerns the term "Silk Road" (*Seidenstrasse* in German) used by the organizers of this conference and in the popular literature. The term is a conventional construct. It is not used in the geographical literature that was composed for the Abbasid Caliphate administration, nor by Muslim voyagers who travelled across the Eurasian Steppe. Their accounts highlight the ethnic, environmental and cultural differences that separated the Central Islamic lands (i.e. Iran and the Fertile Crescent) from Central Asia. These literary sources are archives of societies. They narrate not only on environment, fauna and flora, but also on religious

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knowledge and political events. Moreover, we do not have a clue to the geographical terminology used by the nomads who roamed in the Steppe in the 11th century.

13.1 Introduction

Reports on natural hazards that have shaped mankind's history, and the place that these catastrophes occupy in societies' memories, are quite old. The biblical account of the flood and Noah's saving of his family and fauna in his ark is a well-known example of disasters that serve as a means to explain major changes in people and their societies.

Hegel opens his analysis of climate and ethnography with the statement that nature should neither be rated too high nor too low (Hegel 1914). The great philosopher's remarks are not novel: their roots can be recognised in ancient geography. Similar interpretations of human nature and its geography of origin can be detected in Arabic-Islamic intellectual traditions. Ibn Khaldūn's theory of race qualities immediately springs to mind (Hall 2011; el-Hamel 2013). He advances the hypothesis that physical and intellectual abilities and talents result from the climatological environment of the ethnic communities with which he was familiar. And we can add other names of Arab scholars from the Middle Islamic period (1055–1517), who advocated this vision of mankind. Certainly, contemporary scholars have moved away from these deterministic and racist visions of human societies.

Yet many modern scholars still search for an ecological interpretation as the key solution to human history. These present-days geographers and historians investigate the history of climate and nomadism in Central Asia.[1] At the early years on the 20th century Ellsworth Huntington (1907) advanced the paradigm of "The Pulses of Asia", arguing that "pulsations of climate had served as a driving force history of Eurasia, impelling nomadic invaders to overrun the civilized nations that surround them".

13.2 Ecological Frontiers

The border of the Eurasian Steppe was ethnic and ecological. The Caliphate imported from this vast territory a variety of goods. Muslim and other merchants traversed it in their travels to remote sedentary and nomadic civilizations, returning across the Steppe to the heartlands of the Islamic Caliphate they carried with them exotic merchandises. The data that excavations and artefacts provide supports the line that the narrative sources tell. These texts present a picture of cross-border trans-civilization movements and influence. Moreover, archaeological findings fit well the pre-Saljūqid Arabic and Persian historiography of Eurasia (Frenkel 2015).

[1] For historian's rejection of climatological paradigm and the re-emergence of environmental history see Chappell (1970) and Brentjes (1986).

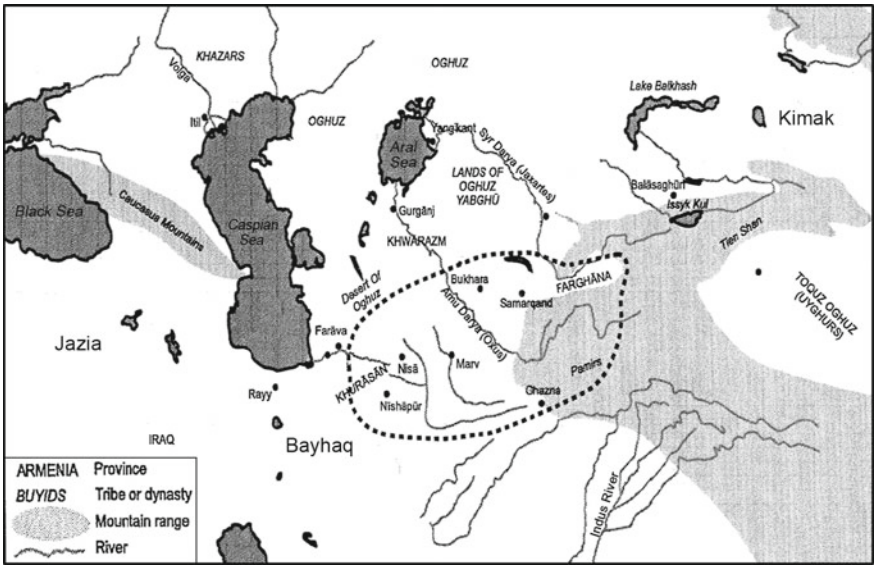

Fig. 13.1 The Eurasian steppe and Islamic Central Asia in the second half of the 10th Century. Adopted and re-edited from Peacock (2010:22)

An early example in support of this claim is the itinerary of Tamīm b. Baḥr, who travelled to the Uyghurs in the Abbasid period (c. 821). He recounts travelling a day and a night as hard and as fast as he could. He journeyed twenty days in steppes with springs and grass but neither villages nor towns. After that, he travelled twenty days among villages lying closely together among cultivated tracts.[2] Most of the population were Turks. Their king was related to China by marriage. The picture of the Kimak that he paints is similar (Fig. 13.1). They live in vast deserts, steppes and plains abounding in grass and wells where there are pastures (Minorsky 1948).

Ibn Faqīh al-Hamadhānī (c. 903) tells that in the lands of the Turks there are many excellent sables and foxes (*fennec*), ideal for making excellent furs. And that the Turks are the most skilled bowmen on Earth. The pseudo-travel writing by Abū Dulaf describes the Ghuz dress, which is made from furs. The recruitment of Eurasian slave-soldiers by the Abbasid caliph is well researched and there is no need to dwell upon this phenomenon here (Kennedy 2011).

13.3 Sources

Before continuing with the tale of the advance of the Saljūqs and their Turkoman hordes, however, allow me to dwell briefly on the sources at our disposal in the study

[2]Note the ecstatic equilibrium. Yet the topic of style is beyond the limits of the present study.

of Eurasian and Iranian histories. Most of the narrative sources which we are using to construct the story of the coming of the Turks were written in Arabic; yet some were composed in Syriac, Armenian and Persian. The claim that no Arab chronicler is a contemporary of the coming of the Saljūqs will not surprise students of medieval Western and Central Asia. The state of Persian sources differs only slightly.

Abū ʿAbd Allāh Muḥammad b. Salāma b. Jaʿfar al-Quḍāʿī (d. 454/1062) ends his condensed chronology of Iraq in the year 1022 and moves on to tell the story of Egypt (till 432/1040). ʿUmar b. Muḥammad al-Nasafī (461–537/1069–1142) wrote the history of Samarqand's scholars during their high days under the Great Saljūqs.

The two main Arabic histories of the early Saljūq Sultanate were composed in the late twelfth or early thirteenth century. Jamāl al-Dīn Abū al-Faraj Ibn al-Jawzī (510–597/1117–1201) was an active player in twelfth-century political and intellectual Baghdad and an observer of the declining Saljūq sultanate in Iran and Iraq (McAuliffe 1988). ʿIzz al-Dīn ʿAlī b. Abī al-Karm Ibn al-Athīr al-Jazīrī (555–630/1160–1233) was a contemporary of Saladin. His voluminous universal history begins with the Creation and runs to 628/1231. In the sections on Eurasia, Iran and the Turks he uses earlier works that have not reached us. Inspired to write by his sense of living at the turn of the ages, Matthew of Edessa (Matt'eos Urhayets'i, ca. 1070-ca. 1136), employed biblical verses to convey his perception of the Turks, (MacEvitt 2007) who he saw as agents of Satan (Czeglédy 1973).

Telling the story of the eleventh-century (1030–1071) Michael the Syrian (Mīchāʾil Raba; fl. c. 1166–1199) depends on earlier sources. In interpreting those years his point of departure is the Sacred Scriptures. Based on the words of the prophets he provides his audiences with biblical interpretations of the events that his predecessors experienced. The deep demographic change that was caused by the advance of the Turks is revealed by him as a fulfilment of ancient prophesies. No word on climate catastrophe.

The *mafriyana* (maphrian, the deputy of the Syriac Church) Gregarious Yoḥanan Bar ʿIbraya [Bar Hebraeus] (fl. c. 1226–1286) continued in his world-history, which he composed in Syriac and in a shorter Arabic version, the chronicle of Michael the Syrian (Mīchāʾil Raba; Todt 1988; Morony 2000; Widell 2007). Despite using a lost early Saljuqid source (the Book of King) his narrative is mainly political and dynastic and not adds a record of ecological history.

Turning to the Persian sources the history of the source material tells a similar story. With the exception of the contemporary chronicle by Abū al-Faḍl Muḥammad b. Ḥusayn al-Bayhaqi (c. 470/996–1077), no Persian source tells the story of the advancing Saljūq in real time. Remarks on weather in these chronicles are limited.

The Ghaznavid historian Ǧardīzī (wrote after 1041 AD), a valuable source for the history of the eleventh-century eastern Iranian world and Central Asia, reports concisely on events in Khorasan and Transoxiana, as well as on the people of the Eurasian Steppe (Czeglédy 1973). Gardīzī narrates that the sultan responded favourably to the nomads' request, which was mentioned previously, and issued a royal command permitting the Turkic groups to cross the Oxus and Mughrab Rivers (416/1025–26). The Turkmen moved to the desert (*yābān*) near the cities of Sarakhs, Faravah and Bavard (Abivard; Le Strange 1905; Fig. 13.1). Two years later, as is stated by Gardīzī, the

people of these cities came to the Ghaznavid court and complained about damages (*fasād*) caused by the Turkmen (Gardīzī 1928).

The picture of the past that the chroniclers have painted includes portrayals of weather hazards and deadly epidemics (in 1010, 1031, 1040; Christensen 1993; Rassi 2017) combined with descriptions of soldiers' looting (Ibn Funduq al-Bayhaqī 1968).[3] Yet, the information that the above-mentioned sources supply is far from an accurate accumulation of meteorological data. At most, these sources inform their reading audiences on farming and food shortage.

These sources, whether in Arabic or in Persian, do not report on the effects the fluctuating weather had on the nomadic tribes who roamed the Eurasian Steppe in the last quarter of the tenth and first half of the eleventh century. Indeed, I was not able to trace in the narrative sources from these long years any sort of meteorological information about the Steppe. The chronicles report only on weather events. This no doubt will be visible in the conclusions I deduce.

Nowhere in these narrative sources is climate blamed for the military-break down of a straining empire that failed to defend its territory against invading nomads. Famine should affect both parties, even if not equally. Moreover, nowhere is it said that the environmental conditions in Central Asia differed from the climate in Iran during those days. I will return to these points below.

Indeed, irregularities in climate are recorded in past and modern periods Moreover, as a whole, settlements in this region demonstrated resilience and recovery, despite famine, plague and massive deaths of humans and animals. The recovery from climatological disasters is quick. Data from the Chronicle of Michael the Syrian (tran. Chabot 1905) suggest that climatic and agricultural disasters were very common in northern Syria and the Jazira in antiquity (Fig. 13.1). Hence, we should ask: do these irregularities cause a permanent change? (Paul 2016).

In addition, the data furnished by these sources illuminates their vision of their time and place. They used mainly political and anthropological reasoning. Al-Quḍāʿī, a contemporaneous historian, already mentioned above, summarizes the political situation in Baghdad and the neighbouring lands during early days of the Abbasid caliph al-Qādir (991–1031):

> during this period (c. 1022) the political situation resembled the conditions [in Iran] in the days of the Diadochi kings (*mulūk al-ṭawāʾif*) who ruled in the days that followed the execution of Darius [the third; 330 BC] by Alexander the Great, a period of disorder that continued till the days of Ardashir the son of Babak (Papag) [208-241 AD] (*al-Quḍāʿī*).

13.4 The Coming of the Saljūqs

Following these condensed introductory remarks, we can turn now to an interpretation of the coming of the steppe barbarian in the eleventh century. The collapse of Samanid

[3]The source of the account is presumably the author's grandfather; the number of one thousand fighting horses, in addition to 200 elephants, seems unrealistic.

rule removed a buffer separating the Eurasian Steppe and the Iranian Plateau. The Saljūq house succeeded in mobilizing Eurasian pastoral-nomads and led them into the Central Islamic lands. These two developments, one that took place deep in the Eurasian Steppe and the other that materialized on the gates of the Caliphate's Central Asia frontiers, seem to be the key explanations to the political transformation that happened in Iran and Iraq in the mid eleventh century. They elucidate the massive penetration of pastoralist nomads into the territory of a highly developed urban civilization, which subsequently experienced several decades of crises and political disorders.

According to the authorized Ghaznavid version of Turkmen history and the crossing of the Oxus by the Saljūqs, a group of their tribal commanders and chiefs came over the border. They complained about their sufferings at the hands of Turkistan's governors and asked the sultan Maḥmūd's permission to cross the Syr Darya (Jaxartes) River. Gardīzī (d. c. 444/1053),[4] who presumably was in the service of the Ghaznavids at that time, inserts in his chronicle what he implies was the Turks' oral appeal to the sultan:

> We number 4,000 families.[5] If the lord was to issue a royal patent and allow us to cross the River [Oxus] and settle in Khurasan, he would be relieved from worrying about us and them, for there would be plenty of space for us in his realm, since we are steppe (*dasht*) people and have extensive herds of sheep. Moreover, we would provide additional manpower for his army.

The author, who devotedly guards the reputation of the Ghaznavid monarch, depicts Maḥmūd as a generous patron. According to his description of events, a conversation then took place between the sultan (*amīr*) Maḥmūd and the governor of Ṭūs (Mashhad). The historian stages the governor as the critical voice who objects to the coming of the Turks and who warns the sultan that he is committing a crucial mistake. In line with this version of history, the sultan regrets his initial agreement. Gardīzī adds his personal conclusion: "this grave error (*ghayyat*; read *ghiyyāt*) still has no satisfactory remedy." These words seem to reflect the developments on the ground, and indeed, as it was "predicted." Ṣadr al-Dīn al-Ḥusaynī, who composed the official Saljūq historiography (Husaynī 1933)[6] and does not depart fundamentally from this line, says:

> The sultan died (in 422/1031), having by that time regretted his allowing the Turks (*atrāk*), the followers of the sons of Saljūq, to settle in his realm.

Reports on the advance of the Saljūq brothers towards the Iranian Plateau, together with accounts of skirmishes, contain also records of shortage and famine (Bosworth 1963). It is said, to provide one example, that lack of fodder forced the Ghaznavid

[4] For a similar employment of negotiations between nomadic Turks and sedentary rulers see below.

[5] The number 4000 (*chehār hazār suwār maʿrūf*) elite horsemen is a set number in Gardīzī's account of the Turkmen.

[6] A native of Khurasan, he echoes the views of the Saljūq dynasty branch that ruled over the Iranian Plateau. This would explain the salient role he grants to Chaghrī Beg Dāwʾūd. Cf. the different account by Ibn al-Athīr 2003).

army to depart Khorasan and to regroup in the province of Jurjān. On the same pages, we read that for several years plowing and harvesting was not chronicled in the province of Bayhaq (Fig. 13.1). At this historical junction a Saljūq army, led by Čaghrī Beg Dāwūd (d. 452/1050), attacked and routed Subashī, the commander of the Ghaznavid expedition force (428/1037). Reinforcements from Ghazna arrived and camped in the rural region near Bayhaq. It was winter, and the expedition force cut down the Pistachio trees, using the wood to warm themselves. They also uprooted the trees and sent the wood to Ghazna (Fig. 13.1). At the battlefield the Saljūqs won the day. Following their victory over the Ghaznavid army, the Saljūqs seized Marw (in 428/1037; Ibn Funduq al-Bayhaqī 1968).[7]

While the official Ghaznavid historiography paints the nomadic *Turkemān* as intruders and as a potential threat to the stability and prosperity of the sedentary civilization, the Saljūqs' narrative, on the other hand, offers a different interpretation of events (Luther 2001; Morton 2004). Historians who served the ruling Great Saljūqs portray the first generation of the family as a loyal force in the service of sultan Yamīn al-Dawla Maḥmūd. Deeply terrified by the advance of Turkic nomad clans, the Ghaznavid sultan forced the enormous Qiniq tribe, which was led by the chief (*muqaddam*; *amīr*) Mīkāʾīl b. Saljūq, to cross the Oxus River and thus creating a buffer zone that would separate between the sedentary population and the nomads (Husaynī 1933). Acting in accordance with a common nomad practice, Mīkāʾīl approached Abū Sahl, the civil governor of Khurasan, and offered him gifts: "three horses, ten Bactrian camels and three hundred sheep." After Mīkāʾīl's death, the Turkic tribes agreed that his son Abū Ṭālib Ṭughril (Toghril) Beg Muḥammad would replace him and would be their chief.

At this juncture in the narrative the sources do weave in an environmental thread. Taking advantage of harsh climatic conditions in Iran, the three Saljūq brothers were ready to face the sultan Masʿūd, the new Ghaznavid ruler. While the weighty Ghaznavid army had been paralyzed by the climate, the Saljūqs could find shelter in neighbouring provinces. The dwellers of the Iranian cities applied to the Ghaznavid sultan and asked him to intervene and rescue them. Facing a formidable threat, the nomad Turkmen reacted by sending a message to the Ghaznavids: "We are [your] slaves (*bandkān*) and we are obedient."[8] The next months witnessed heavy fighting. Under the heavy military pressure, the Turkmen leaders agreed to renew the concord that their chieftain had undertaken in the past.

Al-Ravandī narrates that Čaghrī Beg and Ṭughril Beg, the two leading Saljūq brothers, their uncle Mūsá b. Saljūq nicknamed Yabghū-Kalın,[9] their cousins, chiefs and the army commander assembled and concluded a pact agreeing to unite and provide mutual assistance (*yak-digar*). "I heard", says the historian, that:

> Ṭughril gave an arrow (*tir* used for casting lots; Turan 1955) to his brother [Chaghri] and told him to break it. He [Chaghri] could not reject the request, heeded [the command] and broke the arrow. In this manner [Ṭughril handed] two [additional arrows and Chaghri] broke them

[7]The report does not contain the weather account.

[8]Cf. the similar wording "We are slaves and obedient to [the Sultan's] commands" (Gardīzī 1928).

[9]The future al-Malik al-ʿĀdil of Herat (1043–56).

> jointly. Then he handed three [arrows] and [Chaghri] broke them with considerable difficulty (*dush-khwar*). When the number [of the arrows] reached four it became impossible for him [Chaghri] to split the arrows. Ṭughril said: "This is exactly a parallel (*mithl*) [or *mathal*, likeness or metaphor] to our manner (*hamcunān*). When we are apart every peon will be determined to break us. Yet if we are united, no man will defeat us. If disagreement comes between us we shall not conquer the world (*jihān gushadan*; John of Ephesus 1860; Dickens 2004)[10] and our rivals will be stronger, and kingship will slip from our hand. A verse: If two brothers help and protect the back of each other the stony hard mountain is in their fist (Ravandi 1921).

13.5 Climatological Determinism?

The suggestion that migration and political changes in Western Asia resulted from ecological upheavals can be traced in old scientific works. On the eve of World War One, Carl H. Becker (d. 1933) argued:

> The sudden surging of the Arabs was only apparently sudden… It was the last great Semitic migration connected with the economic decline of Arabia with the decline of political power, the care of public waterworks, on which the prosperity of the land more or less depended, also suffered (Becker 1913).[11]

During recent years several scholars have addressed questions regarding climate changes, large scale migration and political changes in central (Eurasia) and western Asia (the Levant; Issar and Zohar 2007; Raphael 2013). Salient here are the publications by Richard Bulliet and Ronnie Ellenblum. The second section of the present contribution provides a condensed report on the works of these two highly acclaimed historians. They were not the first historians that advanced the argument that in addition to the human factors we should consider ecological reasoning (Brentjes 1986). Conflicts over grasslands, weather fluctuations and migration constitute common components in pastoral-nomads' communities. And their leverage on Eurasian society, including violent struggles on resources, is a common historical reasoning (Peacock 2010:44–45).

Richard Bulliet claims that in the fifth/eleventh century the Iranian Plateau suffered severe contraction. "The engine that drove the agricultural decline and trigged the initial Turkish migration was a pronounced chilling of the Iranian climate that persisted for more than a century". Reiterating this argument, he says:

> "Iran experienced a significant cold spell in the first half of the fourth/tenth century, followed by prolonged climatic cooling in the fifth/eleventh and early sixth/twelfth centuries… [A] certain impact of this cold (the Big Chill) involves the folk migration into north-eastern Iran of the Oghuz Turks" (Bulliet 2009; Mikhail 2016).

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[10] The idea of world-domination is echoed in the account of Michel the Syrian. However, it could be a late invention. Michel quotes John of Ephesus (c. 507–586) who narrates an apocalyptic story. The king of the Turks says to Zemarchus, the Byzantine ambassador, that their tradition is that when they see an ambassador from the Romans enter their lands, all kingdoms will be dissolved and the whole world will come to an end.

[11] Becker served as a Prussia's minister of culture.

Yet Bulliet is cautious and carefully states that weather stories in the chronicles do not constitute a trend. To make his point he turns to dendrochronology. An analysis of tree-ring thicknesses provides him with supportive evidence of the Big Chill in 313/926 and 398/1007. Decades prior to the Saljūqs. Following an in-depth geographical investigation, Bulliet deduces that the Turkmens who were camel herders moved from the Eurasian Steppe southwards, contrary to other Eurasian nomads, who were horse breeders and moved westwards. Yet this observation can be challenged. The Persian source that describes the Turkmens as *sārbānān* (camel herders) also mentions ten thousand Turkish horsemen (*siwār*) who crossed over to Khorasan (Bayhaqī 2002).

Ronnie Ellenblum follows Bulliet's historical interpretation. Inspecting a vast range of narrative sources, he first criticizes historians who have used political explanations to elucidate the penetration of the Steppes' barbarians into the Central Islamic Lands in the eleventh century. Next, he turns to the ecological reasons behind the Turks' W*anderung*. He interprets late sources, a point clarified above, as supportive evidence of his thesis that lingering hunger caused many Ōghuz Turks who still dwelt in the Trans-Oxonian regions to migrate south (in the 1030s; Ellenblum 2012).

13.6 A Revisionist Approach

It would be accurate to maintain that it is not rare to come across wide brash lines painting a historical picture that lacks sufficient details to discern a landscape of the past. Hence, I do not contest the interpretation that Central Asia and the Iranian Plateau experienced natural hazards during the years studied here. Reports of natural or catastrophic events, such as a devastating earthquake (in 444/1051)[12] or a drought that caused hunger, pop up even in a quick look at the narrative sources. The increasing number of raids (*ghārāt*) are said to have prevented the people of Bayhaq for seven years from slaughtering lambs outside the walls of the city's fort (*qaṣba*). The local population did not consume lamb during those seven years. The supply of eggs, cereals and fruit was also limited. Although during Friday prayer the name of the Saljūq sultan Ṭughril Beg was called (Ibn Funduq al-Bayhaqī).[13]

Again, I am arguing that the sources do not provide decisive evidence to support a meteorological interpretation as the prime explanation of the massive human movement across the Steppes/Iranian frontier during the eleventh century. The impression created by these accounts, briefly mentioned above, is that nomadic pressure and lawlessness combined with the governors' strong hand are the prime cause of disability and social unrest (Gardīzī 1928). The chroniclers do not point their fingers towards an environmental origin of the advance of the Saljūq Turks. It might be the case that cold winters or long dry summers inflicted heavy pressures on the Eurasian

[12]The story of the people who fled the town and spent 40 days and nights in the desert is a literary construct.

[13]The number 7 is supposedly a literary device.

nomads, yet the narrative sources do not refer to this as a source of destabilization and *Volkswanderung*.

Those scholars that advance the climatological thesis should be asked, given the living conditions in eleventh century Iran and Iraq, the countries that came immediately under direct Saljūq government, why are there no records of massive urban migration of populations that hoped to escape harsh climatic conditions? Moreover, why the weather-related thesis is not the leading hypothesis with regard to the migration westward of the Pecheneg or the Mongol? In great similarity with the coming of the Saljūqs and their Turkmans' followers also these Eurasian peoples wandered in the Steppe and penetrated new lands ruled by powerful empires. Yet, the common interpretation of their history combines social, ideological and political explanations with climatological accounts (Lamb 2011), and is not limited to precipitations, temperatures and pasturage (Jenkins 1974). Furthermore, "The occurrence of a climatic change can never be a sufficient explanation for a migration that ensued. Societies always possess a range of other ways of coping with any challenges" (Mayer 2000).

To advance the thesis that bad winters drove the Turkomans across the Oxus River to Khurasan and the Iranian Plateau we cannot rely on literary narrative sources. The chronology of the historiography examined here leads me to argue that the climatological thesis is based on texts that preserve the collective memory and popular interpretation of past events and not on solid *longue durée* recorders written in real time.

Generalization should be based on painstaking gathering of minute facts. Describing massive social, cultural and political changes, modern historical studies quite often refer to climate fluctuations; or at least use environmental arguments as a partial component in explaining phenomena such as vast migration, collapse of old regimes, etc. But at their disposal there are enough details to support an ecological thesis. In our case there are not.

Moreover, climatic conditions cannot be considered the sole causal factor in respect of economic prosperity or decline, nor for political upheavals or nomadic incursions. The Byzantine historian Iohannis Skylitzes (c. 1040–1101), for example, narrates the following episode:

> When the neighbouring peoples, Turks, Serbs, Croats and the rest of them, learnt of [the Bulgars' king] Symon's death they immediately made plans to campaign against the Bulgars. The Bulgar nation was suffering a severe famine and a plague of locusts which was ravaging and depleting both the population and the crops, so the Bulgars were very fearful of an incursion by these other people (Skylitzes 2010).

Ibn Funduq al-Bayhaqī reports that in 432/1040-1 the Saljūqs, led by Ṭughrïl Beg, "arrived at the borders of Khwarazm with a large army and countless *khargāh*s, camels, horses and sheep" (Bayhaqī 2002). So, if weather was harsh how could these herds survive freezing temperatures and hunger?

Much quoted is the saying by Maḥmūd Kashgarī: "*başsız börk bolms tatsız türk bolmas* (without a head there is no hat; without sedentary there can be no nomad '[There is no Turk [i.e. nomad] without a Tad(jik) [non-Turkish sedentary])" (Kāshghari 1982) is another textual reference that supports my position. It casts light

on the symbiotic ethnic reality in Central Asia. No one claims that harsh winters tested the resilience of the sedentary population of Transoxiana, who reacted by evacuating their villages and towns and accompanied the Oghuz Turks to Iran (Fig. 13.1).

13.7 Conclusion

The chronicles and biographies that were scrutinized in this research call a more nuanced vision of the historical reality in Transoxiana and the Iranian Plateau. The sources that we have at our disposal preserve the mid-twelfth and early thirteenth-century collective historical memory of urban classes governed by non-local armies, mostly by Turks, and who were surrounded by wandering Turkman tribes. These sources illuminate a long and deep political crisis, characterized by lack of order and stability. Chilly seasons and dwindling grasslands constituted significant components in the complex environment that surrounded the Turkic pastoral nomads.

Yet, in the interpretation of the historical developments at Islam's Central Asia frontiers additional constituents should be considered. To ascribe the Turkic tribes' migration from the Steppes to the Iranian Plateau at a period when this land supposedly witnessed natural hazards limits the historical explanation to climatological determinism. Given this, we should look to socio-political explanations to clarify the penetration of the Saljūqs and their Eurasian hordes.

Hence, we need archives of nature, namely analysed data of changing climatological conditions in the medieval Eurasian Steppe, which will illuminate the lacuna not covered by the archives of society, written in Persian and Arabic. This deduction can be compared to arguments advanced by scholars who have inspected the history of Byzantine during the tenth-eleventh centuries (Preiser-Kapeller 2015).

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