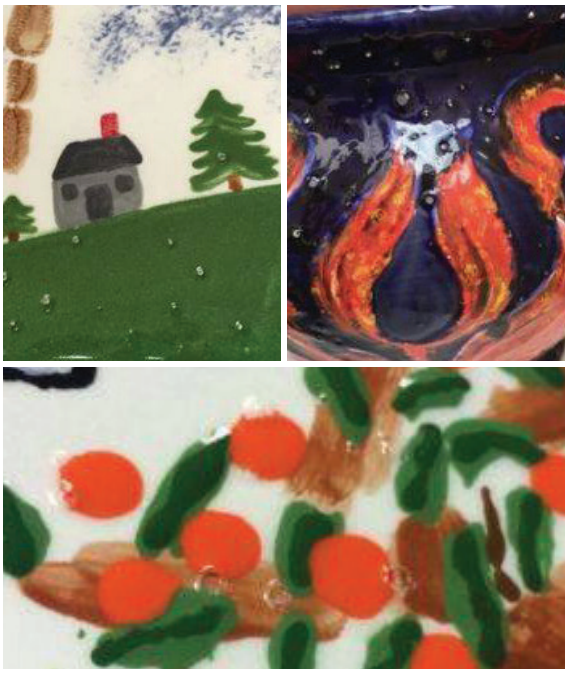
PINHOLES & CRATERS

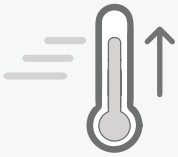
are glaze surface defects. They appear as small "pinholes" or large "moon-like" craters after firing.



Many factors can cause these defects but the most common problem is related to gases coming out from the clay body. The clay body contains organic material from the earth that when fired creates gases. If organic materials do not fully "burn out", gas can form during the glaze firing, become trapped by the glaze and form pinholes or craters.

POTENTIAL CAUSES

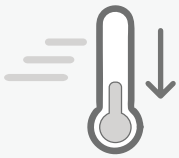
There is not enough air in the kiln for organics to properly burn out. This is why it's important to vent the kiln and not to over pack.



The kiln was heated so quickly that there was not enough time for organics to burn out. Fire electric kilns on medium speed.

The bisque fire and the glaze fire are too close in temperature, causing the bisque to reheat and further outgas.

The ware was under fired during the bisque firing.



Too fast of a cool down where the glaze hardens before the ware finalizes any outgassing.

CORRECTIVE MEASURES

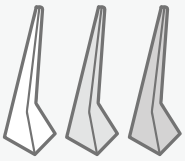
Refiring to a cooler temperature than the original firing will usually fix the piece. If the piece is re-fired at the same temperature or hotter, the bubbling could get worse.

PREVENTATIVE MEASURES

Make sure the bisque and glazes are fired to the proper temperature and speed by:

Have a two cone difference between the glaze fire and bisque fire for low temperature glazes. For example: cone 04 bisque and cone 06 glaze firing.

Make sure to load and vent the kiln according to manufacturer's guidelines to ensure proper air circulation.



Use witness cones in both bisque and glaze firings to assure proper firing.

Do not fast fire. Fast firing does not give enough time for the color and/or glazes to smooth over the surface of the bisque.