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MUSIC OF THE TULE INDIANS OF PANAMA

(WITH FIVE PLATES)

BY
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INTRODUCTION

A remarkable opportunity for the study of primitive music was recently afforded by the presence of eight Tule Indians in Washington. These Indians were from the Isthmus of Darien in Panama and were brought to the United States by Mr. R. O. Marsh. The five adults in the group were of normal Indian color and the three children were fair, being examples of the "white Indians," whose occurrence among the Tule has caused the tribe to be known by that name. The Tule live on islands near the coast of the Caribbean Sea from San Blas Point to Armila, a distance of 120 miles. They also hold the San Blas Range of mountains on the mainland.

This study was done entirely with the adult members of the group during portions of November and December, 1924, and was made possible by the courtesy of Mr. Marsh. The work was under the auspices of the Bureau of American Ethnology, Smithsonian Institution.

TULE MUSIC AND MUSICIANS

The most important persons in a Tule village are the chief, the doctors, and the "official musicians." A chief may be also a doctor but the musicians seldom act in other than their own capacity. Each village has four such musicians, two of whom are known as the "chief musicians," and the other two as "assistant musicians."

These men know all the songs and teach them for pay when requested to do so. The four musicians do not attend the same gathering in their official capacity; thus at a wedding there is one chief musician and one assistant. At social gatherings there is only one singer, who sings alone for the entertainment of the people. He has no instrumental accompaniment, but six men standing in a row play on bamboo flutes during the prolonged tones of the song. Dancing is accompanied by two players on the panpipes, and the dancers often sing and clap their hands.

Distinct from the songs for entertainment, there are songs which aid in the accomplishment of a definite purpose. Such are the songs used in the treatment of the sick, and the songs used with the "charms" which are sold by the doctors. Music is not absent from the everyday life of the home and the women sing when at their work and sing to the little children. The words of all Tule songs are in the form of narratives. In the songs of the "official musicians" and the doctors the substance of the words is established, but the songs of the women are concerning their daily work or the work of the men on the plantations.

The principal musical instruments are the panpipes and flute which are easily made from reeds and bamboo.

There are "talented amateurs" among the Tule who learn the songs from the professional musicians but do not "sing in public," and who learn the songs used by doctors but do not treat the sick. Such a man is Igwa Nigdibippi (pl. 1) who recorded the Tule songs and instrumental music in Washington. Igwa said that he began the study of music when he was ten years old, learning a song from a teacher named Contule Nigdibippi, who was about 30 years of age. He learned the song that brings success in turtle catching (No. 5, page 27) and paid the teacher \$15. It took him a long time to learn the song as the Tule have no written language and no musical notation. Seven years later he went to a man named Ina Yidepela, his first teacher having gone away in the meantime. He studied four years with this teacher, first learning a love song (No. 9, page 34), then the song concerning the boat race (No. 6, page 29), and then many miscellaneous songs including those concerning the sunrise, the sea lobster, river lobster, redheaded woodpecker, and the roach. After these he learned the songs that are used by medicine men, though he is not a doctor. He learned the songs to make medicinal herbs effective, the songs for the cure of headache and other ailments, and the songs that are sung after a man's death. In all, he acquired about 30 songs from this teacher.



Igwa Nigdibippi playing flute and rattle.



James Perry (recording), Margarita, his daughter, and Alfred Robinson, the interpreter.

In the vocal and instrumental music of the Tule we have a form of music which, it is believed, has not previously been described. It appears that the substance of the words and the general character of the melody of each song is "learned," but that each performance of the song is an improvisation. This became evident in the recording of the songs and the Tule said they did not intend to "sing a song always the same." This is in direct contrast to the musical customs of the North American Indians and will be considered in a subsequent paragraph.

In observing the music of the Tule we note a standard of excellence, shown by the statement that some persons are good singers while others "cannot sing." It is also interesting to note that, except for songs intended to cure the sick, Tule music is connected with the happiness of life. There are no songs to give success in gambling, no songs connected with the food supply, and the "song of appeal to the supernatural," which is so important a phase of North American Indian music, is absent among the Tule. Games are played only by boys, the food supply is said to depend upon "treating the earth good" and living peaceful, upright lives, and the doctor sings of his remedies, not of an "unseen helper" who teaches him how to treat the sick. Tule music is connected with the pleasures of a simple, industrious people. The words of the songs are concerning the things they enjoy and are always in the present tense. The interest is sustained and it appears that the song always has a "happy ending." An exception may be found in the song that was sung after a man's death, but this was sung by a doctor for the consolation of the bereaved. The words of this song are sorrowful.

Associated with Igwa Nigdibippi in giving this information were James Perry, his wife Alice Perry, and Alfred Robinson who also acted as interpreter. The name "Perry" was selected by this man and his wife after their arrival in the United States and their native names were not obtained. Alfred Robinson had worked on a sailing vessel and been in Panama City, and said he had used this English name for many years. The fifth adult in the group had lived so long away from the tribe that he was not asked to assist in the present work.

The songs and instrumental music were recorded on a dictaphone. The group in plate 2 shows James Perry recording, Alfred Robinson at the right, and Margarita, daughter of Mr. and Mrs. Perry, standing. Mr. and Mrs. Perry are of normal Indian color while their daughter is of the type known as "white Indian."

VOCAL MUSIC

The tone production of the Tule is different from that of the North American Indian and both are widely different from that of the white man. The *vibrato*, which constitutes a musical accomplishment among the Indians, is entirely absent in the Tule whose tone is very hard, with a pinched, forced quality not pleasing to our ears and impossible to describe. It is an artificial tone which undoubtedly is difficult to acquire. There are no contrasts in volume, no "loud and soft passages," and strong accents seldom occur. The general character of the songs is pleasing, and the melody flows smoothly along except for prolonged tones (in some songs) during which the flute and rattle are played. These tones are usually at regular intervals, but there is sufficient flexibility so that the melody is not mechanical in its general form. A doctor uses no accompaniment with any of his songs. There appear to be no Tule songs connected with the history of the tribe nor its former chiefs. As they have never been at war, they have no war songs, and no songs are hereditary in a family, as in certain tribes of North American Indians.

Aside from the songs for entertainment, the charm songs and the home songs of the women, the occasions for singing were said to be the treatment of the sick, the scene after a burial, the maturity feast of a young girl and her wedding. Examples of all except the home songs and those of the maturity feast were recorded. It was said this festivity included singing, dancing, and gifts. Two men sang together, as at a wedding, and the number of flutes might be from two to seven. The girl's name was inserted in the song, two old men telling about her when she was a very little child, then following her life year by year down to this event. She wore a pretty dress with many strings of beads and fragrant berries. Her hair was cut, her cheeks were reddened and a fine red line was drawn down her nose. Many relatives came to assist at the feast.

The first song recorded by Igwa was the love song (No. 9, page 34), the second was that for relief of headache (No. 2, page 18), and the third was the song of the boat race (No. 6, page 29). About a week later the first and third of these songs were recorded again and it was found that the sets of renditions bore a general resemblance to each other but were not exact duplicates. Inquiry brought the statement already mentioned that they did not intend to sing the song always alike. On examining the two renditions of the song concerning the boat race it was found that the first was the better of the two. When making the second record Igwa was less at ease than when making the first record and the result was apparent in

his song. One disadvantage in improvisation is that the work is affected more or less by the mood of the performer. Realizing this necessity of ease when singing, an effort was made to have the Tule feel as much at home as possible in the writer's office and to avoid close questioning, which made them restive. They understood the desire to secure accurate information concerning their musical customs, and, assuming in part the responsibility of the research, they volunteered a large amount of information which it would have been difficult if not impossible to obtain under other circumstances.

Nine Tule songs were recorded, with four performances on the panpipes, and one on the flute, all being transcribed wholly or in part. The record of one song was about 15 minutes in duration while others were seven to nine minutes long. The first named required two dictaphone cylinders as the singer had been asked to record the song at length, but he usually watched the indicator and tried to condense the song into the space of one cylinder. An example of this abbreviation is noted in the description of No. 8, page 33. The songs which preceded the gathering of medicinal herbs and the song for the relief of headache were transcribed in full, but in the other songs it was not considered necessary to transcribe every tone. They contained passages of varying lengths which were not of musical interest, being either exceedingly monotonous or repetitions of single tones, while in some instances the intonation was so wavering that transcription was impossible. In these songs the interesting portions were transcribed and the omitted passages indicated by wavy lines. The transcription usually extended from the beginning to the end of the record, thus showing the melody as a whole although scattered passages were omitted. At frequent intervals the transcription was marked with the numerals on the space bar of the dictaphone. (See description of No. 6, page 29.)

The compass of Tule songs is considerably smaller than that of the songs of the North American Indians. Some Tule songs have a compass of only three or four tones, while others have a range of five tones with the occasional addition of a tone above or below the compass, sung lightly and seldom accented. The transcription should be understood as indicating the pitch of the tones as nearly as is possible in ordinary musical notation. The signature is used for convenience of observation and does not, in every instance, imply a scale-relationship between the tones. In the two songs transcribed in their entirety the intonation was fairly good throughout the performance while in some other songs it was variable. The apparent keynote is usually the lowest or next to the lowest tone, and the

third above it is usually major or minor, but the intonation is clearest on the fifth above the apparent keynote. An interesting peculiarity of intonation was noted in the song connected with medicinal herbs, occurring on the progressions transcribed as C-B natural—B flat. The singer divided the whole tone between C and B flat into four small intervals of about equal size, thus singing approximately "quarter tones." This did not occur in any of the other songs and does not appear to be important; no attempt is made to indicate it in the transcription. The freedom which characterizes all the music of the Tule does not suggest that they have an elaborate musical system containing fractional divisions of tones.

A distinct peculiarity of Tule music is a prolonged tone, occurring usually at regular intervals in the melody. For example, this prolonged tone in the song connected with medicinal herbs begins on the measures of the transcriptions which bear the following numbers (referring to the dictaphone space bar): 2, 4, 6, 8, 10, 11½, 13, 15, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 45, 46½, 48, 50, 52, 52½, 54½. The length of the prolonged tone varies from two half notes to three half notes and a quarter note, this tone being followed by a pause which varies from a quarter to four half rests. The prolonged tone is usually the same throughout a song, and is generally the keynote which, as indicated, is the lowest tone except for an occasional, unaccented appearance of the tone below the keynote. In the wedding song there was music by flutes and rattles during the prolonged tones of the melody. It was said that flutes were similarly played during the prolonged tones of other songs and it is probable that the rattles were used with the flutes. The use of prolonged tones at regular intervals suggests a chant but the Tule songs bear no resemblance to chants. Instead, they suggest melodic speech in which the rhythm is determined by the accents and lengths of the words.

Tule songs are not thematic in character. There are no recurrent phrases in the two songs transcribed in their entirety but we find two such phrases in the song entitled "Where the river begins," the phrases doubtless occurring with certain repetitions in the words. A short phrase occurs many times in the wedding song, but its connection with the words is not clear. The music follows the words which are usually a simple, continuous narrative. Accents were clearly given and the measure-lengths of the transcriptions are according to these accents. It will be noted that the measure-lengths include 2-4 and 3-4, as well as 3-8, 5-8, 6-8 and 7-8. The song with medicinal herbs contains five different measure-lengths.

Each song was prefaced by a few measures in which no words were sung. After this introduction and with the beginning of the words there was usually a change of tempo. It is interesting to note that the time was steadily maintained unless there was a decided change of tempo. Such a change was evidently connected with a change in the words. Thus in the song of the boat race there is a quickening of the tempo at the point marked 30 (dictaphone space bar), the words stating that the wind grows stronger and the captain of the boat is becoming alarmed.

The peculiarities of individual songs are noted in connection with the words of the songs.

INSTRUMENTAL MUSIC

The Tule Indians are unique among primitive people in that they do not use a drum nor pound upon anything in place of a drum. The Chocó, a neighboring tribe, use a drum but the musical customs and songs of the Chocó have not been adopted by the Tule. The statement of the Indians concerning the absence of a drum was corroborated by Major H. B. Johnson, formerly a lieutenant of the Black Watch, B. E. F., whose acquaintance with these Indians extends over a period of three years. Major Johnson went to Panama with a British expedition in 1921 and became particularly interested in the Tule; he was also a member of the Marsh-Darien expedition in 1924. He said that he had heard a great deal of their singing and was familiar with their use of other instruments, but had never known the Tule to use any instrument similar to a drum. Their only percussion instrument is the gourd rattle which, it appears, is used only in connection with flutes. Rhythms suggesting those played on a snare drum (*tat*, *ra-ta-tat*, *ra-ta-tat-tat-tat*) are played on the panpipes which are used to accompany dancing.

The musical instruments of the Tule are the panpipes, flute, gourd rattle, bone whistle, and conch horn. The flute and panpipes are easily made and the young men learn to play them chiefly by playing with the "official musicians" at weddings and other gatherings. The number of flutes played by the "official musicians" at a wedding is two, but any number of young men may play with them. Gourd rattles are also used by the two principal musicians, and their music is limited to a sort of interlude played during the prolonged tones of the song.

The panpipes are the principal musical instrument of the Tule and are played for pleasure, as an accompaniment to dancing, and

“for serenading the girls.” Two series of reeds constitute a set, each series comprising three or four reeds of different lengths, bound together side by side and blown across the open ends. The two parts of the set are connected by a cord nine or more inches in length and the player holds one set in each hand, holding them with the ends having the shorter reeds next each other. Thus he has an instrument which produces high tones in the middle of its length and low tones at each end. In the sets contained in the Marsh Collection at the United States National Museum the shortest reed is $4\frac{1}{2}$ inches, and the longest is $14\frac{1}{2}$ inches in length. It is said that panpipes in the native villages frequently contain reeds 2 or 3 feet long, giving a deep resonant tone.

It is the custom of the Tule to play two sets of panpipes together, one player sounding one tone and the other the next tone, alternating throughout the performance. Igwa and Alfred Robinson (the interpreter) demonstrated this use of the instrument and produced a surprisingly loud tone resembling that of a calliope. It was said the instrument could also be played with a moderate tone. As Alfred was not an expert player, Igwa then played the instrument alone, giving a performance marked by a rapid succession of high and low tones, suggesting a performance on a concertina. Two expert players could, it was said, play the same sort of music in alternating tones. Another style of playing the panpipes was a sliding tone or *glissando* produced by passing the reeds rapidly in front of the player's lips, and yet another style consisted of rhythms on a single tone. Alfred said, “There are about 100 kinds of music played on the panpipes.” The effect of this varied playing by skilled performers is undoubtedly very interesting.

Four sorts of playing on the panpipes were recorded and portions of the records transcribed. The same set of pipes was used in making all the records and the differences in pitch of the melodies are of special interest. The compass of the melodies is five tones (except for one tone in the first rendition), and the fourth tone of the compass does not occur. The intonation is fairly good, especially on the interval of a fifth. The melodies appear to be improvised along familiar melodic lines although each “sort of playing” is of an individual type. The first transcription is from a performance by two players sounding alternate tones, and the second, third and fourth are from a performance by Igwa alone.

MELODIES PLAYED ON PANPIPES

$\text{♩} = 84$ (a)

$\text{♩} = 108$ (b)

$\text{♩} = 72$ (c)

$\text{♩} = 100$ (d)

The Tule flute is "made of a different sort of reed" from that used in making the panpipes and all flutes are the same length. Such an instrument in the Marsh Collection is $24\frac{1}{2}$ inches long and the two fingerholes are respectively 5 and 6 inches distant from the lower end. In making a flute the pith of a reed is removed with the stiff quill of a tail-feather of the wild turkey. The opening is flushed with water to remove all shreds of fiber, after which the fingerholes are burned with a hot iron and shaped with a sharp knife.

The manner of playing this flute is unique in that the end is held inside the player's mouth, apparently being placed near the roof of his mouth while the breath is directed across the open tube. It is believed this manner of playing the flute has not previously been described. When a gourd rattle is used with a flute, the player shakes the rattle with his right hand while holding the flute in position and manipulating the fingerholes with his left hand. The instrument is used thus at a wedding, two new flutes being made for the occasion. Before they are blown in the usual manner, the chief musician blows directly into the reed, "making soft little tunes." This was not demonstrated.

A flute performance by Igwa was recorded and the first portion was transcribed, the latter portion showing no important differences. Like the melodies played on the panpipes, this has a compass of five tones, omitting the fourth tone of the compass. It is minor in tonality and rhythmic in character.

MELODY PLAYED ON FLUTE

$\text{♩} = 104$

etc.

The flute, as stated, is often used with the gourd rattle, one instrument producing a melody and the other giving a rhythm, both being played by the same performer. The rattle is made of a globular gourd containing a few pebbles and pierced by a stick which



James Perry with conch horn.

forms a handle. The Tule instruments in the Marsh Collection differ from those of the North American Indians in that the gourd is fastened to the handle by a cord that passes through it.

The rattle used in connection with the flute is not large and contains rather heavy pebbles. The rattles used by the women are of two sorts, each being different from the rattle used with the flute. A woman's dance rattle contains many small pebbles and the handle passes entirely through the gourd. Sometimes the gourd is large and decorated with scrolls etched on its surface. The second type of rattle used by the women is about the same size as a man's rattle and contains many small pebbles and one rather large pebble. This is shaken "to put the babies to sleep," affording the only instance known to the writer in which instrumental music is used for this purpose. When the rattle is shaken the first resultant sound is that of the small pebbles, this is followed by the rolling of the larger stone which continues steadily and rather slowly, and has a peculiarly soothing effect.

The bone whistles are made of the wing bones of the pelican and "king buzzard." They have four fingerholes and are decorated with lines burned with a hot iron.

The conch horn (pl. 3) is made by piercing a mouthhole in the tip of the shell. The only variety of conch used in this manner is the *Casis cameo* Stem. A specimen of this variety shown them through the courtesy of Dr. Paul Bartsch, Curator of Mollusks, United States National Museum, was identified by the Tule as the type used by them. This instrument with its far-reaching tone appears to be used only as a signal. An informant said, "If a man has gone to another village and been away a long time he may blow this horn as he returns, to let his people know that he is coming."

TREATMENT OF THE SICK

The work of a Tule doctor is twofold as he ministers to both the bodies and minds of the people. He treats the sick by administering remedies and by such simple therapeutic measures as quiet and partial abstinence from food or drink, singing as he prepares and administers his most important remedies. In addition to this he teaches the young people, "beginning especially with the boys when they are very young. He exhorts them to right living, telling them not to quarrel, steal, nor tell lies." The Tule say that they have never been at war, and quarrelling among individuals seems particularly abhorrent to them. The doctor, chief and certain civic officials are

a "court of domestic relations" which reviews and adjusts complaints. If a wife brings a complaint, this court "scolds the husband," and if a man leaves his wife, the court forbids him to marry again.

Traditions exist concerning the power of the medicine men in former times. It was said that "the doctors used to dress up when they treated the sick, but they have not done this since Spain discovered the Indians." Such a doctor, when visiting the sick, would lay his rattle on the ground and it would rise to his hand, moving through the air. He would shake it and "in that way he would find out about the sickness of the patient." He could "bring animals into the house, so the people would hear the roaring of the mountain lions and the voices of other animals," he also had power to bring thunder, lightning, and rain, causing the rivers to overflow. It was said that the medicine men of long ago had power to sever a man's head from his body without touching him. A medicine man could stand near a tree and not look at it but "pray," and "pretty soon turn around and the tree was cut down as with a scythe." Alfred said his father has been told of this demonstration and has personally witnessed the severing of leaves from a tree in this manner. He has seen a doctor look at a young cocoanut, "pray," and the cocoanut fall to the ground. Inquiry was made as to what the interpreter meant by the word "pray." The reply was "Him not talk to anybody, him just *think*." To illustrate the action of the medicine man, Igwa placed both hands on his abdomen and appeared to begin an intense concentration of his mind. It is interesting to note this action, corresponding to the placing of the hand on the forehead, among members of the white race.

A Tule doctor of the present time pays for his knowledge of medicinal herbs and charges for his services, the fee being in proportion to the seriousness of the illness. Alfred Robinson said that his father is a doctor and "can tell what is the matter with a sick person by looking at him." In addition to his power to cure the sick he can foretell events, such as the coming of a "big fish" into the bay, he can forecast wind and rain, and locate lost or stolen articles. If asked to perform the latter service, he tells the man to wait until the next day for an answer, and the location of the missing article "comes to him in a dream." There is no singing in this connection. The father of Alfred Robinson also teaches young men who desire to be doctors and are acceptable for instruction. He can tell whether the young man has a good character, but nevertheless he questions

him concerning his parents and early life, asks his age, and whether he has been fighting or has killed anyone. If he is not a good young man, Alfred's father "does not try to teach him to be a doctor." A person may be taught the use of one sort of medicine for about \$10, but it is considered better that a man begin when he is young and learn the uses of all sorts of medicine. A fee of \$100 is not unusual for such a course of instruction and the required time may be ten years. Formerly this man gathered the medicinal herbs which he used, but at present the work is done for him by young men whom he has instructed.

The father of Alfred Robinson receives his knowledge of medicine from "little men" who appear to him in dreams. "The little men come up out of the ground and talk with him, telling him how to cure the sick. Some of the little men live under the ocean and others live under high cliffs among the high mountains but they usually come up through the ground." They were described as being about 2 feet in height and resembling the Tule Indians in every respect. No one except Alfred's father can see these little men. The Tule said they did not know of any members of their tribe who received help from birds or animals in their treatment of the sick. It appears possible that the directions of the "little men" were concerning the procedure in certain cases of illness, though they may also have indicated certain plants as having a medicinal value. It is not unusual for doctors among the North American Indians to claim that they are under the tutelage of an unseen "helper" when in the presence of a sick person. An image of one of the "little men" is held by a Tule doctor when treating the sick, or he may have it on the top of a cane which he carries. A bird is sometimes on top of the little man's head "to help him." Such an image, used by a doctor, is carved of wood and about 10 inches in height, and is said to be the only representation of a "god" (or unseen helper) which is made by the Tule. Examples of the images used by the doctors and also the canes topped by carvings are contained in the Marsh Collection. A carving similar to the doctor's, convenient in size, may be carried in the pocket or placed in a trunk with personal belongings to ensure the health of the owner and his family. Major Johnson said that an Indian who had two of these images allowed him to have one. The transfer was made in the morning. When Major Johnson returned at night the man was waiting on the shore and demanded the return of the image, saying he was afraid his wife would be ill if he gave it away.

It is the belief of the Tule that almost every plant and tree has a good use. Vegetable poisons were known and used long ago but the chiefs have forbidden their use in recent years. A majority of the medicinal trees and plants grow along the rivers on the main land but some are found on the islands and a limited number of vegetable growths with medicinal value are found in the ocean. Leaves are never gathered green and then dried, but a doctor may gather leaves that have dried on the tree and keep them for a special use. He prepares his remedies in various ways and administers them both externally and internally. For a "weak medicine" he uses the water in which a vegetal substance has been boiled, but for a "strong medicine" he squeezes a liquid out of the substance after it has been boiled. Sometimes he pounds or mashes a root or bark and uses the resultant liquid.

Treatment by means of medicated baths is in favor among the Tule and is used especially for delirious persons. Alfred said that his father, like other doctors, has a small canoe on the land which he fills with water and uses for such treatments. The water is cooled by round, shining stones that he gathers "where a river starts." Some of these stones are white, others green, and they are always cool though the rocks around them may be hot. The healing bath used by Alfred's father is particularly interesting in the manner of its preparation. He takes two little strips about 9 inches long of the bark of the cocoanut tree, ties them in the form of a cross, and puts this in the water. The writer asked whether this form were not learned from a missionary and Alfred replied very positively, "Not missionary. Little man told him to do it that way." The patient bathes in this water three to five times a day, "according to how hot he is." The water is cooled by the stones and "cools him off," and he goes to bed between the treatments, drinking a medicinal potion. The place is kept as quiet as possible and the time required for a cure was said to vary from a few days to a month.

Infants are given strengthening as well as cooling baths. When an infant is five or six months old it is fed, occasionally, a little sweetened corn juice or water in which cocoa beans have been boiled. A little later it is given chicken broth and allowed to chew a stalk of sugar-cane. Its first solid food is potato or fish. The infant mortality is said to be low, and the general health of the people excellent. It is interesting to note that they avoid the flies and mosquitoes by living on the islands, and, as some of the islands are only a half mile from the shore, they can easily reach their farms and plantations on the main land, going there in the morning and returning at night.

The Tule, like some tribes of North American Indians, believe that the appearance of a plant is, in some instances, an indication of its medicinal quality. Thus the Tule chief sang concerning a vine that clings tightly to a tree, asking that the medicine made from this vine would "take hold of the disease as strongly as the vine takes hold of the tree." A somewhat similar example is afforded by the Tule remedy for hoarseness or cough. Water is poured over a set of panpipes and the patient required to drink it in order that his breathing may become as free as the current of air through the pipes.

The uses of certain herbs are commonly known among the Tule and they are prepared in a simple manner, but a doctor follows a different procedure with his "hardest medicines." He sings before gathering the plant in order to ensure its efficacy, and he gathers it in a prescribed manner. There is no "offering" made, corresponding to the tobacco placed in the ground by the Chippewa when about to gather medicinal herbs.

When gathering bark for medicinal use the Tule doctor cuts only four slices from each tree. First he cuts a small perpendicular slice from the east side of the tree, about 4 feet from the ground, and puts it in his basket, then he cuts similar pieces from the west, north, and south sides of the tree in this order, "talking all the time and saying that the medicine must cure people." If he wants more of this sort of bark he cuts it from another tree.

The following song is given as nearly as possible in the words of the interpreter, translating the dictaphone record, and the words fall naturally into the rhythmic form in which they are presented. The entire rendition was transcribed, comprising 292 measures. The melody is typical of Tule songs, and the time was steadily maintained during the prolonged tones and rests. The descending interval C-B flat has been considered on page 6. In this and in subsequent transcriptions, omitted measures are indicated by a break in the staff or by wavy lines.

NO. I. SONG BEFORE GATHERING MEDICINAL HERBS FOR THE
TREATMENT OF SICK CHILDREN

$\text{♩} = 88$ *Introduction without words*

Beginning of words

etc.

I go to look for medicine in the cool places where the rivers start,
 I see the medicine that I want; it is a vine high up in a tree,
 It will be strong, like the way it clings to the tree.
 The fruit is blue clusters, cool like bunches of raindrops—
 Cool as the rain falling gently.
 O medicine, you must make the little children cool and you must not let them
 be sick again,
 You must cool the houses of the sick children.
 You will be used to bathe their little bodies.
 O medicine, your name is *nugli, nugli, nugli*,
 (I say it three times to make it strong.)
 The thunder always falls from you, the lightning falls from you.
 When they are far away they come to you and burn like a fire.
 The thunder rolls, the rain falls, and the rivers overflow.
 Rain clouds fall from you, that is why you are always cool.
 Rain clouds come to your vines and tie up to them,
 Rain comes to the *nugli, nugli, nugli*.
 When you come to the child's house you must be cool and make everything
 cool like a cool rain,
 You will go into the child's body and make him cool inside so he will get well,
 and you will make him strong,
 You will not be alone when you come into the child's house.
 A strong man-spirit watches to see the medicine work, and two spirit-girls
 will bathe the child.
 The girl knows the child is sick by looking at it.
 She is coming down the river to see the child.
 When she enters the room it grows cool, even the clothing of the people is cool.
 The man brings a cool fan.
 The girl is bathing the child, you will bathe the child's body.

The last line is sung three times "to make it stronger." The singer then addresses a second sort of medicine saying, "You come from far up, where the river begins." This medicine is called *igilitwa ina*, and the song, if given in full, would repeat the preceding portion substituting this for the name of the first medicine. The song then mentions a third medicine called *inakaryaka tuba* in a similar manner. All three are vines and they were combined in a medicine that was used for children both externally and internally.

Songs were sung during the treatment of the sick, only one of these being recorded. The statement that "the Tule have doctors for snake bite as well as for headache" suggests that their doctors are specialists, as among the Indians of North America, but the writer's notes do not contain a definite statement to that effect.

NO. 2. SONG WITH TREATMENT OF HEADACHE

$\bullet = 66$

The musical notation consists of three staves of music in bass clef with a key signature of one sharp (F#). The first staff begins with a tempo marking of quarter note = 66. The first staff contains measures 1-4 with time signatures of 2/4, 3/4, 4/4, and 5/8. The second staff contains measures 5-8 with time signatures of 2/4, 4/4, 5/8, and 8/8. The third staff contains measures 9-12 with time signatures of 3/4, 2/4, 3/4, and 2/4, ending with 'etc.'

The transcription of this song comprised more than 200 measures. The portion presented is typical of the entire melody except for occasional measures that begin with a strong accent. The tone A sharp is substituted for A natural in the latter part of the song, changing it from minor to major in tonality.

(The doctor speaks)

I bring sweet-smelling flowers and put them in water,
I dip a cloth in water and put it around your head,
Then I bring a comb, part your hair and make it pretty.

(The sick man speaks)

You are a good doctor, everyone knows you.
You will make me better.

(The doctor speaks)

Everyone comes to see you get better,
And I tell you that you will never feel cold again.
Go to sleep and dream of many animals—mountain lions and sea lions,
You will talk with them and understand what they say,
And when you wake you will be a doctor like me.

NO. 3. SONG AFTER A MAN DIES

$\bullet = 96$

The musical notation consists of two staves of music in bass clef with a key signature of one sharp (F#). The first staff begins with a tempo marking of quarter note = 96. The first staff contains measures 1-4 with a time signature of 3/4. The second staff contains measures 5-8 with time signatures of 5/8, 8/8, 8/8, and 8/8, ending with 'etc.'

The Tule are a people of strong affections, and a death is followed by great sorrow. A man's valuable belongings are not buried with him nor destroyed, as is customary among certain tribes of North American Indians. His name is never spoken after his death, a cus-

tom which the writer noted among the Yuma and Cocopa of southern Arizona. It was said that "after a death the people go to the burying ground, take their lunch and stay all day. The doctor sings and talks about the dead person and everybody cries." The songs used at this time recount the circumstances of the man's illness and death, and "direct his spirit on its way." Such a song is presented, and we note that the tempo is more rapid than that of any other recorded Tule song. Only the first part of the words was translated, the second portion evidently containing a native adaptation of ideas obtained from missionaries. The translation was made from the dictaphone record, phrase by phrase, as described in the song of the boat race on page 29, but the phrases in the melody are not strongly marked and the corresponding numbers were not placed on the transcription. The song is characterized by its rapid tempo and by frequent repetitions of a single tone.

(The sick man addresses his wife)

The fever returns. I drink the medicine and throw it on my body.
 The sickness comes more and more. I am going to die.
 My breath grows harder. I am going to die.
 My face grows pale, the medicine is not helping me.
 I am going to leave my two children to you,
 After I die you will feel sorry for them.
 After I die you must always talk of me to the children.
 Go to the cocoanut farm after I die,
 Take the children with you and be sad for me.
 If people go into the cocoanut farm and cut the trees
 Track them and find out who did it.
 Always think of me when you go to the cocoanut farm.
 There will be plenty of property for the children.
 I will leave the plantain farm.
 Always think of me when you go to the plantain farm.
 I leave the small fruits, the bananas, mangoes and other fruits,
 When you pick them you must think of me.
 Before I was sick I went fishing and caught fish for the children,
 I cannot get you any more fish.
 Before I was sick I went hunting and got birds, wild turkey and all kinds of
 game,
 After I am dead I cannot do this any more,
 Think of me when you eat the wild game.
 I always killed the wild hog, I always killed the wild turkey,
 I asked everybody to the big feast, but I cannot do this any more,
 I am going to die now, I cannot talk.
 My breath goes, I speak faintly.
 You must remember me a *little* bit.
 In a little while you will forget me,

Perhaps three days after I die there will be a big party,
I believe you will paint your face, dress up and not think of me,
You will begin to love some other Indian.
There will be many Indian boys for you,
But I will learn many new things where I am going.

(The man then dies, and the remainder of the song is concerning the journey of his spirit.)

WEDDING CUSTOMS

The principal social event among the Tule is a wedding, with its accompanying festivities. The people assemble from neighboring islands and dance and sing for several days, according to the wealth of the bride's father who provides the entertainment.

A young girl is not left without advice in choosing a husband. Her father notices that a certain young man is a good hunter or fisher, that he is an active worker in the fields, or that his father is a rich man having many cocoanut trees. He calls the girl's attention to this circumstance and she regards the young man with favor. It is customary for the father of the girl to propose an alliance, visiting the young man's father for that purpose. A knowledge of this custom was obtained in the following manner. While the study of Tule music was in progress a gentleman was invited to hear the Indians sing. There was some consultation and then, without explanation, Igwa began to sing and dance, advancing toward the gentleman. Approaching the gentleman who (unwittingly) represented the girl's father he stroked and patted his knees in an ingratiating manner, as a white man might pat another on the shoulder. First the left knee and then the right was treated in this manner. Igwa, who had been standing in front of the gentleman, then danced around him several times. When the action and song were concluded it was said he had shown how a Tule father asks that a man's son shall marry his daughter. The melody was not recorded. It is probable that the words were similar in character to those of the wedding song.

The father of a Tule girl begins to gather presents for her wedding while she is still a small child. Tule girls usually marry when they are about fourteen years of age and by that time the father, if he be a man of property, has a good supply of presents. The parents of the boy also give generous gifts if they can afford it.

The song which is sung at a wedding contains a narrative of the entire event, given in the present tense and beginning with the gathering of presents by the girl's father. It is the writer's custom, in

studying Indian music, to have the words of a song translated from the phonograph record of the song, but in this instance a different method was followed. The wedding customs were described before the song was recorded, and when the interpreter was asked for a translation of the dictaphone record he said: "Him sang just what we *told* you. Him sang how the father gets the presents ready, the chief tells the people, the chief musician makes a new flute to play at the wedding and everybody sings and dances at the wedding. He *sings* that in the *song*." A general translation of the words showed they were, as the interpreter said, an account of the festivity but condensed so that the record of the song would not be too long. The description already given was therefore paraphrased and read to the Indians who added some details and adjusted the sequence of minor events where correction was necessary.

The manner of playing the flute at a wedding was demonstrated by Igwa and Alfred Robinson, representing the chief musician and his assistant. They pointed the flutes upward as though they were trumpets, then bent low and went through the actions which are associated with players of "jazz." They jumped upward with both feet and came down facing in the opposite direction, then reversed the action. The musicians wore feather head-dresses, the feathers being fastened erect in a band around the head. An example of this ornament is in the Marsh Collection. Two scenes at a wedding are shown in a drawing made by Igwa when in Washington (pl. 4). The purpose of the drawing was a map of the region in which his people live and the drawing was made on a large white cloth. After completing the shore line and its adjacent islands, the open space of the ocean attracted his attention and he drew, in the center, a picture of the chief musician and his assistant playing the flute and rattle at a wedding, surrounded by a circle of people. At the left may be seen the bringing of a pole for the house of the young couple, as described at the close of the wedding song. At the top of the picture is the name of the present chief, Golman, and the name of Igwa in the neat printing which he learned while in the United States.

The words of the wedding song mention the burning of cocoa beans in front of the musicians to protect them from harm. These were placed in little braziers with openwork tops, raised above the ground a few inches by supports, examples of these being in the Marsh Collection. The "man in charge of the stoves" carries coals on a long spade from a large fire and replenishes the fire in the

braziers; he also stirs the cocoa beans and adds more when necessary. A similar custom was observed among the Papago Indians, who live in southern Arizona, and in northwestern Mexico.

The beverage designated as "chee-sa" is drunk at all social gatherings of the Tule, and one man in each part of the country is expert in its preparation. It was said that "in old times chee-sa was drunk during the bringing of rain by the medicine man." Banana juice forms the principal ingredient. This is boiled, then sugar-cane juice is added and it is boiled again. A little corn juice is put in and the liquid allowed to stand in sealed jars from six to eleven days. A reasonable amount of the beverage was said to be stimulating, but those who drank to excess were intoxicated by it. In this connection it is interesting to note that a native wine made from the fruit of the sahauro cactus was ceremonially prepared and drunk by the Papago Indians during their ceremony to bring rain.

NO. 4. WEDDING SONG

$\text{♩} = 66$

The musical score is written in bass clef with a 3/4 time signature and a key signature of two flats (B-flat major). The tempo is marked as quarter note = 66. The score consists of four staves of music. The first staff begins with a tempo marking of quarter note = 66. The second staff has an 'x' above the first measure. The third staff has an 'x' above the fourth measure. The fourth staff has an 'x' above the eighth measure and ends with 'etc.'

The melody of the wedding song has more motion than the other Tule songs although the tempo is not rapid. The song is characterized by a recurrent phrase (marked \times) which seems to imply a question and is not entirely happy. The apparent keynote is the highest in the compass, which is unusual in Indian songs. The wavy lines indicate the omission of measures (see page 5).

(The father of the bride speaks)

I buy the wedding gifts for you, my daughter,
And add them to the store that I have saved for many years,
Preparing for this feast.
I buy silver spoons, large and small, from Panama City,
Steel knives and small, sharp pocket-knives,
Scissors and blankets, silk shawls, and kerchiefs for the head,
All these must come from Panama,
With dresses of pretty colors and strings of beads,
Strings of silver money, and a string of gold beads that I will put over your
head,
Earrings of gold, bracelets and anklets of bright colored beads
And narrow combs, such as our women use.
Cups made of gourds I may buy from our neighbors,
And ladles of gourd with long wooden handles.
Your mother will make hammocks for you,
Gathering the cotton, spinning the cord, and weaving them for her daughter.
Your cousins are even now making baskets for the wedding cakes and fans for
our guests,
Your brothers will bring fish and game for the feast,
We are collecting jugs to hold the chee-sa,
There will be enough for all to drink.

Now I will go to the chief and tell him we are ready for the wedding.
He invites the villages, sending his canoes across the bay.
The young men will make flutes to play at your wedding,
Flutes of cane and panpipes made of reeds.
I ask the chief musician and he brings his assistant.
I choose the men who make the chee-sa, carry the water and prepare the feast,
They also tend the little fires in which we burn cocoa bean,
Putting one burner before each musician the first day,
Two the second, three the third, and four the fourth, according to our custom,
So that no harm will come to them from playing.
Bring the kettles for making the chee-sa,
Put them in a row over the long fire,
Mix the banana juice, sugar-cane juice and corn juice,
Watch it boiling until the taster says it is ready to put in the jugs,
Seal the jugs and cover them with leaves.
Now let the leader sing, if he knows the songs that make good chee-sa,
Night and day he and his helpers must stay near the jugs,
If the taster is not satisfied the mixture must be corrected.
After a few days the leader says that the chee-sa is ready.

Now we will have the wedding feast.
The morning sun is halfway up the sky,
Come! it is time for the wedding.
The chief musician and his assistant are in their places.
Four men trot across the room and blow smoke on the two musicians,
Smoke from a great cigar of our tobacco, rolled one leaf upon another,

Protecting those who will play the flute and rattle on your wedding day.
Now they will make the new flutes.
The assistant musician cut the canes beside a mountain stream
And sang, so that the flute would make sweet music for your wedding.
He stands beside the chief musician and each holds an unfinished flute,
Two men go toward them, trotting across the room,
In their hands they carry hot irons with sharp points.
Now they are burning finger holes in the new flutes,
Twice they go forward and touch the canes with their hot irons,
Then the finger holes are shaped with a sharp knife.
See them blow straight through the flutes without touching the finger holes.
Then each takes a gourd rattle and shakes it.
The chief musician plays the first tune at your wedding,
Afterward the helper plays with him and all the young men may join the music,
Playing the flutes they have made for your wedding.
Watch the chief musician and his helper.
Suddenly they turn, facing in opposite directions,
Then stand side by side again
And bend over so that the flutes almost touch the ground.
Now the men and women stand in a circle, the musicians in the middle,
They dance sideways, facing inward,
Suddenly the leader gives a signal and they face outward,
Moving sideways in a circle as before.
Sometimes they move in a line, each with hands on the hips or shoulders of
the person in front.
All the people wear their prettiest clothes
When they dance at your wedding.

The sun has passed the half of the sky,
'Tis time for the feast in the little wedding house where we are assembled,
Bring the fish and game, the cakes and cocoanuts,
Bring the flat baskets heaped with fruit.
See! The chee-sa will be offered first to the chief musician,
He will drink a large cup for the boy, then a little cup for the little bride,
Now the man appointed is standing with the cup of chee-sa,
He holds it up and says, "Watch, O musician, I am going to bring you chee-sa."
Then he crosses the room and hands the cup to the musician.
See! He holds it up and says, "Watch me. I am going to drink the chee-sa."
Happy are the boy and girl when the chief musician drinks to them.
Chee-sa is served to all the guests by men appointed for this work.
In the late afternoon we bathe in the ocean,
Bathe as the water is red and gold with sunset,
Then with fresh clothing we go to the dance.

It is evening and the guests are in the big wedding house,
Blazing torches made of nuts are along the walls,
And bright lights made of cloth dipped in honey,
While from the roof are hanging lanterns brought from Panama.
The men are on one side of the room and the women on the other.
I escort the chief musician into the house of music,
I take him by the arm as though he did not know the way, and seat him in
his place.

The young boys play their flutes as we come in,
Everyone claps their hands as I escort the chief musician at my daughter's
wedding.

In a similar manner my wife escorts our daughter into the house of music,
And with them comes the woman who will cut her hair.

All night the young people may dance if they like,
The managers of the feast, both men and women, will remain in the house,
While across the water move the canoes of those who wish to go home and
sleep.

Early in the morning begins the cutting of the bride's hair—
So early that the sky is scarcely red in the east.

The haircutter may know many songs to sing, or she may encourage others to
sing as she works.

The little bride is seated between her mother and her grandmother,
Behind her stands the haircutter with sharp scissors,
In front of her sits the assistant haircutter.

Chee-sa is brought. Four times the assistant hands a tiny cup of it to the
haircutter:

Then four times the haircutter hands a tiny cup of it to her assistant.
All around are the young girls and women singing pretty songs to the bride.
They sing, "Your husband will be kind to you"; and "You will have a nice
home."

They dance alone or in little groups, clapping their hands as they sing.

Now the haircutter parts the girl's hair from her forehead to the back of her
neck,

Then parts it across the top of her head from ear to ear.

Slowly she snips a few hairs at a time until all is made short,

The cutting of the hair will take until noon,

With the young girls dancing, clapping their hands and singing about the kind
husband and the happy home.

The girl will take the packet of hair to her new house,

She will tie it up close to the rafters.

Sometimes she will look up and see it there,

When she has lived a long time in that house.

The hair cutting is finished and a bright kerchief is tied on the girl's head,

She puts on her prettiest dress, reddens her cheeks and paints a red line down
her nose,

Strings of silver money, glass beads and gold beads are around her neck.

See her earrings, anklets, and bracelets.

Now she dances a little with the assistant musician,

The haircutter also dances a little with the assistant musician,

And all is ready for the second feast.

Bring the coffee! Bring the deer meat, fish, and wild turkey,

Bring the cakes her mother made of cocoanut, corn, and honey.

There are dishes for all, and the choicest food for the special guests.

Great kettles of soup are ready for those who came because they heard there
was to be a wedding,

The people from distant islands and the young men who boast they never have
missed a wedding,

Let everyone be happy.

The bride sees a speck of dust on her dress.

Quick, bring another! She may change her dress every hour—blue and orange,
white and pink.

Other brides may wear one dress for all the days of their wedding

But my daughter may change as often as she likes,

She may wear new shawls, new dresses and new kerchiefs of silk.

The young girls bathe in the ocean three or four times a day,

Then lie down and rest, put on fresh dresses and dance again,

The young men do the same, putting on fresh finery to please the girls.

The music is always playing in the big wedding house,

And all may dance as they wish, by day or night.

Three, four, or five days the dancing and feasting may continue,

With plenty of fruit and cakes and chee-sa for everyone.

After the feasting, the singing and dancing are finished,

After the distant guests have gone away in their canoes

The friends of the boy will help him make his house.

His brothers will help cut and carry the main poles

And all his friends will put on the thatch,

Then there will be another feast. If he has killed some game

The bride will cook it for their guests.

The chief will sing at the feast, giving good advice,

Telling the boy that he must work hard and the girl that she must keep her
house and dishes clean.

Three days they will feast and sing,

Then they will go away in their canoes across the water.

The little bride will arrange her cups and other things

And the boy will go to gather cocoanuts and sell them,

He will try to gather many and sell them to a sailing boat from Panama City.

TURTLE CATCHING

At the season for catching turtles the men prepare a certain "charm" to attract the turtles. It is not the custom to kill a turtle but to catch it, remove the shell, and put it back in the water. It is said "If a man kills a turtle he never can catch another, but if he treats the turtles right he can go every day and get two turtles." In the proper season a man can work a month and secure about 50 turtles, removing the shells which have a commercial value.

The following song was sung during the preparation of the charm for catching turtles, in order to make the charm effective. As in other Tule songs, the words relate a succession of events. In the music with the portion of the words marked (A), the third is sometimes a minor and sometimes a major third above the keynote, but in the latter portion, marked (B), the third is always major and the melody is particularly lively. Between these parts of the song there are three measures in a slower tempo.

The transcription of this song extends from the beginning to the end of the dictaphone cylinder and comprises more than 100 measures, but omits the uninteresting portions of the melody. The song opens with an introductory phrase similar to that in other Tule songs. This is followed by a melody in what might be termed a "descriptive form," somewhat resembling that of the song connected with the gathering of medicinal herbs. The portion of the transcription here presented begins with the slow measures which occur between the two parts of the song. We note with interest the return to a more rapid tempo, and the sixteenth notes followed by rests occurring in the part of the song which mentions the attracting of the turtle.

NO. 5. SONG CONNECTED WITH CHARM FOR CATCHING TURTLES

The musical score consists of six staves of music in bass clef with a key signature of one sharp (F#). The first staff is in 2/4 time with a tempo marking of ♩ = 63. The second staff is in 5/8 time. The third staff is in 3/4 time. The fourth staff is in 2/4 time. The fifth staff is in 3/4 time. The sixth staff is in 3/4 time and ends with "etc." Above the first staff, there is a tempo marking (B) ♩ = 72 and a note value marking (♩) = 144.

- (A) I am going to shoot a little bird,
Sarwewisopi, that can tame the turtle,
 Now I bring it home and hide it,
 Then put it in a little clay stove until it burns to ashes;
 I am mixing the ashes with red medicine,
 From the juice of a certain tree I make this medicine;
 I am cutting a little round gourd in two, cutting off the top very neatly,

With my knife I scrape the inside of the gourd,
 Scrape it smooth and clean like a cup;
 I put the medicine into this cup—
 Ashes of the little bird and red tree-juice,
 Now I tie the cover on tightly,
 Put it in my trunk and tell nobody.

Every night for eight nights I take the gourd out of my trunk,
 The smooth round gourd, with top tied on so tightly,
 I put cocoa beans on a little fire and smoke the gourd,
 Singing this song while the smoke curls around it—

“Little bird, I saw you

And I knew you would be a good bird to catch a turtle,
 That is why I shot you.

Now if you do not tame the turtle

Everyone will say you are not a good bird,

But I know you will tame the turtle,

Then I will make lots of money

To buy a gun, a shirt, and many things I like.”

After the eighth night of singing my partner comes,

We go down to my canoe,

I put the gourd carefully in the middle of the canoe,

I have a long pole, a spearhead and a line,

The spearhead will be fastened on the pole

And with it I will spear the turtle.

(B) Now I am talking to the medicine in the gourd and saying,

“When we get out to the ocean

I will send you down under the water,

I will send you down to attract the turtle,

When you get to the bottom of the water

You must put on your pretty blue dress

So the turtle will come to you.

Change your dress many times,

If the turtle has on a yellow dress

You must put on a yellow dress,

If the turtle has on a white dress

You must put on a white dress,

If the turtle has on a blue dress

You must put on a blue dress,

You must do this to attract him.

When you get the turtle

Bring him up to the canoe and I will spear him.

Tell the turtle that the man who sent you is not going to kill him,

Tell the turtle I will only take off his shell and send him back where
 he came from,

So you will catch many turtles for me,

And everyone will say you are a good bird.”

MISCELLANEOUS SONGS

The four songs next following were sung by the "official musicians" for the entertainment of the people at their social gatherings. One man sang alone and six men stood in a line and played flutes during the prolonged tones that occur at regular intervals in these melodies. The people were "all dressed up pretty." They "sat around and drank chee-sa."

NO. 6. THE BOAT RACE

The musical score for "THE BOAT RACE" is written in bass clef with a key signature of one flat (B-flat). It consists of several staves of music with various time signatures and tempo markings.

- Staff 1:** Tempo marking $\text{♩} = 76$, measure number (2). Time signature $\frac{3}{4}$.
- Staff 2:** Measure number (20). Time signature $\frac{5}{8}$.
- Staff 3:** Measure number (30). Tempo marking $\text{♩} = 88$. Time signature $\frac{2}{4}$.
- Staff 4:** Measure number (32). Time signature $\frac{3}{4}$.
- Staff 5:** Time signature $\frac{2}{4}$.
- Staff 6:** Time signature $\frac{3}{4}$, ending with "etc."

The native boat used by the Tule is a dugout made of the trunk of a tree and varying in size from a small boat carrying two or three persons to a long, wide boat carrying about 15 men. The latter is the size in common use and is equipped with one mast, one sail and a jib. It is never paddled if there is enough wind for sailing. Boat-racing is a favorite pastime of the people and a race usually begins about six o'clock in the morning, ending about noon.

Two renditions of this song were recorded, the second being about a week after the first. Transcription is from the first rendition. In obtaining the translation of this rendition the dictaphone record was played for a few seconds and that portion of the words translated with a notation of the numbers on the dictaphone space bar. Thus the third line of the poem occurs between numbers 3 and 7, and the fourth line between numbers 8 and 10 on the space bar. Corresponding numbers were placed on the transcription, making it possible to connect the words with the music to which they were sung. The portion of the transcription herewith presented consists of the introduction and three phrases, each with a dictaphone space number. A comparison of the translation and transcription at these points is of interest. After these phrases the melody contains many repetitions of single tones and is lacking in musical interest. The remainder of the poem is a combination of the two translations, some details of the race being given with the second rendition which were covered by a general statement when the song was first recorded.

- (2) Two boats are going to race. There are many men in each.

Those who steer the boats wear wide hats. When the wind blows it flaps the hats.

One boat moves very fast and sways with the waves;
It stops a few moments at a town but no one gets out.

- (20) The wind rises. A heavy sea begins.

Now the boats have all begun to take down their sails.
The wind blows harder and harder,
The waves dash over the boat and the men cannot stand up.

The sailors go to the tops of the masts and jump from one mast to another like monkeys,

The sailors' wives are frightened as they watch from the shore.

- (30) The wind grows stronger and stronger.

The captain says he had thought they could reach the next town but now he is frightened.

- (32) He tells the sailors to take down the sails quick, quick.

The owner says, "This is not your boat. The sails are not to come down."

The owner of the boat says, "I do not think the wind blows hard. I want *more* wind."

The boat leaps from the top of one wave to the top of the next like a flying fish,

It passes another boat, leaving it like a log on the water.

The captain calls to the captain of that boat, saying,

"I thought we were going fast but when I look at your boat I see we are not going fast at all."

There are many flags at the top of the mast,

They make a soft noise like bright birds.

The sound of the ropes whistling in the wind is like the sound of many birds,

The blocks tick together like the ticking of a watch.

On the shore the girls are watching. They jump and wave their hands, excited to see who will win.

The wind blows harder and harder. The boat heels over so the keel can be seen.

The bowsprit shakes and trembles, and the water barrels go overboard. Now the boat is filling with water.

The captain is a negro with thick lips and a wide hat, and his hat flaps. He says, "Cut down the mast. The wind comes harder every minute."

The owner of the boat sits down in the cabin.

He reads in a prophecy-paper that the boat will be lost.

Now the wind has died down.

The owner says, "That was why I did not want the sails taken down. I knew there would be a calm."

Then the wind comes gently and they go home.

It was early morning when they started and now it is noon.

The captain who won the race steps ashore and sees a pretty girl.

He says, "You were a little girl the first time I saw you. Now I want to marry you."

All the sailors shake hands with the captain and the girl.

Now she will not speak to the boys any more.

There is a party and everyone drinks chee-sa,

Everyone dances at the wedding of the captain and the girl.

NO. 7. SEEN THROUGH A SPYGLASS



A conversation between a boy and two girls is recounted in this song. The name of the boy is Nigalili, the older girl is Sianili and the younger is Wagayokili; the boy and older girl are "doctors" (possessors of mysterious power). They are sitting in a house and looking toward the sea through a spyglass. It was said the Tule had seen spyglasses but did not own one. The principal characteristic of the melody is the downward sequence of three or four consecutive tones.

(The older girl speaks)

You cannot see mountains and valleys in the clouds,
 I see the clouds as big trees,
 When I look far away the clouds are like cliffs of high, gray rocks.
 I see a cloud that looks like a coconut tree.
 The clouds come up and come up in different shapes.
 There are clouds that look like breakers,
 You do not see the colors and shapes of the clouds,
 I see them like people moving and bending, they come up like people.
 There are clouds like many people walking.
 I see them every time I look out to sea with the glass.
 Sometimes a cloud comes up like a ghost, and sometimes like a ship.
 I look through the glass far away and see everything.
 I see a cloud that looks like a sea horse, a wild sea horse that lives in the water ;
 I see a cloud like a deer with branching horns.

(The boy speaks)

You do not see that.

(The older girl speaks)

From the time I was a child I did not think I would see such things as these.
 If I do not look through the glass I cannot see them.
 Now I find out the different things that the clouds make,
 Do you want to see them too?

(The boy speaks)

All right. I want to see them too. (He looks through the glass.)

(The boy speaks)

Now I see funny things.

(The girl speaks)

You see all those funny things.

(The boy addresses the younger girl)

Do you want to see too?

(The younger girl speaks)

No. I am too young.

(The boy addresses the older girl)

Look down into the water with the glass.

(The older girl speaks)

Now I see strange things under the water.
 I see things moving around as though they were live animals,
 I see things that look like little bugs, and many strange animals under the sea.

NO. 8. WHERE THE RIVER BEGINS

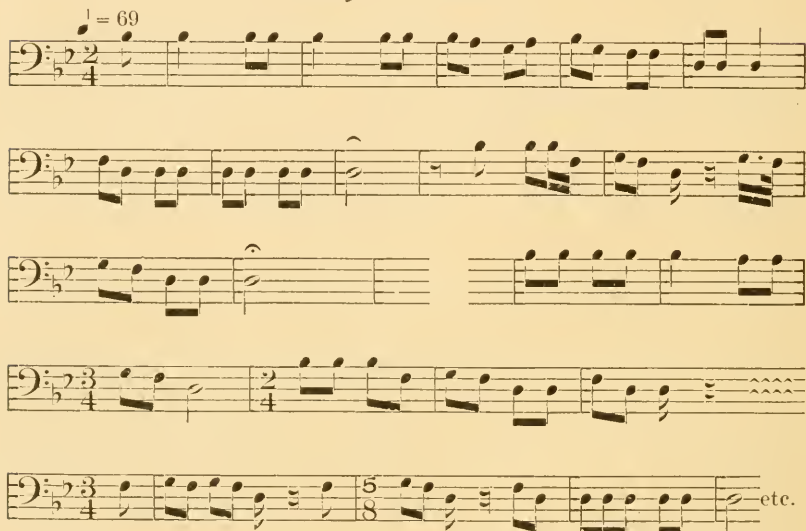
$\bullet = 58$

This was said to be a very humorous song, and the statement that the salt water barrel came to see the fresh water barrel was greeted with much laughter on the part of the Tule who heard the song recorded. Tule songs are not characterized by units of rhythm but this song contains two phrases which were repeated several times, the repetitions probably occurring with the statement that if something should loose its hold the water would flow out of the barrel. Only a few phrases of the transcription are presented, and the words are condensed.

At the top of the river there is a big barrel, four fathoms around,
 It is full of water and there are eight plugs in its side.
 A waterbird sits on the barrel,
 It is a pretty bird with feathers like pink and red roses and bright blue flowers.
 The waterbird holds one of the eight plugs,
 If it should let go, the water would flow over everything.
 A little round shell is holding one of the plugs,
 If it should let go, the water would flow over everything.
 One of the plugs is held by a little flat fish that lives in the sun, under the rocks
 of the river, .
 If it should let go its hold the water would flow over everything.
 A long slippery eel holds one of the plugs,
 If it should let go its hold the water would flow over everything.
 A brown crab holds one of the plugs,
 If it should let go, the water would flow over everything,
 A river crab holds one of the plugs,
 If it should let go, the water would flow over everything,
 A little river fish holds one of the plugs,
 If it should let go, the water would flow over everything,
 A very small crawfish holds one of the plugs,

If it should let go, the water would flow over everything,
 These eight hold back the water.
 The big barrel lies on the ground,
 All the little streams from the mountains come to the top of it.
 The salt water barrel comes to see the fresh water barrel,
 Many big animals from the mountains come to see the fresh water barrel,
 The little streams from the mountains come to see the fresh water barrel.

NO. 9. LOVE SONG



The rendition of this song covered almost two cylinders and was about 15 minutes in duration. In the first portion the keynote was the highest and most prominent tone, but in the middle and latter portions the lowest tone of the compass was the most prominent. The opening phrase and a characteristic phrase from the latter portion are here presented, with a portion of the words.

Many pretty flowers, red, blue and yellow,
 We say to the girls, "Let us go and walk among the flowers."
 The wind comes and sways the flowers,
 The girls are like that when they dance.
 Some are wide-open, large flowers and some are tiny little flowers.
 The birds love the sunshine and the starlight.
 The flowers smell sweet,
 The girls are sweeter than the flowers.
 I go among the girls and see them all,
 But I like only the one I walked with first,
 My eyes are open for her but I look at the others as though I were dreaming,
 I say to her, "When I die you must think of me all the time."
 I look at the others as though I were dreaming,
 The girl is dreaming too.

NOTES ON TULE CUSTOMS

FOOD

The fruits gathered by the Tule include cocoanuts, oranges, pineapples, mangoes, and certain varieties of alligator pear, but they have no edible berries. On their farms they cultivate corn, sugar-cane, cassava, and plantain as well as sweet potato, pumpkin, and other vegetables. Beans are used very little. Many sorts of pepper are raised, the people being particularly fond of red pepper. Scarecrows are erected to protect growing crops. Corn is eaten when green, or allowed to ripen and put in little storehouses near the field, or it may be taken across to the islands and stored there. The owner often makes a little fire under the storehouse to keep the corn dry, and he watches that animals do not molest it.

At present the corn is ground in a handmill purchased in Panama City, and the cornmeal is made into bread. A favorite delicacy is made of cornmeal and grated cocoanut, sweetened with sugar-cane juice, shaped into a long loaf and baked on top of the stove. "Sugar-plums" are made of cornmeal and sugar-cane juice boiled all day so it becomes very thick. Similar confections as well as sirup are made of sugar-cane juice, boiled a long time.

The game consists of deer and wild pigeon, turkey and other birds. Meat is never dried. If a man kills some game he eats it for one or two meals and gives the remainder to relatives and friends or invites them to a feast. The meat is all eaten in one day. For a long time they have had domestic fowl, including chickens, ducks, tame pigeons, and occasionally turkeys. Pigs are also kept and eaten.

From the Caribbean Sea the Tule obtain crabs and lobsters, and from streams and rivers on the main land they obtain fresh water lobsters, as well as trout, smelt, and other fish. They never take home the fish caught in the small streams, but fish from the rivers are taken to the islands and prepared in various ways. Fish may be boiled in fresh cocoanut milk. The women boil cocoanut milk, skim off the oil that rises to the top and put it away in a bottle for use in frying fish. If the Indians wish to keep fish they score it with a knife, rub it with salt and dry it on a slat frame over an open fire. A few hours is sufficient for the drying of fish.

The principal beverages are coffee and an infusion of the cocoa bean. Infusions of various leaves are also used including the leaves of orange trees and a fragrant leaf called "fever grass." Plantain juice, boiled and sweetened, is used as a drink. Another favorite drink consists of sugar-cane juice boiled a long time, after which a tiny bit of corn is added. This drink takes so long to prepare that

it must be started about three o'clock in the morning in order to be ready for use at eight or nine o'clock.

The making of chee-sa, the principal drink of the Tule, has been described in connection with the wedding customs.

HOME LIFE

Women never work in the fields.

There is no ceremony nor feast connected with the naming of a child.

The instruction of a child is begun by its mother before it can understand her words.

The Tule mother sings her baby to sleep, saying its father has gone planting or harvesting the crops. If the baby is a boy, she sings that when he grows up he must be a good worker in the fields. If the baby is a girl, she sings that she must work diligently at home when she grows up.

Red paint is made of the juice of a certain plant and with this the women draw a narrow line down the top of the nose and slightly redden the cheeks. The women's hair is short and cut squarely across. In former times the Tule women wore clothing made from the bark of certain trees, pounded until only the fiber remained. Their present costume consists of a tunic made of calico or gingham decorated with applique designs of similar material in a contrasting color, this work being done very neatly and in elaborate patterns. The skirt consists of about 2 yards of calico or gingham wrapped around the body and held in place by tucking in the upper corners at the waist line. This is worn over the tunic, forming a garment that is very tight around the hips and loose at the knees. With it is worn a loose head covering of cloth that protects the head without additional heat (pl. 5). The men wear the ordinary clothing of civilization. Nose-rings are worn at the present time by the women, and large discs of gold are often fastened to the ears. Necklaces are favorite ornaments among both men and women, the men wearing strings of the teeth of the mountain lion and the women wearing strings of monkey teeth. Fragrant berries are dried, strung, and worn by the women. Strings of silver coins are also worn as necklaces by the women.

MANNER OF LIFE

The Tule live in compact villages—there are no scattered houses. The islands on which they live are, in some instances, only half a mile from the main land. A man's wealth consists of land and trees,



Alice Perry in native costume.

the cocoanut trees being most valuable. Fruit is sold to sailing vessels that come from Panama, varying in size from little boats with one mast and two jibs to sloops and schooners. Payment is sometimes made in money but usually in cloth and commodities which are of very inferior quality. These boats afford the only communication between the Tule and the outer world. There are no stores in the region except a very few small stores kept by Indians or Spaniards. Bananas bring only the equivalent of five or ten cents a bunch and the people do not consider it worth while to sell them. Cocoanuts bring the equivalent of about \$12.50 per thousand. The cocoanut trees in the jungle are too old to bear and it is necessary for a man to clear the land and plant young trees. The men are industrious and are usually at work on the farms at six in the morning. In the busy season they work from three in the morning until about five in the afternoon.

OFFICE OF THE CHIEF

The office of chief is held for life and is not hereditary, though the son of a chief may be elected in his father's place if he has the requisite ability. After a chief dies, the people meet and discuss a possible successor but a vote is not taken until the opinion is unanimous. Then someone says (in effect) "So-and-so is a good man, let us make him chief," and all the people give their assent. It is said that a dissenting vote has never been known.

One of the duties of a chief is the instruction of the people in ethics. It was said, "The chief holds a meeting almost every night and talks. Him tell people must not quarrel nor say bad words. God say people must not do such things." If they do not have a good crop the chief says, "It is because you have been telling lies and talking badly. You cannot have good crops if you do such things." He also exhorts the people to work hard in the fields.

Inquiry was made as to certain Tule beliefs and the reply was that good people, after death, "go up in the sky, walk among gold and silver flowers and along golden streets." The inquiry was then discontinued. At a subsequent time the writer asked whether the Tule have any belief concerning a bridge that is crossed by the spirits and Igwa replied without hesitation that the spirit makes the bridge *himself*. He said the spirit, after death, comes to a big lake, he tosses a string into the air and it falls on the opposite shore of the lake, becoming a bridge which he crosses. Igwa said further that a man, after death, goes under the ground and there sees golden

rocks and golden trees. He gets into a boat on a big river and the boat "goes as fast as lightning" without any effort on his part. It is interesting to note the presence of both native and acquired ideas in the minds of the Tule.

When asked concerning the origin of the Tule, Igwa said that long ago 40 or 60 Tule Indians came down from the sky and that "one of them knew everything."

The informants said that all the Tule Indians know that the earth is round and revolves once a day, this revolution making the sun appear to be standing still.

It was said that the Tule have five "gods," only the "god of health" being represented by an image. The others are those of harvest, rain, fishing, and hunting. No further inquiry was made concerning the latter, but the "god of health" is mentioned in connection with the treatment of the sick.

GAMES

The Tule do not sing to bring success in games or contests, as is the custom in many North American tribes; moreover, the playing of games is limited to the boys. They do not use a ball in any of their games. Contests with bows and arrows are often held, also foot races and canoe races, the boys paddling the canoes instead of sailing them.

Five games were described and in them we find elements common to many primitive peoples. There is no singing while these games are in progress, and no mention was made of wagers on the result. The games are as follows:

1. Guessing who holds a small object. The boys sit in a row with hands behind them, facing the "guesser." A boy goes behind them and puts a small round stone in the hands of one boy, the guesser trying to determine who holds this round stone. Similar games are played by the North American Indians.

2. Running the gauntlet. One boy sits down and the other boys run by. The boy sitting down catches another boy, who also sits down facing him. The boys run between them and some are caught. A boy who is caught sits down next the boy who caught him. This is continued until all the boys are seated on the ground.

3. Blindfold. The boys stand in a circle, two boys in the middle of the circle being blindfolded. The children step forward and clap their hands behind the blindfolded boys who try to catch them. If a blindfolded boy catches one of the others he blindfolds the one he caught.

4. Circle game. Many boys join hands in a circle leaving one inside and one outside. The boy inside tries to get out, and the one who is outside tries to get in, the others trying to prevent this without loosing their hold on each other's hands.

5. "Playing ghost." About 10 boys join in this game, one taking the part of the doctor, another the "questioner," and two being the "ghosts." The term translated "ghost" is *ni'a*, which, according to the informants, is not used in any other connection. All the boys except the ghosts stand in two parallel lines facing each other, with the doctor and questioner opposite each other at one end. A little fire is burning halfway down one side, imitating the fire believed to keep harm from the musicians at a wedding. Pepper is put on this fire at a certain point in the game, imitating the "medicine" (cocoa bean) that is burned in front of the musicians. The boys who represent the ghosts have their faces painted red, black, and white in an outlandish manner, wear big hats and clothes much too large for them. The game opens with questions and answers by the two leaders.

Questioner: Who do you see coming?

Doctor: A ghost with one foot.

(A ghost appears, hopping on one foot)

Questioner: Who do you see coming?

Doctor: A ghost walking funny.

(The ghost walks in a grotesque manner)

Questioner: Who do you see coming?

Doctor: A ghost pounding on the ground with a stick.

(The ghost pounds on the ground with his walking stick)

All the boys: Let's catch the ghost and tie him.

Pepper is then thrown on the fire and its fumes make the ghost "crazy." He waves his arms and struggles but the boys hold him, tie him with a rope, put him in a boat and cover him up. The ghost howls and wails. All the boys hide, and the second ghost comes to free his comrade. Together they try to find the boys who are hiding.

This game is usually played by moonlight with the older people looking on and laughing at the fun.