## Pohnpeian Traditional Feast House – Nahsen Pohnpei

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ABSTRACT. This short report gives information about a cultural context for teaching grade 4 mathematics concepts in measurement. The lesson is based on information from knowledgable elders and the everyday experiences of Pohnpeians.

## 1. Introduction

There are three main types of houses in Pohnpei, wen uhm (cook houses), imelap (main houses) and the nahs (feast houses). The nahs serves as the motherhouse of all the other houses within a family. The nahs or feast house plays an important role in the traditions and culture of Pohnpei. This is the place where people gather, feast and celebrate.

There are hundreds, maybe thousands of nahs in Pohnpei, but only one that has been built entirely from traditional materials. Most now are built of durable imported materials that withstand strong winds and storms (e.g., concrete). Today only the remnants of a traditional nahs is visible (Figure 1). The old and beautiful nahs built from local materials are attractive, including to tourists. However, to maintain that specific type of nahs is hard work and time consuming.



FIGURE 1. What is left of the only traditional nahs made of local materials.

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Unique to Pohnpei, a nahs is a simple structure with a complex set of meanings. Little more than a Ushaped platform with a rear wall and pitched roof, this carport-sized construction constantly reminds those who use it of their status in the village. In fact, in some ways the family nahs is the property of the village chief, or Nahnmwarki, with some parts remaining off-limits even to its owners. The nahs is a casual, breezy place that's generally detached from the walled-in main house. The dirt or stone floor is where families and friends sit, talk, work, eat and play. The raised platforms at either side are used for the preparation of food. The entire front section, raised or ground-level is open to everyone. But that's not true of the raised rear section. While the back platform is usually untouched, during feasts



FIGURE 2. Feast in a nahs constructed of imported materials (concrete, steel).

its cultural importance is revealed. The stage is reserved for the highest titled person present — which is often not the owners. Even during regular, non-feasting days, when there are no titled people present, the owners of a nahs are not permitted to enter it from the two rear doorways. (Largo Edwin, 2010).

People in the old days used special tools and instruments to build their nahs. One of the units of measurement they used is ngahp, the measure by two outstretched arms. Another unit is tipw, the measure from the elbow to the tip of the longest finger. When building a big house, a rope is used to measure long distances and the rope is already marked with knots indicating each ngahp. From my own understanding, an average size man is usually the person whose ngahp is used. There is another measure usually used that was introduced by the Japanese, suh, the hand span. When constructing the roof the shape is determined by the keimw, the angle.

Sometimes, if asked how big a nahs is, people will not give the dimension of the nahs but rather the number of *dinak*. Dinak is the area of one section of a thatched roof, from the eave to the peak, one ngahp in width. The sizes of the koupahleng can be from a few dinaks up to 50 dinaks.

There are at least 333 pieces of lumber that make up a standard feast house, the nahs called *koupahleng*. The number 333 is from the number of soldiers that accompanied Isokelekel, who became the first Nahnmarki (chief) of Pohnpei. The warriors all brought lumber to build the koupahleng for the Nahnmarki. All came and brought their contributions. As a visitor, at the front area of the nahs where you enter, once you are past the front timbers anything you bring you cannot take back.



FIGURE 3. A house made up of two dinaks

The position of the nahs also plays an important role in the prosperity or the livelihood of the nahs and its owners. The closest position to the sea is the point where the nahs should face. (Rodrigo Mauricio, Interview April 13, 2010).

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## 2. Geometry and Measurement Lesson

Students often struggle to learn about things that are unfamiliar to them and strange to their culture. I designed a learning unit about nahs to encourage students to learn academically as well as to recapture and honor the mathematics seen throughout their everyday living experiences. The lesson is available along with others on similar topics at the MACIMISE website (http://macimise.prel.org/3d-structures/).

Most elementary schools in Pohnpei erect a nahs in the school vicinity. Much mathematics is involved in building it and in all the cultural activities, ceremonies and funerals held in the nahs. This creates a world of mathematics for a Pohnpeian student living an ordinary life, which gives good purpose for learning mathematics. For this unit, local elders shared their knowledge about how people from the past built a nahs with traditional tools to measure and make it squared.

On Pohnpei, a 4th grade teacher, Mr. D and his 30 students used the lesson to learn about geometrical shapes and measuring. The research literature suggests that inquiry-based mathematics can be a powerful learning method, but an open question exists about what it might mean to define "inquiry-based" in a culturally-authentic way. The lesson is based on noticing and counting geometrical shapes that exist in the Pohnpeian feast house and on differentiating which counting unit to use and its significance. Also, the lesson has students explore and talk about the differences between the measures based on their own bodies and the cultural standard of an average size adult man. The goals of the lesson rely on students doing comparing and contrasting of ideas in Pohnpeian and English, describing different patterns and counting objects in both systems (the Pohnpeian system counts classes of objects differently). The final activity in the lesson has students build a scale model of a koupahleng and link English-language notions of measure, proportion, and scale to the Pohnpeian-based nahs structure and methods.

## 3. Resource

See the MACIMISE website for the Grade 4 Lesson:

https://macimise.prel.org/wp-content/uploads/2015/06/Measuring-and-Modeling-the-Nahs-traditional-feast-house-in-Pohnpei.-Grade-4.-Liwy.pdf.