Introduction: Studies of Sedentarization

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PURPOSE OF THIS VOLUME

Nomadism and sedentarism are key concepts for reconstructing and understanding the cultural history of the world. Since ancient times, nomadic peoples have migrated repeatedly and have resettled for adaptation to natural disasters, economic changes, and socio-political circumstances (Salzman ed. 1980). Earlier reports have described that sedentarization is not a single process and that it does not occur in the same way for all pastoralists, and not even in the same way for one pastoral society (Fratkin and Smith 1995: 434). The different and similar effects of sedentarism among hunter-gatherers, pastoralists, farmers, sea or river nomads (Photo 1), and urban dwellers are discussed from a global ethnographic perspective, or as ethnographies of the earth (Salzman 1980; Sather 1997; Chow 2003; Fratkin and Roth 2005; Horst 2006). However, few reports have described studies of sedentarization aside from books edited by Salzman (1980) and by Fratkin and Roth (2005).

This volume specifically addresses the transition to sedentism among all nomadic populations. We discuss their adaptations to new settlement lifestyles, the value and consequences of sedentism for their future life, and government policies pursued to promote sedentarization. Descriptions of various nomadic peoples we have not considered in the mainstream of this commission of nomadic peoples¹ in the International Union of Anthropological and Ethnological Sciences (IUAES) are included in this book. This volume is intended to generalize the patterns and factors of sedentarization and concentration, and the consequent changes in spatial perceptions and cultural identity. The ethnographic studies explained herein provide a comparative framework for developing models that explain sedentarization and social change.

This volume addresses three questions about nomadism and nomadic peoples. First, how are nomadism and nomadic peoples defined? Second, how does sedentarization proceed, and what factors engender it? Third, how has sedentarism affected the hunter-gatherer, pastoralist, farmer, and sea nomad or river nomad, nomadic merchant and other nomadic livelihoods? We are also interested in the
collapse of sedentary society, as exemplified by damage to people and property by the tsunami and subsequent radioactive contamination related to the Great East Japan earthquake of March 11 in 2011 (Takezawa 2016).

THREE APPROACHES TO SEDENTARIZATION STUDIES

Earlier studies of sedentarization have taken one of three anthropological approaches: historical, political ecological, and comparative.

1) Historical approach

Human sedentarization has been approached through the perspectives of human evolutionary history (Nishida 2001), archaeology (Barnard and Wendrich 2008), and ancient and modern history (Bulliet 1980). Humans are believed to have been nomads originally. Nomadic hunter-gatherers started to sedentarize in western Asia more than 10,000 years ago, when they began cultivating crops and raising livestock (Barnard and Wendrich 2008). Subsequently, nomadic pastoralists arose in that region and developed further in the Eurasia and Africa. Various examples exist: Reindeer herders in northern Asia, Mongolian and Kazav nomads in central Asia, Bedouin in western Asia (Ginat 1984), and Somali and Fulbe in Africa (Boesen et al. 2014) (Photo 2). They became sedentary under the influence of climatic change and the violent collapse of dynasties and empires.

Worldwide during the modern historical era, colonial and nation state policies
have encouraged nomads to sedentarize. Some either resisted or could not change. Up to the present, some pastoral nomads have been compelled to move according to grazing conditions, and so continue their nomadic life. Most hunter-gatherers in Asia and Africa have already sedentarized.

2) Political ecology approach

Many ethnographies related to sedentarization have been written from the perspective of political ecology (Fahim 1980; Salzman 1980b; Swidler 1980; Du 2012; Gremont 2014; Chapter 7 Ikeya and Nakai). Three fundamental issues addressed using this approach are the sedentarization process, promoting factors, and socioeconomic consequences (Salzman 1980). For example, the San and Kalagadi people who reside in the Central Kalahari Game Reserve of Botswana moved to permanent settlements called Xade with new boreholes after about 1980 (Osaki 1990; Ikeya 1994; Ikeya 1996b) (Photo 3). However, their social groups in their respective camps were maintained after sedentarization. They continued to move within short distances around the boreholes. In contrast, the Hadza people of Tanzania are said to have started to return to the bush after sedentarization.

What factors promoted sedentarization? Several were apparent at the permanent settlement in the Kalahari Desert. From 1980, the Government of
Botswana promoted the movement of nomads into settlements. It built a primary school and a clinic inside a settlement, thereby inducing many people settled there to avail themselves of these facilities. Some people are said to have sedentarized after a severe drought scorched the Kalahari Region (Ikeya 1999; 2002).

Lastly, the socioeconomic consequences of sedentarization are complex. Land use patterns became differentiated throughout the Central Kalahari. There, land use was divided into three concentric zones (Ikeya 2002), with the closest zone to Xade being used for agriculture and livestock grazing, the inner zone used for trapping, and the zone furthest from the center used for hunting with dogs and horses. Patches of land within the dog and horse hunting zones were used for gathering wild edible plants. There were also social changes in wealth and in the sharing system.

3) Comparative approach

Many case reports have described sedentarization processes among hunter-gatherers, nomadic pastoralists, sea nomads, and nomadic merchants. Nomadic pastoralists were most studied using the comparative approach applied in eastern Africa (Fratkin and Roth 2005) and western Asia (Salzman ed. 1980). Recently, many pastoralists have moved to the outskirts of Ulaanbaatar, Mongolia’s capital.

Ikeya has studied sedentarization of three types occurring at different times among the Central Kalahari San of Botswana (Ikeya 1996a; 1996b; 2000; 2001), the Somali in Kenya (Ikeya 2008), and the Mlabri in Thailand (Ikeya and Nakai 2009). Furthermore, the author has observed patterns of sedentarization and
concentration of Chukchi pastoralists (Ikeya 2004), Matagi mountain farmers of Japan (Ikeya 2006), homeless people, and people affected by tsunami damage and subsequent radioactive contamination related to the Great East Japan Earthquake of 2011 (Takezawa 2016; Ikeya 2016). The following three types can be identified: 1) semi-sedentarized people with a complex economy including hunting, gathering, farming, and livestock breeding; 2) people sedentarized under the influence of government policy; and 3) people who are concentrated after a government resettlement scheme.

FRAMEWORK FOR STUDYING SEDENTARIZATION

1) Concept of nomad categories of nomadic peoples

A ‘nomad’ is a person who moves from place-to-place to find pasture, or one who lives a wandering life. The word is derived from the classical Greek. Those who move in pursuit of their livelihood include hunters, gatherers, traders, smiths, entertainers, and fishermen (Casimir and Rao 1992). Figure 1 presents nomadism of three types: semi-nomadism (Ikeya 2002), transhumance (Ikeya 2000; Sofi 2013), and nomadism (Ikeya 2008) according to the annual patterns of migration practiced (Figure 1). Semi-nomadism occurs around one permanent village. Family units move in transhumance; some of them separate from the village. All members move repeatedly in nomadism.

There has been discussion of the types of societies to be studied as nomadic
peoples. The study of nomadic peoples is restricted not only to an examination of nomadic pastoralists (Salzman ed. 1980). It is also open to examinations of various nomadic peoples such as hunter-gatherers (Ikeya 1999), and even shifting cultivators (Chapter 8 Sato), sea nomads (Sather 1997; Chow 2003; Chapter 2 Nagatsu), nomadic merchants (Liegeois 1998; Chapter 4 Sachi-Noro), and refugees (Horst 2006) (Table 1).

Most nomadic peoples have been forced to sedentarize or concentrate for various reasons during past centuries. For example, nomads settled down in the seventh century in the Arab realm (Bulliet 1980). The end of nomadism might occur soon throughout the contemporary world.

2) Human history of nomads

Figure 2 presents the author’s framework for studying the social history of nomads. A variety of nomads exist: nomadic hunter-gatherer, nomadic pastoralist, sea nomads, and Romani people (gypsies), in addition to ‘nomads’ produced after natural or social disasters, and refugees (Horst 2006; Wilson 2014). In various

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<tr>
<th>subsistence</th>
<th>ethnic group</th>
<th>unit of mobility</th>
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<td>Somali, Chukchi</td>
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<td>itinerant</td>
<td>Gypsies (Romani)</td>
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<td>week, month</td>
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<tr>
<td>refugees as nomad</td>
<td>Japanese</td>
<td>family</td>
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source: Author’s field study

prehistory          colonial                  modern times
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parts of the world, people have sedentarized or given up a nomadic life from prehistoric to modern times (Bulliet 1980; Hitchcock 1982; Finkelstein and Perevolotsky 1990; Chapter 1 Nasu). Sedentarization of three types can be recognized: sedentarization in prehistory, sedentarization under the influence of farming and grazing, and sedentarization as a result of modern colonial or national policy.

3) Model of political ecology and socioeconomic effects

Figure 3 depicts a model of political ecology of nomadic hunter-gatherers. Political ecology is an integrated approach between cultural ecology and political economy (Zimmerer and Young 1998; Ikeya 2003). Changes in land use from before 1970 through 1996 in Botswana are described.

Figure 3 presents a model of the changes in land use in the Xade settlement area in Botswana (Ikeya 2002). Before 1970, the migratory routes of nomadic camps covered a vast area. In times of drought, the San moved with their livestock to towns and villages outside the Central Kalahari Game Reserve. Some went to work either on European-owned farms or in gold mines in Johannesburg (Ikeya 1999). Around 1950, a particularly large exodus occurred from the reserve to farms owned by Europeans. Some of the San bands in the reserve disappeared completely. Before 1970, base camps were located in areas where crops were grown. The San stayed there to tend their fields during the wet season, but migrated elsewhere in the dry season. In times of drought, the San moved to towns or villages outside the reserve with a stable water supply. However, the pattern of land use in 1987, when Xade had been established as a settlement, was much different. As described above, land use was divided into three concentric zones centering on Xade (Figure 3).

Changes in land use with the transformation of nomadic camps into a

![Figure 3](image_url)
permanent settlement can be summarized as follows. First, the type of land use changed from an intensive type (nomadic lifestyle centered around a base camp near land used for growing crops) to an extensive type (separate zones of land located in concentric circles around the center of the settlement were used for growing crops and livestock grazing, for trapping, and for hunting with dogs and horses). Second, the frequency and distance of migration changed. Before the establishment of a settlement at Xade, the migration distance in one month was 20–30 km according to a survey conducted by Silberbauer (1981) from November through July the following year, whereas only 17 percent of the inhabitants of Xade moved within the settlement area in 1994 (Nakagawa 1997: 193). A survey conducted by the author revealed that one particular inhabitant of Xade moved eight times during 1982–1996 within the settlement area only. Consequently, the establishment of a permanent settlement at Xade caused a large reduction in migration frequency. The third point concerns the impact of desertification. With the increase of areas affected by desertification, trees and grass needed for the construction of huts have become increasingly difficult to obtain, goats have been dying in increasing numbers from sickness, and lions have killed many donkeys and horses.

However, social changes among the nomadic peoples after sedentarization are important topics. Earlier studies have specifically examined social and economic aspects (Fan et al. 2014; Tanaka 2014; Chapter 3 Watanabe) in addition to population and health (Lee 1972; Fratkin and Roth 2005; Chapter 6 Odani). A model of the main causes of sedentarization in the settlement of central Botswana, including increases in population, number of huts, number of livestock and number of fields, is presented in Figure 4 (Chapter 13 Kanazawa). Both global and national trends must be regarded as background factors. The main global background factors affecting desertification are global warming, aid, and protection of animals. National background factors affecting desertification are divisible into government factors such as the Botswana government’s settlement policy, promotion of agriculture and road construction projects, and non-government factors such as the establishment of Ghanzi Craft Company by an NGO based in Denmark (Ikeya 1996b), establishment of a sales route for handicraft products, and employment opportunities offered by the De Beers Company.

The greatest social change in the Xade settlement has been the rapid increase in population which has occurred since the construction of a well. This population increase has caused increases in the number of livestock, the number of fields for growing crops, the demand for materials to construct huts and fences, and requirements for firewood. All of these factors have contributed to the destruction of vegetation and the resultant desertification in the Xade settlement area. However, the inhabitants of Xade do not feel that the desertification poses any foreseeable danger to their lives because they are heavily dependent on various forms of aid provided by the Botswana government. Despite the increasing extent of desertification, conversion of large areas of land to fields for growing crops, a
major cause of desertification, was continuing in the Xade settlement area.

STRUCTURE OF THIS VOLUME

This volume specifically examines the Asian and African tropics (Figure 5) from the perspective of ethnography. They include Southeast Asia, eastern and southern Africa, and Europe. Only one paper (Chapter 1) in this volume presents an approach from the discipline of archaeology.

Following this introduction, the volume is divided into three parts. In Part I, nomad studies take four perspectives: historical (archaeological), social, ecological, and political. Nasu (Chapter 1) clarifies the characteristics of sedentarization among hunter-gatherers, pastoralists, and shifting cultivators from the perspective of world archaeology. In particular, he examines the prehistory of West Asia, the Jomon in Japan, and Mayan civilization based on his experiences in archaeological sites. Nagatsu (Chapter 2) describes the social history of the Bajau people, the so-called “sea nomads,” in Southeast Asia. Watanabe (Chapter 3) also uses social history and traces the transition from transhumance to a semi-nomadic life in Nepal. Sachi-Noro (Chapter 4) examines the present-day life of the French Gypsies, where most people have become sedentarized already but where a small number continue to follow a nomadic lifestyle with the support of the government. Noro provides an interesting explanation of the new migration system from the perspective of cultural anthropology.

Part II specifically addresses three topics: The relations between...
Figure 5  The study areas in our volume
●: The study area in our volume
Source: Made by the author
sedentarization and mobility are examined for their processes and effects among three hunter-gatherer societies in Southeast Asia and one of shifting cultivators in Ethiopia. Minter (Chapter 5) analyzes the interaction between mobility and sedentary life among the Agta of northeastern Luzon Island, in the Philippines, where the society relocates according to season and area. She examines details of the present conditions of school education under the influence of development policy. Odani (Chapter 6) clarifies the relation between population increase and sedentarization among the Oran Asli of the central Malay Peninsula. Ikeya and Nakai (Chapter 7) describe the process of landscape change that the hunter-gatherer Mlabri community in Nan Province, Thailand, has experienced since the start of settlement in 1998. Sato (Chapter 8) also describes details of the sedentarization processes and social changes for the shifting cultivator Majangir of lowland Ethiopia.

In Part III, three aspects of nomad studies (economy, politics, and cultural identities) are examined. Ninkova (Chapter 9) insists that cultural identities as nomads have been retained, even though Ju\'hoansi have lived on farms for the last century. Prasetijo (Chapter 10) describes the preservation of cultural identity among the Orang Rimba people in the Sumatra islands of Indonesia, although they have changed their lifestyle over the past several decades. Konaka (Chapter 11) reconsiders the spatial aspects of nomadic pastoralists in East Africa. Haile (Chapter 12) and Kanazawa (Chapter 13) introduce the sedentarization process and social changes among herders and hunter-gatherers.

This volume will stimulate researchers who study the sedentarization of nomadic peoples not only in Asia and Africa, but around the world. Care must be taken to recognize the diversity of nomadic peoples, as expressed in the broad categories of semi-nomadic, transhumance and nomadism. The accounts and analyses of this volume clarify the relation between the degree of nomadism and social change. One cannot neglect the diverse factors influencing the sedentarization process. These background factors are demonstrated strongly by national government policy and climate change.

The end of nomadism might come soon throughout the world. People change lifestyles following sedentarization. This change is apparent in the changing settlement pattern, human population dynamics, subsistence patterns, social phenomena, and worldview among many other topics. This volume was produced to contribute to the basic literature considering new conditions of nomadic or sedentary life that are expected to emerge in the near future.

NOTES

1) The Commission of Nomadic Peoples in the International Union of Anthropological and Ethnological Sciences (IUAES) is known to have researched all nomadic peoples. However, many pastoralists were studied more during the past decade.
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