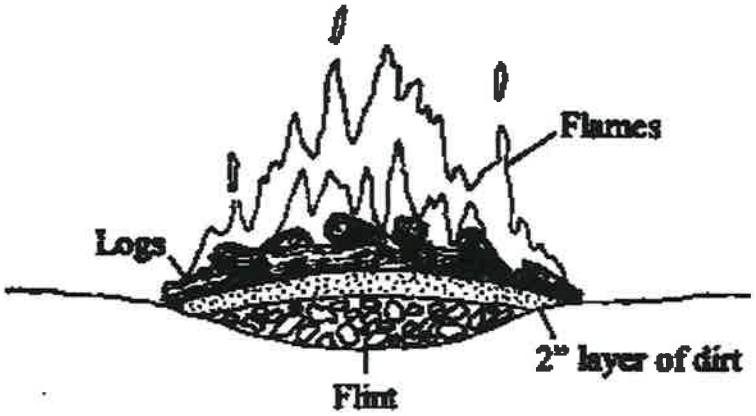
Heat Treating

Back to tutorial

Home Contact me

Many types of flints and cherts are difficult to knap in their raw form, and should be heat treated. If properly done, heat treating can greatly enhance the knapibility of the flint. Many types of flints and cherts will have a glossier finish and turn beautiful colors during heating.

THE OLD WAY:



Dig a shallow pit and put flakes, preforms, and/or sawed slabs into the pit. Put the thickest pieces towards the bottom, with the thinner flakes covering them. This is to prevent heating the thicker pieces to rapidly and causing them to fracture or explode. Make sure all the pieces are also dry to prevent exploding. The layer of flint fragments shouldn't be more than 5 inches thick. Cover the flint with a layer of dirt that is 2 inches thick all over. The dirt acts as an insulator, and lets the flint heat up slowly, and also blocks most of the hot flint fragments that often shoot up from the top layer during heating. Build a fire over the layer of dirt and keep it burning very strong for at least 15 hours. Let it cool off for 2 days before digging it up.

THE MODERN WAY:

Many modern day flintknappers heat treat flint in kilns with pyrometers. A jeweler's burnout oven also works if you have time to tend to it (that's what I used to use). You can also buy kilns now that are designed especially for heat treating flint. See below for link for heat treating kilns. A lot of people use turkey roasters and conventional ovens, but these do not get hot enough for novaculite and a few flint and chert types, though they do work on most. I currently use a large toaster oven, and it works marvelously on the flint I use.

Put the flint flakes, preforms, and sawed slabs into a metal can or bucket, with the thicker pieces in the center. The can will shield the red-hot heating elements from being damaged by chips that may fly off. Put sand in the can or bucket all around the flint. The sand acts as an insulator and slows the heating and cooling of the flint and protects it from fracturing. Put the can or bucket in