

John E. "Swoose" Alexander's Parallel Oblique Flaking Technique

David L. Calame, Sr., Cindy K. Smyers, and R. Paul Stein, Jr.

John E. "Swoose" Alexander was born in Brown County, Texas, on September 6, 1919. After more than 70 years of flintknapping, Swoose has become somewhat of a legend across Texas. He began knapping in 1932 after discovering his first artifact while walking along the Pecos River in West Texas. He became interested in replicating the parallel oblique flaking that he had observed on Angostura points. After 18 years of trial and error, he mastered the art of parallel oblique flaking using only the materials that were available in ancient times.

Swoose lives in McCamey, Texas, and is active in the Iraan Archaeological Society. He is also a member of the American Society for Amateur Archaeologists. Swoose visits the local schools and talks to school children about artifacts and archaeology.

In addition to his contributions to archaeology, Swoose is active in track and field events. He holds many records, and has been recognized for excellence in the Senior Track and Field Games. In 2000, he was inducted into the Texas Senior Games Hall of Fame and was recognized for his achievements and presented an award by then Texas Governor George W. Bush. Swoose also developed a jet ski propulsion engine and owns the patents on several inventions.

Swoose Alexander began hunting for arrowheads at an early age. He found his first one when he was 12 years old. Even at that young age, he was not satisfied with just finding them. He wanted to know how they worked and how they were made. He began trying to make arrowheads in his grandfather's barn.

Swoose developed his own methods of parallel flaking completely alone and uninfluenced by outside sources. In his own words: "I spent the biggest part of my time from 1932 to 1950 trying to learn

this method of oblique parallel flaking and to find this clue of how the Paleoindians did their flaking. There were no knap-ins in those days. Nobody that I knew of made arrowheads. I did it completely by trial and error, day after day, year after year, in my garage by myself. I guess you could say I was obsessed. Then around 1950, I finally discovered the secret and started making those Paleo points."

There were some gaps in that 20 years for Swoose, such as serving in World War II. One of his hobbies was amateur radio and he used this skill in his war efforts in World War II, but the majority of his spare time was spent trying to learn the art of manufacturing projectile points.

Once he learned the methods, Swoose kept them to himself, thinking that he had good reason for keeping them a secret. By that time he had learned of the commercial market for artifacts. Mr. Alexander feared that someone might learn to make them and sell them as ancient artifacts. So, for years, he kept his secrets to himself and continued to perfect his techniques in the privacy of his small West Texas workshop.

Knowing that there are now so many flintknappers across this country, and not wishing to take his methods to the grave with him, Swoose has changed his mind and decided to share his knowledge and experience with the public. By doing so, Swoose Alexander has generously contributed a vast amount of knowledge to the understanding of oblique parallel flaking techniques. His examples of these Paleoindian projectile points are recognized across this country as some of the best reproductions ever made.

He uses only tools that would have been available to prehistoric people. The knapper's tool kit that was discovered with Oetzi, the "Ice Man" in the

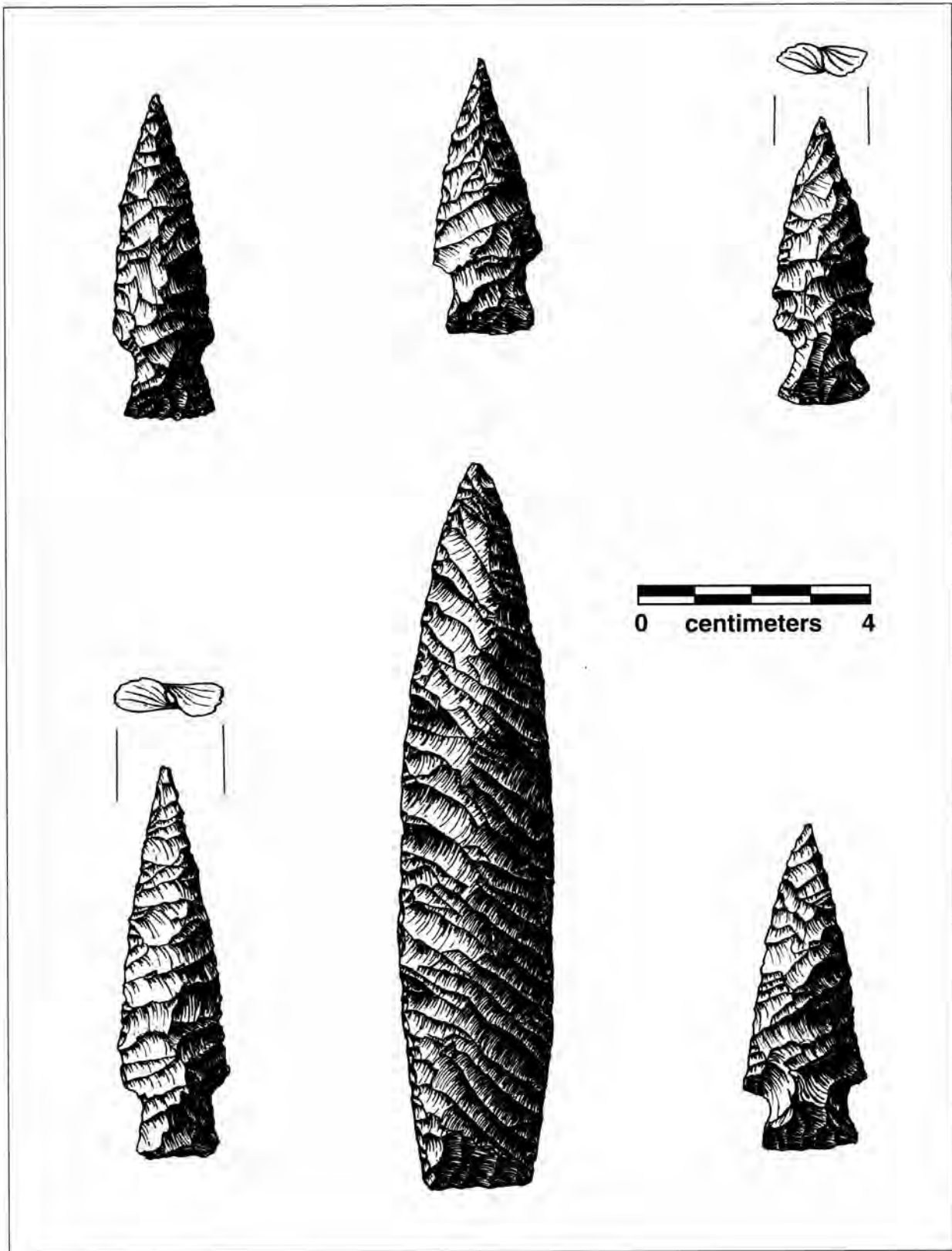


Figure 1. Projectile points knapped by Swoose Alexander.

Dolomite Mountains of Italy, is virtually identical to the tool kit that Swoose has been using since the early 1930s. Not only are the tools that were uncovered with the “Ice Man” similar in size, shape, and material but they show virtually the same scar patterns of use wear.

Mr. Alexander is one of the very few knappers who has been able to accurately replicate the Pandale projectile point. Swoose generously agreed to be interviewed and to demonstrate the techniques he uses in the production of Pandale points. Drawings by Richard McReynolds of points made by Swoose (Figure 1) demonstrate his ability to replicate both Late Paleoindian and Early Archaic parallel oblique flaked artifacts.

SWOOSE’S METHOD OF FLINT KNAPPING

Tool Description

Swoose prefers using a buffalo horn for knapping, but he says that a cow horn also works well. His knapping tool is made from a slice of horn cut in a rectangular block with a ramped, or chisel-shaped end, similar to a thick wood chisel (Figure 2). The end result is a pressure flaking tool with the working edge approximately 24.0 mm wide and 8.0 mm thick. The working edge is the flat and sharpened edge of the tool, as opposed to the sloping sides. The point of contact between the tool and the preform edge is approximately 6.0 mm from the tool’s lateral edge.

Tool Wear

With use, the tool wear pattern develops and appears as a notch in the tool’s sharp working edge (see Figure 2). Up to a point, functionality increases as the notch deepens. The sharp edge of the flint digs into the horn. The notch keeps the horn from slipping off the sharp preform edge, as pressure is increased.

Flint Knapping Technique

One major difference in Swoose’s parallel oblique flaking technique from other knappers is his flake support while applying pressure. Swoose positions his hands between his thighs and applies pressure to the horn tool and preform, directing pressure directly into the lateral edge of the preform by squeezing his thighs together.

No rotation of the horn tool was observed, as is usually the case with knappers attempting to snap off a flake when using other types of hand-held pressure flakers and Ishi sticks. Also required for successful knapping are the convexity of the preform and the natural characteristic of flint to fracture in a curve.

Swoose stresses that each flake sets up the ideal conditions for the removal of the next flake; i.e., an ideal platform and a ridge for the next fracture to follow are left by the flake previously removed. Swoose does some edge crushing, but his technique does not require heavy grinding to provide a strong platform, since he applies pressure directly into the longitudinal axis of the point. Swoose completely supports the flake being removed by pressing the preform firmly against a soft leather pad, which is held in his left palm and the large fleshy pad at the base of his thumb.

As pressure from the tool is increased, support of the area in which the flake will be removed increases. After the flake releases, Swoose quickly resets his tool in line with the ridge produced by the previous flake removed and applies pressure again, keeping the soft leather pad in the same place. Each flake does not release as pressure is applied by hand, but rather it initiates as Swoose squeezes his thighs together, which he calls his “machine.”

ACKNOWLEDGMENTS

The authors wish to thank Richard McReynolds for the Figure 1 and 2 artifact sketches, and J. E. “Swoose” Alexander for allowing us to spend the day interviewing him and observing his knapping skills.

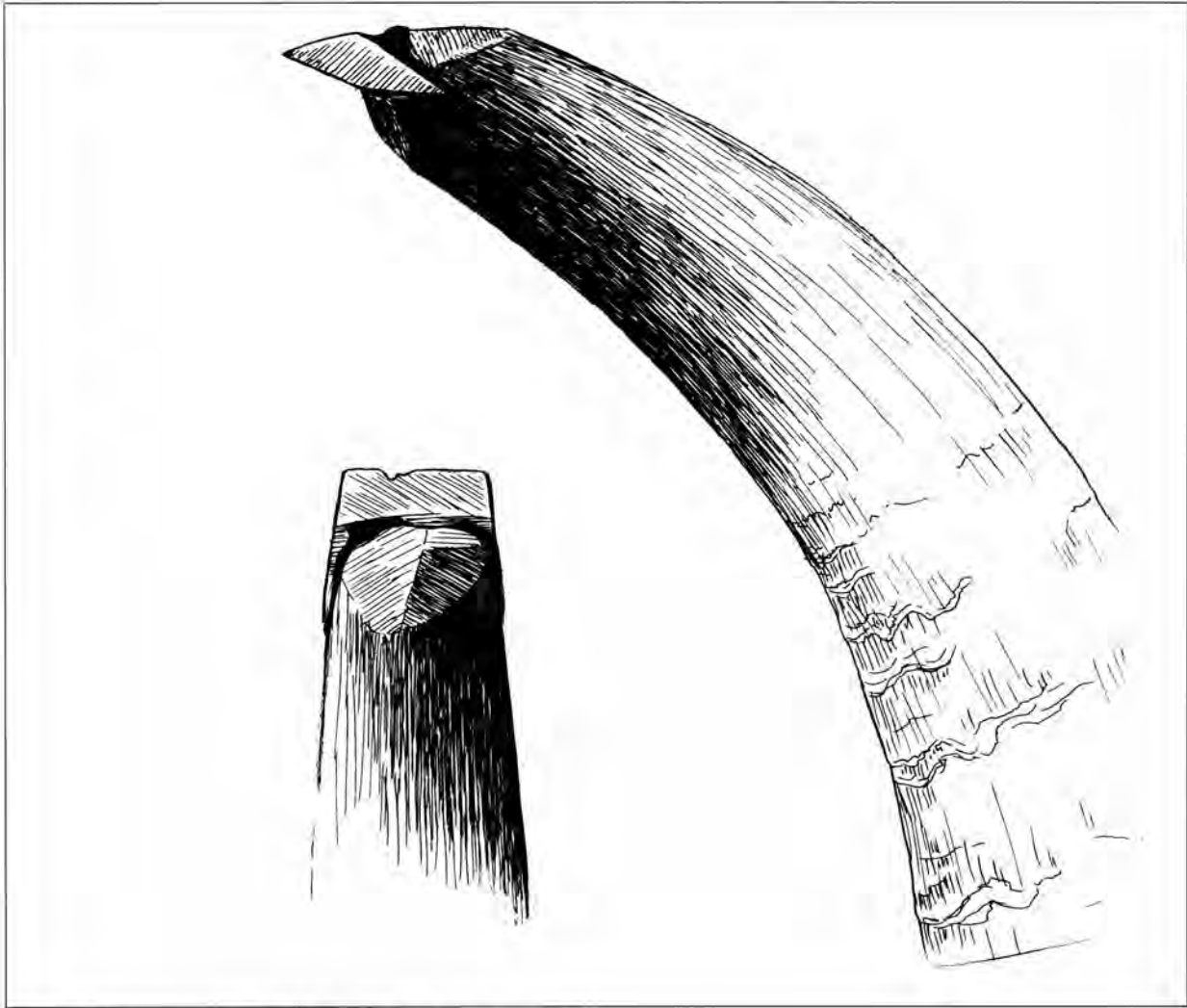


Figure 2. Swoose Alexander's buffalo horn knapping tool.