

Edwards Plateau Quarry Site

It seems to come up quite often on arrowheads.com, people that appear to be hunting on a quarry site and are not sure what they are finding. Other very knowledgeable people try and help identify the items found, but if you are not specifically familiar with a quarry site I think it is very easy to mis-identify artifacts.

When I first was told that I was on a quarry site I made the mistake of looking for a large hole in the ground. In many parts of the country this might be the case, but in areas such as the Edwards Plateau, quarry sites are commonly hilltops where the surrounding soil and limestone has eroded away, leaving exposed cores. A quarry site such as this might be as large as 100 acres.



Most of what is found at a quarry site is known as debitage:

Debitage is all the material produced during the process of lithic reduction and the production of chipped stone tools. This assemblage includes, but is not limited to, different kinds of lithic flakes and lithic blades, shatter and production debris, and production rejects. - [Wikipedia](#)

Debitage can come in all shapes and sizes with the smallest being small chips and flakes and the largest being a spall. Debitage can even be a nearly finished projectile point.



DEBITAGE

It is important to keep in mind that in areas such as the Edwards Plateau where lithic material is plentiful, the Native Americans could afford to be selective and only use the lithic material that best suited their needs. Because of this, many items can be found at quarry sites that appear to have been a finished tool or point, but were in fact debitage, discarded for a variety of reasons.



Three views showing a stack on a discarded, nearly finished projectile point

The Four Stages

Think of artifacts in four levels.

Level One is a Quarry Blank.

Level Two would be a preform. A preform is a reduced blank. Flake removal is smaller than that of a blank and secondary work is common.

Level Three would take on the shape and characteristics of the item they were making

Level Four would be a finished artifact to include edgework and pressure flaking

Most items found at a quarry site will be level one or two

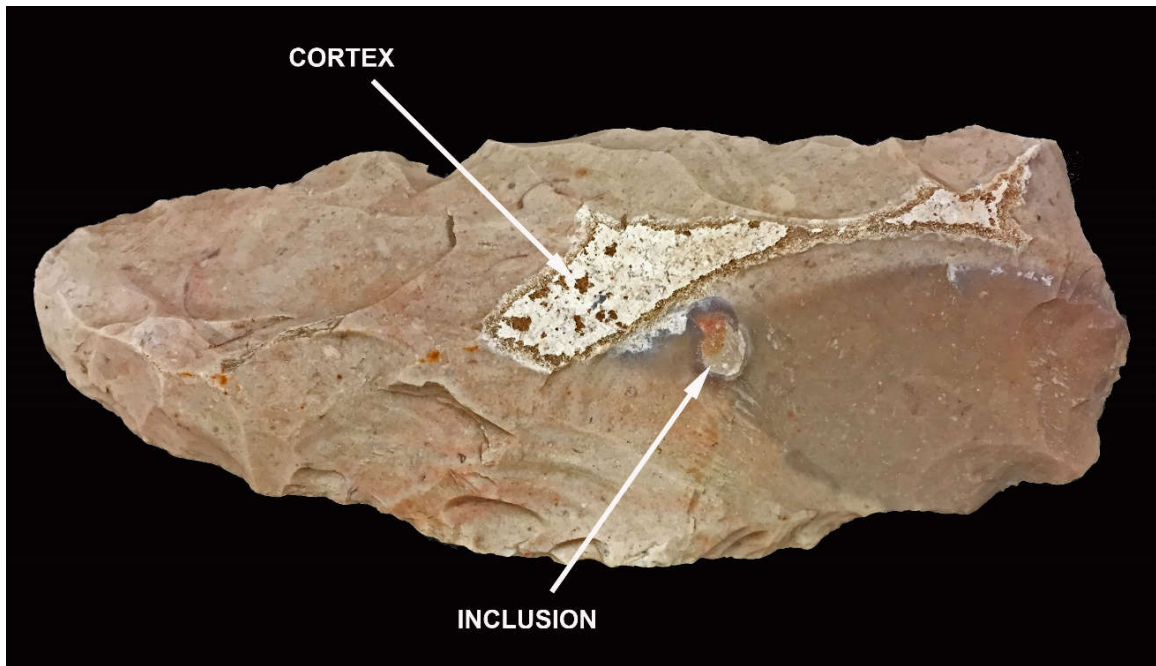
Quarry sites were rarely permanent camp sites and would have been visited by multiple groups at any given time, likely for thousands of years. Presumably they would gather as many quarry blanks as they could and carry them back to their camp or “workshop” where work would resume.

Quarry Blank

A quarry blank, also known as a Trade Blank, is a cobble knocked from a core. Blanks are found in varying shapes and sizes, ranging from a few inches, to fourteen inches or more. Most quarry blanks only have a few large reduction flakes removed and lack secondary work. It is not uncommon for some cortex to be present. Blanks typically have irregular and unworked edges. Although it may look like a lot of work was put into a piece, a skilled knapper can knock out a quarry blank in a matter of minutes.



Quarry Blanks



This is a very common shape for a Quarry Blank



Irregular and unworked edge



Worked Edge

There are three terms in knapping that describe flakes that didn't follow all the way through; **hinge**, **step**, and **stack**. A simple **hinge** can easily be knapped through by removing a flake that goes under the hinge. When a flake ends in a **step** it is necessary to knap into it from a different angle to remove the step. If we try to knap into a step from the same angle the flakes will continue to step at the same spot as the first resulting in a **stack** of steps.

On discarded blanks "Steps" or "stacks" are commonly present. A step is the result of reduction attempts where the flake broke suddenly rather than carrying on through the material. Steps make further reduction difficult, while stacks make reduction very difficult, if not impossible. The smaller the piece, the harder it is to remove. Steps and stacks are common reasons why artifacts in levels 1 to 3 were discarded.



Examples of steps/stacks

Blanks could have also been discarded because the material did not flake properly, or the cobble had inclusions.



One of the most common worked items I find are these large, often pointed pieces. At first, I was convinced that these were broken tools that had been utilized, but these are likely broken quarry blanks

Preform

While blanks are often identified as choppers or hoes, Preforms can easily be mis-identified as tools such as scrapers or knives.

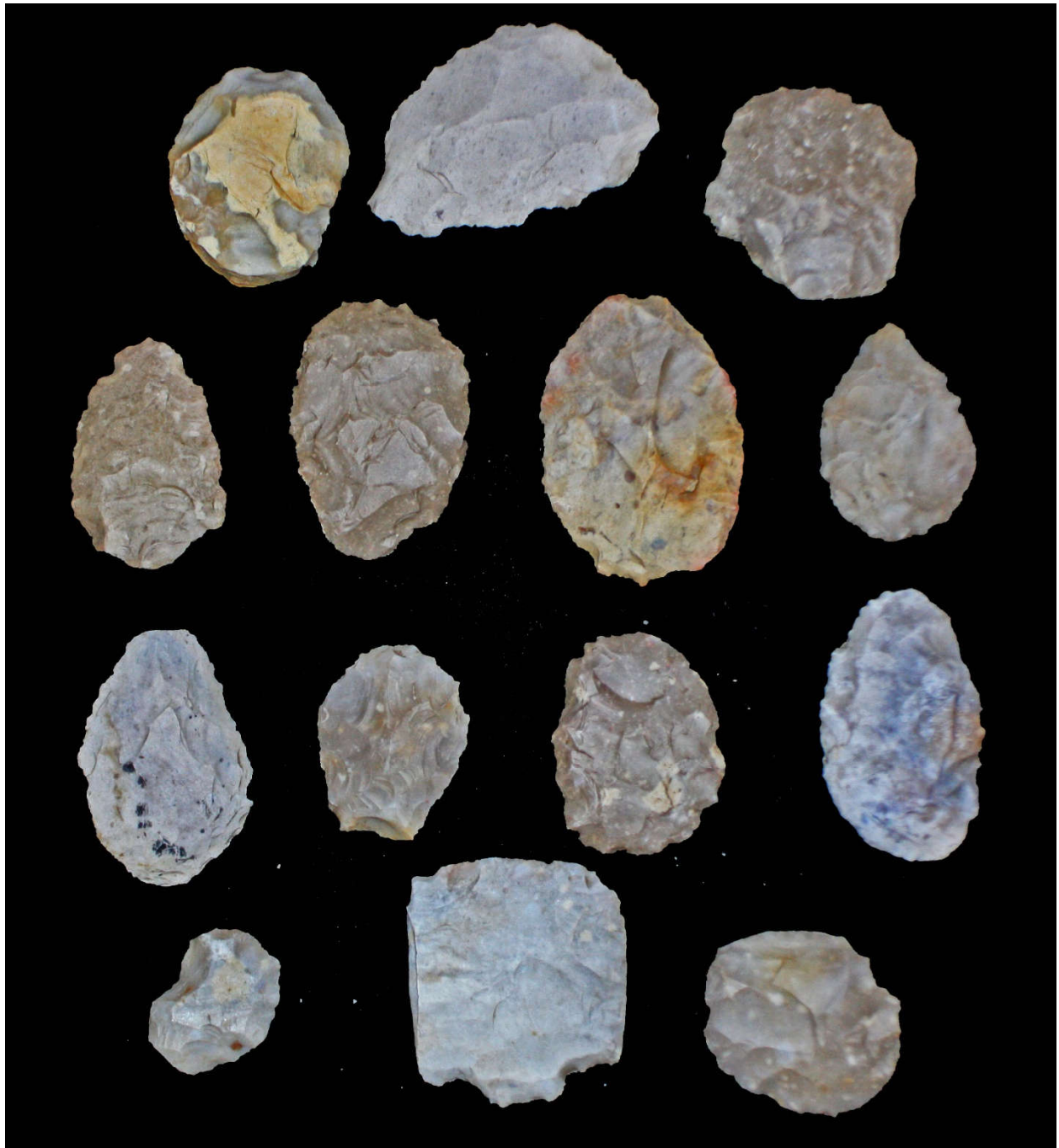
There is a very informative post by Painshill in the following thread that defines the difference between a blank and a preform.

<https://forums.arrowheads.com/forum/new-member-area-gc25/hunting-tips-gc144/204720-how-to-determine-what-s-a-preform>



Preforms in Various Stages





Initially I had categorized all of these items as scrapers, but have now decided that the majority are preforms

Level 3 Items

Level three items typically found near quarry sites can easily be mistaken as having been utilized as a finished tool or point. Keeping in mind that lithic material is plentiful, if the knapper didn't like how the item was turning out, he would simply toss it aside and start over, or break off the offending section of the biface and use the rest.

Context is very important in determining what is and is not debitage. Debitage found where lithic material is plentiful may not be debitage where the material is scarce. Discarded items found at my site are commonly crude, lack symmetry, and have inclusions or stacks. Broken bases are plentiful, likely the tip was broken off during manufacture.

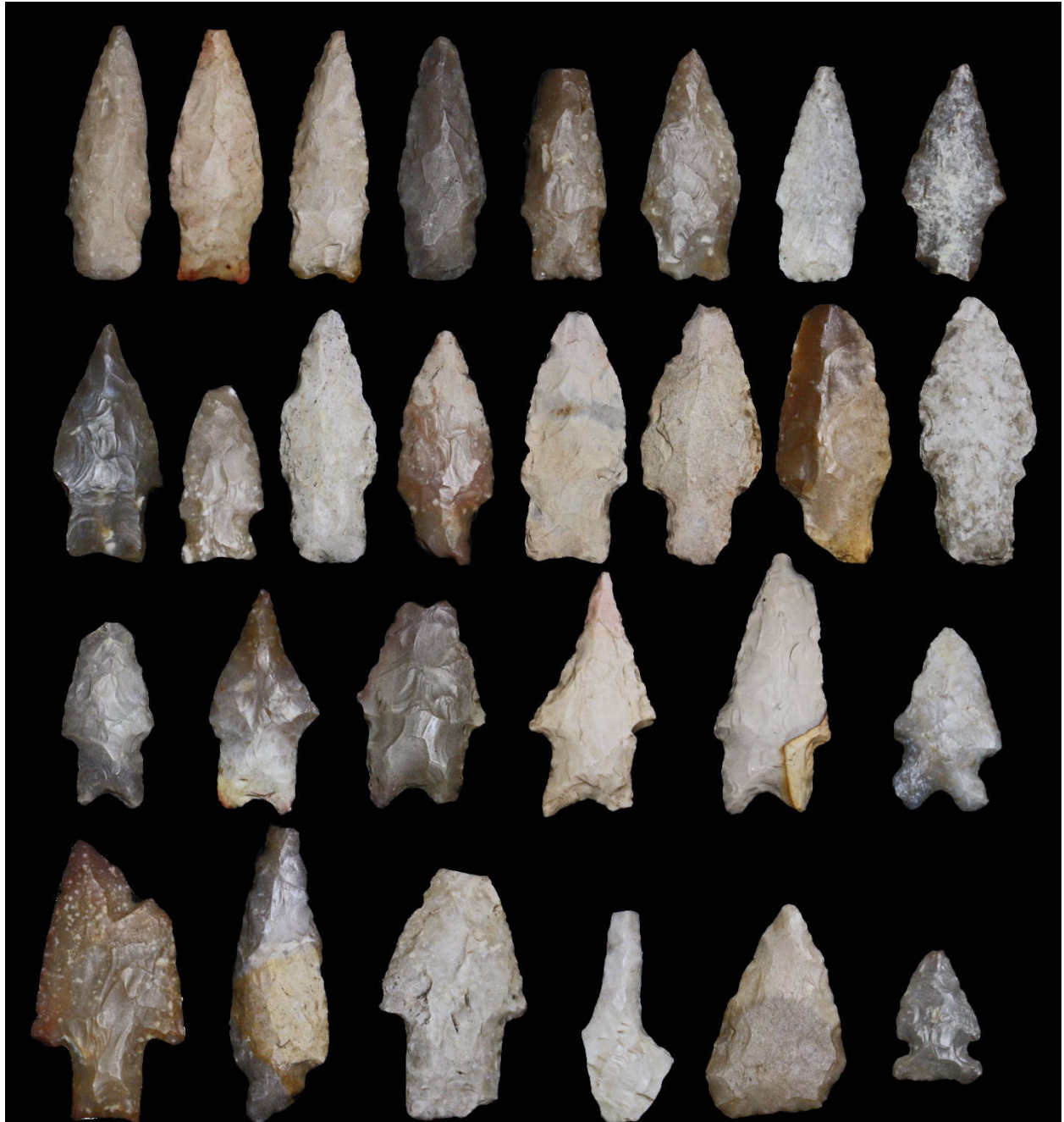


The two quarry sites that I hunt are separated by about 2 miles. On one of the sites I find debitage and quarry blanks scattered over about 40 acres and have found very few items that would fall into level 2 through 4 categories. On the other site, the quarry itself covers around 80 to 100 acres and level 2 items are somewhat common with occasional level three items being found. Several workshops have been found just down the hill from the quarry that have netted several hundred level two and three items, as well as several dozen level four items.

To be honest, when I first fully realized that I was hunting a quarry site and really understood what a quarry site was, I was a bit dejected. My enthusiasm for the hobby waned and I made fewer trips there to hunt. I have since completely turned that attitude around. Anyone lucky enough to find themselves hunting a quarry site has the chance of finding more artifacts in a single day than most artifact hunters might find in a year. By definition, an artifact is anything used or modified by ancient man, and practically every rock I see in some parts of this property fit that description. Debitage might have been a native American's trash, but to me, it is certainly treasure. I might not ever find that elusive G10 hunting my quarry site, but I get a thrill out of every worked piece that I find.

Another thing that keeps me excited about my site is that I have no doubt that man has been visiting it for thousands of years. I have typed some pieces that would date back over 8000 years with a great number dating back at least 4000 years and every time I find one I can't help but wonder who held it last and the story that it told.

I'm only a stone's throw away from where archeologists have found points they believe to predate Clovis, so who knows?



More Debitage

A special thanks to Chase for taking the time to help me understand that I was on a quarry site and teach me what it was that I was finding. Also, thanks to Ron and Hoss for help with editing and content.