

## Rice Crops and Shifting Cultivations in Miomote, Murakami-han in the Edo Era

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# Rice Crops and Shifting Cultivations in Miomote, Murakami-*han* in the *Edo* Era

Kazunobu IKEYA

## 1 Introduction

Recently the origins of Japanese culture have been discussed actively. "Beeches' zone farming culture" (*Bunatai bunka* in Japanese) or "oak zone culture" (*Nararin bunka* in Japanese) is one famous culture theory (Ichikawa *et al.* 1984, Sasaki 1983). It means the cultural complex of the beeches area in the northeastern part of Honshu Island. Red turnips and radishes have been especially noted because they may have spread into the area from Siberia. This paper, however, will look at relationships between rice cropping and shifting cultivation in the past.

Shifting cultivation in Tohoku was said to be conducted by farmers who had small parcel of field for shifting cultivation with supplementary fields of rice (Yamaguchi 1944, Sasaki 1972). But these studies tend to disregard historical changes because past life-style cannot be guessed by comparative ethnological studies based on current practice. The reconstruction of relationships between rice cropping and shifting cultivation of the past must be clarified by investigation of public documents.

This paper aims to reconstruct the relationship between rice fields and shifting cultivations in the northeastern part of Japan in the early *Edo* Period (1603-1868), when the wave of commercial economy had not yet penetrated into the life of mountain villages.

Miomote in Murakami-*han*, located on the border of Yonezawa-*han*, was chosen as a field area because "*Kenchicho*", the records of land measurement, of *Edo* Period can be used to reconstruct the practice of rice cropping and shifting cultivations in those days. Here the author uses the *Kenchicho* written in 1655 the first year of *Meireki*. Ownership of rice fields, non-rice fields, and shifting cultivations, and also their distributions were studied. The distribution of the irrigation canals was studied by the field survey, which enables us to clarify the history of the development of rice cropping.

Miomote in Murakami-*han*, Echigo is located 20 km from Iwakuzure Village in Murakami-*han* and 10 km from Orido Village in Yonezawa-*han*, at the foot of the Asahi Ranges (Fig. 1). The village is known as a "*Matagi* village", which means that

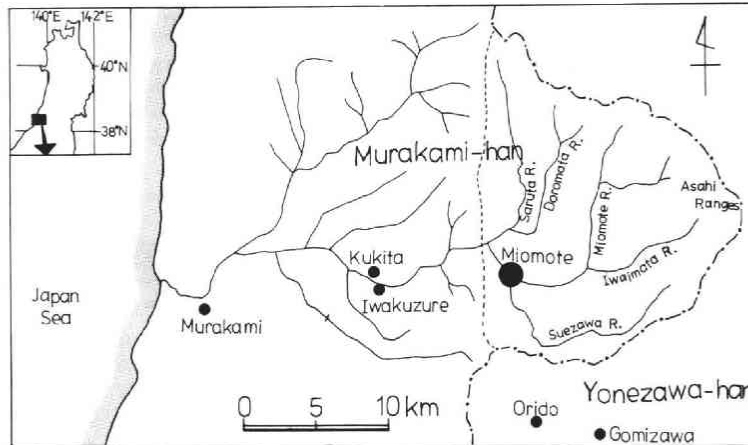


Fig. 1 The study area.

bear and serow hunting was of economic and religious importance. There is also the legend that “*Heike’s fugitive*” came to the village in long time ago and lived there.

The Asahi Ranges are deep mountainous areas whose height is about 1,500 meters above the sea. In this field there are many deep slopes of valleys in the Miomote River and its branches, the Suezawa, Saruta, and Iwaimata rivers. The climate is snowy in winter. The average height of snow is about 2 meters. The mountain area was covered with beeches and oaks, and many black bears, serows, and apes were living in the deep forest.

## 2 Changes in the area of arable lands

Fig. 2 shows the changes in the area of cultivated fields from 1655 to 1945. The area used for rice cropping decreases a little from the *Meireki* Period (1655–1658) to the

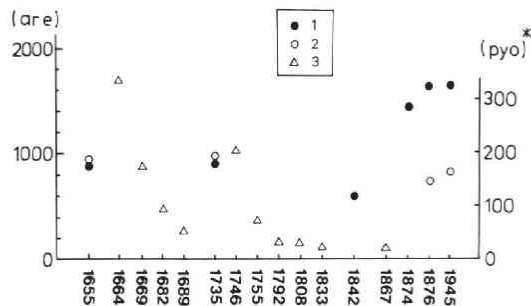


Fig. 2 Changes in the area of cultivated fields.

1: area of rice fields, 2: area of non-rice fields, 3: rice sent by Yonezawa-han. \* 1pyo = 60 kg.

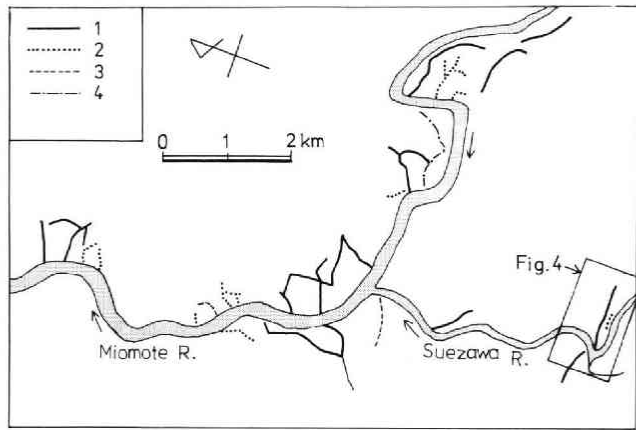


Fig. 3 Distribution of irrigation channels.  
 1: water of mountain stream, 2: water of spring, 3: water of marsh and pond,  
 4: water of river.

*Tenpo* Period (1830-1844), but increases rapidly from the *Tenpo* Period to the *Meiji* Period (1868-1912). The 10 hectares rice fields were already cultivated in the *Meireki* Period. The area of rice cropping from the *Meireki* Period to the *Kyoho* Period (1716-1736) didn't change. "Shinden-oboë", written in 1657, and "Shinden-kenchicho", written in 1669, indicate the development of new rice fields. Hence some rice fields must have been abandoned for some reason.

The area of rice fields increased from the *Tenpo* Period to the *Meiji* Period. This is thought to be owing to the development of the irrigation canals which run on the river terrace. And it is also probable that the development of long canals which take water not from the small mountain streams but from the relatively big rivers contribute to this increase.

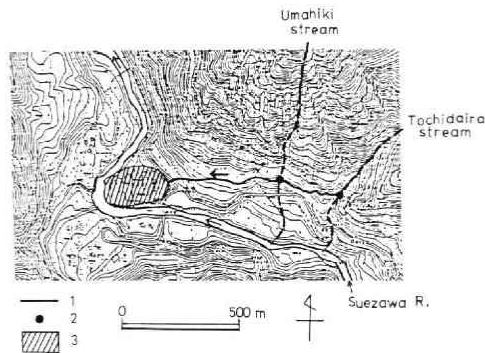


Fig. 4 An example of canal from the water of mountain streams.  
 1: canal, 2: entrance of water, 3: rice fields.

Fig. 3 indicates the distribution of irrigation channels in Miomote. The dates of construction are not clear for most of the channels, but it is clear that they were constructed in the *Edo* Era because they can be found in the land register (“*Tochidaicho*”) in the early *Meiji* Period. This canal network has four origins of water: mountain streams, springs, marsh and pond water, and rivers. The canals were extended throughout flat lands of the settlement.

Fig. 4 shows one canal from the water of mountain streams. Water from *Tochidaira* and *Umahiki* streams becomes this canal (Photo.1) at the foot of the mountain (Photo. 2) and flows into the rice field along the *Suezawa* River. The length is more than one kilometer. Elderly people of the village say that the rice field was



Photo.1 An example of canal.



Photo.2 A canal on the foot of mountains.



Photo.3 A pool which warms water before entrance into rice field (“*Nurume*”).

for common use. Probably village people dug the canal at the foot of the mountain.

In the above discussion, the area of rice fields increased from 1655 to the beginning of *Meiji* Era (1868): on the other hand, the area of non-rice fields didn't change. This means that rice crops became important in village agriculture. Incidentally, the amount of rice sent by Yonezawa-*han* was 300 *pyo* (18,000 kg) in the early *Edo* Era, decreasing since then (Fig. 2). In 1833, the year of famine, relief rice was sent from Shinbo Village, a farming village in Murakami-*han*. Miomote people could not support themselves and depended on rice sent from outside.

### 3 The rice crops and the shifting cultivations in the early *Edo* Era

Table 1 shows the practice of rice cropping and shifting cultivation in the early *Edo* Era. This is the oldest *Kenchicho* for the village. Peasants in those days are listed in Table 1. The area of barnyard millet fields measured 44 ares.

#### 3.1. The area of each fields

Table 1 indicates that the area of rice fields ranges from 12 ares to 248 ares, most of them were bad rice fields (“*Geden*”) and worse rice fields (“*Gegeden*”). On the other hand, the area of shifting cultivation occupied the most part of non-rice fields. These areas range from 3 ares to 101 ares (Fig. 5). The average area per household is 42 ares. The cultivation of buckwheat, millet, soybeans, red beans, turnips, and radishes is inferred to be done by shifting cultivation.

Table 2 shows the *Kenchicho* of Kukihuto in 1655. Kukihuto, called Kukita since the *Meiji* Era, is located about 20 km downstream from Miomote. The size of rice fields ranges from 6 ares to 89 ares. There are many good (“*Zyoden*”) and ordinary (“*Chuden*”) rice fields, in contrast to Miomote. We can understand the sterile rice

Table 1 Miomote-Mura

Name of peasant	Rice fields				Total (ares)
	<i>Zyoden</i>	<i>Chuden</i>	<i>Geden</i>	<i>Gegeden</i>	
Riuemon	0.15	17.28	19.05	19.25 (5.25)	57.13
Kanshichi	0.17 (0.17)	11.13	12.00	8.00	32.0
Kinshichi	0.21	11.00	16.14 (3.0)	6.23 (2.15)	34.28
Sukeuemon	8.12	7.00	8.16	43.23 (2.33)	67.11
Takuzaemon	0.12		4.12	13.3 (2.20)	18.14
Kinjuro	1.28	8.03	12.04	19.05 (4.09)	41.10
Shirozaemon			2.12	10.06	12.18
Rihee	0.15	5.14	9.10	10.11 (2.06)	25.20
Bunkyuro			16.24	28.10	45.4
Fukuzaemon	0.10	2.00	20.08	33.05 (6.12)	53.11
Sagouemon		5.06	10.06 (2.0)	15.00	30.12
Shosuke	0.04		0.05	14.00	14.19
Tozaemon	0.05	25.09	40.07	16.05 (0.14)	81.27
Mosaku	5.26 (1.12)	13.00	7.19	9.28 (0.16)	66.12
Jiuemon	2.02	5.29	21.00	23.08 (9.08)	54.19
Tarosaku	18.25	62.20	94.01	76.11 (4.15)	248.16

*Tera*

( ): area of barnyard millet field.

\* *Hatayama* means shifting cultivation field.

Source: *Miomote-kuyuu-monjo*.

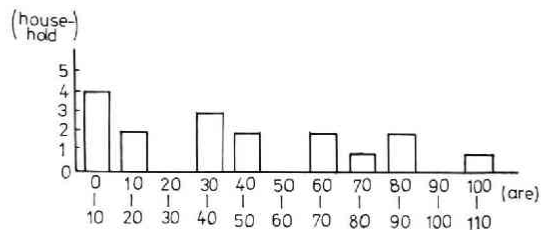


Fig. 5 Possession of shifting cultivation fields in Miomote in the early *Edo* Era.

Source: *Miomote-kuyuu-monjo*.

*Kenchicho* in 1655

Non-rice fields					
<i>Zyobata</i>	<i>Chubata</i>	<i>Gebata</i>	<i>Hatayama*</i>	<i>Yashiki</i>	Total (ares)
3.06	1.24		31.15	5.0	40.17
	0.21		17.03	6.0	23.24
		1.18	34.28	8.24	45.10
2.25	9.22	3.14	89.10	6.9	111.20
0.08	0.18		6.00	1.20	8.21
1.06	0.28		30.24	3.15	36.13
			3.32	3.9	7.11
0.17	1.05	1.05	6.04	2.0	11.1
2.09	2.20	1.03	63.01	10.4	79.7
8.03	2.20	1.02	40.05	4.0	
	1.06		15.01	5.17	21.24
0.08	1.14		44.04	4.5	53.9
0.18			101.17	10.0	112.5
1.26	3.05		69.20	10.13	85.1
0.13	2.19		79.24	5.0	87.26
9.18	23.18	5.04	88.15	13.9	136.14
			5.06	4.10	9.16

fields in Miomote. On the other hand, the average area of shifting fields per household is 29 ares, less than that of Miomote (Fig. 6).

Moreover the shifting cultivation of Tsubayama in Ikegawa, Kouchi (in Shikoku Island-southern part of Japan) was compared with that of Miomote. The number of households was twenty in 1674. Rice was not produced, but barnyard millet, millet, buckwheat, soybeans, and red beans were planted by shifting cultivation. The average area per family is 42 ares (Fig. 7), equal to that of Miomote. This means that shifting cultivations in Miomote didn't have smaller fields in the early Edo Period.



Table 2 Kukihuto-Mura

Name of peasant	Rice fields				Total (ares)
	<i>Zyoden</i>	<i>Chuden</i>	<i>Geden</i>	<i>Gegeden</i>	
Sankyuro	37.24	1.18	7.14	20.03	66.29
Fukuuemon	22.01	4.06	12.10	7.07	45.24
Saheiji	39.27	27.02	2.00	5.12	74.11
Shirouemon	9.01	10.13	15.01	9.16	44.01
Hikozo	11.02	9.25	0.06	4.20	25.27
Kizaemon	39.17	39.07	3.15	7.15	89.26
Jinuemon	50.14	2.06	17.11	8.04	78.05
Hachirouemon	11.25	16.28	2.29	7.02	38.24
Shinuemon	21.15	31.07	23.21	8.03	84.16
Seikichi	6.16	0.21	14.06	4.29	26.12
Genjuro	1.25	16.10	5.22	7.25	31.22
Zenshichiro	0.17		5.21		6.08
Heisaku					
Zenshichi ( <i>Murazukuri</i> )					

\* *Yamabata* means shifting cultivation field. (after *Asahi-mura* (1980)).

### 3.2. The distribution of cultivated fields

Fig. 8 indicates the distribution of arable lands in rice crops and shifting cultivations. Rice fields were distributed near Miomote settlement, shifting cultivation fields in Motoyashiki. Incidentally, Kamimukai, Nakadouri in this region were used for shifting cultivation till 1950' (Photo. 4).

Long ago the Ito families in Sarutayashiki and the Takahashi families in Motoyashiki lived separately. The Koike families came to Miomote and lived in Motoyashiki. It is said that the three groupes gathered for some reason (Watanabe 1979). "Senamigun's picture map", written in 1597, says that the movement happened in 1599. On the other hand, "the history of the Asahi Mura" says that year is the first one in

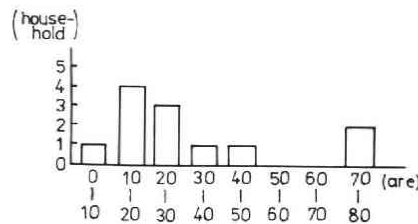


Fig. 6 Possession of shifting cultivation fields in Kukita in the early Edo Era.  
Source: *Asahi-mura* (1980)

*Kenchicho* in 1655

Non-rice fields					
<i>Zyobata</i>	<i>Chubata</i>	<i>Gebata</i>	<i>Yamabata*</i>	<i>Yashiki</i>	Total (ares)
5.07	7.15	4.26	11.03	6.12	35.73
8.06	2.18	12.04	12.03	3.11	38.82
14.27	7.04	10.18	13.26	4.08	50.93
12.28	3.15	3.23	20.12	5.03	45.21
6.10	0.09	6.09	40.23	3.22	57.79
6.20	13.25	23.26	77.28	6.12	128.91
12.20	1.09	4.14	77.28	4.20	101.01
10.03	1.18	5.15	32.03	6.18	55.97
11.04	2.18	8.15	26.06	7.28	56.11
2.15		2.23	20.03		25.11
5.23	6.01	4.21	18.04	6.29	41.88
			1.18	5.03	6.21
	3.20			7.00	10.20
2.05					2.05

which *Kenchi* was practiced in Echigo.

The reason for settlement has been explained as the leader's order, a fire in Motoyashiki, a flood of the river, and so on. But it is widely accepted that the policy of Uesugi is the reason of people's migration in Motoyashiki and Sarutayashiki.

#### 4 Conclusion

This paper aims to reconstruct the relationship between rice crops and shifting cultivations in the early *Edo* Era of Miomote in Murakami-Han, northeastern part of Japan.

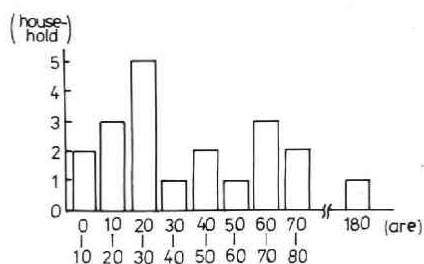


Fig. 7 Possession of shifting cultivation fields in Tsubayama in the early *Edo* Era. (after K. Fukui (1974))

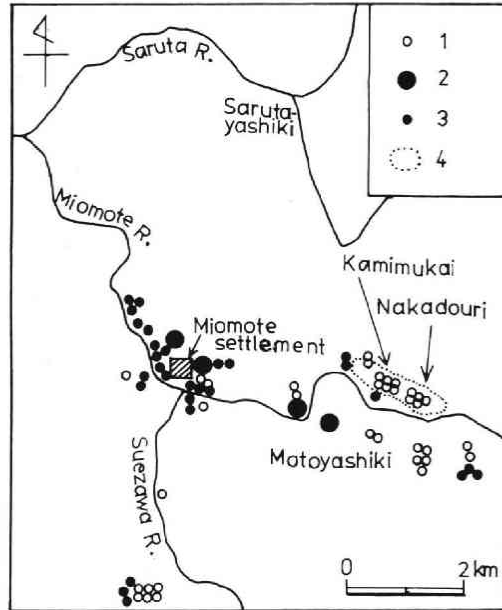


Fig. 8 Distribution of rice fields and shifting cultivation in the early *Edo* Era.  
 1 : one field in shifting cultivation, 2 : ten fields in rice crop, 3 : one field in rice crop, 4 : distribution of shifting cultivation in about 1955.  
 Source: *Miomote-kuyuu-monjo*.

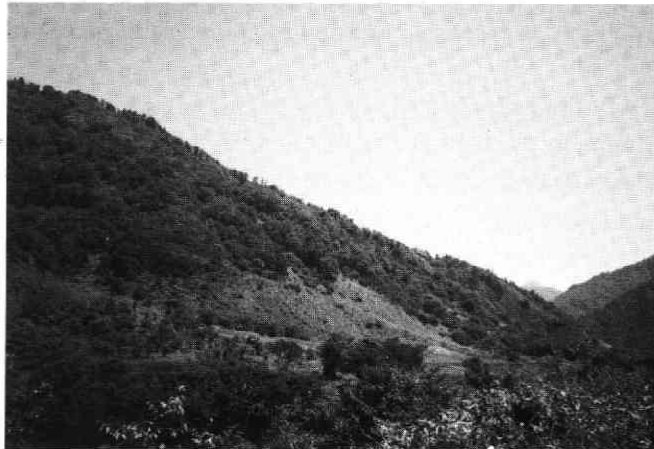


Photo. 4 Shifting cultivation field.

The result can be summarised as follows.

(1) The area of rice fields increased rapidly during the period from 1655 to the Meiji Era, however the area of non-rice fields didn't change. New rice fields were opened on the river terrace, so they needed long canals to get water. Therefore it was considered that the development of rice fields was connected with the policies of Uesugi and authorities in Murakami-Han, who encouraged the development of rice crops.

(2) Most of the rice crops were bad ("Geden") and worse ("Gegeden") rice fields. The area per household ranges from 12 ares to 248 ares. All of the area cultivated in barnyard millet was 44 ares.

Most of the fields were in shifting cultivation. Their area ranges from 3 ares to 101 ares. The average area is 42 ares. This figure is larger than that of Kukita in Murakami-Han and equals that of Tsubayama in Ikegawa, Kouchi.

(3) The paddy fields in 1655 were distributed near the settlement. There were a lot of shifting cultivation fields in Motoyashiki. That means that the movement of settlement was influenced by the policies of Uesugi.

In the above discussion, village people in Miomote subsisted on hunting, gathering, fishing, and rice crops and shifting cultivations in a complex lifestyle. The author suggests that shifting cultivation was the most important economic life before the early Edo Era.

#### References (all written in Japanese)

- Asahi-Mura (1980): *The history of the Asahi-mura*. The board of education of Asahi-Mura.
- Fukui, K. (1974): *Villages with shifting cultivation*. Asahi-shimbunsha, Tokyo.
- Ichikawa, T., S. Yamamoto, I. Saito (eds) (1984): *Beeches' zone culture in Japan*. Asakura-shoten, Tokyo.
- Nagai, M. (1957): Population problems in Oku-Miomote. *Chirigaku Kenkyu*, 2 • 3 89-105.
- (1977): On the Echigo Miomote mountain village. *Tohoku Bunka Kenkyujo Kiyo* (The bulletin of North Japan Cultural Institute), 8 120-136.
- Niino, N. (1951): The relationship between Dewa and Oku-Miomote in the Edo Era. *Uyou Bunka*, 10 11-13.
- Sasaki, K. (1972): *Shifting cultivation in Japan*. Kokon-shoin, Tokyo.
- (ed) (1983): *The origin of farming culture in Japan*. Nihon-housou shuppan-kyoukai, Tokyo.
- Watanabe, S. (ed) (1979): *Mountain village, Oku-Miomote on the border of Uzen and Echigo*. Yamagata-chiri-danwakai, Yamagata.
- Yamaguchi, Y. (1944): *The custom of Shifting cultivation in Tohoku*. Koushunkaku-shobou, Tokyo.