「バングアピアの手でバングアピアのパスウェイ」
INTRODUCTION

The thumb piano (Lamellaphone) is a musical instrument that originated in Africa and is still used widely around the continent\(^1\). It is variously called *Mbira*, *Sanza*, *Kalinba*, *Likenbe*, and *Irinba* in different localities. The instrument’s history is presumed to be closely connected with that of iron, the material of which its keys are made. Yet it remains unknown when and in which district it was invented.

Some studies of the San thumb piano have been published (Nurse 1959; Biesele 1975). They indicated that the thumb pianos used by the San living in the central part of the Kalahari are of two types, with either one or two lines of iron keys. Also, although Nurse (1959: 24) states that it is sometimes played in accompaniment to women’s clapping or boys’ whistling, it is reportedly never played as an accompaniment to singing. Additionally, this musical instrument is said to have been introduced into Ju’Hoan communities in the northern part of the Kalahari from the north and the east in 1961 (Biesele 1975: 172). In about 1958, when an epidemic struck livestock near the border, a veterinary team came from Southwestern Africa (Namibia) to build a fence. This meant that wires and nails were available, and a new era was launched.

This report presents a description of the distinctive features of the San over-the-thumb pianos among those used throughout Africa, the process whereby the instrument spread to San communities in Central Botswana, and its function in their lives.

For this study, 18 San thumb piano players living in central Botswana were interviewed about how they performed and the history of the instrument’s introduction. The sample group comprised members of San language groups including ||Gana, |Gui, Hai|nu, and Tsila, who inhabit the Central Kalahari Game Reserve (Figure 1). The process of the instrument’s introduction can be understood in terms of the history of the relation between the sample groups, such as ||Gana, |Gui, Kalanga, and Nharo because their place of residence borders on the localities inhabited by Kalanga of Bantu descent to the northeast and of Nharo to the northwest.
DISTINCTIVE FEATURES OF THE SAN THUMB PIANO

Although the thumb piano is reportedly distributed widely throughout Saharan and sub-Saharan Africa, its entire African distribution remains unknown. For this paper, I identify the social spheres in which the thumb pianos are used from the precise distribution of the regions where they are played. Consequently, the northern limit extends to southern Sudan and Ethiopia and the southern limit is Lesotho. Thumb pianos are found mainly among the Bantu peoples of central and southern Africa, but are also widely used among communities such as the Nilote, Cushite, Pygmy, and San.

The size of the instrument can be small or large. The number of keys varies from 5–6 to 70–80. The keys’ material is commonly iron or palm wood. The most widely found basic arrangements of keys are zigzag and V-shaped. For example, the San thumb piano in Botswana has three lines of keys arranged in a zigzag pattern. The Shona style in Zimbabwe has two lines of keys on the left side only, arranged in a V-shape (Berliner 1978). The Gogo in Tanzania use a type with one line shaped to resemble a letter W.

Different kinds of vibrators (the device that makes the sound) are seen, including iron balls like beads, circles of metallic fragments, rounded keys, crown caps, chains, and pins.

The purposes of playing this musical instrument may be categorized into three types: Mainly for personal pleasure; for earning income, and for exorcism rituals, weddings, and naming ceremonies.

Figure 1  The study area
Among African thumb pianos, the distinctive features of those used by the San are their small size, standard number of 15–20 keys, and unique key arrangement of three lines arranged in zigzags.

THE SAN THUMB PIANO IN THE CENTRAL KALAHARI

1) Classification of forms

The thumb piano comprises three parts: keys; a resonator (sounding board); and vibrators. Those used by the San in the Central Kalahari have four different arrangements of keys. These different types are called Enate, Karanyane, /Taon/taon, and Runba by the San people (Photo 1). The Enate has two key lines and ten keys. The Karanyane has two lines and 12 keys. The /Taon/taon has three lines on the left side and two lines on the right. The Runba has three lines arranged in zigzags.

Cylindrical cans of milk powder are often used as resonators by the San. Different from practices in other districts, wooden boxes or gourds are rarely used.

Photo 1  The four different types of the San thumb piano.
As vibrators, bead-like iron balls strung on a wire are common. Recently, however, throwaway vinyl pieces have been inserted into keys to transmit the key vibrations. This was the invention of the San people of New Xade village in Central Botswana.

2) The route by which each form spread

I have described above the four types of San thumb piano used in the Central Kalahari. I shall now describe the route by which each was introduced to the district.

First, the Karanyane was introduced to the |Gui by Nharo living on farms at Ghanzi. The |Gui learned of this type around 1960, when the Nharo visited the watering place at Xade (Photo 2).

In contrast, the Enate, /Taon/taon, and Runba were introduced by the Kalanga. The Enate was learned from Mr. A of the Kalanga when an inhabitant of Molapo (Mr. K. A.) visited Racops. Subsequently, an inhabitant of Xade learned how to play the instrument on a visit to Molapo.

In the early 1970s, the San were leading a nomadic life within the Central Kalahari Game Reserve. Although wild watermelon was important as their source of water in those days, their annual change of residential location depended greatly on precipitation conditions in the rainy season. One year, when wild watermelons flourished in Kouchuugyumou, many inhabitants of Molapo (including Mr. C) visited
there and lived with Gana and Gui in Xade, teaching the method of Runba playing to the people in Xade. Subsequently, it was documented that this skill had been passed from an older brother to a younger brother in Xade.

The skill of playing the San thumb piano has passed easily from one person to another in the Central Kalahari. It was introduced via two routes: from Nharo to the northwest and Kalanga to the northeast (Figure 2).

3) Manufacturing skills

Thumb pianos are sometimes made by their players themselves, and sometimes not. First, the maker hollows the instrument’s body from part of the trunk of an acacia tree (Photo 3). When an NGO called Mambo Art was active, planks of wood they provided were used as the piano material. The maker also acquires scrap iron at villages or towns and processes it into keys for the instrument. The keys are tuned by adjusting their lengths with reference to the sound of existing instruments (Photo 4). Lastly, the maker installs a vibrator, which is commonly produced by passing the wire for a key through a 1– cm diameter ring.
Photo 3  The thumb piano body is made by planing a roughly cut block of wood.

Photo 4  The keys are tuned by adjusting their lengths.
THE ROLE OF THE SAN THUMB PIANO

1) Players

All the eighteen players whom I interviewed were male, comprising five Gana, ten Gui, two Hai nu and one Tsila (Table 1). Only some of the men play the instrument within villages in the settlement. They play the pianos walking through the villages or sitting under trees in daytime, or in order to calm themselves when they cannot fall asleep after others have gone to bed. Each plays for himself, needless of any surrounding listeners.

The player plays the thumb piano by moving the thumbs of both hands smoothly along the long and short zigzag lines of keys arranged on the trunk. After a few minutes, he sometimes stops playing and tunes the keys to make his preferred sound. The pitch differs according to the length of the key. Long keys make a low-pitched sound, whereas short keys produce a higher pitch. The keys are seldom arranged in a seven-note scale. Unexpectedly, the players generally do not learn how to play the pianos from their fathers, but rather from their acquaintances (Photo 5).

There are a few rare individuals who can play more than one type of thumb piano. Most, however, can play only one. The Runba tends to be played by younger players; older men commonly play the others.

Among the eighteen players, four cannot make their own thumb pianos. Ten

Table 1 Characteristics of thumb piano players

<table>
<thead>
<tr>
<th>No.</th>
<th>Ethnic</th>
<th>Resident area</th>
<th>type</th>
<th>technique</th>
<th>owner</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Gana</td>
<td>Molapo</td>
<td>A</td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>2</td>
<td>Gana</td>
<td>Molapo</td>
<td>A</td>
<td>×</td>
<td>○</td>
</tr>
<tr>
<td>3</td>
<td>Gana</td>
<td>Molapo</td>
<td>D</td>
<td>○</td>
<td>×</td>
</tr>
<tr>
<td>4</td>
<td>Gana</td>
<td>Molapo</td>
<td>D</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>5</td>
<td>Hai nu</td>
<td>Metsamaneng</td>
<td>A</td>
<td>○</td>
<td>×</td>
</tr>
<tr>
<td>6</td>
<td>Tshila</td>
<td>Mothomelo</td>
<td>A</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>7</td>
<td>Gana</td>
<td>New Xade</td>
<td>D</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>8</td>
<td>Gui</td>
<td>New Xade</td>
<td>A, C</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>9</td>
<td>Gui</td>
<td>New Xade</td>
<td>C</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>10</td>
<td>Gui</td>
<td>New Xade</td>
<td>B</td>
<td>○</td>
<td>×</td>
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<tr>
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<td>Gui</td>
<td>New Xade</td>
<td>B</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
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<td>Gui</td>
<td>New Xade</td>
<td>B</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
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<td>Gui</td>
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<td>A, B, C, D</td>
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<td>×</td>
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<tr>
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<td>D</td>
<td>○</td>
<td>×</td>
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<tr>
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<td>D</td>
<td>○</td>
<td>×</td>
</tr>
<tr>
<td>16</td>
<td>Gui</td>
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<td>D</td>
<td>×</td>
<td>○</td>
</tr>
<tr>
<td>17</td>
<td>Gui</td>
<td>New Xade</td>
<td>B</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>18</td>
<td>Hai nu</td>
<td>New Xade</td>
<td>B</td>
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<td>○</td>
</tr>
</tbody>
</table>

A, Enate; B, Karanyane; C, /Taon/taon; D, Runba
players own their own instruments. Players who do not have their own instruments borrow instruments from the owners. The skill of playing is not passed down from father to son. Rather, visitors to camps or villages have distributed the instruments.

2) Analysis of tunes

Each player has his own personal set of tunes that he can play. For example, Mr. S plays the Song of Gemsbock, God called Peacetago, Heartybeast, Wildebeest, the Song of New Xade (Kweisakweni), the Song of Debt, the Song of an Ostrich, the Song of Runba, and the Song of a Hare.

The tunes are divided into those for the Runba, which has a seven-note scale, those for the Enate, and others. Runba tunes have particular musical characteristics. The instrument’s keys are arranged from left to right with the notes fa, la, do, re, mi, fa, and sol (Figure 3).

Initially, a Kalanga living in Racops visited Zimbabwe, where he learned tunes for the Runba. These were then broadcast over the radio in Botswana. Mr. S listened to them on the radio and arranged them to compose his own original songs.

Figure 4 shows a musical score for the Runba by Mr. S. This tune has a three-pitch range and is composed of melody and bass sounds. It consists of the monotonous repetition of two short patterns in which the high and low fa are repeated alternately. Because players have only two thumbs, it is impossible to touch
Figure 3  The relationship between the key’s position and musical scores in the thumb piano
(Transcription by Youko Shimomura)

Figure 4  Musical scores of the Runba
(Transcription by Youko Shimomura)
three keys simultaneously. However, three sounds can be made at the same time by producing two sounds while another resonates.

3) Changes in recent years

In recent years Mr. S, who is known as the best player in the village, has begun to go on concert tours with westerners. This resulted in his being categorized as a “musician.” As a result of this experience, he has composed a number of his own tunes (Photo 6). The Song of Debt is a song deploring people who do not pay their debts. In the Song of Kweisakweni (the name of the new community to which they moved), he expresses the pain of an unsuccessful new life (Ikeya 2001). Currently, he is adept at playing Runba tunes in imitation of popular songs broadcast on the radio. He has developed a wide repertoire of original popular songs based on his own real-life experiences.

CONCLUSIONS

This report has described the thumb pianos used by the San people living in Central Botswana. Its intention was to offer a description of their forms, processes of introduction, tune structure, and function in peoples’ lives. The author draws the following conclusions.
1) Distinctive features of the San thumb piano

The thumb piano of the San people in Botswana has a distinctive form, with three lines of keys arranged in zigzags. It is unique among those in Africa.

2) The process of introduction

The thumb piano played in the Central Kalahari has spread easily from one player to another. This paper has described two routes and processes of introduction, one from San living to the northwest and another from those to the northeast.

3) Characteristics of players and the function of the instrument in their lives

It was found that those who play the instrument have not always produced it themselves. Some players do not have their own instruments, and the instruments are therefore frequently borrowed or rented. Playing skills are not passed down from father to son. In cases where it was introduced, it was learned from the same player. The contents of the tunes are highly expressive of the people’s spiritual world. Examples are a song about the mental anguish caused by the move to a new settlement and one deploring unpaid debts.

As I have described, there are four different shapes of thumb piano that are used in Central Botswanan San communities. Playing skills are not passed down from fathers to sons. Rather, they are learned from outsiders during visits to other communities or during visitors’ stays in their own community. For this reason, I consider that the ease with which the instruments are made and a pattern of behavior that allows players to stroll from one camp to another playing the instruments are reasons why thumb pianos have spread easily.

In previous studies, I have elucidated the socio-economic relations between the Bantu and the San through the distribution of fur in the Kalahari (Ikeya 1998, 1999). The San thumb pianos, however, are spread through chance meetings with others. I therefore infer that a study of the history of how these instruments were introduced into communities of the San people will provide a novel perspective on the history of relations between the San and the Bantu. Such a perspective might even be more useful than the study of economic relations.

ACKNOWLEDGMENTS

I would like to thank the office of the President of the Botswana Government for permission to undertake the investigations.

NOTES

1) Although there are many published studies of the thumb piano in Africa (Kubik 1998; Tracy A. 1961, 1963; Tracy H. 1961, 1969; Berliner 1978; Dehoux 1986; Borel 1986; Kubik 1998;
Ikeya 2004), few papers have described San thumb pianos (see, for example, Nurse 1959; Biesele 1975).

2) It is said that non-San instruments used there are thumb pianos (lamellaphones) and mouth bows and harps (Nurse 1959).

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