

8- Essential Equipment of the Ancient Farmer

Just What the Ancient Farmer Needed



An Early Collector

Native people used groundstone tools called **manos** and **metates** to prepare food. The smaller mano was held and used to grind materials against the larger metate. These tools were plentiful and found throughout the Verde Valley area.



Photo courtesy of Fort Verde State Historic Park

Following the Civil War, the Army commissioned over 35 ornithologists as officers in the Army Medical Corps as "surgeons" and sent them to Western military posts. Edgar Mearns had amassed a large collection of natural history specimens and developed a lifelong friendship with another youthful ornithologist, future President Theodore Roosevelt.

In 1883, Means enlisted in the Army and because of his impressive credentials was allowed to choose his post. Mearns selected Fort Verde, as he believed central Arizona offered the greatest opportunities for new and original research. In the above picture he is sitting on the porch at Fort Verde with a large collection of metates and manos that he had collected.

Mano and Metate

The metate and its companion piece, the mano, comprise a two-part tool used for grinding in the preparation of food. These are the earliest "flour mills." These tools were used by Native Americans for over 10,000 years. The term metate is derived from the Aztec word *metlatl* and the mano (which means hand in Spanish) is a corruption of the Aztec word *metlapil* which is translated as "son of the metate."

The metate is a stationary, concave slab of stone upon which food is placed to be ground. The mano is then placed on top of the material to be processed,'

With a grinding motion, the seeds, corn, beans or nuts are pulverized into the consistency of flour.



Bedrock Metate

Bedrock metates are found near creeks and streams, often associated with a dwelling or campsite. These are identified as concave depressions on granite or sandstone boulders or slabs. As a result of many years of use the depressions are often polished smooth.



A bed rock metate along Red Tank Draw

Many Shapes and Uses

Besides food, manos and metates could be used to pulverize clay to make pottery. Also, minerals could be ground to make pigments for paint that could be used to decorate pottery or for personal use. The following are items found at the Tuzigoot National Monument.



Small mortar with ball for grinding



Mortar with limonite lump and powder for yellow pigment



Basalt mortar with pestle



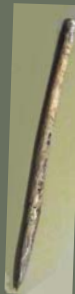
Mortar made of pumice with ovoid shape and flat bottom

Thanks to the National Park Service and the University of Northern Arizona for the use of many of the tool images shown here.

Garden and Harvesting Tools

Digging Stick

Although simple in design, the wooden digging stick is one of the most important tools of prehistoric native peoples. They were used to break new ground for farming, digging holes and digging roots and tubers for food. Crops were planted in narrow trenches or shallow holes with a digging stick. Hopi often make the digging stick out of greasewood.



Hoe

Hoes are sturdy, thin tools made from hard stone materials, and often hafted with wooden handles. They usually have triangular or rectangular blades that helped till the soil and removed unwanted weeds.



Tuzigoot Hoe made from diorite - 11" x 5" x .25"

Agave Knife

An agave knife is a specialized tool for harvesting agave. The stone knife blade is thinned along the edges. It is pushed through the agave stalk while still green to cut the leaves off and to cut the agave from its roots. The core (or "heart") is removed for roasting.



Tuzigoot Agave knife with curved, serrated, thinned edge showing use wear

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