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Shovels: Regional Diversity in One of Our Most Indispensable Tools

“...the shovel is the trademark of archeology and perhaps its most indispensable tool.”— Heizer A Guide to Archaeological Methods (1949:32)

“Lucille, God gave me a gift. I shovel well. I shovel very well.”— *The Shoveller, Mystery Men* (1999)

When I was given the brief to write about archeological tools for ThenDig, my mind reeled. Like Ms. Morgan, whose post about boots inspired this issue, I have been a collector of regional tools and methods for as long as I have been a field archeologist (going on 25 years now).

Everyone has trowel stories (including stories of lost trowels recovered like the Silas Hurry post about archeological tools recovered in St. Mary's City). I, however, have always been interested in the “coarser grained” archeology tools—shovels and their kin. One of my earliest mentors in the field of archeology kept his flat shovel razor sharp and could use it to make floors with a skill and cleanness that most of us only muster with a good trowel. In his hands, the shovel was just as good as a trowel. I will never be that good...but it did spark my interest and respect for the shovel.

At first blush this may seem like an innocuous topic. How different can shovels be? I do not claim a wide geographic experience—I have worked mostly in the southeastern US—but in the 13 different states I have worked, I have encountered a wide variety of shovel tools and techniques. Each of these is an adaptation to the local conditions, or products of the genealogy of intellectual traditions.



Standard No. 2 excavating shovels recommended By Heizer (1949).

My old (1949) edition of Heizer's *A Guide to Archaeological Methods* states that a “long-handled, round-point standard No. 2 excavating shovels are recommended. Spades, scoops, and square-point shovels are virtually useless owing to their inability to penetrate any but the softest dirt.” These shovels were clearly important and as recently as 2006 archeologists were combing the country (or at least advertising in some newspapers) for these shovels... The Nebraska State Historical Society was willing to pay up to \$50 for True Temper No. 2 light-weight shovels in good condition.

Over the years, apparently, the archeological stance on flat shovels has softened a bit. The seventh edition of *Field Methods in Archeology* still uses Heizer's introduction (and preference for snub-nosed round shovels), but it also reports that “square-point shovels are useful in excavating sandy deposits and many archeologists find them valuable for cleaning excavation unit floors in the search for post molds, rodent burrows, and other features” (Hester et al. 1997:70).

Despite Heizer's recommendation, my personal motto for archeology and the use of shovels is simple—"round shovels for round holes, square shovels for square holes." By this I mean that I prefer to use a sharpened spade to dig the small (30 to 40 cm in diameter), round shovel test holes that southeastern archeologists use to locate sites on survey, and a VERY sharp broad, flat shovel to dig 1×1 or 2×2 meter test units that are common in testing and full excavation projects. This maxim of mine has been fed by my original training in the Mid-South where we commonly dug in nice soft loams and loess soils. Things changed for me as I began to work in other settings.

In the Mississippi Valley the fine clays can be very difficult to deal with—when they are dry they are bricks and when they are wet they are a sticky mess. Two different shovel styles (springing from intellectual traditions) have evolved to deal with these soils (why do I suddenly sound like an environmental determinist?). First, there is the spade that has a "half-moon" cut out of the blade—these are the self-manufactured versions of Heizer's shovels trimming the point off and filing the edge with a bench grinder. To the best of my limited knowledge this style comes out of the American Bottom region (or at least remains in style in that area). The "half-moon" cut out allows for a lot of strength in cutting through clay (and even burned daub walls). They do tend to make little ridges in the units floors, but if you were trained in this tradition you have probably become adept at minimizing this effect.

The second adaptive strategy in the Mississippi Valley is the use of a sharpened "rice shovel." For those of you who have not encountered them, a rice shovel is a hybrid spade—with a snub nose and three holes in the blade. The shovel is somewhat flatter than a typical spade (more like a flat shovel) and the snub nose eliminates the pointy bit the way the cutting the "half moon" out of a pointed spade does. "Why the holes?", you ask. The wet, sticky clays of the Mississippi River valley can often stick to your shovel blade with such suction that it can be very difficult to dislodge your soil matrix once you have shoveled it up. The holes break this suction insuring that you will be able to toss your soil into a bucket or screen.

But in the mid 1990s I left the lowlands and worked for a decade in the Ozark Mountains. This, again, radically changed my thinking about excavation. In the lowlands of the southeast I had been trained to keep floors and walls level and pretty...and my trowels and shovels sharp enough to cut string. In the rocky, uplands of the Ozarks all of this was nigh impossible.



The sharpened "rice shovel": weapon of choice for the Mississippi Delta.

Most of the sites I worked on were 50%-70% gravel and as such it became very difficult (and pointless) to keep an edge on a trowel as you were literally mining the rocks out of a roughly 10 cm level in every unit. This environment made my favorite weapon, a sharp, large, flat-bladed shovel useless. I had three adaptive strategies for the Ozarks.



1) Entrenching Tool (or E-Tool): I am told that entrenching tools go back to at least the Roman period, but the ones I use have their roots in the folding spades of World War I and II—In fact, I *literally* prefer WWII entrenching tools—I have owned three different 1945 shovels manufactured by Ames for the US Army (this has lead more than one student to declare that my shovel “belongs in a museum”). I like to fold the shovel blade 90 degrees and use the shovel like an excavation hoe (or a large trowel). It works really well in the gravelly soils of the Ozarks, but I actually picked this tool usage up from a colleague of mine who worked in Texas and the southwestern US...so I am not sure of the origin of its archeological use...but it is not indigenous to the Ozarks.

1945 Ames Entrenching Tool

2) Geologic hammer: This tool was actually great in the Ozarks for cleaning the rocks out of the corners of your excavation units and for better defining the wall/floor transition. Just like you would run your trowel along the base of the wall to create a right angle transition, you could use the pick end of the geological hammer to carve away the rocks to approximate a right angle...sigh.

3) Small-scale gardening spade AKA “The Lady Shovel”: Back to my maxim...using standard-size round spades to dig shovel tests was also difficult in the Ozarks as you were pounding through gravel. I found that a small-scale gardening spade was the best for digging shovel tests as it allowed you to “go around” rocks in the process of carving out the round hole. Unfortunately, many people (and some industry marketing) has given this tool the blatantly sexist moniker “the lady shovel” due to its frequent use in gardening (which apparently has become a gendered hobby). A word of caution, however, you cannot use the cheap, welded gardening spades you might find in discount stores for shovel testing in the Ozarks...you have to have a “real” thick gauged steel shovel...just scaled down from the standard pointed spade. The Ozark rocks would tear up one of the flimsy variety within a single shovel test.

In 2006 I once again found myself changing geographical regions as I took up my new post in the rolling gulf coastal plains of southwest Arkansas—it's called the Trans-Mississippi South by some researchers. I'm now working in the beautiful sandy soils at Historic Washington State Park near Hope, Arkansas. It's beautiful—the ease of digging and screening sand, with just enough structure to hold it together and not collapse the way coastal sand does. There is dust on my entrenching tool these days...I'm back where I started with a sharp, flat, broad bladed shovel.

