

Rethinking the Boundary: Environmental History of the Xiongnu

Introduction

The nomadic people of the Eurasian steppe have long been characterized as a fairly homogeneous group of wandering pastoralists. A lifestyle based on livestock that relied heavily on the horse predominated across a vast stretch of land – from Ukraine to Manchuria – for thousands of years. It is undeniable that the activities (including grazing) of these peoples had a substantial impact on the natural environment. Artifacts from across these times and places are indisputably similar, signaling some kind of common culture: what Mikhail Rostovtzeff influentially termed “animal style.”¹ Recent research has also revealed how deeply intertwined characterizations of northern nomads are with the sociopolitical context of those who write about them – from the Sinocentrism of Sima Qian to the particular ideological biases of modern writers. Further reflection exposes the underlying and ineluctable problems of writing about a (mostly) non-sedentary and non-literate society.

Following from these observations, Anatoly Khazanov influentially argued that the romantic conception of nomads – independent, itinerant people living off the land – ignores the rich history of contact between nomads and sedentary peoples. Thinking through this complex historiographical and sociopolitical context is important for any research on Eurasian nomads, particularly the study of contact between nomads and sedentary peoples. What work does exist on

¹ Rostovtzeff, *The Animal Style in South Russia and China*.

this subject has mostly focused on texts *about*, not *by*, nomads – that is, sources written by people the nomads often fought. Recent archaeological work, made possible since the dissolution of the USSR, offers a promising foundation for analysis of the regular, continuous, and omnipresent contact of nomads with sedentary peoples.

I position this paper within these contexts in order to better understand the environmental history of nomadic contact with sedentary communities. I examine both textual and material evidence to interrogate how contact between nomads and sedentary peoples has impacted the environment. I concentrate on the Xiongnu, positioning my analysis in the general region of Mongolia and northern China. I use Khazanov's work to challenge the preconceptions of nomads and sedentary peoples as isolated, discrete societies operating in vacuums. I further attempt to identify the biases and motives of historical actors to better interpret my sources. I argue that combining these theoretical approaches with written and material evidence allows for a more nuanced and complete understanding of environmental history.

Theoretical background

A key work on this subject Anatoly Khazanov's landmark 1984 book, *Nomads and the Outside World*. Khazanov presents a synoptic view of pastoral nomadism from antiquity through the present, centered on Eurasia. To approach this vast topic, Khazanov focuses on one particular feature of nomadic life: contact with sedentary peoples. He argues that "nomads could never exist on their own without the outside world and its non-nomadic societies, with their different economic systems."² Khazanov recognizes that his view challenges the dominant narrative about the nomads. In fact, Khazanov argues that the dominant historiography – writing about nomads as if

² Khazanov, *Nomads and the Outside World*, 3.

they are isolated, self-sufficient groups – has paradoxically enabled nomads’ continued existence. In his words: “indeed, a nomadic society could only function while the outside world not only existed but also allowed for those reactions from it – reactions which were economic, social, political, cultural, in a word, a multi-faceted response – which ensured that the nomads remained nomads.”³ In short, nomads have not only always been in contact with sedentary peoples, but this contact has been essential to their success. This recognition is especially important for environmental history. Most evaluations of nomads’ influence on their environment have focused on the impact of pastoralism – for example, grazing as a way to selectively encourage certain kinds of plant growth. Khazanov’s argument does not contradict this analysis, but it does suggest that neglected kinds of activities by the nomads had significant additional impacts on the environment. To understand Khazanov’s work, one must also appreciate the theoretical discussions of “cultural contact” he draws on – and especially the anthropological work of Fredrik Barth.⁴ In 1969, Barth edited the influential collection of essays *Ethnic Groups and Boundaries: The Social Organization of Culture Difference*. In it, Barth brings a “postmodern view of culture” into dialog with the traditional anthropological view of societies: discrete entities tied by primordial bonds of ethnicity. Barth subverts this dominant understanding by prescribing a focus on “the ethnic *boundary* that defines the group, not the cultural stuff that it encloses.”⁵

This is precisely the maxim that Khazanov follows in his work on nomads. Previous theories had analyzed nomadic societies as discrete units. Khazanov instead examines the boundary between nomads and sedentary peoples. This shift of focus allows for many historical insights into the

³ Ibid.

⁴ In his acknowledgements, Khazanov expresses his thanks to “Professor Barth.” Khazanov, *Nomads and the Outside World*, xxviii.

⁵ Barth, *Ethnic Groups and Boundaries*, 15.

origins and behavior of Eurasian nomads and, more consequentially, the destabilization of much previous historiography. Barth's dictum is especially relevant for the environmental history of nomadic-sedentary contact. Traditional scholarship on the environmental history of Eurasian nomads focused on the impact of what is enclosed by the label "nomads": the discrete group and its influence on the bounded environment it occupies. A shift towards Barth and Khazanov prompts a deeper understanding of environmental history that also encompasses the effects of contact – that is, the boundary.

A brief excursus demonstrates how powerful this reconception of the environmental history of pastoral nomadism can be. Khazanov wrote his work in the USSR, where Marxist theory dominated the academy. For traditional Marxist sociology, pastoral nomads pose a particular problem. On the one hand, nomads are attractive because of their cohesion, egalitarianism, and aversion to specialization.⁶ According to Marxist analysis, these traits appear only when private property is abolished. Yet Soviet scholars agreed that nomads had private ownership of herds "as far back as the first millennium BCE."⁷ In short, pastoral nomads problematize Marxist analysis because their attractive traits are incongruous with their individualistic economy. Khazanov's 1984 work was in part a response to this problem. His focus on the contact between nomadic and sedentary peoples undermined the Marxist analysis of discrete societies. As demonstrated through this brief example, even esoteric arguments about environmental history and pastoral nomadism have the potential to destabilize significantly broader ideologies.

⁶ Gellner, foreword to *Nomads and the Outside World*, xii.

⁷ *Ibid.*

Written sources

Drawing on the theoretical background I have outlined above, I now turn to written sources that document the contact of nomads – and especially the Xiongnu – with more sedentary peoples. The first source I treat is “The Account of the Xiongnu,” a chapter from Sima Qian’s *Shiji*, or *Records of the Grand Historian*. Sima Qian describes a powerful empire to the north of the Han, characterized by nomadism and reliance on animal husbandry. The author placed this empire – the Xiongnu – at the periphery of his Sinocentric worldview. Traditional historiography has long followed Sima Qian in emphasizing the dichotomy between the “steppe and the sown.”⁸ This division’s most visible expression is the Great Wall of China, which was understood to demarcate the boundary between sedentary, agricultural peoples (the Han) and pastoral, nomadic communities (the Xiongnu). In short, the Great Wall is integral to the symbolic repertory developed by the Chinese to differentiate the “civilized” from the “barbarians” – the nomads from the sedentary. To frame it in Barth’s terms, the Great Wall is the reification of the boundary that dominates traditional anthropology and historiography. This “master narrative” continues to color our understanding of China’s northern frontier. For example, modern historians often discuss the rise of the Xiongnu as a response to the rise of the Han.⁹ Addressing similar issues, Sima Qian wrote that “the Xiongnu have been a source of constant worry and harm to China.”¹⁰ Some modern writers agree with Sima Qian’s focus on nomadic aggression; others turn this model on its head to instead emphasize Chinese incitement of the Xiongnu. Either way, they continue to react to the model of nomadic–sedentary interaction first articulated in the *Shiji*. The environmental history of

⁸ For discussion, including criticism of unnuanced conceptual frameworks, see Shelach, *Prehistoric Societies on the Northern Frontiers of China*, 3.

⁹ See e.g. Marks, *China*, 84: “Xiongnu wars against the Chinese were in reaction to Chinese aggression.”

¹⁰ Sima Qian, “The Account of the Xiongnu,” 129.

pastoral nomadism is inextricable from pervasive preconceptions about nomadic and sedentary peoples, which are largely drawn from the writings of the “civilized” about the “barbarian aggressors.”

It is worth noting that warfare played a large role in the environmental impact of contact between the Xiongnu and the Han. For instance, Sima Qian writes:

The barbarians occupied the area of Luhun, roaming as far east as the state of Wey, ravaging and plundering the lands of central China with fearful cruelty. The empire was deeply troubled, and therefore the poets in the *Book of Odes* wrote:

We smote the barbarians of the north.
We struck the Xianyuan
And drove them to the great plain.
We sent forth our chariots in majestic array
And walled the northern regions.¹¹

A traditional interpretation of this passage with an eye to environmental history would observe that the nomad invasion greatly impacted the landscape of central China and that the sedentary peoples undertook massive public works in response to the incursion. Indeed, empirical investigations have revealed that these environmental impacts are profoundly important even in unexpected ways. For example, a 2003 article concluded that the “Great Wall has served as a physical barrier to gene flow between subpopulations.”¹² In other words, the Great Wall of China not only permanently marked the land but also caused great changes in the genetic makeup of plants and animals. Fears of the impact on nature were recorded among the Han even during the

¹¹ Ibid., 131.

¹² Su et al., “The Great Wall of China,” 212.

building of the Great Wall. Shortly before his suicide, the engineer Meng Tian bemoaned: “Indeed I have a crime for which to die. ... I have made ramparts and ditches over more than ten thousand *li*, and in this distance it is impossible that I have not cut through the veins of the earth.”¹³ In short, both empirical and historical sources corroborate interpretations of environmental history along the traditional model.

As valuable as they are, I argue that such analyses neglect many other important environmental impacts. Following Khazanov, I venture a more nuanced interpretation of this passage from the *Shiji*. Instead of viewing the Xiongnu and the Han as two discrete groups whose environmental impacts are strengthened or moderated by one another yet remain separate, I view the events Sima Qian describes as part of the long and continuous history of regular contact between the two groups. Indeed, this contact is integral to reinforcing the boundary between the Xiongnu and the Han because of its impact on later historians. In this view, the invasion of the Xiongnu is not an exceptional event which gives rise to exceptional environmental impacts. Instead, the attacks are part of a regular engagement between the groups that deeply influenced and continues to impact the environment as a whole. The “ravaging and plundering” described by Sima Qian is not anomalous either for the Han or the Xiongnu. Instead, these actions – and the concomitant environmental impact – form a regular part of the groups’ continuous contact. This more holistic view acknowledges the hybridity that is essential to understanding environmental impact. In short, giving the boundary priority – and thereby trying to avoid essentialism and ethnocentrism – gives space for rethinking environmental history through Sima Qian.

This kind of reformulated framework for thinking about environmental history offers valuable

¹³ Bodde, *Statesman, Patriot, and General in Ancient China*, 61. For commentary see Needham, *Civil Engineering and Nautics*, 53.

insights for a wide range of sources. An excellent example can be found in Robert Marks' *China: An Environmental History*. Marks notes that "whatever the cause for their constant interaction, by at least 200 BCE, Chinese and mounted steppe pastoralists had established a symbiotic relationship across two vastly different ecosystems."¹⁴ This interaction included significant amounts of mutually beneficial trade – for example, horses for the nascent Han cavalry were traded by the Xiongnu for cereals from the farming communities.¹⁵ Marks goes on to think through the consequences of this contact for the environment in a number of historical circumstances. One of the most significant cases he treats is the campaign against the Xiongnu by Emperor Wu. As part of this offensive, the Han Empire not only killed "tens of thousands of Xiongnu, but in two of the campaigns it seized about 1 million horses, sheep, cattle, and other domestic animals."¹⁶ After this conquest, Emperor Wu colonized the steppe, relocating hundreds of thousands of Chinese farmers to areas previously used by pastoral nomads. Thus, the environmental transformation of the Xiongnu homeland was meticulously planned as part of the broader Sinification of the north. In the words of Chun-shu Chang, "the colonization of Ho-hsi¹⁷ represented the victory of agricultural over nomadic society, a continuing process in North and East Asia in which the domain of the nomads gradually shrunk due to the expansion of agricultural civilizations."¹⁸ This kind of colonization scheme, known as *tuntian* (military-agricultural colony), was imitated by most of the following dynasties through at least the Qing, if not the present day. Acknowledging the regular, continuous contact of nomadic and sedentary communities creates a different space for thinking about the Han conquest of the Xiongnu. In turn, this intellectual shift provides new insights for a

¹⁴ Marks, *China*, 85.

¹⁵ Di Cosmo, *Ancient China and its Enemies*, 156–7.

¹⁶ *Ibid.*, 89.

¹⁷ Literally "west of the [Yellow] River" – in Pinyin, transliterated as "Hexi."

¹⁸ Chang, *The Rise of the Chinese Empire*, 211–2.

deeper understanding of environmental history.

Archaeological evidence

This shifted framework for understanding the environmental history of nomads is valuable not only for written sources but also for archaeological evidence. I will now turn squarely to this more empirical work, including recent archaeology in Mongolia that deals with contact between northern nomadic peoples and their sedentary neighbors. Perhaps the most interesting new research is that of Cheryl Makarewicz. She draws on scientific work to inform (and often revise) interpretations of sources like the *Shiji*. For example, in a 2015 book chapter Makarewicz and her co-author used data from the Egiin Gol survey in northern Mongolia to unsettle the “exhausted pasture binary.”¹⁹ The authors begin with Sima Qian’s description of herders moving about aimlessly through the Eurasian steppe, leaving depleted pasture for more “useful” fields. This kind of analysis, the authors claim, reinforces a false dichotomy between “present” and “absent” graze resource. This conception is vastly oversimplified and further betrays an over-reliance on historiography descended from Sima Qian. In order to question this binary, the authors turn to material evidence: specifically, they draw on two intensely surveyed areas of Mongolia to observe “similarities in ceramics ... as proxies for the communication and movement of people in communities of practice.”²⁰ They trace changes in ceramics to gauge shifts in the social networks of pastoral nomads. It is these incremental adaptations, not the “exhausted pasture binary,” that account for long-term change among the pastoral nomads. Focusing on the boundary – that is, Khazanov’s understanding of regular contact – gives the intellectual space to rethink the material

¹⁹ Makarewicz and Wright, “Perceptions of Pasture,” 263.

²⁰ *Ibid.*, 273.

evidence provided by recent archaeology.

A similar argument, made more broadly, can be found in a 2016 review article by Makarewicz and William Honeychurch. The authors argue that “revolutionary advances in archaeological methods and biomolecular approaches” provide the data needed to reimagine the characteristics of pastoral nomadism beyond the legacy of sedentary peoples writing about nomads.²¹ To move beyond essentialism and narrow regional focus, the authors adopt a broadly similar framework to that proposed by Khazanov. While maintaining a strong focus on actual archaeological evidence, the authors “link together the individual, community, and regional interactions that, over time, structured pastoral nomadic economies, social and ritual lives, and political organization.”²² In other words, they think about boundaries to more fully understand pastoral nomads and their impact on the environments and societies around them. Indeed, the authors extend this spirit of inquiry to further encompass multispecies interactions – what they term “social zooarchaeology.”²³ This “animal turn” – a shift away from anthropocentrism – has profound implications for environmental history. This theory offers a reconception of the relationship between “human society” and “nature” as “an ongoing, intercorporeal interaction ... where human and non-human animals are intricately linked in a complex web of associations. ... This is a hybridic sociality, which, of course, includes elements of economizing and exploitation, more often than not on the part of humans.”²⁴ In short, the work of Honeychurch and Makarewicz begins by taking seriously the reformulated intellectual framework of pastoral nomadism offered by Khazanov (in turn drawing on Barth). The authors extend this theoretical background by drawing on recent advances in many adjacent disciplines. Thinking about this framework in

²¹ Honeychurch and Makarewicz, “The Archaeology of Pastoral Nomadism,” 341.

²² *Ibid.*

²³ *Ibid.*, 348, 350–51. The term is drawn from the work of Hamilakis and Overton.

²⁴ Hamilakis and Overton, “A Manifesto for a Social Zooarchaeology,” 135.

conjunction with archaeological evidence provides a fresh and valuable understanding of the environmental history of pastoral nomadism.

Conclusion

In this paper, I hope to have approached a better environmental history of pastoral nomadism. I have drawn on the work of Anatoly Khazanov to challenge the dominant historiographical portrayal of nomads and sedentary peoples as isolated, discrete societies. In recent years, this new intellectual framework has afforded space for novel understandings of environmental history. These new interpretations have drawn both on traditional sources like Sima Qian's *Shiji* and on material evidence from new archaeological investigations. In both cases, identifying the biases and motives of historical actors allows us to better interpret the evidence. I have demonstrated that combining these valuable theoretical approaches with interesting evidence, both new and old, contributes to a more nuanced understanding of environmental history. Future research must continue to balance theoretical and historiographical considerations (including a commitment to reflexivity) with a sustained engagement of different types of evidence. Only through this careful balance can we rightly investigate the environmental history of the Xiongnu.

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