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Hemenway Southwestern Archaeological Expedition

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∞ VOLUME 4 ∞

THE SNAKE CEREMONIALS AT WALPI

By J. Walter Fewkes

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J. WALTER FEWKES

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ARE GRATEFULLY DEDICATED TO THE MEMORY OF

MRS. MARY HEMENWAY

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Hemenway Southwestern Archaological Expedition

THE SNAKE CEREMONIALS AT WALPI

BY J. WALTER FEWKES

ASSISTED BY A. M. STEPHEN AND J. G. OWENS

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INTRODUCTION.

THE ceremonials of the Hopi Indians in the summer of 1891 have already been described in the second volume of this journal, in which the author promised to lay before the scientific world his studies, and those of his assistants, of the celebrated Snake Dance. In the present volume it has seemed proper to publish what we know of this observance as a contribution to a knowledge of the most weird, if not the most interesting, events in the ceremonial proceedings of this strange people.¹

It is a great pleasure to acknowledge my indebtedness to Mrs. Mary Hemenway, of Boston, whose generosity in advancing the cause of original research in American ethnology and archæology is well

¹ The present article is one of a series of which the following have been published : —

A Few Summer Ceremonials at the Tusayan Pueblos, by J. Walter Fewkes. Journal of American Ethnology and Archæology, vol. ii. No. 1.

The Lá-la-kon-ti; A Tusayan Ceremony, by J. Walter Fewkes and J. G. Owens. American Anthropologist, April, 1892. (September observance — a woman's ceremonial.)

The Mam-zráu-ti, by J. Walter Fewkes and A. M. Stephen. American Anthropologist, October, 1892. (October observance — a woman's ceremonial.)

The Na-ác-nai-ya, by J. Walter Fewkes

and A. M. Stephen. The Journal of American Folk-Lore, July-September, 1892. (November quadrennial ceremony.) The Pá-lü-lü-koñ-ti, by J. Walter Fewkes and A. M. Stephen. The Journal of American Folk-Lore, October-December, 1893. (February observance — a Snake ceremony.)

The Wal'-pi Flute (Lé-len-tû), the Powá-mû (February), and the So-yal'uñ-a (December) ceremonials have been studied, and will be described later. The Pá-lülü-koñ-ti is of special interest in the study of the Snake Dance. The Wal'-pi Flute, from its relation to the ceremonials described in this memoir, will be made the subject of an extensive article.

INTRODUCTION.

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known wherever these sciences are cultivated, and whose unwearied interest in the Hopi Indians has been the inspiration of this work.

The author must reiterate his obligations to his friend Mr. T. V. Keam. Without his aid much which is here recorded could not have been observed, and the debt which American ethnologists owe to his enlightened interest in this people, with whom he has lived for many years in close commercial relations, is very great. During these studies the author was accompanied by his lamented assistant, the late J. G. Owens, references to whose help are found on many of the following pages. To this fearless investigator, who lost his life in the cause of American archæology at the ruins of Copan, the author owes much more than this brief reference would indicate.

The difficulties besetting the path of the student of the Hopi ceremonials are very great, although working under exceptional advantages with the full confidence of the priests. It is impossible for one observer to be in two sacred chambers or kiva(s) at the same time, and the complete description of episodes of the ceremonials, such as the deposit of the offerings in distant shrines and the foot-races going on in the plain simultaneously with kiva observances, would necessitate several assistants to study them exhaustively in detail.

While the agreeable work of writing this memoir has fallen upon the editor of this journal, the help rendered by Mr. A. M. Stephen has been so great that his name is placed at the head of this article with that of the author. The legend of the Snake Hero is by his pen, and the secret observances were noted and discussed by both in order to verify each other's work and secure all possible accuracy.

It has not seemed well to rely too much on the testimony of participants for a knowledge of these observances, or an explanation of their meaning. Most difficult of all is the deciphering of the significance of the whole or parts of the observances, and the varied interpretations given by the priests show that in some instances at least we should not give too much weight to individual testimonies. The most trustworthy explanations must, it is believed, result from comparative studies, which ought to be extended far beyond the limits of Tusayan. The object

of this article is to record observations which were made under the auspices of the Hemenway expedition.

The ceremony in 1893 began on August 6, and was studied throughout by Mr. A. M. Stephen and J. Walter Fewkes. Messrs. Julian Scott,¹ F. H. Lungren, and W. K. Fales were admitted to the secret ceremonials of the Moñ'-kiva, and were at our request initiated into the Antelope Fraternity. The attendance at the open dance, on the culminating day of the ceremony, was about the same as in 1891, and the other American spectators made no effort to enter the kiva(s) during the secret performances. This was in marked contrast to the actions of some of the white visitors in 1891. While the present article is in the main a description of the Snake Dance of 1891, several references to the presentation in 1893 are likewise introduced. The two observances were marvelously alike, even in details, but the studies in 1893 were necessary to substantiate that fact. The certainty of the Hopi ritual, as ceremonially carried out in two successive performances, gives a good idea of its conservatism, and points to a belief that innovations have made slow progress in their introduction. The time, however, when the ceremonial system of the Hopi will suffer disintegration and ultimate destruction is not far away. The death of the old Antelope priests will have a most important influence in this modification, although several of the younger men are still as conservative as their "elder brothers." The present records were made none too soon for a scientific knowledge of this most primitive aboriginal observance.

¹ Mr. Scott has painted one of the colored plates which accompanies this memoir.

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THE Hopitûh or Village Indians of Tusayan celebrate every two years a weird ceremonial called the Snake Dance. This is performed in the villages Wal'-pi, Mi-coñ'-în-o-vi, Cûñó-pa-vi, and O-raí-bi, alternating with the $L\acute{e}$ -len-tû, or Flute Observance. It does not occur on the same year in all of the four villages mentioned, but every year there is a presentation of this weird rite in one or the other. Mi-coñ'în-o-vi and Wal'-pi observe their Snake-Antelope ceremony the same year, and Cûñó-pa-vi on the alternate year. The Snake and Flute societies, however, never perform their respective dramas the same year in the same village.¹

The present article deals wholly with the presentation of the Snake observance in Wal'-pi, and is intended as a basis for further comparative studies of the same rite in the other villages. That this ceremony in other pueblos of the Tusayan province differs in details from that at Wal'-pi is probably true, so that statements made in the description of the presentation on the East Mesa cannot be regarded as necessa-

¹ There is a considerable literature of the Hopi Snake Dance, as will be seen by the list of references in the bibliography. Most of these publications refer to the Snake Dance at Wal'-pi. We have a short description of the ceremony at Mi-coñ'-ino-vi by Mindeleff, and much MS. material on the Cûñó-pa-vi presentation.

The O-rai-bi celebration, which we may expect to find the most primitive of all, has thus far escaped the attention of scientific men. This village offers a most fruitful field for scientific research in many ways.

The letters used in spelling Hopi words have the following sounds: a, like a in far; \check{a} , as in what; e, as a in fate; i, as in pique; o, as in note; u, as in rule; \hat{u} , as in but; \check{u} , as in French tu; p and bsounds indifferentiated; t and d indistinguishable, but like compound of d in dare, t in ten; tc, like ch in chink; c, like shin shall; \check{n} , like ng in syncope; v, like English v, with faint b and p sounds.

rily true of the others. Not until the details of all are completely worked out and published can we hope to have an adequate idea of this subject, and be able to enlarge our comparisons with kindred ceremonials in other parts of the New World, especially Mexico and Central America.

Extensive work, with many new observations, has been done upon the Cûñó-pa-vi Snake Dance, but as the O-raí-bi presentation is yet to be witnessed, it has seemed best to postpone publication of the former for another article. There are several gaps in our knowledge of the Cûñó-pa-vi rite which necessitate new investigations. Of these the character, significance, and object of the prayers, and the wording of the same, are not the least important. So large is the material dealing with variants of this ceremonial which has been collected among people of other linguistic stocks, that a consideration of their resemblance must likewise be passed by for the present.

While it must be confessed that it is yet too early to decipher the meaning of this weird rite, even with the information which we now have, there are certain conclusions which are wellnigh demonstrated. The observance is undoubtedly a rain ceremony, in which Snake worship takes a subordinate part. It dramatizes more or less imperfectly portions of a legend of Tí-yo, the Snake youth, and the first Hopi people who came to Tusayan. Perhaps we are attempting too much in trying to give any simple cause for its biennial repetition. Its true meaning is probably lost, and can only be resurrected by comparative ceremoniology. While each and every episode may have, as it undoubtedly does, a special meaning, the reason for the whole ceremony lies far back in the past, and has become more or less obscured by the progress of time. The priests perform the Snake Dance because their forefathers did, and these in turn derived a knowledge of it from others. Who the originators were and why they performed it are questions which the present Snake and Antelope priests cannot answer. When asked its meaning they repeat their stories of the adventures of Ti-yo, who, like Quetzalcoatl, wandered into the house of the Snakes. Out of a maze of speculation, distorted legends, and modi-

fications, it is next to impossible to arrive at true explanations; but by comparisons, however, we may be able to get some clue to the meaning of the Snake Dance.

The songs are the traditional melodies which bring the rain, and the ceremonials are consecrated by antiquity, and venerated as most efficacious for that purpose. These people hold them as essential because their ancestors have done so, in their belief, from the birth of time. The question of origin further than this has not occupied their attention, and I believe they have no adequate solution of the problem. It would be strange if they had; and in that they are not exceptional, for the origin and reason of ceremonials among white men are lost in antiquity.

The primary object of this memoir is to record the details of the presentation ere this curious survival passes away forever, as it undoubtedly will in a few years.

The celebration of the Snake Dance in 1891 lasted nine days, beginning on Thursday, August 13th, and continuing until Friday of the following week. The first days were taken up by secret ceremonials, to which the uninitiated were not admitted, and the public presentation occurred on the last days, Thursday and Friday, August 20 and 21.

The secret ceremonials took place in the two subterranean rooms called the Moñ'-kiva and the Wi-kwal'-i-o-bi kiva. The former room was occupied throughout by the Antelope priests; the latter by the Snake Fraternity. The snakes were hunted in the plain and among the foothills in the four quarters corresponding to their cardinal points.¹ The public ceremonials on the two last days occurred in the plaza in which is situated the so-called "Dance Rock."²

In order that the reader may follow the account more readily, the names of the participants are appended. The following list contains the majority of the members of the *Tcii'-a-wymp-ki-a* or Snake Fraternity from Wal'-pi in 1891: Kó-pe-li, chief, Sú-pe-la, Les'-ma, Nü-vá-o-yi,

¹ Kwi-ni-wi, N. W.; Te-vyuñ'-a, S. W.; ceptions are referred to in the use of Ta-tyu-ka, S. E.; and H6-pok-yü-ka, N.
 E. Throughout this article the Hopi con ² Tüh'-kwi, Pillar-mound.

Ta-lá-ho-ya, Si-kyá-ta-la, Lo-mo-nañ'-kwü-cü, Si-kyau-wis'-ti-wa, Cá-na, Má-i, Cí-wû, Pí-ba, Hó-mo-bi, Poc'-to, Mó-mi, Tcó-no, Pür-yá-to, Máki-wa, Ná-ka-vü, Tüh'-kwi, Sis'-kyau-ma, Ne-vat'-i, Na-sí-mo-ki, A'-mi, Yó-yo-wai-ya, Há-ni, Nü-vá-wü-nü, Ma-ran'-ta-ka, Kwá-tca-kwa, Si-tai-ma, Si-yü'-kü-li, Si-kyá-tuñ-an-ma, Lo-ma-yam'-ti-wa, Gyá-cu-srü, and Sikya-bó-ti-ma.

The following members live in Há-no: Kütc'-ve, Pá-tuñ-tüh-pi, Ká-no, Wí-wi-la, and Tcó-yo. To the above must be added Si-kyá-pi-ki, and Kütc'-ha-yi from the Middle Mesa.

The names of the Antelope priests are : Wí-ki,¹ Há-ha-we, Na-syuñ'we-ve, Hoñ'-yi, Kwá-a, Wi-ky-at'-i-wa, Tá-wa, Mas-i-um'-ti-wa, Ká-sro, Sa-mí-mo-ki, Chú-bey, Wéy-wey, Tcac-húm-i-wi, Tcos-hoñ'-i-wa, In'-tiwa,² and several children whose names I do not know.

In order that the reader may have a general oversight of the course of events in this complicated observance, a tabular summary or calendar of the nine days' proceedings is introduced below. This short synopsis may be an aid to an understanding of the special description given farther on.

- Thursday, August 13:

1. Making of the $\tilde{n}\dot{a}$ -kii-yi by the Antelopes. 2. Preparation of the sand mosaic of the Moñ'-kiva by Wí-ki, the Antelope chief.

- Friday, August 14:

1. Preparation of $p\acute{a}-ho(s)$, in the Moñ'-kiva during the morning. 2. Consecration of the same by the singing of sixteen traditional songs by the Antelopes in the same kiva.

- Saturday, August 15 :

1. Ceremony in the Moñ'-kiva attending the delivery of the Snake and other $p\acute{a}$ -ho(s) to Kć-pe-li by Wí-ki. 2. $Tcii'-\acute{a}$ - $m\acute{a}$ -ki-wa or snake hunt to the north. 3. The singing of the sixteen traditional songs by the Antelopes in the Moñ'-kiva.

- Sunday, August 16:

1. Ceremonies at the delivery of $p\dot{a}$ -ho(s) to K \dot{a} -pe-li. 2. Snake

¹ His whole name is Sá-mi-wi-ki. ² Was a novice in 1891.

hunt to the west. 3. Sixteen traditional songs sung in the Moñ'-kiva.
4. Ho-kó-na-má-na tile and pat'-ne first seen in Moñ'-kiva.

Monday, August 17:

1. Delivery of $p\dot{a}$ -ho(s) to Kó-pe-li. 2. Snake hunt to the south. 3. Sixteen traditional songs sung in the Moñ'-kiva. 4. Ná-tci-a-wa-ta affixed to the ladder for first time. Sand on the hatch.

- Tuesday, August 18:

1. Delivery of $p\acute{a}$ -ho(s) to Kć-pe-li. 2. Snake hunt to the east, with feast. 3. Sixteen traditional songs sung in the Moñ'-kiva.

Wednesday, August 19:

1. Making of the sand mosaic of the Snake altar in the Wi-kwal'-io-bi kiva. 2. Making charm liquid and medicine pellets. 3. Sixteen traditional songs sung in the Moñ'-kiva. 4. Initiation in the Wi-kwal'i-o-bi kiva. 5. Singing at Ta-wá-pa, sun spring.

Thursday, August 20:

1. Antelope race. 2. Dramatization and sixteen traditional songs sung in Moñ'-ki-va. 3. Renewal of $\tilde{n}\dot{a}$ -kii-yi in the Moñ'-kiva. 4. Public ceremony by Antelope and Snake priests on the plaza with cornstalks and gourd vines.

Friday, August 21:

1. Dramatization and sixteen traditional songs. 2. Ceremonial of novices in the Moñ'-kiva. 3. Snake Race. 4. Snake Washing in the Wi-kwal'-i-o-bi kiva. 5. Public Snake Dance. 6. Drinking emetic. 7. Feast.

Saturday, August 22:

1. Purification of the Snake priests.

The game for four days after the Snake Dance is called $\tilde{N}\ddot{u}'\dot{i}\cdot t\dot{i}\cdot wa.^1$

The official announcement of the time decided upon for the Snake Dance and the events of the different days of the celebration were made on August 5, eight days before the Snake Dance began. On that day Hoñ'-yi, the public crier for this ceremony, should the

¹ A description of this game has been introduced as an appendage to the Snake Dance, but with some misgivings, on the

authority of several priests. It took place in both years in which the ceremony has been studied in a scientific manner. ł.

announcement from the top of the village, by direction of Wí-ki, the Antelope chief. The same morning a $p \ddot{u}'r$ -ta-bi, formed by a stringed na-kwá-kwo-ci on a line of meal, was placed at sunrise on the trail at the narrow part of the mesa between Si-tcom'-o-vi and Wal'-pi. Two days before, Wí-ki and an assistant had made prayer offerings at the house of the former in the plain and deposited them in a shrine to the south, but the details of their manufacture are unknown to me. Possibly this had nothing to do with the ceremony, but further observation may reveal some connection. It is not apparent by what signs the date was determined, but a ceremonial smoke was held by Wí-ki, Kópe-li, Na-syuñ'-we-ve, Há-ha-we, Kwá-a, and Ká-kap-ti the night before the announcement, and the date in 1891 was said to have been agreed upon at that time.

Wí-ki also spent some time for many days before the beginning of the nine days' ceremony in spinning native cotton string to use in the preparation of the $p\dot{a}$ -ho(s). This he did in his house in the plain, moving to his mesa home the night before the beginning of the ceremony.

Prior to the celebration of the Snake Dance in 1893 there assembled at Cá-li-ko's (Sú-pe-la's) house, on the evening of July 28, the following men, who had a ceremonial smoke, and then determined the time proper for the observance: Wí-ki, Kwá-a, Há-ha-we, Ká-tei (for his brother Na-syuñ'-we-ve, who was absent), Hoñ'-yi, and Sú-pe-la (representing his son, Kó-pe-li). The meeting-place was well chosen, since it was the home of Kó-pe-li, the Snake chief, and his father, Sú-pe-la, whose wife Cá-li-ko is the eldest female member of the Snake Family.

On this day Wi-ki made the pii'r-ta-bi, and the other chiefs a nakwá-kwo-ci, for Hoñ'-yi, the speaker chief of this observance, to plant on the 29th. He announced on the 29th, eight days before the event, the date on which the observance would take place. The nine days' ceremony in 1893, therefore, began on August 6.

There were very few, and those unimportant, differences between the presentations in 1891 and 1893.¹ It is an interesting fact that the

¹ On the last days of the 1891 celebration Mr. Owens and the author took a ki-va(s). Mr. Stephen lived in Si-tcom'-

details of the ritual are so closely followed in successive presentations of the same ceremonial. However, it must be said that dance paraphernalia of white men's manufacture, which are slowly being introduced, have led to modifications in the appearance of the participants in the public presentation. The secret portions of the celebration occurred in the Moñ'-kiva,¹ which was occupied throughout by the Antelope priesthood, and in the Wi-kwal'-i-o-bi kiva, where the mysteries of the $Tc\ddot{u}'-a-wymp-kia(s)$ or Snake priests were performed.

The ceremonial events began in the Moñ'-kiva, and predominance was given from the very outset to the $Tc\ddot{u}b$ -wymp'-ki-ya, or Antelope Fraternity. Except by the Snake chief, the other kiva was deserted on the first as well as the following day, and at least two days elapsed before the Snake priests as a body took a prominent part in the proceedings. This fact is significant, and emphasizes what appeared throughout, that the Snake ceremonial is controlled by the Antelope rather than by the Snake society.

FIRST DAY (YUÑ-LA, ASSEMBLY).²

At early sunrise Wi-ki was seen at the entrance of the Moñ'-kiva. He was just coming up the ladder, and bore in his hands the $n\dot{\alpha}$ -tci,

o-vi, at An-i-wi-ta's house during the whole ceremony. It is strongly to be recommended that observers, in studying this and other ceremonials, take up a residence in the villages. During the presentation in 1893 Messrs. Scott and Lungren lodged in Wal'-pi; Mr. Stephen and the author in Ha-nó-ki or Tewa.

¹ For descriptions of these chambers see Journal of American Ethnology and Archæology, vol. ii. No. 1. The different fraternities of priests are mentioned in the same article.

² The day of the gathering of the priests (Thursday, August 13, 1891; Sunday, August 6, 1893). The nomenclature of the ceremonial days or nights is a very

perplexing subject, and is not yet satisfactorily made out in its details. The priests consulted on this subject had several names for the ceremonial days, which all recognized as correct. They represented the days by four groups of kernels of corn, each group arranged in four rows. The kernel at the left end of the row was called $Ti-yu\tilde{n}$ -a-va, and was pushed away with the remark that they did not count it. They then counted seven kernels for nights, and the eighth kernel they said was called Yü'ñ-ya, but it also they did not count. The next kernel was Cüc-tála, the first day. Their nomenclature of days would then be, ----

1. Yü'ñ-ya.

which was made of two eagle wing-feathers tied to a short stick. He placed it upright in the straw matting at the hatchway, first sprinkling meal on the ladder. This *ná*-tci was put up on the morning of each day at sunrise, and a similar object was also placed at the entrance to the Wi-kwal'-i-o-bi kiva, as a sign that ceremonials were being performed, and when it was put in position a pinch of meal was sprinkled upon it and thrown in the direction of the rising sun. The floor of the chamber had been carefully swept by Wí-ki, and the $si-p\bar{a}-pu^1$ closed with a plug. A large quantity of meal was noticed in a basket tray on the floor at the west end of the room.

Wí-ki, in 1893, went out, but soon returned with several bags of different colored sand, which, it was said, were obtained from Ká-kapti's² house, and laid them on the floor at the northwest corner of the kiva.

Kó-pe-li, who up to this time had been seated alone in the Wi-kwal'i-o-bi kiva, came into the Moñ'-kiva about sunrise, and shortly after Na-

2. Cüc-tá-la, first day.

3. Lüc-tá-la, second day.

4. Paic-tá-la, third day; also called pa-ho-la-lau-wû, and tók-tai-yü'ñ-ya, i. e., open-eyed or sleepless assembly, as on this night all the priests gather and sing.

5. Na-luc-ta-la, fourth day, but more prominently named ké-kel-kü-kü'yi-va (kéles, novices emerge). This is likewise called Nüc'-wi-ca, food (flesh) eating. The taboo of food ends this day.

6. Cüc-tá-la, first day, also Soc-ka-hímü-i, all do nothing.

7. Ko-mók-to-tok-ya, wood-gathering day.

8. To-to-kya, sleeps (reduplicated, plural of tó-kya). The last night the priests pass in the kiva. This was also called tók-tai-yüñ-yû.

9. Ti-hü-ni, we will personate ; ti-ki-veni, we will dance. 10. O-vek-ni-wa, holiday. Purifications performed on this day, but all serious ceremonials have ended.

¹ See description of the kiva(s) in Journal of Ethnology and Archæology, vol. ii. No. 1.

² Ká-kap-ti is said to be the collector of the sand. He is a chief of the Sand or Earth people, and took the part of courier, depositing the ca-kwá-pa-ho(s) in the "worldquarter" shrines, as will be described later. In the celebration of 1893 this part was performed by his brother on account of Ká-kap-ti's lameness. Neither of these sat in the line of Antelope priests (see diagrams), nor made any of the pá-ho(s), which were made from day to day. Kákap-ti's brother was the courier who deposited the offerings of the Flute priests in their ceremony, which in this respect, as in many others, is the same as the Snake.

syuñ'-we-ve followed. These three persons sat together smoking a brief time, Wí-ki in the middle facing east, with Kó-pe-li on his left. Wí-ki passed the pipe to Kó-pe-li, exchanging terms of relationship. While this was going on, Há-hau-we entered, bearing a copper pail filled with water, which he set down near the future position of the altar, or just south of the fireplace.

MAKING OF THE CHARM LIQUID (ÑÁ-KÜ-YI).

Wí-ki first carried his $\tilde{n}\dot{a}$ -kwi-pi (medicine bowl) and a tray of meal to a place on the floor near the fireplace, and took a taste of honey. He then emptied valley sand in a little pile on the floor southeast of the fireplace, and made on it six radiating lines in meal, following the sinistral ceremonial circuit, beginning with the north (northwest). At their junction on the sand he placed his empty $\tilde{n}\dot{a}$ -kwi-pi with its handle over the southeast line. He next poured into the bowl the liquid from the copper kettle, moving it in sinistral circuit, first towards the northwest, when he poured a little liquid into the bowl; then to the southeast ; and so on until the circuit was completed, after which the remaining liquid was added.

The next process was to bruise some twigs with a stone and put them in the liquid, following the circuit as described above, making a pass to one of the world quarters each time he added a pinch. Wí-ki then added a little honey to the bowl with a movement of his hand to each of the six directions in turn as he dropped it.

The celebrants then took their positions around the bowl. The Antelopes were without clothing, but Kó-pe-li wore his ordinary dress.

The making of the charm liquid was completed by Na-syuñ'-we-ve, who added corn pollen¹ in the sinistral order observed by Wí-ki with the other ingredients. He then sat and received the pipe, exchanging terms of relationship. Wí-ki then put into the bowl a small offering² brought by the Ko-ho-ni-no visitors two years before.

¹ It will be noticed that the same man later furnished the corn pollen with which b to sprinkle the altar.

² This was efficacious since it had been brought from a place where water was abundant. ŝ

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Kó-pe-li, who up to this time had been sitting apart, joined the group around the bowl, received the pipe and smoked. He puffed the pipe for some time, and at the close of his smoke the assemblage was joined by Kwá-a, who smoked in turn. With his arrival all the necessary celebrants were present, and took a squatting posture. Wí-ki prayed, and the others responded with a short word equivalent to "amen." This habit is common in Hopi prayers, and is believed to be aboriginal.

Na-syuñ'-we-ve prayed after Wi-ki, and was followed in turn by Háhau-we, Kwá-a, and Kó-pe-li; to whom the others responded.

Wí-ki then shook his rattle, and Há-ha-we the aspergill, and all sang a low song over the $\tilde{n}\dot{a}$ -kwi-pi. The celebrants prayed in the following sequence: Wí-ki, Na-syuñ'-we-ve, Há-ha-we, Kwá-a, and Kó-pe-li.

Há-ha-we next placed the tip of the aspergill in the $\tilde{n}\dot{a}$ -kwi-pi, and, drawing it out, asperged to the six directions in sinistral circuit. He again dipped the aspergill in the liquid, went up on the roof of the kiva, and asperged to four directions in ceremonial circuit, beginning at the northwest. When he returned Wí-ki engaged in conversation with him, and all smoked, after which Wí-ki placed a bundle of flag leaves in the $\tilde{n}\dot{a}$ -kwi-pi, which he set on the floor near the si-pā-pu.

The only difference between the observance of this rite¹ in 1891 and in 1893 was the addition of the Ko-ho-ni-no offering, but it was noticed that Wí-ki was more careful in 1891 than in 1893 to puff smoke to each of the cardinal points.

After the making of the charm liquid, which was later used by Háha-we in asperging, in mixing the pigments for the $p\acute{\alpha}$ -ho(s), and for other purposes, several of the priests left the kiva, but soon returned, and remained during the second important event of the first day, the construction of the sand altar.

¹ This observance is properly speaking $n\dot{a}$ -na-ni-vo $po\tilde{n}'$ -ya. See this Journal, an invocation to the gods of the six cardivol. ii. No. 1, p. 75. nal points, and the altar is called the

THE DRY PAINTING OR SAND MOSAIC OF THE ANTELOPES.

About half past ten¹ in the morning preparations were begun for making a sand mosaic or dry painting on the floor of the Moñ'-kiva. At that time there were only four persons present, all but one, Les'-ma, who is a Snake priest, being Antelopes (Tcüb-wymp'-ki-ya(s)). Les'-ma was finishing a blanket which disappeared from the kiva that evening, and was not again brought in during the ceremonial.

The stone floor of the kiva around the $si p\bar{a} pu$ was thoroughly swept by Wi-ki, who then stuffed corn husks into all the crevices about the plank in which the $si p\bar{a} pu$ was, and carefully closed the openings in the floor through which the sand might filter between the stones or flags upon which the dry painting was to be made. The $si p\bar{a} pu$ had previously been stopped up with a plug.

In 1891 Na-syuñ'-we-ve ground different colored sands from the fragments of rocks which Ká-kap-ti had brought. Há-hau-we was engaged in embroidering a dance kilt, and Kwá-a, Hoñ'-yi, and Ká-kap-ti were also present. The ti-po- ni^2 of the Antelopes, not yet untied, lay on the floor back of the altar.

The sand-picture was made by Wi-ki, who began this part of the ceremony by filling an open-meshed basket with fine brown sand which Ká-kap-ti had brought in a canvas bag from the plain. This sand he sifted on the floor around the $si-p\bar{a}-pu$, renewing it when necessary from the bag, until a layer of sand about four feet square was formed. Upon this groundwork Wi-ki next proceeded to elaborate a border of the different colors that are symbolic of the Hopi world quarters. He first took a handful of yellow sand and allowed it to trickle between his thumb and forefinger in the direction he wished to follow, going over and over the line until it was half an inch wide. In this careful way he drew a yellow band on each of the four sides of his bed of sand, several inches from the edge, which described a rectangle about thirty inches square. It was interesting to observe that Wi-ki was

¹ In 1893 Wi-ki began the picture at ² Society palladium. nine A. M. ş

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particular to draw this color across the north side first, because yellow is the symbol of the north; also, that he began it at the northeast corner, moving his hand towards the west until the yellow band on the north side was finished, when he continued the sinistral circuit down the west side, across the south, and finally along the east to his starting-place.

The green sand (malachite) came next in order outside the yellow band, and Wi-ki added it in the same manner; only he let the green sand trickle from his hand first on the west side, as green or blue symbolizes this world quarter. Beginning this time at the northwest corner, Wi-ki again followed the sinistral circuit in his dry painting until the yellow border on four sides was inclosed by a green one.

A little digression next occurred, for Wí-ki left the colored border half completed, to sift white sand from a basket tray over the eastern half of the brown sand that formed the rectangle within the yellow stripe, leaving the other portion uncovered.

He then returned to the border; this time taking up a handful of red sand, with which he added another band outside the green one, and the same width as the previous colors. As red is the color of the south, of course Wí-ki made that side first; going from the southwest corner in his usual sinistral course until the four sides had a red mar-Again Wí-ki left the border unfinished, this time to ornament gin. the half of the groundwork that he had not covered with white sand. With a handful of yellow sand, as it trickled between his thumb and forefinger, he drew on the brown sand the outlines of four semicircles in a row, just large enough to fill the space at the west side of the rectangle, the curves towards the inner part of the field. Wí-ki relied upon his judgment in determining the size of these semicircles, and did not trace a pattern beforehand either for this figure or for any that followed. He next filled each of these semicircles with a thin layer of yellow sand, beginning with that nearest the north. He then added to these semicircles a row of green ones, this time making three semicircles and a half one at each end to complete the remaining quad-This he followed by a row of four semicircles, using red sand rants.



for these. Next in order came a row of white semicircles, which Wí-ki began by sprinkling white sand over the space between the white half of the rectangle and the red semicircles, carefully continuing the white into the angles left by them. He then traced with black sand the outline of another series of semicircles, thus adding white clouds to this symbolic figure of the rain-clouds of the four world quarters.

The colored border of the rectangle was next continued by Wí-ki, who now drew a stripe with white sand the same width as the others, except on the side towards the west, which he made about twice as broad. He followed the sinistral circuit as with the other colors, beginning at the southeast corner and painting the eastern side first, as white typifies this quarter of the heavens. The four colors of the border having been put on in their order, Wí-ki took a handful of black sand and with utmost care traced a line between each of them. He also drew a black line between the border and the rectangle and finished the outer edge of the white band with the same color.

The different colored semicircles were next separated by similar black lines of sand, that which divided the yellow from the green clouds being drawn first. Wi'ki continued his picture by representing the four lightning symbols on the white field. Each was so drawn as to rise from one of the four angles between the white semicircles of the cloud picture, having four zigzags in the body and a triangular head which pointed east. He colored them in order, yellow, green, red, and white; the white figure being outlined later, when black margins were added to the others. These four symbols had the same general form, but important variations appeared in the head appendages.

After the yellow, green, and red lightning symbols had been made, Wí-ki outlined the yellow lightning with a black line. He made four parallel black lines on the neck in place of a necklace, and at the right of the head drew a curved horn pointing outward and forward. He dropped pinches of black sand on the head to represent eyes and mouth. He next made the border of the green lightning symbol in the same way in which he drew that of the yellow, except that on the head of this he represented a square with diagonals instead of a

horn. After having also formed a black margin on the red figure, Wi-ki added a horn to the head, and spots of black sand for eyes. Now came the making of the white lightning symbol, which only needed to be outlined with black sand, since the white groundwork gave the required color. Upon the head of this figure Wi-ki drew the square with diagonals.

He next sifted white sand on the west side of his picture, enough to broaden the white band by several inches. Upon this he drew about forty parallel black lines, nearly three inches long, to represent rain falling from the symbolic clouds. He then finished the mosaic by adding pinches of sand here and there in imperfect places.

The drawing of this sand altar occupied about two hours, so that it was completed at high noon. It was very beautiful as it lay on the floor, reminding one of a rug or blanket. The maker had not touched a finger to it, nor used any rule, cord, or other measuring instrument throughout his work.

When Wi ki had finished the sand mosaic he spun four short and



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one long stringed na- $kw\acute{a}$ -kwo-ci,¹ and made two little cylinders of wood which were about the size of the first joint of the little finger. These cylinders were painted black. The feathers of the na- $kw\acute{a}$ -kwo-ci were stained red, and were at least two in number. One of the other priests made two annulets of the leaf of a flag brought from near Zuñi by some of the participants in the Añá-kā-tcí-nā, which was celebrated a few weeks before. The annulets were formed by winding the flags over and over a central core, and a small handle was attached to each annulet. The two cylinders were then laid, one on the

horn of the yellow and the other on that of the red lightning symbols,

¹ A na-kwá-kwo-ci is a several-stranded end of which one or more feathers are cotton string of prescribed length, to one tied.

while the annulets were carefully placed on the rectangles of the heads of the green and white zigzag figures. The former are the male, the

latter the female, lightning symbols, and the appendages are symbolic of the sex. They were similar to the objects carried by the boy and girls in the Flute ceremony.¹ The four shortstringed na- $kw\dot{a}$ -kwo-ci were placed on the heads of the lightning symbols, the feathers pointing forward.

Wí-ki then uncovered the Antelope ti-po-ni, which up to this time had been lying on its side, wrapped in buckskin, forming an elongated pointed bundle. He next sprinkled corn pollen around the border of the mosaic, across the clouds and down the length of the lightning symbols. A depression back of the western border of the mosaic was now filled with

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Heads of the Male and Female Lightning.

brown sand, by which a bed was made for the ti-po-ni. Six radiating lines representing the cardinal points were drawn with meal upon this mound, and a handful of the same was thrown upon them. Over the junction of these lines Wí-ki waved his ti-po-ni in a horizontal plane, moving it in the different directions indicated by them, and then planted its butt end at their intersection. He then deposited at the side of his ti-po-ni a lion fetish, which was so placed that its head faced the figures of the clouds.

Kó-pe-li, the Snake Chief, standing at the west side of the altar, ¹ See Journal of American Ethnology and Archaelogy, vol. ii. No. 1.

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then handed Wi-ki the ti-po-ni of the Snake Fraternity. Wi-ki took a handful of meal and made six passes to the cardinal points, after each pass drawing a line of meal in one of these directions on the floor just north of the fetish. He then waved the Snake ti-po-ni horizontally in the air above their junction, where he placed it as he had his own. He added three small fetishes by the side of the Snake ti-po-ni and the same by his own, after which he threw meal from above his ti-po-ni diagonally across the mosaic over the head of the white lightning, and continued it along the kiva floor, casting a pinch out the hatchway. The longer na-kwá-kwo-ci, which measured from the middle of the breast to the tip of his fingers, having been drawn through meal held in his hand, was stretched from the base of his ti-po-ni as far as it would reach across the picture in the same direction. When this object had been put in position meal was cast upon it.



Sand Mosaic or Altar of the Antelopes.

Na-syuñ'-we-ve, Kó-pe-li, and Wí-ki then placed ancient stone implements in a single row with ends overlapping on the brown sand surrounding the white border of the sand mosaic, but spaces or gates were left on the middle of the north, east, and south sides. The stone imple-

ments were eighteen in number and had a variety of sizes and shapes, some being spatulate, others rectangular, triangular, or irregular. The position of a gateway on the west side was occupied by the two ti-po-ni(s), and the stone implements on this and the other sides were so arranged that their edges pointed towards the gateway. These



Stone Implements of the Antelope Altar.

implements are said to have been brought up by the ancients when they came out of the middle of the earth, and, like many other objects connected with this dramatization, are undoubtedly very old. Meanwhile Na-syuñ'-we-ve arranged outside the ancient stone implements a row of sticks of three kinds, all of which are very ancient, and some, if not all, represent dead members of the Antelope Fraternity. Of these the crooked kind, $gne-l\ddot{u}'k-pi$, were the most numerous.

These crooks, fifteen in number, were so arranged that four stood on the north, two on the west, four on the south, and five on the east sides of the sand mosaic. These were set in little clay pedestals, likewise reputed to be ancient. One or two had no pedestal, but were laid on one side at the northwestern corner of the picture. Each gateway was guarded by a gne-lü'k-pi on either side, with the crook hanging over the opening. There was also a crook at each side of the three small fetishes which stood on the right and left of the two ti-po-ni(s). These gne-lü'k-pi were wooden sticks with one end crooked, about the size of a lead pencil, eighteen inches long and painted black. A string with a feather stained red attached was tied to the end of the crook.

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The upright sticks of the second kind which were placed in position

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about the sand mosaic were also painted black, and were of about the same dimensions as the gne-lü'k-pi. They differed from those in being straight at the end, and about a foot long. A package of meal wrapped in corn husk and red feathers were tied to each. They were eleven in number, and as a rule each was set in a small clay pedestal, which, however, was not without exception, alternating with the crooks in their

arrangement around the sand picture. At each corner of the $po\tilde{n}'-ya$ stood a stick called a $h\delta-hu$ or arrow-shaft, which closely resembled the snake $p\dot{a}-ho(s)$ in form and size.

After the crooks and similar objects had been set in place Wí-ki took a double handful of brown sand and heaped it up in a small mound a few feet in advance of the east gate of the $po\tilde{n}'-ya$, and drew across it radiating lines of meal corresponding to the cardinal directions, and at their point of intersection set a $n\dot{a}$ -kwi-pi or bowl with the charm liquid of which I have spoken. He then placed an aspergill of eagle feathers to the south of the bowl, and at the side of the east gate, a short distance in front of the line of crooks, he deposited a flat tray of sacred meal. Between it and the altar he laid two slats which may be called whizzers. Kó-pe-li quietly put his rattle on the banquette back of the sand mosaic $(po\tilde{n}'-ya)$, but Wi-ki immediately took it up and laid it with his own rattle on the floor back of the ti-po-ni(s). Each then smoked ceremonially, Wí-ki, Há-ha-we, and Kó-pe-li expectorating¹ constantly into the fireplace.

¹ This is, I believe, ceremonial, and has been witnessed and described in many other observances of a religious nature. The exact significance, however, has not been satisfactorily deciphered.

Stick from Antelope Altar. SECOND DAY (CUC-TÁ-LA, FIRST CEREMONIAL DAY).

The ceremonies of this day consisted of the consecration of prayersticks or $p\acute{a}$ -ho(s), the manufacture of which occupied all the fore-

noon, and they were repeated with some changes and additions on the six following days.

The $p\dot{a}$ -ho(s) are the prayer bearers, and vary in kind according to the divinity addressed, and in length relatively to the distance of the shrines in which they are deposited. The majority of the $p\dot{a}$ -ho(s) manufactured by the Antelope priests are called $ca-kw\dot{a}-pa-ho(s)$ or blue $p\dot{a}$ -ho(s), and are carried by a special courier to the fanes of the rain-gods, who thus become aware of the wishes of the makers. The virtue of the prayer-sticks is therefore in the prayers said to them or committed to their care. These $p\dot{a}$ -ho(s) are consecrated by traditional songs or ceremonial smoking, but their manufacture has more or less of a sacred character. The attention of the reader is first called to the making of these objects and the prescribed rules which must be rigidly followed. As there are four primary

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Hand representing Length of Ca-kwa-pa-ho(s).

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world quarters, each with its rain-cloud god, so four of these $p\dot{a}$ -ho(s) were made, one to be deposited in each of the four shrines. Since

the distance of these places of offering diminishes day by day for seven days, $p\dot{a}$ -ho(s) of seven different lengths were made, measuring them by the distance from creases on the hand to the tip of the finger, as shown in the cut, the longest being used on the first day.

In a ceremony in which reptiles played such an important part, it may seem strange that there was no fetish of $P\acute{a}$ -lü-lü-koñ, the great plumed snake, on the altar, although there were several effigies¹ of this powerful deity of Hopi mythology in Wal'-pi. The reason is clear, for this observance is in reality a ceremonial for rain, and although incidentally offerings were made to both $P\acute{a}$ -lü-lü-koñ and Má-sau-wûh, the death-god, the principal deity addressed was O'-mow-ûh, the raincloud god of the cardinal points. It is also suggestive, in support of the belief that snake worship is only a subordinate factor in the Snake Dance, that the plumed serpent is not mentioned in the legend of $T\acute{u}$ -yo, which is always recited by the Hopi priests in their explanation of the celebration.

Before beginning the making of a $p\acute{a}-ho$ each priest smoked for some time. He then made two sticks of a prescribed length, each of which he sharpened at one end, afterwards polishing it on a rough stone. These sticks were then painted green, with black points, and placed on a basket tray to dry. Meanwhile the priest wound a native cotton string four times around his four fingers, to get the required length, and then tied the two sticks together with it just above their black points. The two thus united are male and female. A small corn husk was next folded funnel-shape, and into it were dropped prayer-meal and a little honey. It was rolled into a packet, and was attached to the sticks at their union. Above this a short fourstranded string stained red, with two small terminal feathers, was tied to the pocket. A turkey wing-feather and a sprig of each of the

¹ For a description of the ceremony in which these were used, the reader is referred to The $P\acute{a}-l\"{u}-l\ddddot{u}-ko\^{n}-ti$ (Journal of American Folk-Lore, December, 1893). This ceremony was once thought to be

connected in some way with the Snake Dance, and later observations may bring to light relationships between the two which have thus far eluded the author.

herbs kurñ-yu and pam'-na-vi, on the opposite side, completed this strange prayer object. Each priest placed his sticks on a flat basket tray, and later held them to his mouth and smoked upon them. The

Antelope priests who took part in this were Wí-ki, Na-syuñ'-we-ve, Kwá-a, Há-ha-we, and Ká-tei.

One important $p\acute{a}$ -ho, different from those above described, was made by Na-syuñ'-we-ve. This was a single long, black pointed stick, of the length of the forearm, and had many strings with attached feathers tied to it. It was the $p\acute{a}$ ho of the deity $M\acute{a}$ -sau-wûh, and the several stringed feathers were individual offerings or prayer bearers to the god of death.

In the course of the morning each man made one or more *na*-

 $kw\dot{a}$ -kwo-ci, or personal offerings, to be carried to the shrines by the one to whom the $p\dot{a}$ ho(s) were intrusted. When all had finished their work Wi-ki gathered up the whittlings and other fragments, clearing the floor in ceremonials about

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preparation for the solemn ⁴ to take place, and depos-

ited them with a pinch of prayer-meal in an appropriate place over the side of the mesa.

THE SIXTEEN SONGS CEREMONY.

On the second and each succeeding day a ceremonial consecration of the $p\dot{a}$ -ho(s) took place, during which sixteen songs were sung by the Antelopes seated around the altar. This occurred at noon excepting on the eighth and ninth days, when half of the songs were sung before sunrise and half immediately after. On the last two days an interesting dramatization was introduced, in which representatives of the Snake boy, Ti-yo, and the Snake girl, Tcü-a-má-na, of legendary history, appeared. On the last two mornings there were also several persons present who did not appear on the previous days, notably the Snake chief, Kó-pe-li, who occupied a position of honor back of the sand mosaic. Several of his fraternity accompanied him, and on the morning of the ninth day women and children also attended. There seemed, however, to be no important difference between the songs of the mornings of the eighth and ninth days and those of the preceding days, although the attendant dramatization rendered the ceremony more complicated.

It would simply be a repetition to give a detailed description of the sixteen songs ceremony on each of the seven days, as the element of dramatization introduced on the mornings of the eighth and ninth days necessitates an account of them in an appropriate place. The following description may be taken as typical of this celebration on the first seven days.

The Antelope participants in 1893 on the first $p\dot{a}$ -ho consecration were Wí-ki, Na-syuñ'-we-ve, Há-ha-we, Ká-kap-ti, Hoñ'-yi, Kwá-a, and Si-kya-bó-ti-ma. The last mentioned was absent in 1891, but in 1893 he acted for his brother Ká-kap-ti as courier in depositing the prayersticks.¹ In this ceremonial and in others in which he took part, Há-ha-we filled the place of a boy whose father had died, the boy not yet being old enough to perform his part. The sole Snake priest present was their chief Kó-pe-li.

¹ A very natural substitute, since he is which identically similar encircling courses courier of the Flutes in their ceremony, in are taken in visiting the shrines.

From time to time the priests glanced at the line of sunlight on the floor of the kiva, and when it fell in such a position as to indicate noontime, Wi-ki deposited a flat basket near the south gate of the altar, and placed upon it two "whizzers," which he first anointed with honey. All present said "Tá-ai," and drew up about the sand mosaic, assuming a squatting posture. Ká-kap-ti remained 1 seated on the spectator's part of the kiva floor until Wi-ki assigned him a position directly in front of the south gate of the sand mosaic. The disposition of the others was as follows : Wi-ki sat at the northwest corner of the mosaic, a position of honor which he always occupied. At his left sat Na-syuñ'-we-ve, beside whom was Kwá-a, who occupied a position a little to the east of the north gate. Ká-tci sat at the northeast corner. In front of these two priests, between Wi-ki and Ká-tci, the $p\dot{a}$ -ho(s) were arranged on a tray of meal. After all had squatted in position, Há-ha-we, who had moved to the south of a line east from the gate, lit a small pipe filled with native tobacco, and smoked six puffs on the sand mosaic, three into the medicine of the ná-kwi-pi before him, and three more on the sand picture. He then passed the lighted pipe, holding it low down near the floor, with bowl forward, to Wi-ki. As the latter received it, Há-ha-we said, "I-vwá-va," my elder brother, to which Wi-ki responded, " I-túp-ko," my younger brother.

Wí-ki then smoked on the two ti-po-ni(s), which are the palladia of the Antelope and the Snake fraternities, and then puffed great mouthfuls of tobacco smoke on the $p\dot{a}$ -ho(s) in the basket in front of him. As he did this in silence, Há-ha-we lit another ² pipe, smoked it for a time, and passed it to Ká-kap-ti, exchanging terms of relationship with him.

Há-ha-we then turned over the gne-lü'k-pi on the floor, at the south side of the east gate, simply placing it so that the crooked end pointed to the south. Wí-ki, meanwhile, had handed the pipe to Na-syuñ'we-ve, who replied as he received it, "I-ná-a."³ He smoked many times on the $p\acute{a}$ -ho(s), but seldom on the sand mosaic. After a few

¹ Note this fact of invitation. It is believed to signify something. ² Note this fact.
⁸ I-ná-a, my father.

PALOMAR SOLLAGE UBRARV PALOMAR COLLEGE SAN MARCOS, CA 92069 ŝ

moments, Na-syuñ'-we-ve passed the pipe ceremonially to his left-hand neighbor, Kwá-a.

Ká-kap-ti then returned the pipe which he had smoked to Há-ha-we, exchanging terms of relationship as he did so. He next took his feather box and passed two black feathers to Wí-ki, who gave him a corn husk. Wí-ki made a $n\alpha$ - $kw\acute{\alpha}$ -kwo-ci and talked (offhand ¹) to Ká-kap-ti. Meanwhile he also handed a pinch of corn pollen to the others, and took up the cylinders on the horns of the male lightning on the sand mosaic and tied $n\alpha$ - $kw\acute{\alpha}$ -kwo-ci to each. He then replaced the cylinders on the heads of the lightning symbols.

At about this time Kwá-a handed the pipe to Ká-tci, who returned the same to Há-ha-we, from whom, as he received it, came a response, "I'-ti-i."² A prayer was then offered in a very low tone by Wí-ki, all bending their heads in a reverential manner. Há-ha-we prayed, and smoked the pipe which had been returned to him, vigorously puffing smoke on the sand picture. Wi-ki then said : "Where is Kó-pe-li?" and sent Kwá-a to get him. In a short time both came in, and Kó-pe-li took a seat west of the sand mosaic at Wí-ki's right hand. Wí-ki and Kó-pe-li raised their rattles in their right hands as a sign for silence, and Há-ha-we took up his aspergill. After a brief solemn interval Wi-ki fervently prayed, followed by Kó-pe-li, Na-syuñ'-we-ve, Há-ha-we, and Kwá-a. As each said his prayer the others responded, "An-tcai," right. When these devotions had ceased, Wi-ki and Kó-pe-li tremulously shook their rattles in unison, keeping time with Há-ha-we. Ká-kap-ti took one of the crooks from the altar, and Na-syuñ'-we-ve, Kwá-a, and Ká-tci a $p\dot{\alpha}$ -ho with which to beat time.

All then began the first song of the series, and as they sang Háha-we took a pinch of meal, and, throwing a little towards the north, placed the remainder on different parts of the sand mosaic. He next dipped the tip of his aspergill into the liquid in the $n\acute{a}$ -kwi-pi, beating time to the song. He sprinkled the altar four times, throwing the

¹ Not sure what he said.

² I'-ti-i, my son.
liquid to different parts of the sand mosaic. To do this he dipped the tip of the aspergill four 1 times in the liquid, each time asperging the altar. Having sprinkled the sand mosaic, he asperged to the cardinal points, beginning with the north and following the sinistral ceremonial circuit. As he did this he kept time with the rattles, and after throwing the liquid from the aspergill in the direction corresponding to the above, he brought his hand down to a level with his breast and kept on beating time with the singers. After a short interval he cast a pinch of meal to the west, and then on the altar, after which, dipping his aspergill in the liquid four times as before, he sprinkled the sand picture four times and then asperged to the cardinal points. He repeated this around the whole circuit several times until the song changed. At the close of the first eight songs Ká-kap-ti sprinkled the altar with meal, after which all except Kó-pe-li threw meal upon it. Wí-ki, however, always carefully cast meal on the ti-po-ni(s) as well as upon the sand mosaic. Há-ha-we continued asperging while the meal was being thrown on the sand picture. The songs then ceased, and Wi-ki sent Ká-tei to bring him a light. Ká-tei went out, and soon returned with a burning corncob, while all sat silently awaiting Wi-ki's preparation for the great O'-mow-ûh smoke, which was one of the most sacred acts performed by the Antelope priests in these ceremonials.

The $wu-k\delta$ -tco-no is a huge, stemless pipe, which has a large opening in the blunt end, and a smaller one in the pointed. It is five inches long, one inch in diameter at the large aperture, and its greatest circumference is seven and a half inches. The pipe is made of some black material, possibly stone, and as far as could be seen was not ornamented. The bowl had previously been filled with leaves carefully gathered from such places as are required by tradition. In the subsequent smokes the ashes, "dottle," were saved, being placed in a small depression in the floor, but were not again put in the pipe.

Wi-ki took the live ember from Ká-tci and placed it in the large

¹ The number of times varied somewhat, but I think four was intended.

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opening of the pipe, on the leaves which filled its cavity. He then knelt down and placed the pipe between the two ti-po-ni(s), so that



Great O-mow-uh Pipe

the pointed end rested on the head of the large fetish, between the ears. Every one remained silent, and Wí-ki blew several dense clouds of smoke upon the sand altar, one after another, so that the picture was concealed. The smoke was made by blowing through the pipe, the fire being placed in the bowl next the mouth, and the whole larger end of the pipe was taken into the mouth at each exhalation.

At the San Juan pueblo, near Santa Fé, where I stopped on my way to Tusayan, I purchased a ceremonial headdress upon which several spruce twigs were tied. Wí-ki received some frag-

ments of these with gratitude, and they formed one of the ingredients which were smoked in the great O-mow- $\hat{u}h$ pipe. The scent of the mixture was very fragrant, and filled the room, like incense. The production of this great smoke-cloud, which is supposed to rise to the sky, and later bring the rain, ended the first series of eight songs.

Immediately after this event, Há-ha-we filled one of the smallstemmed pipes lying near the fireplace with native tobacco, and after lighting it puffed smoke on the altar. He passed the pipe to Wí-ki, holding it near the floor, bowl foremost, as he did so, and exchanging the customary terms of relationship. Wí-ki then blew dense clouds of smoke over the two ti-po-ni(s) and on the sand picture. Há-ha-we, meanwhile, lit a second pipe, and passed it to Kó-pe-li, the Snake chief, who enjoyed it in silence, indiscriminately puffing smoke on the altar, to the cardinal points, and in other directions. Kó-pe-li later gave his pipe to Ká-kap-ti, who sat at his right, and Wí-ki passed his to Na-syuñ'-we-ve, who, after smoking, handed the pipe to Kwá-a, who in turn passed it to Ká-tci, by whom it was given to Há-ha-we. Ká-tci, the last priest to receive it before it was returned to the pipe-lighter, smoked for a long time, and repeatedly puffed clouds of smoke upon

the sand picture. Meanwhile Ká-kap-ti had handed his pipe to Háha-we, both exchanging terms of relationship and carefully observing the accompanying ceremonial etiquette. Há-ha-we, as was his unvarying custom, carefully cleaned the two pipes, and laid them on the floor by the side of the fireplace.

Wí-ki and Kó-pe-li then took up their rattles again and gave the signal to begin a new series of songs. As the first song proceeded, Há-ha-we took a pinch of meal, cast a portion to the north and the remainder on different parts of the sand mosaic. He then dipped his aspergill in the liquid before him four times, each time sprinkling the picture. He followed this immediately by a motion of the hand, asperging to the north, west, south, east, and the above, bringing his aspergill down at the end of the circuit to again accompany the rattles. This he repeated several times, beginning with the successive cardinal points in the order which has been mentioned above.

The song then changed, Wí-ki and Kó-pe-li both taking a crook from the picture, and the three priests, Na-syuñ'-we-ve, Kwá-a, and Ká-tci, taking $wu-p\dot{a}-pa-ho(s)$. As the song went on, they raised these above their heads, and, waving them to the cardinal points ceremonially, brought them down several times until the attached $na-kw\dot{a}-kwo$ ci(s) touched the altar, the accompanying song assuming a peculiarly weird character at these times. Wí-ki then told Há-ha-we to use the thunder $p\dot{a}-ho$, and this priest took the whizzer from the basket at his right, which was at the left of the east gate, and, dipping its end in the charm liquid of the $n\dot{a}-kwi-pi$, stood and rapidly twirled it so that it emitted a peculiar sound four successive times. He then mounted the ladder and stood on the roof on the south side, and there whirled the whizzer,¹ making the same number of sounds as in the chamber below.

¹ The whizzer was a thin wooden slab, slightly rounded on each face and terminated in three terraces. The faces are decorated with longitudinal zigzag bands or lines. The attached string is composed of many braided strands, and is fastened to a hole at one end of the whizzer. The form of different whizzers varies, but is generally that which has been described. They are called $t\ddot{u}$ -vwok'-pi(s) (whirligig criers).

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He descended to his former position by the east gate of the sand picture, and, joining the singing which had continued during his absence, began anew his former ceremonial duties of casting meal to different points of the room, upon the sand mosaic, and in proper sequence asperging to the cardinal points and the picture.

When the song next changed,¹ Ká-kap-ti took up one of the ancient stone hoes from about the sand picture and beat upon the floor with it in time with the song and rattles.² The last two songs were particularly melodious, and were, without exception, the finest of the series. At the conclusion of the sixteen songs, eight before and eight after the smoking of the great pipe, Wi-ki said a prayer, and at its close sprinkled prayer-meal upon the ti-po-ni(s) and the sand picture. Kópe-li followed with a prayer, and likewise cast an offering of meal upon the ti-po-ni(s) and sand altar. Na-syuñ'-we-ve prayed, making his offering, and Há-ha-we, followed by Ká-tci, did the same. Ká-kap-ti, with signs of deep emotion, offered a very fervent prayer, to which all earnestly responded. It will be seen later that Ká-kap-ti carried the consecrated prayer-sticks to the distant shrines, and possibly this fact accounts for his fervor at this time. Há-ha-we then lit the pipes and passed them to Wi-ki and Kó-pe-li, as above described, after which each in turn smoked ceremonially, exchanging terms of brotherhood and relationship, and the consecration of the $p\dot{a}$ -ho(s) was finished.

At the close of the smoke Há-ha-we arranged the $p\acute{a}$ -ho(s) in four bundles, and Ká-kap-ti laid a na- $kw\acute{a}$ -kwo-ci upon them. Wí-ki filled

¹ New song (second of second series).

² Wi-ki explained this by the statement that Ká-kap-ti was telegraphing to the old *Ica-má-hi-a* at the distant pueblo Acoma, as a signal that the Hopi were now worshiping, asking them to come, which call, said Wi-ki, was answered. They came to the Moñ'-kiva on the night of the eighth day.

It has been suggested that the *Tca-má-hi-a* who responded and came to Wal'-pi

on the eighth day is the *Ma-kwán-ta*, who called out this and other archaic terms at the cottonwood bower at the public exhibitions on the eighth and ninth days.

All the Antelope priests insisted that there was a Snake Antelope assembly at Acoma, and this is historically supported by Espejo, who has mentioned the Snake dance performed at that pueblo (see Bandelier.)

a small bag with sacred meal from the tray near him, and Ká-kap-ti rose and stood near the fireplace on the north side, facing the west. Wí-ki handed him a white kilt with green, black, and red border, which he tied about his waist. While he was doing this, Wí-ki rolled up the $p\acute{a}-ho(s)$ in a square piece of cloth. This bundle he placed in a white ceremonial blanket with white and red border, tying two opposite corners tightly about the bundle, and the others in such a way that it



Ka-kap-ti leaving the Kiva.

could be put over the shoulder. Wi-ki then affixed a white na- $kw\dot{a}$ -tá to Ká-kap-ti's scalp-lock, and put a little honey on the sole of each of his feet, the inside of each hand, the top of his head, over his heart, on his tongue, and in the middle of his back.

He next handed him the small bag of sacred meal and the blanket in which were the $p\dot{\alpha}$ -ho(s), which Ká-kap-ti slung over his left shoulder. Na-syuñ'-we-ve placed in his hand a $p\dot{\alpha}$ -ho for $M\dot{\alpha}$ -sau-w $\hat{u}h$ and a morsel of food, and Wí-ki then told him to hasten away to the shrines.

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Ká-kap-ti without a word leaped up the ladder, rushed through the village, past the sacred rock, by the three kivas on the east side of the main plaza, and across the narrow neck of land by which one enters Wal'-pi. He went down to the plain by the trail on the north side of Si-tcom'-o-vi, running directly to the shrine of $M\dot{a}$ -sau-w $\hat{u}h$, where he knelt and deposited the offering to the death-god. He then rose and took the trail across the plain directly north, running as fast as he could, and ultimately passing out of sight. He was said to have gone to a shrine (pa-h o - ki) far outside of all cultivated Wal'-pi fields, or as far as the main spring of Mi-cóñ-în-o-vi. After he had placed the offering or green $p\dot{a}$ -ho in that shrine, he turned to the west and ran to the shrine near the great spring of Mi-cóñ-în-o-vi. He then hastened to a south shrine about the same distance from Wal'-pi, and finally to the place of offering at the east. It will thus be seen that he made a circuit with a radius of about six miles in a sinistral direction around Wal'-pi as a centre. At the four shrines (pa-hb-ki(s)) of the cardinal points he deposited, it was said, a na-kwá-kwo-ci and a pá-ho. We shall later see that day by day the length of his run diminished, and that on the last day he did not leave the mesa top, but placed the p a - ho(s) on different sides of the village corresponding to the same cardinal points. It is obligatory upon Ká-kap-ti, when he is making these deposits, to run the whole distance, and he did so as far as we could see him on the first day, while on later days we observed him running the whole circuit.

The ceremony of giving Ká-kap-ti the $p\acute{a}-ho(s)$ ended at about half past one, and at half past five Ká-kap-ti returned, still running even when he went up the trail of the mesa. As he entered the Moñ'-kiva he approached the sand picture and sprinkled what meal remained in his hand upon it, and Wí-ki said, "*Kwa-kwaí*." Ká-kap-ti took off his kilt, which he handed to Wí-ki, who folded it and laid it on the banquette at the end of the kiva. He also passed Wí-ki the empty blanket in which the $p\acute{a}-ho(s)$ had been carried. Wí-ki untied the white feather from Ká-kap-ti's hair, and the latter, panting heavily from his violent exercise, took his seat near the fireplace and spoke for the first time since his return. When Ká-kap-ti left the kiva to carry the $p\acute{a}-ho(s)$, Ká-tci went out also taking $p\acute{a}-ho(s)$ and a small bundle with morsels of food. He went down the south trail, but his subsequent course was not watched, nor was any information elicited as to the significance of his departure.

No ceremonies took place in the Wi-kwal'-i-o-bi kiva on this day, although the $n\dot{a}$ -tci was observed in the matting of the hatchway. Kó-pe-li, however, ate and slept in the Snake chamber, occupying his time with carding and spinning cotton for $p\dot{a}$ -ho strings. He repeatedly went out, and always brought his own food from his house, returning the empty food basins to the members of his household. This was a custom with the members of the Snake Fraternity on sub-

sequent days, when all ate in the kiva. Except on the last day, when the feast took place, the women never brought food to the Snake priests, but the men themselves procured it from their houses and always personally returned the food vessels.

During this day the Snake *ti-po-ni*, inclosed in its wrappings, was suspended on the wall of the kiva, and



Jar in which the Snakes are kept.

Kó-pe-li had a single snake which he freely showed to visitors. At dusk he took down the $n\acute{a}$ -tci from the matting at the hatchway.

THIRD DAY (LÜC-TÁ-LA, SECOND CEREMONIAL DAY).

This day was the first of the four in which the snake hunts occurred, and on it and each successive day they took place in the plain in the following quarters: on Saturday the hunt was to the north, on Sunday to the west, on Monday to the south, and on Tuesday to the east. During the hunt in any one of these quarters, the Indians, not members of these priesthoods, whose fields happened to be in that section, did not work¹ in them, and it was regarded injurious to follow the

¹ On one occasion Kó-pe-li carefully avoided meeting Ká-kap-ti, the courier, when on his way to deposit the offerings at the four cardinal shrines. Happening

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to meet us, 'e anxiously asked which way Ká-kap-ti had taken in passing through the village, in order to avoid him. ł



hunters and bad luck to meet them. Although I was very anxious to accompany the snake hunters, and tried in every way to get permission either for Mr. Owens or myself to do so, it was not possible to persuade the priests to allow us to go with them.¹ They said that their chief objection was that the four novices or $k\hat{e}$ -le(s) might be bitten in the hunt, and that the snakes would be angry with them if we were allowed to take part in the ceremony of their capture. These events have, however, been witnessed by other observers in previous years, as will appear in a description to be quoted later.

On Saturday morning, for the first

¹ Similar objections were made to our accompanying the snake hunters in the presentation of 1893.

² The snake-whip (tcü-vwu-vwá-pi) consists of a shaft about six inches long, to the back of which is tied three, sometimes two, eagle tail-feathers. The shaft is of cottonwood, cylindrical, slightly pointed at one end, and is stained red. It is ornamented on one side with the incised figure of a rattlesnake painted blue (green), the head (ko-túad-ta) of which is triangular, with two anterior projections representing a tongue. The feathers are bound to one side of the shaft, opposite the symbol of the rattlesnake, by a buckskin thong (cu-mé-ad-ta). To the tip of each feather is tied a small bluebird feather. Among the snake-whips which I have examined, there was one which had a double handle, and a similar double-handled snake-whip is figured by Mindeleff, but the majority of the snake-whips used at Wal'-pi had a single shaft.

time, a majority of the $Tc\ddot{u}'-a$ -wymp-ki-ya(s) assembled in the Wi-kwal'i-o-bi kiva and prepared for the hunt. They brought with them planting-sticks and hoes, which were laid on the raised hatchway of the kiva while their owners descended to the chamber to prepare for the hunt.

Each hunter rubbed his body all over with red iron oxide $(c\hat{u} ta)$ and fastened a na- $kw\hat{a}$ -ta, stained with the same color, to his scalplock. His back hair was tied in the ordinary manner, while that of the sides fell to his shoulders. A simple undecorated cloth was tied as a kilt about his loins, and he wore moccasins, but with these exceptions he was without clothing. Besides his hoe or plantingstick each priest carried in his hand a little red buckskin bag with fringe at each lower corner and a handle of the same material. It was said to contain sacred meal with which to sprinkle the snakes



Position of the Priests when the Pa-ho(s) were given to the Snake Chief.

when they were captured. Each priest also had his snake-whip in his hand, and a canvas bag in which to carry the reptiles he might capture.

When the snake hunters returned to the kiva, they deposited the bags in which the snakes were confined by the fireplace, and all the

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chiefs solemnly smoked upon them. Wi-ki came in and sprinkled each bag with corn pollen. Then the snakes were taken out one by one, and put in jars which were placed at the west end of the kiva. There were four of these jars, and when not in use they were kept in a cave on the northwest side of the mesa.

The exercises, during which the Antelope chief gave the $p\dot{a}$ -ho(s) to the Snake chief on each day of the snake hunt, were important. Before departing for the snake hunts Kó-pe-li received from Wí-ki $p\dot{a}$ -ho(s) and a na- $kw\dot{a}$ -kwo-ci to deposit in the Snake house of the quarter in which he was to hunt. Wí-ki, Na-syuñ'-we-ve, Há-ha-we, Ká-tci, and the Snake chief gathered about a tray in which were two $p\dot{a}$ -ho(s), near the fireplace in the Moñ'-kiva, in the positions indicated in the cut.

The $p\dot{a}$ -ho(s) were then smoked upon by the priests in turn. The pipe-lighter first lit the ceremonial pipe, and, holding up the tray, puffed directly on the $p\dot{a}$ -ho(s). The Antelope chief followed, and the other priests in turn, the chief of the Snakes being the last to smoke. Há-ha-we was observed to be most devout in this duty. The pipe was handed back to Wí-ki in the reverse order, who, having again smoked, laid it on the floor. Wi-ki now took the $p\dot{a}$ -ho(s) from the tray, and, holding them in his right hand, prayed four or five minutes, and then passed the prayer-sticks to Kó-pe-li, who received them in his left hand. Na-syuñ'-we-ve next prayed, and was followed by Há-ha-we, whose prayer was most fervent. As he prayed he held the ceremonial pipe in one hand, and resumed his smoke after this act of devotion. Kó-pe-li said a short, earnest prayer to which the others emphatically responded, and then he withdrew. Upon entering the other kiva, where the Snake priests awaited him standing, he held the two $p\acute{a}$ $ho(s)^{1}$ and the *na-kwá-kwo-ci* in his hand, and said a prayer to which the others responded. They then followed him to the snake hunt.

On the first snake hunt the Snake priests formed in line near their kiva and filed under the arcade into the dance rock plaza, and contin-

¹ These pa-ho(s) did not vary in length but were always the length of the middle on the four successive days of the hunt, finger.

ued past the narrow place in the mesa to the east of Wal'-pi, and then down the trail north of Si-tcom'-o-vi. Kó-pe-li left a red na-kwá-kwo-ciat the shrine of Má-sau- $w\hat{u}h$,¹ and each one of the line halted and made a prayer offering at the same place.

After the departure of Kó-pe-li, Wí-ki renovated all wooden sticks or "crooks" about the altar, and the others began the manufacture of the $p\dot{a}$ -ho(s), to be carried to the world quarter shrines after their ceremonial consecration by the sixteen traditional songs. These did not differ from the songs described above; and the $p\dot{a}$ -ho(s) were also the same as on the preceding day except in length.

FOURTH DAY (PAIC-TÁ-LA, THIRD CEREMONIAL DAY).

Exercises similar to those of the third day were conducted in the Moñ'-kiva, but the Snake kiva was deserted, as the Snake priests were absent from the village, and no one entered it. Sú-pe-la's wife, who is the senior female member of the Snake people, filled two large bowls which stood outside this kiva with water for the Snake priests to drink and bathe with on their return from the hunt. During this ceremony the priests² habitually slept on the ground near the kiva.

¹ The shrine of $M\dot{a}$ -sau- $w\hat{u}h$ is one of many places of offering to this deity which are found near the trails approaching the villages. Ordinarily $M\dot{a}$ -sau- $w\hat{u}h$ shrines are simply heaps of sticks or piles of stones, and it is customary for an Indian, toiling up the trail with a heavy bundle of wood on the back, to throw a small fragment from the load upon these shrines, or to cast a stone upon them as he goes to his farm. These are offerings to $M\dot{a}$ -sau- $w\hat{u}h$, the fire-god or deity of the surface of the earth.

The shrine referred to is, however, much more elaborate than most of these. One side of it is formed by a large rock, and the others of cedar and other sticks piled waist high, leaving a small recess open to the east.

In this recess, which practically opens upon the trail, there are many small clay dishes of the rudest pattern. Some of these are ornamented, but as a general thing they are coarsely made and too small to have been used for household purposes. I have repeatedly observed women who were bearing fuel on their backs throw the offering to $M\acute{a}$ -sau-wâh without halting. Their lips moved as if in prayer, but I was unable to obtain from them the words which they uttered.

² The faces of the priests were very solemn, and men who at other times had been very kindly disposed to me during

Early in the morning the Snake chief went into the Antelope kiva, and a ceremony in which Wí-ki gave him his feather offerings, exactly like that of the day before, took place. When the Snake chief returned to his kiva, all the Snake priests came out dressed in the appropriate way for the hunt, and gathered up the hoes, sticks, and other implements used in the capture of the snakes, which had been laid over night upon the roof of the kiva. In solemn procession they then filed away to the snake hunt in the plain at the west. Before the Snake men left the room, a little girl brought a tray of meal and tapped with her foot upon the roof of the chamber. At her signal, the Snake chief came up and took the tray. This meal was possibly sprinkled upon the captured snakes, but corn pollen is said to be used for this purpose.

While the Snake men were absent on the hunt, a repetition of the sixteen song ceremony of consecrating the feather offerings¹ by the Antelopes took place. This ceremony was performed, as on former days, at about noon, and did not differ substantially from that which has been described.² Yellow, green, red, white, black, and variegated herbs, with a little honey, were to-day added to the charm liquid used by Há-ha-we in asperging. I am not sure whether this mixture

the Snake Dance had a stern and forbidding manner both in the kiva and outside. Whenever they spoke to me it was in a whisper and in monosyllables. With the exception of the initiation ceremonies, which will later be described, no woman entered the kiva of the Snakes at any time. If a woman approached the Snake chamber she never stepped upon the roof, nor spoke to the person who came up to get what she had brought. Strange beliefs prevail as to the evil influences which would come to a woman addressed by the Snake priests at this time.

¹ The following $p\acute{a}$ -ho(s) were made on the fourth day : — 1. Twelve ca-kwá-pa-ho(s).

- 2. Eight black $p\acute{a}$ -ho(s).
- 3. Eight white na-kwá-kwo-ci(s).
- 4. Numerous red na-kwá-kwo-ci(s).

Of the first Wi'ki, Na-syuñ'-we-ve and Ká-tci made four each. Wi'ki, Há-hawe, Na-syuñ'-we-ve, and Kwá-a each made two black $p\acute{a}$ -ho(s), and Na-syuñ'-we-ve and Ká-tci a white na- $kw\acute{a}$ -kwo-ci. Later all the others did the same. These were laid on an offering of shells which I had brought.

² The participants in 1893 were the same as yesterday, with the addition of Ká-tci.



Ho-ko-na-ma-na, or Butterfly-Virgin Slab.

varied from day to day, but on Thursday a pinch of corn pollen was dropped into it.

On this morning (Sunday) there appeared in the Moñ'-kiva for the first time the slab called the Ho-k6-na-md-na, "butterfly-virgin," nicely repainted by Há-ha-we. It was placed back of the altar on the south side, where it remained during the ceremonies of the following days, not being touched by any of the priests. Ho-k6-na-ma-na is a smooth

stone slab with rounded corners, fourteen inches long, ten inches broad, and an inch and a half thick. This slab was decorated with a symbolic figure of the rain-clouds, two butterflies, and several tadpoles, as shown in the cut.

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Another object on the altar which was noticed this morning for the first time was a jar called the pat'-ne. It was made of clay, stained a dark red, with indistinct ornamentations in black. In shape it was

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almost spherical, and around the neck was tied a string, from which hung at equal intervals four other strings with feathers attached. The two terraced objects on the surface of the bowl, as shown in the cut, are duplicated on the other side. They are free from the jar except at its equator, from which they rise, and represent rain-clouds.

The skins of a skunk, weasel, and coon were observed on the floor back of the altar.

The departure of the snake hunters on Sunday was watched, and their course followed until they separated in the plain at the west end of the mesa. They followed the Mi-coñ'-în²ò-vi trail half way down the mesa, to the petrified wood shrine, where each one deposited a *na-kwá-kwo-ci*,¹ which he sprinkled with sacred meal. The priests then made their way to the neighborhood of the pictographs of the giant eagle, in a cleft in a rock back of which the Snake house of the west is situated. Here they left the $p\acute{a}$ -ho(s) which Wí-ki had given to Kó-pe-li, and when we visited the cleft after their departure we noticed also a large black $p\acute{a}$ -ho. From this place the Snake priests separated into squads, who scoured the plain for the snakes. They strongly objected to our witnessing the ceremonials which took place at that time.

The following account of the capture of the snakes by Messrs. Stephen and Messenger appeared in the "New York World:"--

"Presently they (Snake priests) broke into groups of two and three, and then began cautiously to peer and poke among rocks and bushes for the snake mother's children. In a short time a low call came from a man who was thrusting his stick into a dense clump of greasewood, and as the hunters gathered there it was found to be a large rattlesnake lying in the heart of the thicket. Without hesitation they at once proceeded to cut away the bushes with their hoes, and strangely enough, although the snake lay in coil and watched them, it made no rattling or other display of anger. One of the twigs fell upon it, and the man nearest stooped down and deliberately lifted the branch away.

¹ These *na-kwá-kwo-ci*(s) are painted red throughout the ceremony to inform the Snakes that the warriors are in the field, and that their festival is being celebrated. For that reason, also, the Snake priests and others wear the red feather.

"Each one then sprinkled a pinch of meal upon the \sin^2 man who had found it bent over and tapped it lightly with the **feature** ers of his snake-whip, and then it straightened out to make off. but just as it relaxed from coil, the hunter, using his right hand, in which he held his snake-whip, instantly seized it a few inches back of the



Snake Hunters descending the South Trail.

head. Holding it out, he gave it a quick shake, and then proceeded to fold it up, and put it in one of the small bags carried for this purpose, showing no more concern in its handling than if it had been a ribbon."

FIFTH DAY (NA-LUC'-TA-LA, FOURTH CEREMONIAL DAY).

The ladders of both Snake and Antelope kivas were gayly decorated this morning, for the first time, with a new object, a bow and arrows with red horsehair hanging from the bow-string. Within the Ante-

lope room cornstalks, bean, melon, and squash vines, brought in by Ká-kap-ti, were placed back of the altar, and four small gourd waterbottles, each covered with a netting, appeared for the first time. On the hatchway, also, there was a significant addition. Fresh brown sand had been sprinkled over this portion of the two kivas, probably to recall the traditions of olden times, for this was the fourth ceremonial day. There are four chambers in the under world, and possibly the placing of fresh sand around the kiva entrance may typify or commemorate the fact that each ceremonial day represents one of these, and that on the fifth the ancestors of the Hopi came to their present abode, the earth's surface.

The Antelope sand picture was fresh and bright, having been retouched this morning by Na-syuñ'-we-ve. At about nine o'clock, as on former days of the Snake hunt, the offerings were given to Kó-pe-li by Wí-ki. The snake hunters went down the south trail and deposited their $p\dot{a}$ -ho in a shrine near Wí-ki's house in the plain.

In the singing of the sixteen songs about the sand picture on this day there was one variation. Just before Wí-ki asked for the light to use in the O'-mow- $\hat{u}h$ pipe ceremony, a girl came in and silently squatted back of the line of Antelopes on the north side of the sand mosaic.¹ During the songs she beat time with a *ca-kwá-pa-ho*, and at the close of the prayers which followed the last of the sixteen songs, she left the kiva after having scattered meal as an offering upon the altar.

Ká-kap-ti was dressed and anointed with honey by Wí-ki in the same manner as on former days. His smaller circuit to-day brought him back into the kiva in about an hour, and the last offering was made at a shrine near the sun spring, Ta-wá-pa, before he came up the south trail to Wal'-pi. It was noticed that Ká-kap-ti wore a red na-kwá-ta in his hair, in place of the white one of previous days.

Up to Monday the *ná*-tci, or symbol by which the people know that the ceremonials were going on in the two kivas, was a black $p\hat{a}$ -ho

¹ This was also the first appearance of the girl in the 1893 celebration.

with eagle feathers tied to it, placed in the straw matting. The shafts of this standard were not ornamented, and were identical in the two



A-wa-ta-na-tci of the Antelope Kiva.

kiva(s). They were set in place at sunrise each day, and taken into the kiva at sunset. Every morning, when they were placed in position

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at sunrise by their respective chiefs, a pinch of meal was thrown towards the sun. The more conspicuous \dot{a} -wa-ta-n \dot{a} -tci(s) were not hung upon the ladders until the morning of the fifth day.

The \dot{a} -wa-ta-n \dot{a} -tci of the Antelopes hung across the ladder of the Moñ'-kiva about ten feet above the hatchway. It consisted of a bow,



A-wa-ta-na-tci of the Snake Kiva.

slightly bent, tied to the ladder by yucca threads. Two blunt arrows were fastened to it, and from the string hung long red-stained horsehairs thickly crowded together. An eagle tail-feather was attached to each end of the bow, and two weasel skins depended from the middle of the string. In addition to the three skunk skins at each end of the bow there was also a weasel skin which had been on the altar the previous day.

The \dot{a} -wa-ta-n \dot{a} -tci of the Snake Fraternity was hung across the ladder of their kiva about the same distance above the hatchway, but nearer the end of the ladder than the Antelope standard.

It was similar to that of the Antelopes, but was stouter. The arrows

were armed with sharpened stone points, and three eagle feathers were attached to the bowstring. At one extremity of the bow there were three skunk and two weasel skins, and at the other end hung three skunk skins, and a single weasel skin. The red horsehair fringe was neither so long nor so thick as that of the Antelope á-wa-ta-ná-tci.

The following $p\acute{a}$ -ho(s) were made on the fifth day : —

- 1. Sixteen ca- $kw\dot{a}$ -pa-ho(s).
- 2. One ho-tum-ni-pa-ho, and one additional ca-kwá-pa-ho.

3. Numerous na- $kw\dot{a}$ -kwo-ci(s).

Wí-ki, Na-syuñ'-we-ve, Kwá-a, and Ká-tci each made four ca-kwá-pa-ho(s) for the rain-gods of the world quarters, and Na-syuñ'-we-ve an additional $p\acute{a}-ho$ for $M\acute{a}-sau-w\acute{u}h$. The $na-kw\acute{a}-kwo-ci(s)$ or personal offerings were manufactured by all the priests. Wí-ki likewise made two additional blue $p\acute{a}-ho(s)$ for Kó-pe-li to take on the snake hunt the morning of the next day.

The sixteen songs by which the prayer-sticks were consecrated were the same as on former days, but the cheeks of the Antelope priests were painted for the first time with sesqui-oxide of iron, and each wore a red-stained feather in his hair.

SIXTH DAY (CÜC-TÁ-LA, FIRST CEREMONIAL DAY).

Early on Tuesday morning Há-ha-we refilled his bowl with charm liquid, pouring into the vessel first from the north side, then from the west, south, east, above, and once more corresponding to the below. At this time Na-syuñ'-we-ve was retouching the sand mosaic, the figures of which had become more or less obscure on account of the liquid and meal which had been scattered upon it in the song ceremonials of the afternoon before.

The first event on this morning, as on all the four days on which the snake hunts took place, was the delivery by Wí-ki of the $p\dot{a}$ -ho(s)to the Snake chief. There was a slight variation in the ceremony performed this morning from those on preceding days; but, although by no means important, still it may be worth while to describe it.

Wí-ki, Kó-pe-li, Há-ha-we, Hoñ'-yi, and Na-syuñ'-we-ve gathered near the fireplace of the Moñ'-kiva in the early morning. Kó-pe-li was seated near Wí-ki, who first lit a pipe and smoked for some time upon the sand mosaic. After an interval the Antelope chief handed the pipe to the Snake chief, who said, "*I-vwá-va*," Wí-ki responding, "*I-tup'-ko*." Kó-pe-li then smoked in silence, puffing whiffs towards the sand mosaic. Meanwhile Há-ha-we had seated himself in the position indicated in the diagram, and to him Kó-pe-li passed the lighted pipe which he had received from the Antelope chief. He

smoked ceremonially for a short time, and then gave the pipe to the Snake chief, who, after smoking, returned it to Wí-ki. During this interval Hoñ'-yi was smoking without formally receiving the ceremonial pipe.

Wí-ki then took the $p\dot{a}$ -ho(s) from a tray which stood between himself and Kó-pe-li, and, holding them in his left hand, bending his head, said a prayer, to which the other priests responded. He then brought his right hand to the $p\dot{a}$ -ho(s), still grasped in his left hand, and gave them to Kó-pe-li, who received them in both hands, although he later held them in his left. Há-ha-we then said a prayer in a low tone, and Kó-pe-li followed, uttering inaudible words, after which he left the kiva to join his fellow Snake priests.



Ko-pe-li, The Snake Chief.

This ceremony occurred at sunrise, and immediately after it the Snake priests formed in line outside their kiva and followed the trail through Si-tcom'-o-vi and Há-no, descending from the mesa on the north side of the last mentioned village. The backs of the older Snake priests were loaded with bundles of food, for on this day, after the hunt, the Snake priests had a great feast at Ga-né-lo-ba, the sheep spring. On entering their kiva after their departure, it was noted that the snakes which had been captured in the previous hunts had been placed in the four jars at the west end of the room. There was one exception, a small snake in a little bag, which for some reason unknown to me was kept separate from the rest.

While the manufacture of the $p\dot{a}$ -ho(s) was going on in the Moñ'kiva and we were listening to the priest's explanation of the various parts of which they were formed, there was a rap on the roof, and word was passed down that a Ko-ho-ni-no Indian had ar-

rived with offerings. Wí-ki hurried up the ladder to receive them, but in his haste forgot his bag of sacred meal. Immediately one of the priests spoke of this omission, and another hurried after Wí-ki with the requisite meal. Wí-ki greeted the Ko-ho-ni-no, and received the presents which he brought from his home, the "moist bank of the river," and threw a handful of meal along the path of the visitor. The presents which the Ko-ho-ni-no brought were as follows: 1. A water-worn root of a cottonwood tree several feet long, which grew in the Grand Cañon, on the banks of the Colorado River. 2. *Pú-ba*, tobacco, and grass from the Ko-ho-ni-no gardens, "the place where the clouds always hang." 3. Willow sticks from the river bank. 4. Damp earth, as a "token of the copious rains" which had lately fallen near their homes. These objects were offerings of

Cross-shaped Pa-ho Stick.

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good-will, and their donor was regarded as the bearer of blessings. The objects were laid on the floor east of the sand picture, and sprinkled with meal and smoked upon ceremonially. Later they were used in the manufacture of special $p\acute{\alpha}$ -ho(s) and other prayer

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emblems. The fate of the cottonwood root interested me considerably, for it was made into a cross-shaped prayer offering and called a $wu-p\acute{a}-pa-ho$. The root was whittled and polished into a round stick, pointed at one end, and marks called frog children, tadpoles (pa-vat'-i-ya), were scratched on the shaft. A crosspiece was let into a slot near the other extremity, and upon this six black dots representing rain ($y\acute{o}k$ -i) were painted, and above them as many semicircular rainclouds ($O'-mow-\hat{u}h$) were depicted. To this $wu-p\acute{a}-pa-ho$ were tied many feathers, sprigs of the herbs pam'-na-vi and $k\ddot{u}r\ddot{n}'-yu$, and a corn husk package of meal ($n\ddot{u}-c\acute{u}-a-ta$). Ká-tci was delegated by Wí-ki to deposit it at the side of the Zuñi trail a few miles south of Wal'-pi.

The sixteen ceremonial songs were sung at noon, and the rain-cloud $p\dot{a}$ -ho(s) sent out for distribution as on former occasions.

SEVENTH DAY (KO-MOK-TO-TO-KYA).

This day was a very important one in the Snake ceremonial, for on it was made, in the Wi-kwal'-i-o-bi kiva, the sand mosaic or $po\tilde{n}'-ya$ of the Snake priests. On the same day, also, the snake charm liquid was made, a ceremony which had never been witnessed by white men except Mr. Owens and myself. This mystic rite has thus far been one of the most securely guarded of all the ceremonies, and it was only by the kind help of Mr. Keam and the unusual confidence of the chiefs that we were able to be present in the secret room.

As the snake hunts have now been held in the four world quarters, there was no departure of the Snake priests in a body to the fields, and no ceremonial delivery of the offerings to Kó-pe-li. Several snakes were added to the collection on this and the following day, but apparently there was no recognition of the remaining cardinal points, the above and the below, in formal snake hunting.

The sixteen traditional songs were sung around the $po\tilde{n}'-ya$ of the Antelopes on this date, with a few ceremonial variations which will be noted in my account.

At the close of the day a ceremony of initiation was performed in the Wi-kwal'-i-o-bi kiva. This drama is one of the most interesting

and suggestive of all those connected with the Snake Dance, and has never been described.

MAKING THE SAND MOSAIC OF THE SNAKE PRIESTS.

The $po\bar{n}'-ya$ of the Wi-kwal'-i-o-bi kiva was made by Les'-ma, who was repeatedly prompted in his work by others, and Kó-pe-li, the Snake chief, had no hand in its production. Les'-ma, as we shall afterwards see, personified the bear in the public ceremonies and in the initiations, and was one of the most important priests throughout the ceremonial.

At about ten o'clock, Les'-ma swept the west floor of the kiva, and began the Snake $po\bar{n}'-ya$.¹ A large number of Snake priests were present at the time, and as was always the rule since the snakes had been brought into the kiva, silence prevailed, no one speaking above a whisper. The snakes were at the east end of the kiva, some within, some outside the four jars, which were uncovered.

Les'-ma first sifted from an open basket tray a layer of fine brown sand upon the floor of the kiva, forming a rectangular field. He then sprinkled upon this, several inches from the edge, another rectangle, of green sand, twenty-two inches in length and breadth. This formed the inner field, upon which, later, an animal was depicted. After the green field had been made over the brown, he sprinkled pinches of meal on it.

Les'-ma then drew on the green field a yellow rectangular band about three fourths of an inch broad. He did not follow a sinistral ceremonial circuit in drawing these lines in all instances, but, as a rule, made the north, west, south, and east sides in order. Taking a handful of black sand, he bordered the yellow band on each side with a narrow black line, first on the north side of the rectangle, then on the west, and in the same way on the south, finishing on the east.

¹ I reproduced in sand copies of this and the O'-mow-ah mosaic of the Antelopes in a case of the Hemenway exhibit in the Columbian Exposition at Madrid.

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A reproduction of the former I have likewise made for the National Museum at Washington.

He afterwards made a black line about three fourths of an inch from that which lined the outer edge of the yellow band, cutting off a green border from the green field which extended outside the yellow. He followed no ceremonial order in his work, but repeatedly repaired now one line and then another, passing from north to south or from east to west, as the case might be, or as convenience dictated. Outside of the black line with which he bordered the green, he drew a red stripe of about the same width as the yellow and green, forming another band parallel to those already made.

Les'-ma then took a handful of white sand, and, disregarding the sinistral ceremonial circuit, drew a band of white outside the red. He then made a black line outside the white stripe, and another between it and the red. This border of four colors having been completed, he made outside of it a broad black zone as wide as all the others combined.

Upon the northern part of this black border he delineated a yellow snake with head facing west, and body with six zigzags. His method of drawing was as follows: He first made the outline of the head, then that of the body, and filled in these outlines with yellow sand. Les'-ma followed by drawing a red line around the head and body of the snake, continuing it into two tongue-like projections. He then made a necklace of red lines, and five rattles of the same colored sand on the tail, and for the eyes he dropped on the head small pinches of black sand. The green snake was next made, on the western part of the black zone, with the head directed south. The mode of making this snake was identical with that adopted with the yellow, except that the edge of the body and head, the necklace and the rattles, were made with white sand.

The red snake was drawn in the same way as the two preceding, on the south border, with head facing the east. The border of both its head and body, as well as the tongue and necklace, were made of yellow sand.

Lastly, the white snake was drawn on the east border with white sand, and the head was represented facing north. The body and head



of this snake were edged with green, and the tongue, necklace, and rattles were the same color.

A nondescript animal,¹ with head facing south and legs extending to the east, was next depicted in the middle of the green field. This was made with yellow sand, and around it was later placed a black margin. Along the rim of the tail at intervals spots were made by a more liberal deposit of black sand. Four radiating lines, black, white, red, and yellow, extended from the mouth. Yellow sand and a black border were then placed at the feet, and a little red color was added to the claws. Last of all, an oval red figure, representing a heart, was made in the middle of the body, and from it a line of the same color was traced to the snout.

After this animal had been made on the green field, a broad white border was added outside the black, carefully following a sinistral circuit. When the sand mosaic had been finished, Kó-pe-li laid upon the heart of each snake in the black border a na-kwá-kwo-ci, with the feather pointing towards the head, and the string extending along the body. He also placed over the heart of the quadruped in the centre of the field another na-kwá-kwo-ci, the feather of which extended towards the neck, the string towards the tail.

Les'-ma was thanked by Kó-pe-li and one or two others after he had finished the sand mosaic. He silently smoked upon his work, and as he did so Kó-pe-li placed a bank of brown sand along the western border, in which Sú-pe-la planted upright a row of nine large eagle feathers.

While the sand mosaic was being made, Kó-pe-li, Sú-pe-la, and Se-kyau-wis'-ti-wa were busily engaged making $p\dot{\alpha}$ -ho(s). The Snake chief left the kiva with a small feather at the beginning of the ceremonial, and returned in a few minutes. Other Snake men sat around in silence, some smoking, but none speaking above a whisper, and several priests came in, and one or two went out, as the work was going on.² The whittlings from the sticks used in making the $p\dot{\alpha}$ -ho(s) were gath-

¹ Called by Bourke a "mountain lion." ² While the sand mosaic was in process

of construction the reptiles were all free in the east end of the kiva. ŝ,

ered by Kó-pe-li in a bundle, and before leaving the kiva he sprinkled a little sacred meal and tobacco upon them. He then went outside the kiva and cast them over the cliff without ceremony.

During a part of the time when the altar was being made, Kó-pe-li and the other priests smoked upon it. Ká-no fashioned pedestals, to hold the *gne-lü'k-pi* and other objects, from two lumps of clay which had been brought in near the close of Les'-ma's work.

The three kinds of gne-lü'k-pi, crooks, straight sticks with attached corn husks, and the four arrows, were then placed in position around the outer border of the mosaic. These were similar to the objects around the Antelope picture, but were differently placed. They were arranged in position by the Snake chief, assisted by one or two others, and it was noted that Kó-pe-li put the arrows at the four corners in the order, north, west, south, and east. The Snake chief then took a crook to which was fastened a long string na-kwá-kwo-ci stained red, and placed it by the side of the tail of the green snake on the west border of the picture, between it and the row of feathers. He drew this string¹ diagonally across the picture towards the head of the red snake, allowing the feather to fall upon the quadruped. Kó-pe-li placed a second crook, with a similar but longer string, by the side of the head of the green snake, outside the border of the figure, and stretched it diagonally across the mosaic, likewise allowing the feathers to fall into the rectangular field. He then placed two crooks side by side in the same relative position at the east side of the picture, after which the other objects were set in place apparently with order, but not following any rule which could be discovered. Sú-pe-la fastened to each arrow, beginning with the northwest and following a ceremonial circuit, a large bundle of red-stained feathers. To the tips of these red feathers were tied little blue feathers. The altar was destitute of ancient stone hoes, which were so prominent in the Moñ'-kiva, and there were no well-defined north and south gates, although an interval was left between the two crooks on the east side.

¹ The length of this string was four times the distance from his heart to the tip of his outstretched middle finger.

After these things had been placed about the altar, Sú-pe-la brought in a buckskin bag containing a most heterogeneous collection of objects. In this were several trochus shells and a half dozen unidentified bivalves, the skulls and lower jaws of some carnivorous animals, bears' claws with skin adhering, several water-worn stones, a stone hoe, and other objects. There were, also, two stone fetishes, one of which was brown, the other white in color.¹

Les'-ma now emptied a bag of brown sand on the kiva floor north of the fireplace, half way between it and the wall, making a small conical mound. Across this mound he drew in meal three lines crossing at common centre, and forming six radiating lines corresponding to the cardinal points. He then laid upon the point of intersection one

of the bandoleers to be worn by the Snake men in the public dance which will be described later. As he did this, another man tied a second medicine cord about breast high on the north upright of the ladder. Les'-ma placed a Ko-ho-ni-no basket, a flat, brown, traylike dish capable of holding liquid, on the bandoleer. After the basket had been thus deposited, the bear's claws, skulls, lower jaws, stones, and other objects, were distributed into groups and placed at the extremities of each of the meal lines. The trochus shell, bivalves, and some other charms were dropped



into the basket, and Sú-pe-la added a few bruised nut-like objects and sticks.

At this time, Kó-pe-li entered the kiva with his ti-po-ni,² which he planted midway in the west border of the $po\tilde{n}'-ya$, and arranged two fetishes by its side. The ceremony with which these were taken from the Moñ'-kiva altar was very simple, and there was no special observance

¹ Wi-ki later gave the following as the objects used: The feet and claws of the bear, wolf, and puma; the jaw of a puma and stone effigy of the same, trochus and

other shells, stone and crystals typifying the six directions.

² Up to this time this ti-po-ni had been with that of the Antelopes, as described above.

in the Wi-kwal'-i-o-bi-kiva when they were set in position. A string was stretched diagonally across the sand picture from the Snake ti-po-ni, a little to one side of the middle line. Sú-pe-la brought into the kiva a small spherical gourd of liquid, which was taken by Les'-ma, who poured the contents into the basket from the four cardinal points, up, and down, following the sinistral ceremonial circuit. By this time all the Snake fraternity had collected in the kiva, and had arranged themselves in position at the south side without any special regularity. The four boys who were $k\acute{e}$ -le(s), or novices, were seated in a row on the spectator's daïs, south of the ladder. The older Snake priests then took positions about the basket, Sú-pe-la, Kó-pe-li, Les'-ma, and Mó-mi in line facing the south. Sú-pe-la handed some unknown object to each of the priests near him, and, after they had followed his example by chewing it, they placed the cud in the liquid of the basket. A quantity of fresh water from the jars on the roof of the kiva was then brought and poured without ceremony into the basket. After this had been done, the whole fraternity of Snake men assembled in the room took their snake-whips in their hands, and, holding them upright, squatted on the floor facing the basket.

The pipe-lighter then lit the ancient Snake pipe and passed it to Kó-pe-li, as he did so exchanging terms of brotherhood or relationship.



The Snake chief smoked in silence, puffing smoke at times into the liquid contained in the basket. He then handed the pipe to his right-hand neighbor, Les'-ma, who smoked into the liquid and at the distant altar. The pipe was then passed to another priest, who returned it to the pipe-lighter. After this a pipe

was again lighted and passed to Kó-pe-li, who smoked and handed it to his father, who was seated at his left. Sú-pe-la smoked and gave it to a priest at his side, and although other Snake priests received it, the ceremonial significance seemed to be lost after it had been in the hands of the first two or three persons. Many other Snake priests now crowded into the ring, which had become a long ellipse surrounding the basket. All, one by one, smoked in silence for a considerable

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time, generally puffing whiffs of smoke into the liquid of the basket, or towards the altar. The pipe was at last laid by the fireplace, and

Kó-pe-li, still sitting, took his rattle in his right hand and prayed fervently.

At the close of the prayer he shook it vigorously a few times, and all the priests in the kiva began a rapid, weird song. Mó-mi, who who sat opposite Les'-ma, held upright in the middle of the basket a

¹ In the celebration of 1893 there were seventeen objects in the bag brought by Sú-pe-la, as follows : ---

1. Two large trochus-like shells (kóke-we).

- 2. To-hó-üh (puma), skull.
- 3. To-hó-üh, forepaw.
- 4. Hó-nau-üh (bear), skull.
- 5. Hó-nau-ûh, forepaw.

- 6. Kwé-we (wolf), skull.
- 7. Kwé-we, forepaw.
- 8. To-kó-che, forepaw.
- 9. Fetish of To-hó-üh.
- 10. White stone fetish.
- 11. Large stone spear point.
- 12. Bivalve shell (kü-kü-tce).
- 13. Paw of unknown carnivore.
- 14. Six water-worn pebbles.

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Basket in which the Snake Charm Liquid is made. stick painted black, to the end of which was attached a na-kwá-kwo-ci. Four songs were then sung by all the Snake priests, accompanied by the rattles and by motions with the snake-whips. As these melodies followed one after another, Les'-ma laid his rattle on the floor and took up one by one the objects at the ends of the six lines of sacred meal, and following the ceremonial circuit placed them in the basket around the stick held upright by Mó-mi. At the close of the fourth song all present broke out in the wild war-cry, and as their piercing yells filled the room, Mó-mi stirred the mixture in the basket with the stick, which he held perpendicular during the stirring. A very rapid song followed the war-cry, during which Les'-ma laid the stick

down by the side of the basket and kneaded the contents of the same with his hands. While this went on the song sank to a low and weird melody, but as it continued the voices of the chorus rose again to a rapid measure with loud and piercing tones. Les'-ma frequently raised his rattle aloft in the air, and, as he did so, cast meal into the basket of liquid. The songs continued for a long time, until at last they died down to a low hum, and the whole assemblage ceased to sing, but the rattles and the tremor of the snake-whips continued for a few moments after the voices were hushed.

In the breathless silence which followed, Kó-pe-li prayed, and at the end of his prayer he cast sacred meal into the liquid. Sú-pe-la did the same, and others followed, but Mó-mi slowly rose to his feet, and dipping the stirring-stick into the mixture, shook drops from it to the cardinal points, sprinkling all present with the liquid. He then touched a bear's paw to the liquid, and threw the charm mixture from it to the cardinal points, following the sinistral ceremonial circuit. Mó-mi climbed up the ladder to the roof, asperged with the bear's paw in a sinistral ceremonial circuit to the cardinal points outside, and immediately after descended into the chamber.

Mó-mi then moistened fragments of white earth with some of the medicine which he had taken into his mouth from a univalve shell, and made a white paint in the palms of his hands; approaching Kó-pe-li, he rubbed some of this from the palm of one hand first upon Kó-pe-li's breast, then upon his back, cheeks, and the fore-arms and legs. Ká-no later assisted him, and every one present was rubbed or daubed with the white paint on the same parts of the body as the Snake chief. While this was transpiring, many of the priests stepped up to the altar and moistened their hands in the liquid of the basket, rubbing it over their breasts and other parts of the body. Many also took the objects from the medicine and sucked the liquid from them, some even drinking the same from the univalve shells. I then detected, for the first time, fragments of clay which the priests were rolling in their

hands into balls about the size of marbles. Ká-no was passing pieces of clay about for this purpose, but, while I did not see where he obtained it, there was no doubt that it was dipped in the charm liquid. After each priest had made his clay ball, he marked a zigzag light-

ning snake on its equator with his thumb-nail, and tied



Pellet of Clay from Snake Bandoleer.

it in a little piece of buckskin. This was the pellet which, with others, was later worn on the medicine cord or bandoleer throughout the public ceremonies when the snakes were carried in the mouths of the participants.

At the close of the ceremony Kó-pe-li transferred the liquid from the basket of fetishes into another basket, leaving, for a time at least, in the former a trochus shell, a bivalve, a white fetish, a quartz crystal, and a brown stone. As he did this he put each to his mouth, sucking up what liquid remained upon it, and later drinking that in the basket, which was afterwards deposited near the altar.

DRAMATIZATION IN THE SNAKE KIVA.

One more ceremonial occurred to form a fitting close to this eventful day.

There was evidence that something significant was to take place

when Wi-ki and other Antelopes assembled in the Moñ'-kiva, costumed themselves, and prepared to leave it, the evening after the ceremony above described had taken place. Wi-ki took his ti-po-ni and tray of meal, and led a procession with the novices in the rear, each bearing an ear of corn with appended feathers and a handful of meal. Under the lead of Wi-ki all filed up the ladder of the Moñ'-kiva and marched to the adjacent Snake kiva, into which all descended. Wi-ki deposited his ti-po-ni behind the altar, in the same relative position to the Snake ti-po-ni which it had occupied in the Moñ'-kiva. Still holding the tray of meal, he returned with the other Antelopes to the spectators' platform, where they sat down. Immediately the room, in which already many Snake priests had gathered, began to fill with other men and women : Among these Sú-pe-la's wife, four married women, five maidens, and a mother with an infant were noticed. The novices had taken their positions under the north wall, and the Snake priests squatted along the opposite or south side of the kiva. The women who had last entered sat near the spectators' part of the room, just south of the fireplace, and Snake and Antelope priests crowded the chamber, occupying every available spot, especially about the fireplace.

East of the ladder, cutting off a section of the spectators' region and concealing the four snake jars, was stretched from wall to wall a wagon cover, forming a dressing-room for the performers to retire to.

Kó-pe-li sat at one side of the room, muffled up in a Navajo blanket, over which was thrown a white buckskin. For some time all present preserved the most profound silence, the Snake priests holding their whips in a vertical position. Kó-pe-li said a short prayer, after which the rattles were taken up, and for a few moments nothing was heard but the noise of these instruments. As this continued all began to sing; at first a low mumble, then the voices increased in volume until they broke out into a wild song.

Wi-ki, who sat near the entrance to the dressing-room, threw a pinch of meal across the floor to indicate a pathway for the strange actor who immediately emerged from behind the screen.

A little meal was cast from behind the curtain as an actor hob-

bled into the room, assuming a squatting posture, and swaying back and forth like a bear on its hind legs, though his movements were rapid. He wore a great bunch of red feathers on his head, with smaller tufts on the shoulders, and his face was covered with paint. Making his way to the fireplace, he seized a cane cigarette, put it in his mouth, and twirled his hands, one about the other in front of his breast, dancing to the song. He returned behind the screen and again came out, moving about in the wild manner which characterized his first appearance. The actor went up to Kó-pe-li, preserving as he did so a squatting posture, and drew a vine-stalk from under the Snake chief's blanket. He then went from one to another of the novices, thrusting the stalk into their faces. The wild song continued until he again retired behind the wagon-cover, when it sank to the same low murmur with which it began before his entrance. After a few such strains the song burst forth into a wild chorus as a new performer, the "Puma-man," appeared upon the scene. His next act was to thrust his head under the blanket of Kó-pe-li. As he drew it back he had an unlighted cane cigarette in his mouth, which he pretended to smoke as he hobbled about, and while he did so the Antelopes threw meal towards the sand mosaic picture in the eastern part of the kiva. The performer, still keeping the squatting posture, repeated the whirligig movement of his hands. He returned to Kó-pe-li, pushed his head beneath the latter's blanket, and as he drew back was seen to have a live arrow-snake in his mouth. Approaching the novices, he took the snake from his mouth and thrust it in turn into their faces, moving it up and down as near as possible four times. The reptile was returned to the chief, and as the actor retired behind the screen the song sank to a murmur. When the first actor reappeared, with a lighted cigarette in his mouth, the music rose again as usual. During all this performance Kó-pe-li sat like a statue, silent and motionless. The performer went up to him once more, and this time when he drew back his head he had a cornstalk in his mouth, which he thrust into the faces of the novices. He then withdrew.¹

¹ The Bear-man does not touch the snake, nor the Puma-man the vines. The first

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The second man now came from behind the curtain, assuming the posture and gait of the former. He likewise poked his head under the blanket of Kó-pe-li and drew back with a snake in his mouth, which he thrust into the faces of the novices. The song sank to a low humming sound as he also retired behind the curtain, but as the music rose again no dancer appeared in response. This song was followed by two others; the whips of the Snake men, which had been moved in time with the music, gradually quivered, and the song wholly ceased, although the rattling continued for some time. Finally even this died out and all was quiet. Kó-pe-li, still preserving his position, then uttered a short prayer, was divested of his wrappings and went back of the sand picture, followed by Wí-ki, and each took the ti-po-ni of his assemblage.

Kó-pe-li squatted in front of each novice and moved the tí-po-ni up and down before his face, muttering something in a low, inaudible voice, to which each novice responded. The example of the Snake chief was closely followed by Wi-ki with his ti-po-ni, and the novices likewise answered him.

An elder Snake priest then took the Snake *ti-po-ni* and went about among the novices as his chief had done, and handed it to a Snake boy, who likewise imitated Kó-pe-li's course in front of each novice. Há-ha-we took the Antelope tí-po-ni from Wí-ki and did the same as his chief had done before him. One by one many of the Snake priests held the Snake *ti-po-ni* and carried it before the novices, each standing upright as he waited to receive the badge from his predecessor. The last priest to receive the *ti-po-ni*, after he had followed the example of those before, handed it back to Kó-pe-li, and then made an offering of meal on the altar.

Wí-ki and Kó-pe-li stood up back of the altar side by side, each holding the *ti-po-ni* of the society of which he is chief in his left hand with his right below it. Wi-ki prayed, and as he ceased moved

man who appeared was called hó-nau-üh, the clouds, but there is some doubt of bear; the second, tó-ho-üh, puma. The this explanation. When the personator twirling motion of the hands is called nun-ak'-in-i, and is said to be a call to

went to the novices he was known as tü-hü'-an-ti, imitator.

his ti-po-ni in a horizontal circle in front of him, and Kó-pe-li followed in prayer, after which he waved his ti-po-ni in the same manner. Then a person chosen as his sponsor or "father" tied a feather in the scalplock of each novice. Wí-ki again prayed while this was transpiring, and then drank brown liquid from the bowl, until his mouth was filled with the liquid. He then spat it out on his hands, with which he rubbed his breast, and all the Antelopes followed his example. Wí-ki and the others in turn took meal from the tray, made an offering on the sand picture, and as they left the room sprinkled pinches of meal upon the roof, after which they returned to the Moñ'-kiva.

The initiation is an entirely voluntary proceeding upon the part of the neophytes, and they may choose either of the two societies they prefer. A person initiated into the Snake order does not as a consequence join the Antelope, nor vice versa; the membership, as determined by tradition and in current ceremonies, is quite distinct, although the leader of the Snake-Antelope assemblages is chief, or father, of both. Mothers came with their children and infants to the Snake kiva on the seventh evening, and to the Snake-Antelope on the ninth morning, not to become members, but only to partake of the virtues of the charm; that fear of the ophidian may be dispelled from themselves and their children, and that these reptiles may recognize that they have been baptized and refrain from biting them. The terms condensed in the word baptized do not express consecration, although that is certainly implied; but they are merely descriptive of the acts of drinking, rubbing, waving the feather with ashes, and similar sacred performances.

EIGHTH DAY (TO-TÓ-KYA, SLEEPS).

Shortly after dark on the night of the seventh day, the Antelope priests, Wí-ki, Na-syuñ'-we-ve, Kwá-a, and Há-ha-we, accompanied by Mó-mi visited the sun-spring, Ta-wá-pa, and remained there overnight. The Antelopes wore their ceremonial kilts, and Mó-mi, who assumed the rôle of warrior, had a whizzer, bow and arrows, and wore
a buckskin over his shoulders. They first went to the edge of the water on the eastern bank, where they deposited a $p\acute{a}$ -ho, smoked, and prayed. After remaining there some time, they sought a convenient place to sleep near the bank of the spring, and rested until three o'clock in the morning, when they returned to the edge of the water.

After they had gathered netted gourds and other objects which they had left there the night before, they formed in line to return to the village. Wi-ki made a line of prayer-meal along the trail, and traced at equal distances across it four figures of rain-clouds, each with three



Kilt of the Antelope Priests

semicircles similar to those already described in my account¹ of the ceremonies at the spring at Ci-paú-lo-vi. At the conclusion of this act Mó-me whirled his whizzer four times, and the line advanced to a second station distant a few hundred yards from the first, where the ceremony was repeated. The squad again took up its line of march, and halted at four other stations before it arrived at the Antelope kiva.

The ceremony at Ta-wá-pa is probably an abbreviated form of the Flute celebration, which takes place on alternate years. The reader may note the similarities by consulting my account of the Ci-paú-lo-vi Flute,² to which I have already referred.

Archæology, vol. ii. No. 1. ² The reader is referred to the O'-mow-

¹ Journal of American Ethnology and *ûh* celebration in the Flute festival. Journal of American Ethnology and Archæology, vol. ii. No. 1.

The other event, which occurred outside the kiva on the morning of the eighth day before dawn, was the Antelope foot-race. This took place in the plain at the south of the mesa, and was practically the same as the foot-race of the ninth morning, which will be described in the appropriate place. Seven runners took part, all of whom wore cotton shirts and had rattles tied to their waists. The race was announced long before dawn by the town herald, who called out four times at short intervals. The victor passed through the village just as the Antelopes were finishing their sixteen songs ceremony and dramatization.

DRAMATIZATION AND SIXTEEN SONGS CEREMONY.

The singing of the sixteen songs¹ on the mornings of the eighth and ninth days was different from that on the preceding, on account of the introduction of two personifications, Ti-yo (the Snake Hero) and Tcü-a-má-na (the Snake virgin), and the dramatization of a legend connected with them. The dramatic element was very imperfect, and did not follow the details of the legend, which is given later, but several episodes of it are introduced. Ti-yo, so the story runs, by his marriage with the Snake virgin in the under-world joined her people, and as on the morning of the eighth day the one personifying him had not yet become a Snake man, he did not wear the characteristic kilt.

The ceremonial was also marked by the presence of the Snake chief and several of his fraternity, as well as a few women and children.

When I reached the kiva, coming from Ta-wá-pa, where I had been observing the events described, it was still dark, not a trace of light having yet appeared in the east, and nothing was transpiring, but in a few moments a maiden came in. Wí-ki immediately began her decoration, and rubbed the upper part of her feet and the backs of her hands with black shale. He then took a white blanket and placed it over her shoulders, and tied a sash with long white knotted cords, such as is worn by the Ka-tcí-na dancers, about her waist. She took down

¹ The first eight songs of this ceremony on the eighth and ninth days are sung before sunrise.

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her hair, which Wí-ki carefully brushed, and tied with a string behind her back, so that her ears were partly concealed, and the large whorls of hair characteristic of a Hopi maid's coiffure were wanting. Over her shoulders Wí-ki placed a second white undecorated blanket, to which he tied feathers, one on each shoulder, and two on the back near her shoulder-blades. He tied a *na-kwaí-ta* in her hair, and painted her chin and lower jaw black. The maiden wore earrings. Her name was Ko-kyan-má-na and she personified Tcii-a-má-na of the Snake legend. Wí-ki led her to the northwest (true west) corner of the kiva, where she remained during the ceremonial.

A small boy about sixteen then came in, and Wi-ki painted his insteps and the backs of his hands black, in the same way he had painted the girl. He daubed on the outer side of each leg a zigzag line of the same color, and made similar decorations on the outer side of each arm. The black zigzag lines ¹ were also placed on either side of the breast. As he entered the kiva, the boy wore a large shell necklace, and a red feather on his head, and these were not removed, but Wi-ki tied a kilt about the loins of the boy, and above it fastened a sash. He combed the hair, tying it, as he had that of the girl, behind his back. He lastly placed him in the southwest (true south) corner of the room. Hoñ'-yi, In'-ti-wa, and Há-ha-we were smoking about the fireplace while the decoration of the Snake girl and the Snake boy was going on. When it was finished, Wi-ki himself took a seat in silence at the sand altar.

Ká-tci, In'-ti-wa, several other novices, and a Snake priest, all but the last bearing an ear of corn and feathers attached to a stick, visited the pa-hó-ki, which is situated half way between Wal'pi and Si-tcom'o-vi, where they deposited two red-stained na-kwá-kwo-ci, after which they hurried back and laid the ears of corn by the side of the altar.

On this morning for the first time Mó-mi tied to the ladder a bandoleer or medicine cord in the same way which we have already mentioned in the ceremonial preparation of the charm liquid by the Snake priests.

¹ He omitted the white line across the cheek, and the black zigzag lines on the arms and legs.

When the novices had returned, Há-ha-we lit the pipe and passed it ceremonially to Wí-ki, who smoked and extended it to his neighbor as in former ceremonies. Tá-wa came in, followed by Ma-si-um'-ti-wa, Wi-ky-át-i-wa, and one or two other men, who seated themselves at the north of the sand mosaic. While the ceremonial smoke was progressing, Wí-ki talked a long time, constantly referring to the things about the altar. He seemed to be speaking to those about him in regard either to the history of the ceremonials which were being performed or the legends connected with them. When he had finished this lecture, to which all the others listened in silence, he handed the *pat'-ne* with cornstalks and bean vines to the girl, who stood in the corner of the kiva. Wí-ki next raised the Snake *ti-po-ni* and gave it to the boy, who at first held it upright in both hands and then allowed it to lie over his arm. Prayers followed by Wí-ki, Há-ha-we, and others.

Wi-ki then shook his rattle for a few moments without singing, and the assembled priests began the series of songs, sixteen in number, which have been elsewhere described. During the first song Kó-pe-li came in, and handing the boy a large snake (pityophis), sat down at his customary place near the southwest corner of the sand mosaic, took up his rattle, and joined in the song with the others. The boy held the live snake by the neck in his right hand, beating time with it to When Kó-pe-li came in not a word was spoken to him by the song. any one present, and he himself was silent. Several Snake priests, each with his whip, now entered and seated themselves at the south side of the room, back of Ká-kap-ti and the Snake priest, who had returned with the novices. The Tcii'-a-wim-kya celebrants were as follows: Wi-ki, Hoñ'-yi, Wi-ky-át-i-wa, Kwá-a, Tá-wa, In'-ti-wa, and Mas-i-um'-ti-wa. Behind and between the last two was a small boy. Ká-tci sat at the south of the altar by the side of Ká-kap-ti, and behind In'-ti-wa was a woman who came in during the second part of the ceremony, bringing an ear of corn.

After the first eight songs had been sung, and Há-ha-we had asperged the altar and the cardinal points as in previous ceremonies, Wí-ki took the *ti-po-ni* from the boy and the *pat'-ne* from the girl;

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placed the former in position, and the latter back of the sand mosaic. Kó-pe-li relieved the boy of the snake, and Wí-ki sent out for a coal of fire and lit the great O'mow- $\hat{u}h$ pipe, the smoke from which he blew four times in big whiffs over the large fetish on the sand mosaic.¹ After this we heard the approaching runners of the Antelope race and stepped out to see them, returning immediately to the kiva. It was now just sunrise, and Na-syuñ'-we-ve set up the $n\hat{a}$ -tci on the hatch.

Before the second series of songs began, a woman and the boy who later sat behind Ma-si-um'-ti-wa came in, and a little after several Snake priests followed, all with their snake-whips, and took their seats at the east corner of the chamber, south of the fireplace.

Wí-ki handed the *pat'-ne* to the maiden, and the *tí-po-ni* to the boy, who received the snake again from Kó-pe-li.

The second series of eight songs was then sung with no variation from that of previous ceremonies, except that the Snake priests beat time with their snake whips, and the boy kept time with the snake which he held in his hand. Há-ha-we asperged as before, and Kákap-ti rapped on the floor with the stone hoe as in former celebrations.

At the close of the songs Wi-ki prayed, followed by Kó-pe-li, Nasyuñ'-we-ve, Há-ha-we, and Tá-wa, to whom the others responded, while Wi-ki and Kó-pe-li engaged in conversation. During the ceremonial smoke which followed, the Snake priests sprinkled prayer-meal on the sand mosaic and left the room, and the woman who sat behind In'-ti-wa did the same.

The forenoon of the eighth day was passed by all the Snake priests in their kiva, and they were occupied with the manufacture of the long prayer-sticks which were to be carried in the public dances.

These $p\dot{a}$ -ho(s) were as long as the forearm, painted black, and pointed at one extremity. Each was a single stick, at one end of which was tied, with cotton string, a corn husk, which projected far beyond it, a sprig of a yellow flower (pam'-na-vi), and a twig of $k\ddot{u}r\ddot{n}'-yu$. To these were also added a feather and a small quantity of meal envel-

¹ This is not described, because it is an exact repetition of what has been already given.

oped in a corn husk. Four encircling parallel black lines were drawn on the cotton, and an equal number of na- $kw\dot{a}$ -kwo-ci stained red with iron oxide were tied to the same at equal intervals. When each priest had finished his prayer-stick, he held it in his left hand and puffed

upon it great whiffs of tobacco smoke, holding the pipe meanwhile in his right hand, and without further ceremony placed the $p\dot{a}$ -ho upon the tray with the others. The basket was deposited on the floor of the kiva between the $po\tilde{n}'-ya$ and the fireplace, the sharpened ends of the sticks turned to the north. When all had placed their $p\dot{a}$ -ho(s) on the basket, the older priests smoked upon them ceremonially.

THE ANTELOPE DANCE.

The first public observance in the long series of ceremonials which we are describing occurred at 5.30 p. m. of the eighth day. It is called the $Tc\ddot{u}b'$ ti-ki-ve or Antelope dance, and was performed in the main plaza near a small conical structure called the ki-si, which was temporarily erected for that purpose. The material used in the construction of the ki-si was cottonwood boughs covered with leaves, which had been brought to the alcove between the Wi-kwal'-i-o-bi kiva and the sacred ock during the morning. The poles which supported it were about fifteen feet long, driven into he ground at one end, and tied together with traps above in a conical form. The boughs were) arranged as to leave an opening facing the outh, which was closed by a wagon cover. In



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ont of this entrance a thick plank, in which was a hole representing e si- $p\bar{a}$ -pu, was set in the ground. The ki-si was erected at three M., but the plank was put in place without ceremonies some time rlier in the day.

At a little after 5 P. M. the Antelopes came out of the Moñ'-kiva in the following order, and stood in line facing the Snake kiva : Na-haípü-ma, Wí-ki, Na-syuñ'-we-ve, Há-ha-we, Kwá-a, Se-kwa-wec'-te-wa, Ma-si-um'-ti-wa, Hoñ'yi, Tá-wa, Ká-tci, In'-ti-wa, and five boys.

These sixteen Antelopes stood in a line facing south, and as each took his place he stepped upon the roof of the Snake kiva and cast a little meal into the hatch of the room where the Snake priests were assembled preparing for the dance. After this ceremony they silently, with solemn faces and slow step, marched through the alcove and following the sinistral ceremonial circuit described a long ellipse with its diameter extending east and west from the rock to the east end of the plaza. They encircled the plaza four times, and as they passed in front of the ki-si each priest stamped with all the force of his right foot upon the plank in front of it. After the fourth circuit they formed a platoon on each side of the ki-si, the head of the line going to the west, and the novices with the whizzer bearer to the east of the bower, all facing the south. They then began a slow movement of their rattles, accompanied with a weird and characteristic song.

The line of Snake priests headed by Kó-pe-li, responding to their invitation, now rushed in, and, passing to the south of the sacred rock, made the sinistral circuit of the plaza four times in a long ellipse extending from the Snake rock to the Al-kiva. As each of the thirtyeight Snake priests passed in front of the ki-si he also stamped violently on the plank, at the same time dropping a pinch of prayer-meal upon it. They formed a platoon facing the Antelopes, with Kó-pe-li on the extreme west end, nearly opposite Wí-ki.

When the Snake priests had taken their positions opposite the Antelopes, the latter, accompanying the music with the rattles, sang a low melody, slightly swaying their bodies from side to side. The song then rose louder and louder, and both priesthoods moved their bodies in unison without breaking their lines. The song continued to increase in volume, and became more stirring as both platoons moved a step forward and back.

This movement continued for a few minutes, and at the same time

Na-haí-pü-ma walked down between the two lines in a stately manner and halted before the ki-si, holding an ear of corn, a ná-kwi-pi, and an aspergill in his hands. Upon his head he wore a garland of cottonwood leaves, and his body was painted lavender. His loins were girt with a white blanket kilt, similar to that of the Antelopes, with whose paraphernalia the rest of his dress corresponded.

Na-haí-pü-ma¹ called out his invocation to the four directions in a low voice, at the same time asperging upon the ki-si and to the different world quarters. The words which he uttered will be given in the account of a similar ceremony on the following day, and as he said them no sound was heard save that of the Antelope rattles. The asperger returned to the head of the platoon and the song began again, accompanied by the swaving movement of the dancers. As the melody increased in volume from a low hum the asperger again marched between the two lines to the front of the ki-si, and as he stood there he again called or chanted in a low voice. The Antelopes continued the low humming song, and both Antelope and Snake priests swayed back and forth in a monotonous but rhythmic way. Four times Na-haípü-ma visited the ki-si, and as many times he called to the world quarter deities. Há-ha-we crossed from his position in the line of the Antelopes near Na-syuñ'-we-ve to a corresponding position in the line of Snake priests, and Kwá-a and a Snake priest, putting arms about each other's necks, slowly marched between the platoons to the ki-si entrance. The Antelope leaned over and took from the ki-si cornstalks and vines, which he placed in his mouth, and the pair together moved up and down between the platoons of singing, swaying Antelope and Snake priests. They returned with their burden to the ki-si entrance and Kwá-wa replaced the corn and vines.

The Snake priest, handing his snake-whip to Kwá-a, placed the corn and vines in his mouth, and the pair, with arms about each other's neck, slowly ambled between the two platoons of Snake and Antelope priests.

¹ For some reason Tci-no, who had taken by a man who had to be repeatedly performed this ceremony in former years, did not officiate, and the part was poorly

As they did this the Antelope and Snake priests stepped forward and backward one step, keeping time to a slow, almost inaudible humming song. Four pairs of Snake and Antelope priests in turn carried the cornstalks and vines in this way, and the Snake priest always passed his whip to the Antelope before he took the corn in his mouth. A Snake priest with whip erect and left arm about Kwá-a's neck now marched twice, with a slow, halting step, up and down between the swaying platoons of Antelope and Snake men, the former singing and using their rattles, the latter beating time with their snake-whips.

When they had returned to their position, the line of Snake priests led by Kó-pe-li filed around the sacred rock with a quick step, once more made the long oval circuit of the plaza in a sinistral direction, and as they passed the ki-si entrance stamped violently upon the plank in front of it. When they passed the asperger, he sprinkled the charm liquid on each of them.

The Antelopes more deliberately filed around a small circle which did not include the sacred rock, and as they passed the ki-si each one stamped upon the plank. They, too, were sprinkled by Na-haí-pü-ma as they left the plaza.

Both societies returned to their respective kivas, and shortly after, having divested themselves of their paraphernalia, one by one went to their houses to procure food, which they carried into the kiva, where singly or in squads they ate their suppers.

NINTH DAY (TI-KÉ-VE-NI, DANCE DAY).

The public ceremonials of this day have been fairly well described by other observers, but several secret rites took place in the kivas which are here published for the first time.

THE SNAKE RACE.

All that is known of the beginning of this race is that Ká-kap-ti went to Wí-po before daybreak, possibly to start the runners. Mr. Owens witnessed the finish at the foothills to the north of Wal'-pi, and his observations were practically as follows: At early dawn Hoñ'-yi

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repaired to the terminal goal to meet the racers. In preparation for their arrival he outlined in meal four O'-mow- $\hat{u}h$ cloud figures across the trail and the same distance apart. Each of these symbols had three semicircular clouds connected by a straight line about four feet long, which was placed at right angles to the trail. Parallel lines representing falling rain were added, pointing in the direction from which the racers were to approach. These symbols were given the names of the four cardinal points, and their corresponding colors, yellow, blue, red, and white, were mentioned in connection with them. Two na $kw\dot{a}$ -kwo-ci(s), with feathers extended in the line of advance of the runners and with strings parallel and reaching to the middle of the east cloud, were likewise laid on the trail. In the neighboring shrine, Hoñ'-yi deposited three green $p\dot{a}$ -ho(s) that had been made in the Moñ'-kiva the day before. Hoñ'-yi, with the gne-lü'k-pi (crook) in his right hand and a tray in his left, stood by the figures of the O'-mow- $\hat{u}h$ which he had drawn in meal, facing the direction of the approaching runners. His cheeks, body, arms, and legs were whitened with kaolin, and he wore a white kilt with a knotted sash. When the racers appeared in sight he shouted to them, and as they drew near he remained stationary, holding the crook in his right hand.

As the contestants, of whom there were about forty, passed Hoñ'-yi, each one touched the crook with the palm of his hand, and sped on his way up the mesa. Hoñ'-ye anxiously waited until he was sure all had passed, and then he too ran up the precipitous mesa trail, following the racers. Between Hoñ'-yi's position and the foot of the mesa stood a number of girls and boys with cornstalks in their hands, who also turned and hurried up the mesa sides. The bodies of many of the contestants in the race were painted, and some of them wore flowers in their hair, but none as far as could be seen carried $p\acute{a}$ -ho(s).

Hoñ'-yi made his way to the Moñ'-kiva, and entering gave the crook to Wí-ki, but the racers passed over the roof of the kiva just at sunrise, about the close of the dramatization and sixteen songs ceremony.

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DRAMATIZATION IN THE SIXTEEN SONGS CEREMONY.

This morning at 3.30 the same girl who had taken the part of the $Tc\ddot{u}$ -a- $m\dot{a}$ -na on the preceding day entered the Moñ'-kiva. At that time several of the priests were asleep in the room, but a rap on the roof roused Há-ha-we and some of the others. As soon as the girl entered,



Position of the Celebrants of the Dramatization Ceremony.¹

- 1	 W	1-1	ki

- 2. Kó-pe-li.
- 3. Tcü-a-má-na.
- 4. Snake Boy.
- 5. Wi-kyat'-i-wa.
- 6. Na-syuñ'-we-ve.
- 7. Kwá-a.
- 8. Antelope.
- 9. Ká-kap-ti's brother.
- 10. Antelope.

- Ma-si-um'-ti-wa.
 Woman.
 Girl.
 Antelope.
 Ká-tei.
 Snake priest.
 Tá-wa.
- 18. Snake priest.
- 19. Há-ha-we.
- 20. Snake priest.

Wi-ki began to paint her feet and the back of her hands with corn smut mixed with honey and liquid from the $n\dot{a}$ -kwi-pi. He placed on her a white blanket with feathers at the back, and tied a white feather from the altar to her hair, which he combed and fastened behind. He then painted her chin black, and arranged a sec-

ond blanket over her shoulders, above the first, and sent her to the west corner of the kiva. While this went on, Há-ha-we, in response to a call on the roof, took two of the clay balls¹ covered with meal which had been prepared by the girl, and a number of little sticks of which I have spoken, rolled them up in a blanket or cloth, added a $p\acute{a}$ -ho, and carried them to a man who waited outside. Before passing the bundle into the hands of the latter, he sprinkled meal upon it. As soon as the man outside received his charge he hurried away.

Then the lad who was to personify the Snake Hero entered the room. He was somewhat differently dressed from the day before by Wi-ki, and this difference was appropriate, since he now represented the husband of the $Tc\ddot{u}-a-m\dot{a}-na$, or Snake virgin. To-day he wore the Snake kilt



Decorations of the Body, Arm, and Leg of the Snake Boy.

with the figure of the feathered serpent, while yesterday he was clothed

¹ These clay balls, to which reference is likewise made in my account of the Flute celebration, are patted into shape by the hands, and then sprinkled with sacred meal. The little sticks are covered with some sticky substance, possibly honey, and likewise have meal sifted over them. In the presentation of the Snake Dance in 1893 these balls were twentyone in number, and were made by the same girl who personified the *Tcü-a-má*- na. They were about the size of an ordinary baseball, and when made were carefully laid on a flat basket. Ká-kapti's brother cut up the little sticks, and gathered them in a blanket. They were then placed in a food basin with what resembled mud. The má-na received her instructions from Ká-kap-ti, whom, it may be noted, is the courier who deposited the prayer-sticks in the shrines.

in the ordinary ceremonial blanket. His facial and bodily decorations were the white zigzag lines described in my account of the Snake priests.

Several Snake priests went to their fields this morning and brought in any snakes which they happened to find, and some of the others went to the Moñ'-kiva to celebrate the sixteen songs ceremony. As Ká-kap-ti had not returned, Ká-tci took his place at the south gate of the altar during the dramatization.

The priests then grouped themselves about the $po\tilde{n}'-ya$, the Antelopes, except Ká-tci, on the north side, the Snakes on the south. By Ká-tci's right there sat a man (novice) with an ear of corn in his hand, and Ká-tci himself had an ear of corn tied to a stick. Há-ha-we first lit the pipe, and handing it to Wí-ki, the ceremonial smoke followed, similar in details to that which has already been described. Wí-ki gave the *pat'-ne* to the *Tcü-a-má-na*, and said a few words as if in prayer. Kó-pe-li then passed his ti-*po-ni* to the Snake youth, who held it across his left arm, and likewise gave him a live snake, which the boy held by the neck. The Snake chief then prayed, and Hoñ'-yi went out with a tray of meal and a crook, and all the novices followed, each with his ear of corn. The latter hastened to the shrine between Wal'-pi and Si-tcom'-o-vi, where they deposited breath feathers, and returned to the room shortly after. In visiting this shrine they went and returned on the run.

Hoñ'-yi hurried to the foot of the mesa to take his stand at the terminus of the race-course as described.

All the Snake men to-day wore their Snake kilts, and had other characteristic decorations. They kept time with their snake-whips, which were held vertically, but did not themselves join in the chorus. The boy personifying the Snake Hero and the girl representing the Snake Woman stood, but all others squatted on the floor.

The songs and ceremonies about the altar were much the same as those we have described for the day before, but differed in one or two particulars.¹ On this day there were more people in the kiva than on

¹ The encircling runs were not made by Ká-kap-ti.

any since the ceremony began. At the close, after the pipe had been passed ceremonially among the chiefs, both Wí-ki and Kó-pe-li stood, each holding his ti-po-ni in his hand.

The Antelope chief first prayed, followed by the Snake chief, bowing their heads as they did so. Both then together waved their ti-po-ni(s) four times, and Kó-pe-li sprinkled meal upon the altar. Wí-ki placed



¹ The dance kilt of the Snake priests was made of coarse cloth, sixteen inches broad and forty inches in length. It was stained a brownish red with ci/ta, and along the lower rim there hung by buckskin thongs pendents of two sizes made of small triangular metal plates bent together in a conical shape. The name ce.vi.-mac.e has been given me as the name of one of them. The smaller kind were said to have been obtained from the Ute Indians, and are called *sé-lu-la*. Similar pendents are found among the nomadic tribes.

The middle of the kilt was occupied by a zigzag band representing $P\acute{a}-l\ddot{u}-l\ddot{u}-ko\ddot{n}'$, the great plumed snake, which has four zigzags on its body. The middle of this

band was black, with a white border on each side. Upon the black interior there were depicted arrow-shaped decorations alternating with four sets of double parallel markings. The former are called pa-vikü-kü, footprints of the duck; the latter frog (pak'-wa) footprints. Between the zigzag zone and the upper and lower border of the kilt were two sets of parallel bands representing the rainbows. The lower set had three black bands, the middle of which was broken at intervals by five white marks. On either side the middle black line was separated from that above by a yellow band, and from that below by a blue (green) band, both of about the same breadth as the black. The upper rainbow was similar to the lower.

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his *ti-po-ni* horizontally on the altar, which signified that the ceremony was over. Kó-pe-li wrapped up his badge of office in a blanket. Two mothers came in with their babies on their backs, carrying cornstalks. The pipe-lighter then passed the pipe, and several other persons, among them a small boy decorated with brilliant plumes, entered. Hoñ'-yi brought a crook to which was tied a string with an attached feather, and handed it to the Antelope priest, who passed it to a Snake priest.

Many Snake men now came in and seated themselves on the south side of the chamber. Wi-ki then put some ashes on a feather, which he moved up and down in a solemn way, saying a prayer in a low tone. He waved this over the heads of the people, and threw the ashes out of the entrance to the room. He did this four times, after which he touched the head of each novice with the feather, saying a prayer at the same time. He waved the feather once more over the heads of all, repeating a prayer as before, and gave each boy and his mother a piece of dried root, which they put in their mouths. Having done this he passed a bundle of dried roots to a neighboring priest, who nibbled a piece and passed the root to his neighbor, until every one had helped himself to a bite. Each woman and child rose in turn, sprinkled the altar with meal, and, passing south of the fireplace, mounted the ladder. The Snake chief then left the room with the boy who personified the Snake Hero.

The Antelope priest meanwhile took off the garments of the Snake girl and folded them in a blanket. The Snake chief proceeded to his kiva with the boy, and there took off his apparel. Those who remained in the Snake room during the dramatization, after the return of their fellow-priests who had followed Kó-pe-li from the Antelope kiva, took positions about the fireplace, and a pipe was passed and smoked in silence as Sú-pe-la washed the black smut from the feet, arms, and legs of the Snake boy. The Snake priests one by one smoked long, full puffs from their pipe, which had been brought from the Antelope kiva.

From the close of this smoke until the ceremony of washing the snakes began, the occupants of the kiva were employed in painting

their kilts, making new moccasins, and in doing various other things in preparation for the dance, going to other kivas for these purposes, but all the members of the fraternity returned to their kiva when the mystic ceremony of snake baptism was performed.

Directly after the close of the dramatization the Antelope novices were sent to different houses in the village to have their heads washed. Each novice was given an ear of corn, called his mother, to which was tied a stick with four feathers at equal intervals. An account of Mr. Owens's initiation gives a good idea of that of the other novices this morning.

When a person wishes to join the Antelope Society, it is customary to choose a father from among the members, and to designate him in the presence of the others by placing some prayer-meal in his hand. A few days before, Mr. Owens had performed this preliminary act by handing Há-ha-we such an offering, who sprinkled it upon the altar. Every morning at sunrise he deposited a na- $kw\acute{a}$ -kwo-ci in the shrine between Wal'-pi and Si-tcom'-o-vi, and on his visit to it he carried his ear of corn, or mother, which was placed by the side of the altar on his return.

On this morning his head was washed by a woman of Há-ha-we's family in her house, with water and amole or soap-weed, and his face covered with prayer-meal. A name was given to him by one of the members of the household, and a red-stained *na-kwá-kwo-ci* was tied to his scalp-lock. This he wore until the close of the Snake-Antelope ceremonials.

During Friday none of the Snake priests ate anything until the close of the day, a fact which they frequently reiterated to us. The reptiles were free at that time, and but little attention was paid to them.

WASHING THE SNAKES.

The ceremony of washing the snakes, which took place at noon on the day of the public dance, have, as far as I know, never been witnessed by white men, and certainly have never been described. Entrance to the kiva in 1891 was refused to all except myself, but up

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to the last moment, before the ceremony began, there was considerable doubt whether I could remain, and although a previous agreement had been made with the chiefs that I alone should be permitted to witness the ceremony, several of the more conservative were inclined to refuse me permission at the very moment when the cryptic celebration was about to begin.¹ A happy circumstance made it possible for me to witness the ceremony, and gave Mr. Owens also an opportunity to do the same. It was agreed that Mr. Owens should stand on the ladder at the entrance to the kiva and keep all others away, and that I should remain in the room. From his elevated position Mr. Owens had a fair view of this interesting event, and his observations are embodied with my own.

At one o'clock in the afternoon a large earthen vessel similar to a food basin was brought to the kiva by Sú-pe-la. This bowl was of yellow ware without ornament on the outside, but decorated within, especially near the rim, with festoon-like markings and star-like figures alternating with each other. A groove on the outside, slightly separated from the rim, surrounded the bowl. The name *a-as'-kap-ta* was given for this vessel, but the name is not confined to it, as any bowl used for bathing the head has a similar designation.

Sú-pe-la first spread common brown sand on the floor in the space between the fireplace and the north wall, forming a slight mound situated about midway between the two, but nearer the fireplace. Kó-pe-li then brought his rattles and a tray of meal from the altar, and laid them down on the north side of the sand. Meanwhile, the leading Snake priests gathered about the bowl, and seated themselves in an irregular crescent, reaching from between the sand and the fireplace around the east side of the sand, and along the north wall of the room. The space between the Snake $po\tilde{n}'-ya$ and the altar was unoccupied, but the whole of the south floor of the kiva was also crowded with Snake men, who squatted facing the chiefs. Three men stood at the east

¹ This ceremony was observed a second time in 1893. These difficulties were not encountered in 1893, when Mr. Stephen and myself were allowed to witness the washing of the snakes.

end of the room, near the four jars in which the snakes were confined. Every Snake man was naked and had rubbed himself with spittle and iron oxide $(c\dot{u}-ta)$, and wore a red feather in his hair. No word above a whisper was spoken in that solemn conclave, and it was evident that the most awful ceremony in the whole series was about to begin. At the very last moment I was again warned to leave, and told that I would swell up and burst, or that other direful troubles would come to me, as a consequence of beholding rites which no one not a priest had ever witnessed.

At one o'clock Sú-pe-la solemnly poured a liquid into the bowl from a water jar, holding it as he did so to the four cardinal points on the four corresponding sides of the bowl. In doing this he followed the ceremonial circuit, beginning with the north side of the bowl and ending with two passes representing the above and the below. He¹ then drew with meal upon the mound of brown sand a rectangle with a series of three clouds on each side, the semicircles curving inward and parallel rain lines around the outside. This was done very hastily, and so poorly that one could not have told whether cloud lines were intended or not, if he had not been assured that such was the case. One of the snake bandoleers was then made into a rude coil and placed on

the sand within the rectangle of cloud symbols, and upon it was deposited the bowl already mentioned, which was about half full of liquid. Another bandoleer was tied to the ladder by another priest while this was being done.

The following chiefs were eated at the north and east f the bowl, in the order



Bowl used in Washing the Snakes.

amed : Si-kya-wis'-ti-wa, Sú-pe-la, Kó-pe-li, Les'-ma, Mó-me, and Lütc'-ve. Kó-pe-li sat exactly north of the bowl, and a pipe-lighter juatted on the opposite side facing him.

¹ In 1893 this was done by Kó-pe-li.

The pipe-lighter lit an old Snake pipe ornamented with the cloud symbols and passed it to Kó-pe-li, who puffed smoke into the liquid. After a short smoke the chief handed the pipe ceremonially to Les'-ma, who sat at his right, and he followed, performing the same acts in smoking as the Snake chief. As this was done, all the other Snake men sat in silence, the majority, except the chiefs, holding their whips upright. The pipe-lighter lit a second pipe and passed it directly to Sú-pe-la, and the ceremonial smoke lasted several minutes, being participated in by all those about the bowl. I was unable to keep track of the course of the pipes in their ceremonial rounds; but Sú-pe-la passed his pipe to Ko-pe-li, who returned it to the pipe-lighter. At the close of the ceremonial smoke, Kó-pe-li held a handful of meal to his mouth, prayed upon it, and scattered it in the liquid, an act which was immediately followed by Sú-pe-la. The latter at the same time dipped his fingers in the mixture in the bowl, and I have the impression that others did the same; but just then the Snake priests, who stood by the snake jars which were in the east corner of the room, began to take out the reptiles, and stood holding several of them in their hands behind Sú-pe-la, so that my attention was distracted by them. Sú-pe-la then prayed, and after a short interval two rattlesnakes were handed him, after which other venomous snakes were passed to the others, and each of the six priests who sat around the bowl held two rattlesnakes by the necks with their heads elevated above the bowl.

A low noise from the rattles ¹ of the priests, which shortly after was accompanied by a melodious hum by all present, then began. The priests who held the snakes beat time up and down above the liquid with the reptiles, which, although not vicious, wound their bodies around the arms of the holders. The song went on and frequently changed, growing louder and wilder, until it burst forth into a fierce, bloodcurdling yell, or war-cry. At this moment the heads of the snakes were thrust several times into the liquid, so that even parts of their bodies were submerged, and were then drawn out, not having left the hands of the priests, and forcibly thrown across the room upon

¹ Two rattles were used.

the sand mosaic, knocking down the crooks and other objects placed about it. As they fell on the sand picture three Snake priests stood in readiness, and while the reptiles squirmed about or coiled for defense, these men with their snake-whips brushed them back and forth in the sand of the altar. The excitement which accompanied this ceremony cannot be adequately described. The low song, breaking into piercing shrieks, the red-stained singers, the snakes thrown by the chiefs, and the fierce attitudes of the reptiles as they landed on the sand mosaic, made it next to impossible to sit calmly down and quietly note the events which followed one after another in quick succession. The sight haunted me for weeks afterwards, and I can never forget this wildest of all the aboriginal rites of this strange people, which showed no element of our present civilization. It was a performance which might have been expected in the heart of Africa rather than in the American Union, and certainly one could not realize that he was in the United States at the end of the nineteenth century. The low weird song continued while other rattlesnakes were taken in the hands of the priests, and as the song rose again to the wild war-cry, these snakes were also plunged into the liquid and thrown upon the writhing mass which now occupied the place of the altar. Again and again this was repeated until all the snakes had been treated in the same way, and reptiles, fetishes, crooks, and sand were mixed together in one confused mass. As the excitement subsided and the snakes crawled to the corners of the kiva, seeking vainly for protection, they were again pushed back in the mass, and brushed together in the sand in order that their bodies might be thoroughly dried. Every snake in the collection was thus washed, the harmless varieties being bathed after the venomous. In the destruction of the altar by the reptiles the snake ti-po-ni stood upright until all had been washed, and then one of the priests turned it on its side, as a sign that the observance had ended. The low, weird song of the Snake men continued, and gradually died away until there was no sound but the warning rattle of the snakes mingled with that of the rattles in the hands of the chiefs, and finally the motion of the snake-whips ceased, and all was silent.

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But the ceremony was not wholly finished, although the snakes had been thrown into "their home," the sand picture, and thoroughly dried by the sand. Sú-pe-la sprinkled sacred meal in the liquid in which the snakes had been bathed and threw a pinch of the same to each of the six cardinal points. He then prayed, and as he did so all the assembled priests responded, while those who had handled the snakes washed their hands in the liquid, and rubbed it on their breasts and other parts of their bodies. Kó-pe-li also prayed fervently, and sprinkled meal in the liquid, followed by some of the remaining Snake priests.

The pipe-lighter then lit the ceremonial pipe, and passed it to Kópe-li, who smoked in silence, puffing first into the liquid and then to the cardinal points. All the other chiefs did the same, as their turn came, and conversation of a secular nature, but in a whisper, indicated that the ceremonial had ended. The pipe-lighter repeatedly lighted the pipe, and passed it to the chiefs, while many of the other priests smoked cigarettes or turned to their work of repairing dance paraphernalia. Sú-pe-la took the bowl of liquid from its position, raised the bandoleer, and tied it to the right-hand upright of the ladder. He carefully gathered all the sand upon which the bowl had rested, and that from the pathway over which the snakes had been thrown, placed it in the liquid, and carried the bowl with its contents across the plaza through the western arcade. Following the path to the end of the mesa beyond the point where the trail descends, he halted a moment, and threw a pinch of meal to the north. He then threw some of the liquid to each cardinal point in the sinistral ceremonial circuit, and having done this, he poured the sand over the west side of the cliff, washing out the bowl in which it was contained. He descended the first terrace and carried it to a recess in the north side of the mesa where the snake jars are kept. Meanwhile the four snake jars had been brought from the kiva to the same place, and side by side three (one falling and breaking) were deposited with the bowl in the cave. The ceremony of washing the snakes lasted a half hour, and Kó-pe-li went out after its termination, carrying the rattles with him, but returned later with empty

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hands. The decoration of the dance paraphernalia continued until the time for the dance.¹

PUBLIC CEREMONY OF THE SNAKE DANCE.

A description of the public part of the Snake Dance, during which the snakes were carried by the dancers in the presence of spectators, has been repeatedly described,² and naturally was the most striking part of this weird nine days' ceremonial. This exhibition may be regarded as the culmination of the long series of observances, which have thus far been performed in secret. To it the Hopi gladly welcomed all visitors, and many persons, Indians and white men, from motives of sentiment or curiosity, attended. The roofs of the houses around the plaza, where it took place, were crowded with Navajos, natives of the adjoining villages, Americans from the towns along the railroad, and most of the people of Wal'-pi. There were, therefore, many witnesses who could testify that the account here given is not overdrawn.

There is an unwritten law, governed by tradition, that the Snake Dance must occur as the sun goes down, and it was therefore performed late in the afternoon. As the plaza is situated on the south side of the village, over which the shadows of the buildings fall at that time, it was impossible to get a good photograph of the observance, and on account of the excitement which prevailed it was difficult to observe all the episodes of this weird celebration.

The greater part of the afternoon before the dance was passed by both Snake and Antelope priests in their respective kivas painting their paraphernalia and dressing for the coming event. The stiffing heat and impure air in these chambers rendered it next to impossible for white observers to remain in them longer than a few moments at a time.

¹ It is customary for the Snake priests to manufacture new moccasins and to repaint their kilts on each biennial occurrence of the Snake Dance, and it is no uncommon sight to see the Snake priests, when they go out on the hunts, bury a piece of leather, of which they make the

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soles of their moccasins, that it may moisten before their return. All or nearly all the dance paraphernalia are repainted or renovated before the dance.

² See bibliography at the close of this article.



Naturally the stench was not as bad in the kiva of the Antelopes as in that of the Snake priests, but there is no good evidence that the foulness of the latter was due to exhalations from the reptiles.

The Antelopes, led by Wí-ki,² emerged from their kiva in full ap-

¹ This cut represents the ki-si used in the Flute Ceremony at Ci-paú-lo-vi, which has two cubical stones at the base. These are absent in the ki-si of the Wal'-pi Snake Dance, but as the ki-si(s) are similar, I have not made a new cut for my description of the Wal'-pi observance.

² Wi-ki's body was stained with corn smut, upon which were imprinted with a corn-cob white zigzag lines on the same parts of the body and limbs as has been described in our account of the Snake boy. On each shoulder, reaching to the nipple, a long O'-mow- ∂h symbol was depicted, and two parallel lines were drawn on each breast reaching down to the girdle, which was adorned with white paint the width of three fingers. There were zigzag white lines down the legs, and two garters of new yarn upon the legs. Before he



parel at about six o'clock, and formed a line in front of the Snake kiva, facing it. As each Antelope took his place he first stepped to the entrance of the Snake kiva and cast a pinch of meal into the hatchway and then took his place in line, after which they marched slowly through the arcade to the dance place, around which they filed with a slow, measured step.

The older priests, with Wi-ki at one end of the line, formed a platoon on the west side of the k'i-si, and the novices, accompanied by Tá-wa, who carried the whizzer and the \acute{a} -wa-ta-na-tci, on the east. Wi-ki bore his t'i-po-ni on one arm, and every Antelope carried his rattle and a crook from the altar.

The order of seniority among the older men of this society was the same as on the previous day, but the asperger accompanied the Snake priests. They made the sinistral circuit of the plaza four times, passing the ki-si on their right hand, and as they did so dropped a pinch of meal upon the si- $p\bar{a}$ -pu and stamped with all their might on the board. After having finished these circuits, they arranged themselves

put on his necklaces he placed them before the altar for good influence, and most of the other Antelopes did the same, while some sprinkled them with sacred meal.

Na-syuñ'-we-ve was decorated like the other Antelopes, and, unlike Wi-ki, had armlets of cottonwood bark, with the inner surface turned outside. Between these and the arm were placed cottonwood twigs. The armlets were about an inch broad, and were tied by a deerskin thong. He carried a gne-l \ddot{u} 'k-pi in his left hand, a rattle in his right.

Há-ha-we was appareled like the other Antelopes, but had bright colored paroquet plumes in his hair. Above his knees his legs were decorated with two parallel bars of white, and his forearms and hands were white. There were also parallel stripes on his upper arm and an oval white

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patch on each shoulder, with a splash of white on each thigh. His feet were bare, and he wore a white kilt, with a girdle of the same color.

Kwá-a was clothed like Há-ha-we, and had similar paroquet plumes, and was barefoot, but Ká-kap-ti wore black moccasins. No red (cú-ta) breath feathers were worn by the Antelopes in the final Snake Dance. Ká-tci took a most important part throughout, and in 1891 personified a warrior and carried a whizzer, a bow and quiver over his shoulder, and a buckskin. He also carried the standard with the red horsehair, or the á-wa-ta-na-tci. Each breast, and likewise the thighs and calves of his legs, were smeared with white clay. Tá-wa took this part in 1893. All the Antelopes wore white kilts (kwatc'kya- $b\hat{u}$) like that figured on p. 66.

in a platoon, broken midway by the cottonwood bower, as the day before. The entrance of the Snake priests was in marked contrast to



Embroidered the Antelopes.

exhibition.



Wristlet of Antelopes.

the stately appearance of the Antelopes. A low hum of admiration from the assembled spectators, who crowded every available foot of standing room on the house-tops, greeted the appearance of Kó-pe-li and his line of followers, who then rushed through the arcade. It was a sight never to be forgotten when these warriors, with faces and bodies smeared with pigments and heads covered with bright red feathers, emerged from behind the rock, and four times strode around the plaza. Whatever wealth of ornament they possessed, - shell necklaces, colored ribbons, rare feathers, or shells, - they had hung upon their bodies for this culminating Red oxide of iron tinged all their paraphernalia, and their

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faces were given a hideous expression by the glistening specular iron on the cheeks, and the kaolin on the chin. The Snake chief led, carrying on his left arm the badge of his office, the sacred ti-po-ni of semimythic origin, and in his left hand the brilliant a-wa-ta-na-tci. In his right hand he held a meal bag and a snake-whip. The newly painted kilt with the zigzag figure of the great plume-headed serpent across



The Snake Chief taking down the A-wa-ta-na-tci.

it, and the dependent foxskin in the rear, decorated his loins, and he wore his medicine cord and leg rattles. His feet were shod in red moccasins, and the ankles girt by a fringed band of buckskin of the same color. Arm bands and most barbaric necklaces made of mussel and other shells completed his paraphernalia, which was duplicated for the most part in that of all the other Snake priests.¹ Les'-ma, how-¹ The Snake priests wore their characteristic kilts, and had white pigment on each ever, was conspicuous among his associates because he wore the necklace of bear and porcupine claws.

Without delay the warriors formed a platoon facing the Antelope chorus, which then began a low humming song, and while they sang the two platoons swayed their bodies laterally as already described. Each Snake man interlocked fingers with his neighbor and advanced one step forward, resting the weight of the body on the ball of the foot. He then swung the other leg backward, and, poising himself on the toes of the right foot, lifted the other from the ground, after which he brought it back to its former position. At one time every Snake man inclined his body, now to one side, then to the other, and, as he did so, pointed his snake-whip toward the earth, and moved it tremulously back and forth in unison with the song and rattles. Unlike the Katci-na dances, there was no thumping motion of one foot upon the ground in the public exercises of the Snake-Antelope observance.

The strange, weird melody, accompanied by the sound of the rattles, continued for some time. At the proper moment the asperger¹ with stately tread walked between the lines to the ki-si entrance, and called in a loud voice the archaic words, *Tca-ma-hi-ye*, *a-wa-hi-ye*, *yo-ma-hi-ye*, *tci-ma-hai-ye*, sprinkling the charm liquid as he did so to the four cardinal points. Six (?) successive times he repeated this episode, each time returning to his place near Wi-ki. The songs of this ceremonial closed with a low hum, prolonged by the sound of the rattles

cheek, two parallel marks on the breast, two on the back, and a daub on each arm and leg. The tail-feathers of Cooper's hawk hung on the head of each Snake man, besides the red stained breath feather on the crown of his head.

Na-haí-pü-ma's chin was painted black with black shale, and his body was rubbed with moistened clay of a bluish color. He wore a white embroidered dance kilt, held in place by a white girdle with long pendent knotted cords, which hung on one side. His hair fell down on his back, and a white feather was tied to his scalp-lock. A wreath of cottonwood leaves surrounded his head, and many strings of shell beads and turquoises hung about his neck. Instead of leather armlets his arms and wrists were girt with bark annulets by which cottonwood twigs were confined. Anklets of the same material were worn, and his feet were bare. He carried the bowl, filled with liquid to the brim, in his left hand, and in his right an aspergill.

preparatory to the culmination of the sensational part of the observance.

In the performance of so many uncanny rites, it is hard to say which was the most remarkable, but that which followed was certainly the most sensational. The Snake priests in their kiva had handled the venomous reptiles with abandon, but now began a scene unparalleled in any of the rites of these primitive people. The snakes, which up to this time had been left in the ki-si, were now to be publicly brought out and carried about the plaza. The Snake priests divided into groups of three each, called respectively the carrier, hugger, and gatherer, according to their different functions. These trios gathered in line near the entrance to the ki-si, and the carrier knelt down in front of it, extending his hand inside while the hugger lifted the carrier's foxskin and stroked its back with his whip. As the carrier rose he held a venomous snake. Without hesitation he dropped his $p\acute{a}$ -ho and placed the writhing animal in his mouth, grasping its neck with his teeth or lips. He closed his eyes, and the hugger placed his left arm about the carrier's neck. The reptile was so held that its head pointed towards the right, and the hugger brushed his whip before the serpent's mouth to shield the carrier's face. Both men then started to make the circuit of the plaza in a sinistral direction, closely followed by the gatherer, who picked up the snake if it were dropped. A second trio followed the example of the first, and soon the plaza was filled with priests engaged in this way. It was the intention of the participants to carry the snakes around the whole circuit, but several fell by the way, and thus arose a series of exciting episodes. Here a rattlesnake, dropped on the rocky plaza, coiled to strike its carrier, but was quickly picked up by a more experienced priest; there a swift-moving house snake made its way from its captors among a number of spectators standing on the edge of the mesa.

As the trio passed the rock in their circuit with the snake, the carrier was sprinkled with sacred meal by a row of women who stood in line at that place.¹

¹ Whatever meal remained in their about the plaza, was thrown on the writhtrays, after the snakes had all been carried ing mass to be soon mentioned.

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Each Antelope was given a snake to hold as the number of the reptiles taken out of the ki-si increased, and during the entire time they kept up a song with the accompanying rattle.



After all the snakes had been carried, and while they were being held by the priests, Há-ha-we, followed by Wí-ki, traced a ring of prayermeal about twenty feet in diameter on the ground near the sacred rock, and across it made the six radial lines corresponding to the cardinal points. A signal was given, and each one threw the snakes he held



Snake Priests after Drinking the Emetic.

into this circle. To the struggling mass Wi-ki said a prayer and the women cast whatever meal was left in their trays upon it. At a second signal all the Snake priests rushed to the reptiles, squirming in a heap in the circle of meal, and grasped as many as they could carry in both hands. They rushed through the arcade down the trails to the four cardinal points, from which the snakes were gathered. There they dropped their burdens and immediately returned, running up the mesa.

When the snakes had been carried down the mesa to the four cardinal points, the priests returned to their kiva, divested themselves of their dance paraphernalia, and retired to the south side of Wal'-pi, where women stood waiting for them with great bowls of an emetic.¹

After drinking this the Snake priests knelt down, some with heads over the side of the cliff, while the emetic took effect. They rubbed their bodies with the liquid, and then retired to the kiva, where the women brought a great abundance of food for the priests who had fasted during the day, and the hungry men gorged themselves with food until far into the evening. The Antelopes did not feast in their kiva at the close of the public Snake Dance, but, after divesting themselves of their dance paraphernalia, they dismantled and destroyed their sand mosaic, and returned to their homes.

DISMANTLING OF THE SAND MOSAIC IN THE MOÑ'-KIVA.

The destruction of the sand altar of the Antelopes began at eight P. M., after the public performance of the Snake Dance. Wi-ki and all the Antelopes took pinches of sand from each of the different colored clouds and from the four lightning symbols and carried them to their fields, after which the remainder of the sand was heaped up in a pile on the floor. The chief then took the cylinders from the heads of the two male lightning figures, sprinkled them with pinches of yellow and red sand, taken from the bodies of the snakes of the two

¹ The plant ho-hó-ya-ña, which is an important ingredient in the emetic, is *Physaria Newberryi. Ho-hó-ya-üh* is the praying (hó-mo-ya) beetle, Asida rimata, which has the curious custom of elevating its body as if standing on its head when touched, which has given it the suggestive name of tumblebug or praying beetle. i,

colors, and placed them by the side of his $p\dot{a}$ -ho in a basket by the altar. He then sprinkled them with meal. The fate of the annulets on the heads of the female lightning was not observed.

Wí-ki placed the bark and cottonwood brought by the Ko-ho-ni-no Indians in the basket, to which he added breath feathers, and later carried out the basket with its contents.

On the morning of the ninth day four black $p\acute{a}$ -ho(s), closely resembling those which had been observed near the sand picture of the Antelopes on the evening of the eighth day, were observed on the trail from Wal'-pi to Ta-wá-pa.

The Antelopes, on leaving the plaza, were asperged by Na-haípü-ma as they filed slowly back to their kiva, where they disrobed.

In the weird and exciting events which transpired during the public celebration of the Snake ceremonial it was next to impossible to carefully observe all the minor incidents which occurred, but it is believed that the preceding account includes the more important.¹

DAYS SUBSEQUENT TO THE DANCE.

Although the main celebration of the Snake Dance closed on the ninth day, there were one or two events intimately connected with this observance which occurred on subsequent days. The most important of these were undoubtedly the purification of the Snake priests and the $n\ddot{u}$ -i-ti-wa, and there were other less significant acts of which I heard, but which I did not witness. The former occurred on the following morning; the latter for several days after.

¹ The various articles which biennially appear in newspapers are often sensational, and in some instances most fallacious, accounts of this part of the ceremony. If those who are responsible for such reports would confine themselves to facts, they would find enough that is weird to interest their readers, but as a general thing they have spent only a few hours at the mesa, and have relied upon irresponsible statements to make their articles as sensational as possible. Moreover, too often a fertile imagination has helped out their imperfect observations, and nothing but a garbled, untrustworthy, and positively unjust account could be the result. In some respects the ceremony was disgusting, but there is no reason why it should be made more so by untrue statements such as have been too often disseminated.

I was led to believe that there were certain prescribed usages regarding sleeping or eating in the Moñ'-kiva for a few days after the ceremony, but I could not determine from personal observation what took place, although repeated visits were made to the kiva to obtain information on this point. No purification ceremonials were observed in this kiva.

TENTH DAY (OV-EK'-NI-WA). PURIFICATION OF THE SNAKE PRIESTS.

The following purification ceremonies took place in the Wi-kwal'-io-bi kiva on the morning of the day after the Snake Dance. On the night of the dance all the Snake priests slept in this kiva, and early in the morning Sú-pe-la brought a food basin containing the same liquid as had been drank on the previous evening.

Kó-pe-li filled his mouth with the mixture, went to the priests as they squatted on the floor, and forcibly squirted the liquid from his mouth upon their breasts, arms, and legs, where the decorations once were. When each person had been treated in this way, he rubbed his arms and breast with his hands and then put on his ordinary clothing.

Every one nibbled a root, which was passed around the kiva, and at a signal seated himself for the final purification. Each priest took a pinch of ashes in his hand, and Kó-pe-li laid a little of the same upon the midrib of a buzzard wing-feather. The Snake chief then passed around the room in sinistral circuit, waving the feather over the head of every occupant, and threw the ashes out of the kiva through the hatch. As soon as this had transpired, each priest moved his hand with a circular motion above his head and cast what he held in the same direction. This final act was regarded as most efficacious in purification; but it is not peculiar to the Snake observance. When it had been performed the priests went out to their ordinary occupations.

ñü-í-ti-wa.

At intervals during the four days following the Snake Dance small groups of persons were observed in the three villages on the East Mesa playing a game which was no doubt connected with the ceremonies described above.

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Young men appeared from time to time during these days in the plaza, or on the housetops of these towns, holding aloft a jar, a piece of calico, or any other object of value, as a challenge. They were immediately set upon by women, who chased them from place to place, endeavoring to seize the jar which they held. The holders of the objects ran hither and thither through the villages pursued by girls and women, but never by men, and when at last they were overtaken, they were forced to give up the prize. Many of the Snake priests participated in this game, but it was not confined to them.¹

MELODIES OF THE SNAKE DANCE.

An attempt was made to get phonographic cylinders of the songs which were sung by both Antelopes and Snakes during the ceremonials which have been described. An exhaustive report upon this part of the subject has been prepared by Mr. B. I. Gilman, whose careful work on Zuñi music may justly be characterized as epoch-making. I do not find it necessary for me here to defend the phonograph as a method of collecting primitive music, and note with satisfaction that several well-known ethnologists have adopted it for this purpose since my experiments were made. While this instrument, in the hands of a painstaking specialist like Mr. Gilman, is of greatest value in the study of the character of music and the preservation of the same, it is not claimed that the method is perfect. A discussion of ways of musical notation and the introduction of notes unknown to the Indians, in order to harmonize their music, naturally falls in another place, where Mr. Gilman has presented arguments in reply to his critics which are well worth careful consideration. It is well, however, to say something of the material collected and of the methods followed in collecting it. The most important of all the cylinders upon which this music is recorded are those containing the sixteen songs sung by the Antelopes

¹ Possibly this game was simply a conventional diversion, and is in marked contrast with the several days when the Snake priests could not even speak to the women. The custom of struggling for the food bowls and other objects is a counterpart of what occurs in the January moon.

in the consecration of the prayer offerings. It is probably not far from the truth to say that these songs give an interesting insight into the character of Hopi melodies. The last eight of these, which are called the "come-down-quick songs," vary somewhat from the others and are more melodious. A single song is recorded on each of these sixteen cylinders. They were sung to me by Há-ha-we, who has, I think, the best voice of any of the singers among the Antelopes.

When he gave me the songs, several days after the dance, in the quiet of my own room, he took off his garments, let down his hair, and rubbed his body, so that he was in the same condition as far as clothing went as when the ceremony was going on. He then sang the songs one by one, and after each song had been recorded, he desired to hear it. When he had listened to it he was overcome with surprise. Há-ha-we smoked after each song, and puffed whiffs of smoke upon the cylinder. When all had been taken and wrapped in paper he spit upon them, and said, "It is well." As nearly as I could judge, he sang the songs exactly the same as during the ceremonial. In one or two of the songs the cylinder was not long enough to record the whole melody. He would not allow me to stop the machine, and fearing that I might lose following songs, I threw up the latch and allowed him to sing a few strains, which were lost. I have no reason to believe, however, that what I missed introduced any new element in the song, for it seemed to be simply a repetition.

The song sung in the plaza at the time the snakes were carried in the mouths of the Snake priests were sung into the instrument by the Antelope chief, Wí-ki, who is not so good a singer as Há-ha-we, and these records are therefore very poor.

The machine which was used was rented from the Pacific Phonograph Company, and every care was taken to preserve a uniform rate of rotation of the cylinder.

It is to be noticed in passing, that the Hopi Indians sometimes sing a strain in their songs which is undoubtedly European. The boys who have attended school may have brought back a knowledge of songs learned there, but as a general thing their music betrays no such

influence. One is immediately struck with the many resemblances between Hopi and Zuñi music. This is what we had expected from the close relationship of the religious ceremonials of the two peoples. As far as I am aware, nothing has yet been published on characteristic Hopi songs.

The sixteen songs naturally fell into two divisions of eight each, separated by the smoking of the great O'-mow- $\hat{u}h$ pipe. Many of the words were not Hopi, and were repeated over and over again, apparently meaningless even to the singer. Both song and words, which were reputed to be very ancient, were probably archaic or borrowed from some other tribe.

As a general thing the second series of eight songs had a quicker time than the first, which gave them the designation, "Come-downquick songs." The first series opened with one in which the predominating words were "ha-ho-hai," repeated many times. The syllables aye-ya-wa were sufficiently prominent in the second song to give it a name. The fifth song, readily recognized by the prominent monosyllables $a-o-hai-\check{e}-\check{e}$, and the rapid falling tones on the last, was somewhat different from the seventh, in which occurred the words, o-ho-ye-ye, a-a-ha-ho, a-a-a-ha, $hai-\check{e}-\check{e}-e$. The seventh song was much quicker than the last one, and contained an almost endless repetition of the refrain, a-ye-he, a-ye-he, a-ye-he, etc. In this as in many others we found constantly recurring the syllables, $si-pa-p\ddot{u}-ne-\check{e}-\check{e}$.

In the eighth song, which may be called the pollen song, the altar was sprinkled with pollen by all the priests. 1

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The first song of the second series was that in which the whizzer was sounded by Há-ha-we, and may be designated the whizzer song. It was during this song that the tips of the crooks in the hands of the singers were brought down until the attached corn husks touched the altar. The predominating syllables were a-ha-ye-ye-he.

In the rapping song which followed there were two parts, in one of which the taps by Ká-kap-ti on the floor were separated by short intervals, and another where the rhythmic strokes were not as rapid. The accompanying syllables were ha-ha-wa-na.
The O-wey-ho song which followed was full of animation, and contained the recognizable syllables wa-wa-ha-nĕ-ĕ, repeated again and again.

Of the remaining songs the two last were very lively, and highly melodious, especially that which may be designated the *ma-si-le-we-e*. The series closed with the refrain *a-ha-ye-e*, in which there was a marked explosive sound in the rendering of the antepenult syllable ha. The end of the series was indicated by retardation in time, and at the close Wí-ki waved his rattle above his head before he placed it on the floor.

SNAKES USED IN THE CEREMONY.

Four different kinds of snakes, called, by the Hopi, tcü'-a (rattlesnake), tü-wa-tcü'-a (ground snake), lü-lük'-koñ-a, and tá-ho (arrow), were used in the ceremonials. The Hopi say that they do not care for water snakes, but any other variety may be used. The estimated number of all kinds employed in the 1891 dance is sixty, of which fully forty were rattlesnakes. Although the majority of these were collected on the four hunts, several were taken from time to time before and after the same. When a snake was seen in the field by a farmer, notice was given to one of the Snake priests, who brought it in if he found it. The first snake was captured by the Snake chief Kó-pe-li, two days before the organized snake hunt, and there were at least four in the kiva before the day when the hunt to the north began. One of these, for some unknown reason, was generally kept apart from the rest. When the procession of Snake men came into the plaza in the public dance, one of the priests carried in his mouth, with its head projecting between his teeth like a cigar, a small snake which had not been placed in the ki-si. As far as I observed, the reptiles were not fed while they were kept in confinement, nor were their fangs extracted. They were treated with the utmost care and kindness, quick movements were avoided, and no one spoke above a whisper while they were in the kiva.

Mr. Owens contributed one snake, the capture of which was so pecul-

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iar that it might easily have affected a superstitious mind. We were watching Ká-kap-ti as he returned from his run, and just before he entered the village coming by the south trail, he stopped near where it passes between the two pinnacles of rock and the mesa sides, and beckoned me to come down. I did so, and saw a large snake, which he would not touch, crawling across the path in front of him. As I had not had great experience in handling snakes, Mr. Owens came to the rescue, and he carried the reptile to the Wi-kwal'-i-o-bi kiva. We called Wi-ki from the Moñ'-kiva, who simply sprinkled the snake with pollen, and placed it with some difficulty in a bag to await the return of the snake hunters, who were grateful for it. Possibly this timely contribution to their collection increased the confidence of the priests in our good wishes for the success of their celebration. It was certainly a remarkable coincidence that this snake should have crossed Ká-kap-ti's trail on his return to the village, for although we had climbed this trail many times, we never saw a snake of any kind upon it.

The snakes were very docile when let loose in the kiva, and were carefully watched or herded most of the time at the west end of the room, near the jars in which they were generally kept during the absence of the priests on the hunts. The reptiles, as a rule, crowded closely together in masses in the corners, rarely venturing along the floor, or endeavoring to climb the sides of the room. Possibly it may have been a result of my natural history studies, but I confess the sight was not a loathsome one to me, nor was I affected as others have been by its horrible nature. Moreover, although I was in the room with the reptiles for hours at a time, I met with no hairbreadth escapes from their fangs, nor passed through the sensational experiences which others on more limited acquaintance have described.

There is no doubt that the rattlesnakes were venomous at the time they were carried, but it seems probable, also, that the fact they were well treated in the repeated handling and association with the priests may have familiarized them with their captors. The discharge of venom by a noxious reptile is a more or less exhaustive process, and

is a last resource, so to speak, for protection. Could not the law of kindness enter their dull brains, or must they be supposed to be always ready to strike those by whom they are never harmed? Without posing as champions of the good character of the snake, can we not at least do him justice? I once heard a prominent specialist, who had kept rattlesnakes in confinement, say that they became accustomed to captivity and captors, and, in a measure, tamed so that they were not as prone as in the wild state to strike at every living thing that came near them.

It is a well-known fact that a rattlesnake must coil before it can strike. In the few cases of a snake's coiling that came under my observation, the most experienced priests were called upon to manage them, which they did with the greatest gentleness and care, almost amounting to reverence.

We have never seen the repeated washing and stroking of the reptiles, unless the single ceremony of baptism at noon on the ninth day may be so regarded.

The statements of Mr. Mindeleff in regard to the food and drink of the Hopi snakes are strictly in accord with our observations. Mr. Trumbull's remarks about the gorging of the snakes, in his account of the Central American snake charmers does not apply to the Hopi priests. No food was given by them to the snakes after they had been brought in from the fields, as far as observed. The reason that the performers were not bitten seemed to me well summed up by Mindeleff in the following quotation from his article: —

"I am of the opinion that the Mokis rely on the previous treatment of the snakes, on their charms and incantations, rather than on any after-treatment of themselves. As Dr. Yarrow remarked, a snake which had been repeatedly handled, and had discovered that no injury was intended, would become comparatively tame, and this would account for the behavior of the snakes during the dance. In the hands of the dancers they seemed numbed and lifeless. It was only when dropped rudely on the ground from the mouths of the dancers that they showed any disposition to fight."

The question of the venomous character of the reptiles employed has been more carefully considered by Dr. Yarrow than any other observer. "He has identified four species of snakes used in the ceremony, only one of which, the spotted rattlesnake (*Crotalus confluentus*), was poisonous. He descended into the snake kiva on the eve of the dance, and there examined the snakes which were to be used on the morrow. At his request a large rattlesnake, selected by himself, was held up for his examination by one of the Indians, and upon prying its mouth open, he found the fangs intact and of large size." Mindeleff continues: "I may add that, at the conclusion of the 1883 Snake Dance, two rattlesnakes were captured and sent to the National Museum. They were examined soon after their arrival by Dr. S. Weir Mitchell of Philadelphia, who found them in perfect order, their fangs had not been disturbed, and the poison-sacks were intact and full of venom."

Speaking of the "course of treatment" which the snakes underwent while in confinement prior to their appearance in public, my observations differ somewhat from those of Mindeleff, although there is no doubt that many of them were capable of inflicting dangerous if not fatal wounds. He says:—

"The snakes used in the dance undergo a very complicated course of treatment in the kiva where they are confined prior to their appearance in public. They are washed repeatedly in various kinds of 'medicine water,' and are frequently handled or stroked with a downward squeezing movement of the hand. Whether such treatment prolonged over a period of five or six days is sufficient to render innocuous a robust rattlesnake is an open question. Both Captain Bourke in his book, and Dr. Yarrow in his remarks, mention seeing a large rattlesnake brought in from the fields on the day of the dance. These, at least, must have been capable of inflicting fatal wounds."

The various liquids used by the Snake priests both before and after the dance are not regarded in themselves as antidotes. The incantations said over them, and the rites by which they are prepared, are to their minds much more efficacious than the herbs of which they are made. It is therefore very doubtful whether they have any antidote for the snake bite which has any medicinal value. wh or gre I rath

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In the early part of the summer of 1892 In'-ti-wa was bitten by a rattlesnake, and his arm swelled in an angry way from fingers to shoulder. Four days afterwards he came up to his home from the plain and was visited by the resident physician from the school. He was also given the $\tilde{n}\dot{a}$ -h\ddot{u}, or antidote, to which his recovery was ascribed. I can hardly believe that at this advanced stage of inflammation any medicine would physiologically have had much effect.

In a discussion of the questions why the Snake priests are not bitten, or, if they are, why the wounds are not fatal, there are many facts to be established before we can formulate satisfactory answers.

In the first place, the observers who have seen priests bitten by the snakes must give authoritative statements that the wounds were inflicted by venomous rattlesnakes, and not by the harmless varieties. I have never seen a priest bitten by the former. Secondly, it must be remembered that the bite of the rattlesnake is due to a spring of the reptile by muscular uncoiling, and careful observations ought to be made to determine whether a rattlesnake can inject its venom unaided by this movement. Can it, for instance, bite when carried by the neck or other parts of the body where such muscular action is wellnigh impossible? The position of the fangs would seem to point to the conclusion that it cannot. It is a significant fact that when the reptile falls to the ground and coils for defense the greatest care is used in its capture.

The treatment of the reptiles prior to the dance shows little to lead to the belief that they are rendered harmless, and the medicine in which they are bathed can hardly be said to have the nature of an anæsthetic. If the latter means were relied upon, it would not be administered on the last day only, and if the $\tilde{n}\dot{a}$ -h \ddot{u} were an antidote, why is it not carried with them into the fields during the snake hunts, or used throughout the washing of the snakes, when there is the greatest danger?

It is along the line of a study of the method of treating the snakes, rather than that of the character of the herbs used in their so-called medicines, that I think we may arrive at an explanation of the fearless way in which these Indians handle venomous reptiles.

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LEGEND OF TÍ-YO, THE SNAKE HERO.

When the priests were asked the meaning of the Snake Ceremonial and the accompanying dramatization, they always referred to a strange legend of the adventures of a youth in the under-world. There are several variants of this story, the details of which differ widely, but throughout them, notwithstanding many inconsistencies, there is a remarkable similarity. It is not repeated at any set time in the course of the ceremonies, and there is no one version which may be perfectly exact. In view of these facts, we must also remember that we are considering a legend which has no doubt been more or less modified from one generation to another, and may have suffered somewhat in translation, but however mutilated, it explains many things in the dramatization ceremony.

The different fraternities have their own traditional lore in the keeping of their respective chiefs, and some portions of this story of $Tiyo^{1}$ are found more or less modified in nearly all of them.

This lore is the sole history which they have, and in many cases is supported by ceremonial dramatizations; but it would be unscientific to build any theories of their religious beliefs on such a doubtful foundation.²

Far down in the lowest depth of P'_i -sis-bai-ya (the Colorado Grande), at the place where we used to gather salt, is the s'_i - $p\bar{a}$ -pu,³ the orifice where we emerged from the under-world. The Zuñis, the Ko-ho-ni-nos, the Pah-Utes, the white men, all people came up from

¹ There is good reason to suspect that T'i-yo, the youth, is in reality a hero god, P'u-u-kon-ho-ya, the little twin war-god, who figures prominently in many Hopi legends.

² Several variants of this legend, which differ in many respects from the one here presented, have already been published. This version was collected by Mr. A. M. Stephen, who received it from the Antelope chief Wi-ki. On account of difficulty in communicating with him, owing to extreme deafness, Wi-ki was assisted by Wiky-á-ti-wa and Ma-si-um'-ti-wa.

³ The place designated is a saline deposit in the Grand Cañon, a short distance west from where the Colorado Chiquito debouches into its greater namesake. the below at that place. Some of our people traveled to the north, but the cold drove them back, and after many days they returned.

The mothers, carrying their children on their backs, went out to gather seeds for food, and they plucked the prickly pear and gave it to the children to still their cries, and these have ever since been called U-ce-nyu-mûh, or the Prickly Pear People.

Morning dove flew overhead, spying out the springs and calling us to come, and those who followed him, and built their houses at the waters he found, are still called after him the Hu-wi-nya-muh, or Morning Dove People. All that region belonged to the Puma, Antelope, Deer, and other horn people, and To-hó-a (puma) led my people, the To-hó-nyu-muh, to To-ko-ná-bi,¹ and the Sand people and the Horn people also dwelt in the same region.

We built many houses at To-ko-ná-bi, and lived there many days, but the springs were small, the clouds were thin, rain came seldom, and our corn was weak. The Ki-moñ'-wi (village chief) of the To-hó-nyumuh had two sons and two daughters, and his eldest son was known by the name T'_i -yo (the youth). He seemed to be always melancholy and thoughtful, and was wont to haunt the edge of the cliffs. All day he would sit there, gazing down in the deep gorge, and wondering where the ever-flowing water went, and where it finally found rest. He often discussed this question with his father, saying, "It must flow down some great pit, into the under-world, for after all these years the gorge below never fills up, and none of the water ever flows back again." His father would say, "May be it goes so far away that many old men's lives would be too short to mark its return." T'i-yo said, "I am constrained to go and solve this mystery, and I can rest no more till I make the venture." His family besought him with tears to forego his project, but nothing could shake his determination, and he won them to give their sorrowful consent.

The father said: "It is impossible for you to follow the river on foot, hence you must look for a hollow cottonwood-tree, and I will

¹ A syncopation of *Tŵ-kwum-bi*, tain, situated at the junction of the San black mountain, now called Navajo Moun- Juan and Colorado rivers.

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help you make a wi-na-ci-buh (timber box), in which you may float upon the water." Ti-yo found a dry cottonwood tree, which they felled, and cut off as long as his body, and it was as large around as they both could encompass with their outstretched arms. They gouged and burned out all of the inside, leaving only a thin shell of dry wood like a large drum; small branches and twigs were fitted in the ends to close them, and the interstices were pitched with piñon gum. All this work was done with the stone axe and the live ember.

The father then announced that in four days T'_i -yo should set forth, and during that time the mother and her two daughters prepared kwip'-do-si¹ for food, and the father made prayer emblems or tokens called $p\acute{a}$ -ho(s). On the morning of the fifth day the father brought the tokens to Ti-yo, and laid them on a white cotton mantle, but before he wrapped them up, he explained their significance. One was called the wú-po (great) pá-ho, and was a slender willow wand, as long as his left arm from elbow to outer joint of thumb. This he told T'i-yo he must give to Ko-kyan-wüh-ti (Spider-woman).² Four others were called $c\dot{a}$ -kwa (blue) $p\dot{a}$ -ho(s), each made of two pieces of willow, as thick as the finger, and measuring from the first line at the base of the left palm to the tip of the middle finger. Of these blue $p\dot{a}$ -ho(s) T'-yo should give one to H'-ca-na-vai-ya (the Ancient of the Six; the six cardinal points;) one to Hu-zrü'-iñ-wüq-ti (Woman of the Hard Substance); the genius of all hard ornaments or wealth, as turquoise, coral, and shell); one to Tá-wa (the Sun); and one to Mu-i-yin-wuh (divinity of the under-world who makes all the germs of life).³ He also laid

¹ A quantity of white maize soaked in warm water for half a day, and when partly dry winnowed over so that all the husks fall off. When dry, the kernels are ground, and the meal, which is called *kainin-ňum-ni*, is used in the Snake Dance and other ceremonials. When husked corn has been boiled and dried and then ground, the meal is called kwip'-dosi, which is mixed with cold water and drank in the form of a thin gruel. ² In this instance they rather suggest the nature of credentials. Formerly the use of such tokens with this significance was common with the Ho-pi-tûh when sending an embassy to a friendly tribe at a distance.

⁸ Minute particulars of these $p\acute{a}$ -ho(s), their feathers and other materials, were then given by the narrator. They were the same in detail as the preparation of

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beside these $p\acute{a}$ -ho(s) a small quantity of kwa- $p\"{w}'$ -ha (down from an eagle's thigh), which he said the Spider-woman would show $T\'{v}$ -yo how to use, and all these things he wrapped in the mantle and gave to $T\'{v}$ -yo, who crept into his box. His father then gave him a wand of $ho\"{n}'$ -wi,¹ to be used in guiding the box, and his mother a $tc\'{a}$ -kap-ta (food basin), and she and each of his sisters added a $p\acute{o}$ -ta,² heaped up with kwip'-dosi. His father then closed the end of the box, and gave it a push with his foot, and it floated away, bobbing up and down.

In one of its ends there was a small circular aperture, through which he thrust his wand, and pushed away from the rocks which were encountered. The spray splashed through the opening, and this he caught in his basin when he wished to drink or mix his kwip'-dosi, and he was also provided with a plug to close the hole when he neared the roaring waters. He floated over smooth waters and swift-rushing torrents, plunged down cataracts, and for many days spun through wild whirlpools, where black rocks protruded their heads like angry bears.

When the box finally stopped, T'_{i-yo} drew the plug, and looking out saw on one side a muddy bank, and on the other nothing but water; so he pushed out the end, and taking his $p\dot{a}$ -ho mantle in his hand passed to the dry land. He had gone but a little way when he heard the sound of "hist, hist," coming from the ground, and when this had been repeated four times, he descried a small round hole near his feet, and this was the house of Spider-woman. "Um-pi-tûh," said the voice (You have arrived, the ordinary Hopi greeting), "my heart is glad; I have long been expecting you; come down into my house." "How can I," said T'i-yo, " when it will scarce admit the point of my toe?" She said, "Try," and when he laid his foot upon the hole, it widened out larger than his body, and he passed down into a roomy kiva.

 $p\acute{a}-ho(s)$ in the Snake and Antelope kivas during the ceremony, for which see the figures and descriptions. ¹ It is prescribed that the handle of the snake-whip must be made of this wood. ² A shallow circular tray of coiled grass, wrapped with yucca shreds.

 T_{i} -yo unrolled his mantle and gave her the wu-pa-pa-ho and the eagle down. She thanked him, and said, "I can be seen, or I can become invisible; I go everywhere and know all things; I know where you come from and where you will go; your heart is good, that is, you are an upright man; I have prepared food for you," and she set before him two corn meal dumplings ($p\ddot{u}\cdot\hat{u}h\,p\hat{i}\cdotk\hat{i}$), which he ate, and was filled up to the chin. Here he remained four days, and Spider-woman told him he should next go to the Snake House, and she would go with him. Meanwhile she made the $\tilde{n}\acute{a}\cdoth\ddot{u}$,¹ which pacifies all angry animals as well as the snake.

On the fifth morning Spider-woman gave some of the $\tilde{n}\dot{a}$ -h \ddot{u} to $T\dot{i}$ -yo, telling him to be of brave heart, and when he came to the angry ones who guarded the entrances of rooms, he should put a little of the $\tilde{n}\dot{a}$ -h \ddot{u} on the tip of his tongue and spurt it upon them, and they would be pacified. She then told him that she would now become invisible, and immediately perched herself on the top of his right ear; she said she would be inaudible to all others, but would constantly whisper her promptings, and would remain with him throughout his journeys. She told him to take the cluster of eagle down in his hand and step upon the $s\dot{i}$ -p \bar{a} -pu, which he did, and at once they descended to the under-world.

There the eagle down fluttered out toward the northwest, and thither he traveled till he came to a kiva near which was the great snake called $Ga-t\delta-ya$ ² on which, as prompted, he spurted the charm,

¹ This term is derived from $nw\dot{a}\cdot a\cdot a$, a root, and is applied to any of their remedial specifics, and to the medicine of the whites, but charm is perhaps a better rendering of the term than medicine. Answering a query, the narrator said : "This is the same charm which I make during the Snake ceremony. I make use of six plants, of the colors of the cardinal points, but I cannot tell you their names, nor describe the charm nor any of the fluids drank at the ceremony. I must keep this

secret close to my heart; if I should reveal it I would die. No other person in the village knows it but Cá-li-ko. When the time comes that I think I am about to die, I will impart it to Hoñ'-yi, my eldest sister's son, who will succeed me as Snake-Antelope chief."

² This mythic snake is also said to exist at the present time in far-off mountains, and is described as being not quite so long as a man's arm, but nearly as thick as a man's body. It has large eyes and

and the snake turned its head and allowed him to pass to the hatchway, where two angry bears stood, one on each side of the ladder. On these he also spurted, and they bowed their heads, and he descended into the Tcü-a-kiva (Snake chamber), where many men were squatted on the floor around a sand $po\tilde{n}'-ya$, all clothed in snake skins, and the walls, the roof, and the floor, were all decorated with snake skins. None of these people spoke a word, nor was any sound heard in that gloomy kiva, and when T'i-yo displayed a p'a-ho, the chief merely bowed his head in recognition and motioned him to the open $si p\bar{a} - pu$.

Stepping upon this he descended at once into the Tcü'-tcüb-kiva (Snake-Antelope chamber), where everything was white and cheerful, and many men were squatted around a beautiful sand $po\tilde{n}'-ya$; their garments and feather plumes were bright and gayly colored, and all gave him a glad welcome. The first of his blue $p\dot{a}$ -ho(s) he delivered to the chief of this kiva, Hi-ca-na-vai-ya, who looked at it closely, and then laid it on the $po\tilde{n}'$ -ya. He told T'i-yo he had been expecting him, and thanked him for coming; he also said, "I cause the rainclouds to come and go, and the ripening winds to blow, and I direct the going and coming of all the mountain animals; before you return you will desire many things, ask freely of me and you will receive."

Spider-woman now advised him to resume the journey, and T'i-yo passed upward to the hatchway, and the eagle down floated to the west, and looking in that direction he saw a great water, and far away out in its midst the long tips of a ladder projecting from the roof of a kiva. Spider-woman said : "That is the house of Hü'-zrü-iñ-wüq-ti, and it is on dry land which floats on the surface of the great water; let us go." And when they came to the edge of the great water, Ti-yo spurted upon a part of the eagle down and cast it upon the water, which parted on either hand, and he traveled to the distant

buckskin; its body is gray and its head Navajos have a very similar myth; with of all colors, and it can breathe death to a man at a distance. It is spoken of as without any other distinctive name.

great teeth, which can pierce the thickest the angry guardian of all snakes. The them it is also called the Great Snake,

house with dry feet. When he approached the ladder two angry pumas started up, but he spurted charm liquid on them, and they turned their heads towards him and said, "We have never permitted any stranger to live who came here, but now we know your breath is pure and your heart is brave;" and they lay down on each side of the ladder, and he stepped between them and descended it.

The ladder was covered with small glittering white shells, and the inside of the kiva was resplendent with turquoise and coral, and in the middle of the floor a very old woman was squatted quite alone. Her eves were dim, her hair was gray, her skin deeply wrinkled, and her mantle looked old and dingy, but Spider-woman told Ti-yo, "This is the kind mother; her heart is tender and generous; and every night when she lays aside her mantle she becomes an enchanting maiden, and she is arrayed with splendor at dawn." Then T'i-yo gave her the second pá-ho, which she looked at very carefully, and said, "This was made by one who knows; I thank you. Sit down and eat, and ask for any of my possessions you desire." She prepared a food of corn pollen in a large turquoise bowl, saying, "This will be ready for you and the father, when he comes, that you may both eat and start again without delay." While this was being said, Spider-woman whispered him to get ready his $p\dot{a}$ -ho for $T\dot{a}$ -wa (the Sun); and like the noise of a mighty lightning bolt, the Sun came rushing down through the air and alighted on the kiva roof with a great crash.

He entered, and hung up his beautiful shining shield, and it cried "ching-a-ling" as it dangled against the wall. He wore a white buckskin garment, and the arms and legs of it were decorated with fringes of jingling white shells; it was thick and heavy, because it is very cold in the sky region, and it had many pockets in which the Sun put all the $p\acute{a}$ -ho(s) he found set out for him during his day's travel. He took out great numbers of these and laid them before the old woman, who scrutinized and sorted them; she put aside a part of them with her right hand: "These are from the people of good hearts," she said, as she cast away a great many with her left hand, " are from liars and deceit

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ful people; they hurt my eyes to look at them." Then the Sun took from his right wrist the scalps of all who had been slain in battle through the day on the right side of his path, and from his left wrist those of the slain who had fallen on the left side of his path. And the old woman wept and mourned: "I grieve when you come here; it pains me as I touch you; my heart is sad, and I tremble as I look at you; I long for all my people to live in peace; will they never cease from quarreling?" and she hung up the scalps along the walls of her house.

 T'_{i-yo} then placed his third $p\acute{a}$ -ho in the Sun's hand, and as the others had done, he scanned it narrowly, and said: "It is well, my friend, my relative, my son; let us smoke." He filled a huge turquoise pipe with $p\acute{i}$ -ba (native tobacco), and after they had smoked, they ate the food prepared for them, and the Sun told $T\acute{i}$ -yo to come with him on his journey through the under-world, and across to his place of rising. He told $T\acute{i}$ -yo to grasp his girdle, and they went down through the si- $p\ddot{a}$ -pu like a flash of lightning, to the lowest under-world, the house of $M\ddot{u}$ -i-yin'-wuh.

In this place a host of eager men passed back and forth, up and down, all working with anxious haste, and the Sun led T'_i -yo to the middle of this industrious throng, where T'_i -yo gave his remaining $p\acute{a}$ -ho to $M\ddot{u}$ -i- $yi\ddot{n}'$ - $w\hat{u}h$. After inspecting the $p\acute{a}$ -ho, he said he would always listen to the wishes of T'_i -yo's people, and then he explained that at his command the germs of all living things were made; the seeds of all vegetation that grows upon the surface of the upper-world, and of all animals and men who walk upon it; and the multitude he saw were ceaselessly occupied at this task. He noticed that the largest and handsomest of these men were those who were most earnest and industrious, and the stunted, scraggy creatures were the careless, lazy ones. After further assurance that the maker of the germs would always hear his petitions, T'_i -yo again grasped the Sun's girdle, and was carried by him upward and eastward to Ta-wa-yum-tya-ki (where the **sun rises**).

When they stopped they were in Ta-wá-ki (Sun-house), which is a

beautiful kiva like that in the west, but red in color, and they ate food from a pink stone bowl. There is no woman here; the Sun and his brother Tai-o-wa alternately occupy it. Four days Ta-wa carries the shield across the heavens, returning each night through the underworld, reaching the east just a short time before he resumes his journey through the sky; then he rests in this Sun-house, while Tai-o-wa performs his allotted four days' labor carrying the shield. Tá-wa impressed on Ti-yo the importance of remembering all the things he had seen, and all that he would yet be shown, and he taught him to make the sun $p\acute{a}$ -ho. Then his eyes would be opened, and thenceforth he would know all people, would look in their hearts and know their thoughts; and as a token he then heard his family mourning for him and calling upon him to return. And the Sun said, "I counsel you that all of the gifts you shall receive, the blessing you shall most prize is the raincloud you will get from the chief of the Snake-Antelope kiva." Tá-wa then taught him to make the great sun $p\acute{a}$ -ho, which was as long as from his heart to his finger tips, and he gave him the skin of le-tai-yo (gray fox), which Ti-yo hung upon it and placed it upon the hatchway. After a little he gave him the skin of si-ky-tai-á-yo (yellow fox), which T'i-yo hung over the gray. Then the Sun was ready to leave his house, and he took Ti-yo on his shoulder and carried him across the sky, and showed him all the world, and at sunset they came again to the house in the west.

The old woman said, "Now you will leave me; take these gifts," and she gave him of all her house contained, and he thanked her and placed them in his mantle, and went up the ladder. At the prompting of Spider-woman he spurted $n\hat{a}$ - $h\hat{u}$ upon the remainder of the eagle down and cast it upon the water, and as before it parted to the right and left, and he passed over to dry land.

There was still the yellow light of evening as he approached the Snake kiva, and he saw the red-fringed bow hanging across the ladder, and Spider-woman told him this was the fifth day since their previous visit. Unchallenged he went down and into the Snake-Antelope kiva, and sat beside the $po\tilde{n}'-ya$ four days, listening to the teachings of the

chief, who said, "Here we have abundance of rain and corn; in your land there is but little; so thus shall you use the $n\acute{a}-h\hat{u}$; fasten these prayers in your breast; and these are the songs you shall sing and these the $p\dot{a}$ -ho(s) you shall make; ¹ and when you display the white and the black on your bodies the clouds will come." He then gave T'i-yo a part of everything from both kivas, and from the Snake-Antelope $po\tilde{n}'-ya$ he gave him portions of the different colored sands, and these, he said, were the colors of the corn Ti-yo's prayers would bring. He also said, "Here are two maidens who know the charm which prevents death from the bite of the rattlesnake; take them with you; and one you shall give to your younger brother;" and they were enveloped with white, fleecy clouds, like a mantle. Then from the $po\tilde{n}'-ya$ he gave Ti-yo a ti-po-ni, and charged him always to preserve it with jealous care, saying, "Truly this is your mother;" and from the Snake $po\tilde{n}'-ya$ he gave him a *ti-po-ni* for his younger brother. When Ti-yo had wrapped up all these things in his mantle, the chief said, "Remember all you have heard, and all that I have done, do you the same, and take back with you my heart, my bowels, all my thoughts, and you shall be called by my name, Hi-ca-na-vai-ya." Then Ti-yo ascended to the hatchway, and the two maidens followed him.

Spider-woman then led them back to her house, where they remained four days, and T'_i -yo hunted rabbits for her. She then told him to keep secret all he had heard and seen, and to reveal it only to those whose hearts he should try. While T'_i -yo was hunting, Spider-woman made a beautiful ho-a- $p\hat{u}h$,² around which she fastened a cotton cord, and on the fifth morning she placed T'_i -yo in it, with a maiden on each side. She then ascended through the hatch and disappeared, but soon a filament descended and attached itself to the cord, and the basket was drawn up to the white clouds, which sailed away to To-ko-ná-bi, and there Spider-woman again spun out her filament and lowered the basket

¹ Here again was narrated the rites of the kiva as still practiced, but nothing further concerning the $n\dot{\alpha}-h\hat{\alpha}$ could be elicited. ² A deep narrow pannier, with rounded ends, of coarse interlaced wicker, carried on the back. k

to the ground. Ti-yo took the maidens to his mother's house, and no stranger saw them for four days, and the two brothers prepared the bridal presents.¹

On the fifth morning the maidens' heads were washed by Ti-yo'smother, and from the house-top he proclaimed that, as a strange people had now come among them, in sixteen days their feast would be celebrated; and to this day, the narrator said, we announce this Snake feast sixteen days ahead. Ti-yo and one maiden went into a kiva, which he called the Snake-Antelope kiva, and the younger brother and the other maiden went into another, which was called the Snake kiva. [Here the narrator gave a recital of initiations made by Ti-yo, and instruction concerning the ceremony, the making of $p\acute{a}-ho(s)$, and the other countless details, all of which were but a rehearsal of those still practiced, excepting that, on this occasion, they did not go out to gather snakes on four successive days as they do now.]

On the fifth evening of the ceremony, and for three succeeding evenings, low clouds trailed over To-ko-ná-bi, and Snake people from the under-world came from them, and went into the kiva(s), and ate only corn pollen for food, and on leaving were not seen again. Each of four evenings brought a new group of Snake people, and on the following morning they were found in the valleys, metamorphosed into reptiles of all kinds.

On the ninth morning the $Tc\ddot{u}$ -a- $m\dot{a}$ -na (Snake maidens) said: "We understand this; let the younger brothers (the Snake society) go out and bring them all in and wash their heads, and let them dance with you." And this was done, and at sunset a Snake house of meal was made by T'_i -yo, and the snakes were laid within it, and all the people cast their prayer-meal upon them, and then the younger brothers carried them out to the valleys, and they returned to the Snake kiva of the under-world, bearing the petitions of all the people.

¹ A Hopi bride remains within doors four days after marriage. The bridegroom weaves a blue cotton tunic gown, a white cotton mantle, with scarlet and black borders, a long girdle, and makes a pair of woman's boots, which constitute the bridal present.

After this both of the Snake maidens gave birth to numerous small snakes; their heads were washed, and they were dried in sand heaps on the floor, and their mothers sat beside them. Children coming into play with the little snakes were bitten, and they swelled up and died, and their mothers clamored against the $Tc\ddot{u}$ -a- $m\acute{a}$ -na and their brood, and compelled the men to consent to migrate; and we abandoned our villages, and both of the $Tc\ddot{u}$ -a- $m\acute{a}$ -na were left at To-ko-n\acute{a}-bi. The Puma, the Sand, and the Horn people started together to travel southward, but after a time the Horn people separated, and we did not meet again till after we came to these valleys where we now dwell. $T\acute{i}$ -yo's younger brother went with the Horn people, and taught these mysteries to the chief of the Blue Flute family of the Horn people. This is the reason why I go in front one year, and the chief of the Flute sits back, and the next year he goes before and I sit behind; but our songs and prayers have both the same intent.

While we were living at $Wu-k\acute{o}-ki$,¹ one of the $Tca-m\acute{a}-hia^2$ dwelt with us, and then he left us and traveled far to the southeast, looking for other people that he knew were coming from the under-world. When he reached So-tcap'-tü-kwi (a place near Santa Fé), he met $P\ddot{u}'-\ddot{u}-koñ$ ho-ya,³ to whom he told his object. $P\ddot{u}'-\ddot{u}-koñ-ho-ya$ said he could find those people, and fitting in his bow and arrow, fletched with the wings of the bluebird, he shot it in the sky, and it came down far in the northeast, at a $s\acute{i}-p\bar{a}-pu$, up which people were still climbing. They looked at the arrow, and said, "There must be other people here already;" and the arrow spoke to them and told its message; then they said, "We will travel to the southwest, and may $Tca-m\acute{a}-hia$ come and meet us." On this the arrow flew back to its sender, and told of

¹ Great-house, a ruin appropriately named, on a small stream about fifty miles west from Wal'-pi. A considerable portion of the walls is still intact.

² This mystic name is also applied to the fine old celts displayed on the present Snake-Antelope *poil'-ya*. They are said to be the very objects brought by *T'-yo* from

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the under-world, where they occupied a similar position in the Snake-Antelope kiva there. They seem to be regarded as the relics of a people still earlier than those of the under-world visited by T'_{i} .

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⁸ One of the mythic twins, grandsons of Spider-woman. They carry a magical bow and arrow.

these people, and $Tc\dot{a}$ -ma-hia traveled westward to meet them. When he got to the great rock where Acoma now is, he climbed up and found the great ladle-shaped cavities on its summit filled with rainwater, and he named it the place of the ladle, A'-ko-ky-abi. Here he rested, and the people he was looking for joined him there, and at that place they have ever since remained.

After my people left Wu- $k\delta$ -ki, they halted near a little spring on the middle mesa, and looking across to where we now live, they could see there were no people in the land. But at night they saw a fire moving back and forth along the base of this mesa, from the gap to the point, and they marveled greatly for a while, and then they sent Dove forth to discover, and he found that it was $M\dot{a}$ -sau- $w\hat{u}h$.¹ Dove saw the tracks of his large, bare feet, and he followed them around a great circle, encompassing Nu-vat'-ikyau-obi (place of snow peaks, San Francisco Mountains) on the west; Pa-lá-bai-ya (Red River, Colorado Chiquito) on the south; Wu-kó-bai-ya (Great river, Rio Grande) on the east, and Hop-ko-yi-la-bai-ya (from hó-po-ko, the northeast, the San Juan River) on the north.

For a long time they saw nothing but his tracks, and they crossed over here and built their village on the foothills at the point of this mesa where you can yet see where the houses stood, and they called it Wal'-pi, the place near the gap, and after a time the younger men with their families built another village out in the valley, and you can yet see traces of it also. One day the Wal'-pi chief called all his bravest men to go with him and try to find $M\dot{a}$ -sau-w $\hat{u}h$, and they met him about half way to the middle mesa. He was hideous and terrible, with shreds of flesh and clots of blood upon his head, but our chief was brave, and went and embraced him tightly in his arms. Then said the deity, "I see you are strong of heart; I designed to kill you all if your hearts had been weak; now I am satisfied." They all sat down, and Má-sau-wûh took off his mask and sat upon it, and as he produced his large pipe, they all saw that he had become a handsome youth, and the pipe was passed around till all had smoked. Then he said: "I also am large of heart; all this land is mine, and all that lies within the

limits of my footprints is yours, for you have won it because you met me and were not afraid. My house is there (pointing to a rocky spot close to the west side of the mesa), and there you must place the $p\dot{a}$ -ho."... "The uncle of my uncles spoke with one tongue," continued the narrator, " and this is the story he told."

INTERPRETATION OF THE MYTH.

One naturally looks to the legend of the Antelope priest for an interpretation of the different events which are performed in the ceremonies; for among Indians, as among all primitive peoples, there is an intimate connection between the two. Our studies of the legend of Ti-yo which we have given do not afford us the greatest satisfaction in the interpretation, although they shed light on the dramatization and certain other episodes. We see, as it were, only the crudest outlines, and only partial explanations of the ritual, and it is probably impossible for us to arrive at the true explanation from a study of the story alone. There are many evidences of later invention, of incorporation, and of individual explanations. I am not sanguine that the true explanation of the Snake Dance can be obtained from the Indians themselves, and if my want of faith is well grounded, this fact is without doubt of greatest importance. It seems probable that the Snake Dance is a ceremony for rain, and since its beginning to its close, wherever we turn, there appear elements which point to this conclusion. When we come to a broader comparison with other rain-making ceremonials, we cannot remain in doubt that the Snake Dance is primarily of the same nature.

There are many important considerations which we must bear in mind in the consideration of this subject. Throughout all the Hopi ceremonies there appears evidence of a unity in certain characters. If, for instance, we compare the Snake Dance with the Flute ceremony, we find the number of days of the celebration to be the same, we find the Snake boy and Snake girl introduced, and the ceremonies about the spring in the two are almost identical. The encircling runs made by the courier are the same, and the $p\acute{a}$ -ho(s) are similar.

It was once thought that we had in these ceremonials a modified form of some primitive earlier celebration simpler than either, and that the same idea had been developed on different lines of evolution, due to migrations or other causes. We cannot regard one as the modification of the other, but both as a development of some aboriginal primitive ceremony, which has left its mark on the common features which show survivals of that simpler observance. It is but natural to suppose that in the separation of clans or peoples, and isolation for a considerable time, modifications should grow in such a way as to obscure original meanings, and change ceremonials once identical. When a legend was preserved, the modifications of the story would suffer the same change.

Let us consider what might take place in two peoples living apart, but preserving the germ of a rain ceremony. In a most interesting book, called "The Golden Bow," Mr. Frazer has shown how widely different are the modifications of the midsummer rites throughout Europe. Portions of these observances are preserved among one people, and portions among others. The modifications which the original has gone through are almost radical in their nature.

In one place, for instance, we have the May tree introduced as a symbol of the wood-god; in another, an image of the god; and in still a third we have a man personifying the wood-god. Here the tree is burned at the close of the festival; there we have images of the tree-god thrown into the flames, and so we might go on mentioning a large number of modifications, but in all cases they appear to be variants of one primitive idea. The germ of the whole is tree worship, or the embodiment of the return of life in the springtime.

Two theories have arisen as to the origin of those similarities. Either that there was a connection in some remote time between the people who practiced them, or that they arose independently among different peoples. Whichever theory we accept we are not prevented from finding in this midsummer ceremonial a parallel with others celebrated at the same time.

Passing, then, to these village tribes and using the same methods as

those adopted by Frazer, we can reconstruct the primitive ceremony which has become modified. It is not necessary to show the details of ceremonials identical in order to show that they are the same. If the main facts correspond, we are justified in using them for what they are worth. In the olden times, when the different peoples who now speak the Tusayan language lived together, they probably celebrated a midsummer ceremony of much simpler form than what is now practiced. A people leaving the ancestral home would take with them their version of the myth connected with the ceremony. If it were the Flute assemblage, necessarily the Flute would figure most prominently. Accretions from generation to generation would creep in, and there is reason to believe that these modifications would be regarded as most important. Another people in its separation from the primitive home might be the Snake or Antelope assembly. With them the snake would be all-important, and the line of evolution which their story followed would be very different from that of the Flute.

As a consequence, one would hardly expect that the ceremonies performed would be identical, but the germ would remain the same, or that we should have as a result the same ceremony under different modifications. Precisely this is what has happened. Then, too, it must be borne in mind that the present Tusayan villages are formed by the aggregation of several groups or clans of people. It is historically known that such is the fact. In this bringing together of different peoples, each with its modifications of the original story and ceremonial rite, complication would be very much increased, and the difficulties of comparisons with those of other villages, formed by a like consolidation, magnified manifold.

In order to determine how far the ceremonial rites connected with the same observance may vary in different places, I have studied one of them in three of the Tusayan villages, separated by only seven miles. In the Farewell $K\bar{a}$ -tcî- $n\bar{a}$,¹ we find that the altars, although presenting a uniformity in the main idea, are in the details very different. The public dances of the same vary very considerably, yet-¹ See vol. ii., No. 1, of this Journal.

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the priests strongly insist that the celebration is identical. If such changes as these result in villages where there is more or less intermarriage and a close religious sympathy, what would be the result in isolated pueblos, more or less hostile to each other, through a long series of years? It is a mistaken idea to suppose that conservatism is the only fundamental principle of Indian ceremonials.

We may reasonably conclude that from time to time new events in the performance of rites are introduced, and this increase from year to year would at last make a great variation in the character of the ceremonials. Comparing, therefore, the Snake Dance with the Flute ceremonial, we may suppose that originally the priests of both had the same primitive celebration, and those traces of identity which are apparent can really be best interpreted by referring them to the original from which they started. Probably the best addition which could be made to our knowledge of the identity of two such dissimilar ceremonies as the Snake and Flute, could be obtained by a study of the traditions of the chiefs of each fraternity.

The story of the Snake hero is comparatively well known, and Mrs. Stevenson has lately published the legend of the Flute fraternity. As this fraternity exists in several of the pueblos, there is a possibility of obtaining variants of the Flute myth. An interesting point of likeness in the two celebrations is the existence in both of the Snake girl. The Snake girl is clothed exactly alike in both ceremonials, so that in fact this person in the Snake ceremony could be substituted for one of the two girls in the Flute observance without making any change in her decoration, the style of her blankets, or other paraphernalia. The Snake boy is also painted the same in both ceremonies.

In the course of the ceremony of the Flute, as will be seen by consulting my article on the Flute observance, these two girls and boy cast offerings upon symbolic figures of the clouds. These offerings were identical with those which were placed by the Antelope chief upon the head of the male and female lightning figures of the sand picture during the Snake Dance.

In the race which took place on the morning of the Flute celebra-

tion, the person who stood at the goal was not only painted and adorned as a Snake priest, but wore the Snake kilt, upon which is depicted the figure of the great plumed serpent. Possibly this was a coincidence, but certainly a most interesting one when taken into consideration with other resemblances. The ceremonies at the spring Tá-wa-pa in the Snake Dance are not as elaborate as those performed on the final day of the Flute observance at the same place, although a vein of similarity runs through them both.

In the celebration of the Flute at Ci-paú-lo-vi, two houses take part, the Blue Flute and the Variegated Flute. At Wal'-pi, however, one of these houses is extinct, so that at present the Flute celebration is confined to the remaining house. The Snake Dance is also celebrated by two fraternities, the Antelopes and the Snakes. One of the Flute houses at Ci-paú-lo-vi is subordinate to the other, just as in the Snake Dance the Snake priests are inferior to the Antelopes. The $n\acute{a}$ -tci(s) used by the Flute fraternity have many likenesses with those belonging to the Snake-Antelopes.

Without following the story of Wí-ki too closely, it may be conjectured that the younger brother, who married one of the $Tc\ddot{u}-a-m\dot{a}-na$, was the chief of the Flute assembly of the Horn people when they separated from the Snake fraternity at To-ko-ná-bi. The reunion of these two peoples at Wal'-pi is dramatized in the Flute ceremony, a fact which lends new interest to the comparison we have drawn between the Snake and the Flute observances.

The descriptions of the many and complicated rites which fill this volume would be incomplete if some attempt were not made to interpret the meaning of the Snake Dance.

No component element has done more to obscure the original meaning than the weird ceremonies connected with the handling of the reptiles, which naturally have a strong fascination for the primitive as well as the civilized mind. The dramatization of a half-mythic, halfhistoric legend regarding the origin and migration of the fraternities that celebrate it also tends to turn the mind to other explanations.

The prominence given to the reptiles during this presentation has

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led some other observers to regard it as an example of snake worship, but from what could be learned from the priests as well as comparative studies, a somewhat different conclusion seems probable.

The Snake Dance is an elaborate prayer for rain, in which the reptiles are gathered from the fields, intrusted with the prayers of the people, and then given their liberty to bear these petitions to the divinities who can bring the blessing of copious rains to the parched and arid farms of the Hopi.

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NOTE. — The map showing the position of the three inhabited mesas of Tusayan, which accompanies this article, is a reduced and somewhat modified copy of one in W.

H. Jackson's "Report on the Ruins ex amined in 1875 and 1877." Report of the United States Geological Survey, PL lxxiii.

