

**The Traditional Ornamental *Tehrow* (Beadwork Necklace)**

**of**

**Chuuk**

**A**

**Term Paper**

**submitted to:**

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**and**

**Project: MACIMISE**

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## Introduction

This research paper focuses on a traditional Chuukese ornament called “*tehrow*”. The type of *tehrow* discussed in this paper is from the island of Pollap, northwest of Chuuk Lagoon. First, I will provide some information on Pollap. Its geographical location is important, considering its proximity to other island states that share various similarities, especially in the way they both wear the *tehrow*. I will also provide a brief description of the group of islands that make up “Nomwun Pattiw,” which includes Pollap. Second, this paper gives a history of transformations in the composition and function of *tehrow* in Pollap, because it is essential to know what *tehrow* was in the past and what it is today. Third, this paper provides several explanations of the cultural significance of *tehrow* in Pollapese traditions. The *tehrow* does not merely function as a form of adornment, but as a way to promote a sense of island unity, pride, and identity. Fourth, I describe the process by which *tehrow* was made in the past and how *tehrow* is presently made. Finally, this paper shows some of the mathematical ideas that are present in the making of the *tehrow*. Mathematic concepts such as counting, symmetry, patterns, and traditional forms of measurements will be discussed in length. It should be noted that the language of the source from which this information was provided is in the dialect of the northwest region of Chuuk which differ significantly from the lagoon dialect. Some Pollapese words are not included in major publications on the Chuukese language such as the *Trukese-English Dictionary* by Ward H. Goodenough. This paper is a conscientious effort to present a general overview of the tradition of *tehrow* for it is a valued materialization of the Pollap people and their traditions.

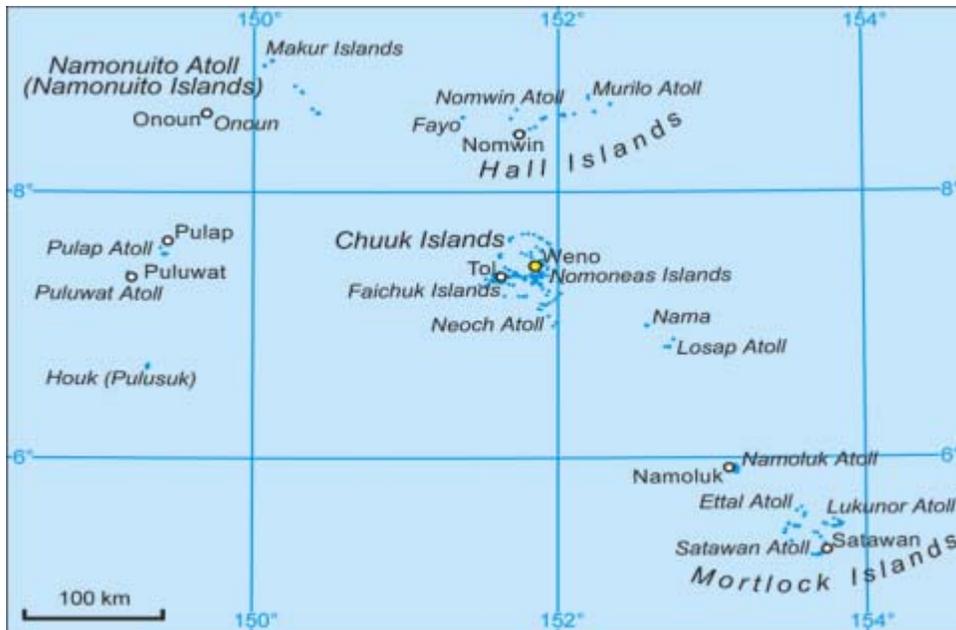


Figure 1.1 Chuuk State

### Pollap in Nomwun Pattiw

Within the state of Chuuk, Pollap is an island situated to the northwest of Chuuk Lagoon, closest to the boundary with Yap State. These islands are commonly referred to as *Nomwun Pattiw*, a group of islands that include Pollap, Tamatam, Poluwat, and Houk as shown in figure 1.1. These islands are generally small, with a combined land area of 2.77 square miles and have a population of 2,736 as of the year 2000 (FSM Census 2000). Houk and Poluwat are municipalities while the island of Pollap is divided into two separate municipalities of Pollap and Tamatam. The island of Pollap is the northernmost island in Nomwun Pattiw, the closest to Yap. Many of their traditions are similar and this is apparent with the *tehow* for which Yapese are also known. In Yap, the *tehow* is referred to as *pangenas* and *iseis*. To the present, Nomwun Pattiw is known to be some of the most traditional islands in Chuuk. Not only have they been able to maintain most of its traditions, but they have established schools to continue them.

## Chuukese Adornment

Chuukese material culture includes clothing, adornment, tattooing, and painting. In Kraemer's volume *Truk*, he describes Chuukese as people who "take pleasure in clothing and particularly in adornment" (Kraemer, 1932, p. #?). Adornment such as combs, earrings, and necklaces were extravagant embellishments both Chuukese men and women wore. They were made from natural materials that were accessible like plants, coral, seashell, coconut shell, and turtle shell. Because the *tehow* is a neckband, the several types of adornment worn around the neck will be explored in this section. Neckbands are generally called *mware* because most extend towards the chest area that is called *mwar*. Neckbands varied in design and material. Some were made of white shells called *faupwech*, those made from coconut shells are called *mwarensak*, some were made of tia disk called *fouchol*, and others were made from red shell disks called *faupar*. It was common to see neckbands made of a mixture and not strictly one type of material like those shown in the Fig.1.2.



Fig. 27.  
Neck band made  
of large red  
faubar and  
small black and  
white disks.



Fig. 28.  
faubar  
pendant.

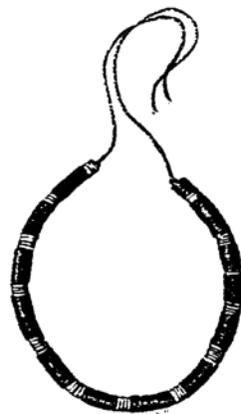


Fig. 29.  
Small black  
and white  
disks.



Fig. 30.  
Neck chain of coco-  
nut rings and 3 pend-  
ants (r. 2 of coco-  
nut).

Fig. 1.2 Samples of different traditional Chuukese neckbands

The designs were also very intricate where patterns were made with the different type of disks. A pattern of *foupwech* and *fouchol* or *foupar* and *fouchol* was common. The more intricate the pattern, the more appealing the neckband was. The intricacy and complexity of the neckband increased with the number of strands the neckband contained. Some neckbands would have more than two strands, with the first strand made of *foupwech*, the second strand made of *foupar*, and the third strand *foupwech* again, creating a beautiful mixture. Neckbands were generally worn daily and anyone could wear them. *Tehrow*, however, were worn for specific occasions such as celebrations and dancing in the Pollap tradition (Heldart, 2010).

### **Cultural Significance of the *Tehrow***

The cultural significance of the *tehrow* is multifaceted. The *tehrow* is an adornment that is worn to promote uniformity within a group of people and also to express a peoples' identity.

According to Rosita Joseph, a Pollap native and weaver of *tehrow*, every member of a family must own a *tehrow*. *Tehrow* are worn during *apwapwa* or special celebrations and all attending, especially the performers, must wear theirs. Dancers not wearing a *tehrow* are discouraged from performing. Ms. Joseph explains that performers without a *tehrow* will create visual inconsistency of the dance. The beauty of a dance lies in the uniformity of movements and the attire. Before an important celebration in Pollap, there will be a *rhee*, something similar to a dress rehearsal and pep rally. The *rhee* is a time to prepare and raise spirits for the event. Before this event, performers must already have their *tehrow* prepared to wear during this practice.



Fig.1.3 Dancers wearing *tehrow*

The *tehrow* is a medium through which identity is expressed. During important occasions like graduation and weddings, individuals from the the northwest region are identifiable because they are wearing *tehrow*. At island events, you are able to recognize what part of Chuuk the performers are from by the *tehrow* they wear.

### ***Tehrow* in the Past**

In Pollap, the *tehrow* is currently worn the way it was worn in the past. It hangs loosely around the neck extending down from the shoulders to the sternum and in the back to the area adjacent to the sternum. It has transformed a great deal from what it looked like in the past, when the *tehrow* consisted of a thick strand made from hibiscus fiber and plaited disks made from materials such as seashells, coconut shell, wooden plates, and *pateor*, objects found floating on the ocean surface. The disks in the *tehrow* were large and bulky, approximately the size of a quarter. The *tehrow* was similar in appearance to the neckbands discussed earlier in the paper. The designs were less intricate and the disks were plaited horizontally. It was very common to see *tehrow* that consisted of not more than two or three strands because the disks were larger and heavier.

The process of making *tehrow* in the past involved three major steps. First, the string was prepared. Second, the disks were collected or carved out, and third, the disks were strung together on the string in different patterns. The string used in making *tehrow* was extracted from

the inner bark of the hibiscus tree. There are three layers of the hibiscus tree trunk and the fiber needed for the *tehrow* string is located between the core of the tree and its outer bark. The bark is removed and the fibrous inner bark (bast) is then removed continuously, stripped from top to bottom, being careful not to tear it. The bast fiber is then left to soak in water for several days. When the strips are strong and firm, they are taken outside to dry in the sun. The disks were either collected from the surroundings or carved out with a compass-like tool that was made of joint pointed sticks where one pierced a hole and the other carved out the diameter around the hole creating a disk. The disks were then strung on the string and arranged in different patterns. The more decorative *tehrow* would have small additional strings extending from the original strand.

Fig. 1.4 Picture of hibiscus bast fiber





Fig. 1.5 single strand *tehrow*

### ***Tehrow* in Contemporary Times**

The *tehrow* is particularly interesting because unlike many cultural materials in indigenous cultures, it has physically transformed, but retained its cultural significance in the lives of the people of the northwest region of Chuuk. Contemporary *tehrow* are wider, more ornate, and made of imported materials. The disks used are small plastic beads with a hole in the middle. They are lightweight and come in many different colors. The string is a small monofilament fishing line, similar to the size of a thread. The stronger string and small light beads now allow the *tehrow* to be extensive and wide towards the shoulders. The *tehrow* today is woven vertically outwards from the initial strings allowing *tehrow* weavers to create more intricate patterns and designs. Although *tehrow* are still predominantly made by women, there are many skilled males who make them as well.



Fig. 1.6 Picture of contemporary tehrow



Fig. 1.7

The length of the fish line cut for the tehrow is usually *etileoup*, the distance from the tip of the middle finger to the shoulder of the opposite side. The weaver then chooses the different color of beads he or she prefers. The initial *mware*, is then weaved. The number of strands used on the original *mware* varies from one strand to four strands. One and three strands are common. On the original strand it is customary to see two types of color used. There are normally five beads woven onto the string. Out of the five beads, for example, the pattern would be yellow, yellow, black, yellow, and ending with yellow. This pattern is repeated until it reaches the end of the string. On every black bead on the original strand, an extension strand is inserted in the black bead. The beading will then be woven out vertically. After the strand is inserted, the two tips of the strand are inserted into a single orange bead followed by a black bead. From the two strands extending from the black bead, two more black beads are inserted onto each string. This process is repeated with each extension stemming from the black bead on the original strand creating a horizontal uniformity of color and pattern across the *tehrow*. The same arrangement of the beads is repeated and the weaver alternates colors to make the *tehrow* more appealing.

When there is approximately three or four inches remaining of the string, the weaver then arranges the colored beads in a pattern to create designs such as hearts, arrow shapes, triangular shapes, and many more to make it more decorative. The leftover ends of strings are then woven backwards to create the tip of the shape and burnt lightly to prevent from the weaving from unraveling. The contemporary *tehrow* is much more complex and difficult to master. Imported materials have permitted *tehrow*-weavers to express their many artistic talents.

### **Mathematics in Tehrow**

The mathematics involved in making the *tehrow* includes traditional Chuukese measurement, counting, pattern and symmetry. First, the Chuukese traditional measurement is utilized in doing two things with the *tehrow*, measuring the string and measuring how wide each respective design is. The original string is generally *etileoup*, the length from the tip of the middle finger to the farthest shoulder. In measuring each design, for example a heart design is *esopweang*, the distance from the tip of the index finger to the knuckle. Second, counting is one of the important factors in weaving the *tehrow*. Because the beads are generally uniform in size, the counting of beads ensures that the spacing of patterns is equal. Like the example discussed in the section on contemporary *tehrow*, if there are five beads on the first section, there must be five beads on every section. Patterns occur when things repeat in a predictable manner. The two types of patterns evident in the *tehrow* are number and color patterns. Number pattern in *tehrow* are evident when a certain number of beads are repeated throughout the strand. For example, on a two-strand *tehrow*, both strings are inserted into one bead, next one bead is inserted on each string, then both strings again are inserted into one bead like in fig. 1.8 below. The number pattern would be 1, 2, 1, 2. The color pattern is when certain colors repeat throughout the *tehrow*. For example in Fig. 1.9, the weaver will arrange a set of 7 yellow beads, followed by a

set of green beads, and then followed by another set of yellow, and trailed by another set of green. The color pattern then is yellow, green, yellow, green. Finally, symmetry is an identified math concept present in the *tehow*. The *tehow* is symmetrical. If you fold the *tehow*, the other half is the reflection of the other half. The axis of symmetry, the imaginary perpendicular line that runs down the center of the *tehow*, cuts the *tehow* in half resulting with two matching sides. This may be a simplistic approach to the mathematics identified in *tehow*, but is an honest effort to illustrate the fact that mathematics is pertinent in cultural traditions like that of *tehow*.

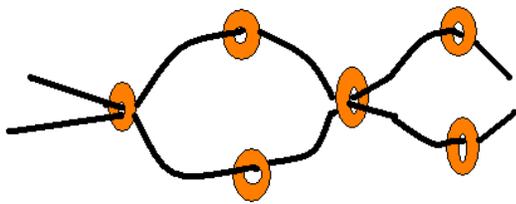


Fig. 1.8 number pattern in *tehow*

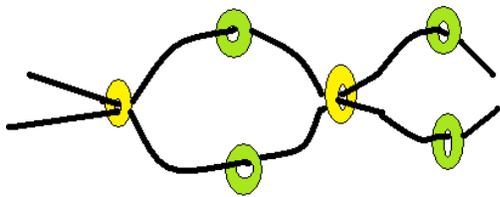


Fig. 1.9 color pattern in *tehow*

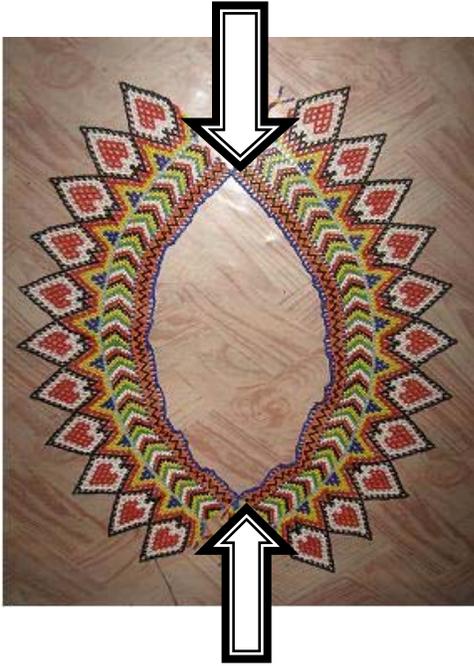


Fig. 1.10 symmetry of the *tehrow*

## Conclusion

The *tehrow* continues to be an important item of traditional self-adornment in the Nomwun Pattiw islands of Chuuk, especially in Pollap. Although its physical appearance and composition up have changed over time due to modernization, its cultural significance remains intact. It is very much a visible way in which Pollapese showcase their regional pride and identity. In contemporary Chuuk, *tehrow* are worn at celebrations, important meetings, and traditional events. The tradition of *tehrow* has inspired an accessory sensation. Earrings, bracelets, rings, and even bags are woven in designs reflecting that of the *tehrow*. It should be noted that this paper was an effort to explain the historical and cultural background of the *tehrow*, to describe the process by which *tehrow* is made, and identify the mathematics applied in the making of *tehrow*. It is in the authors' hope that she has fulfilled these expectations.

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