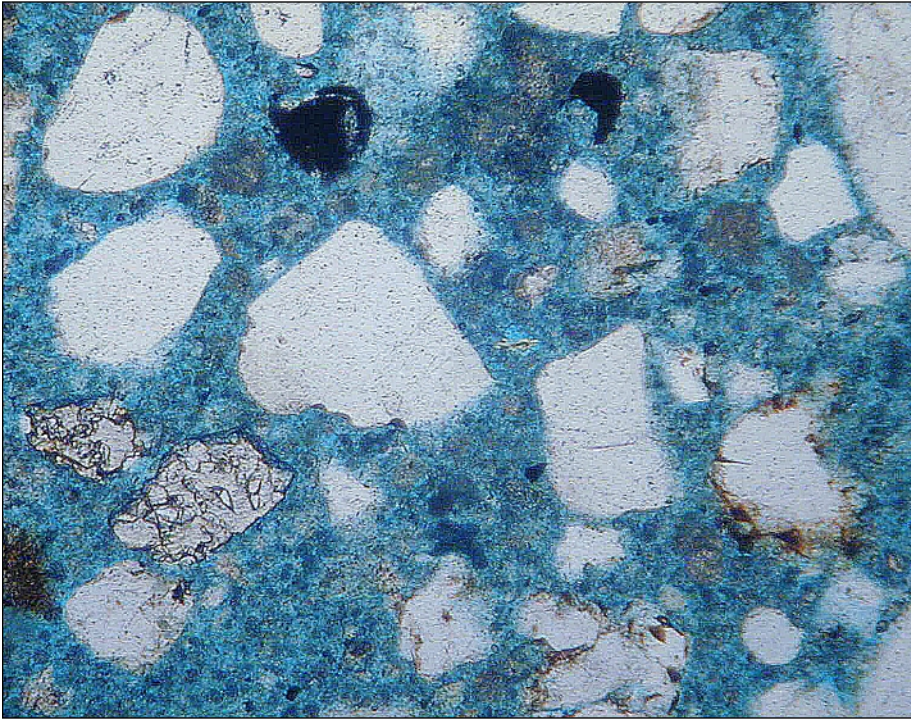
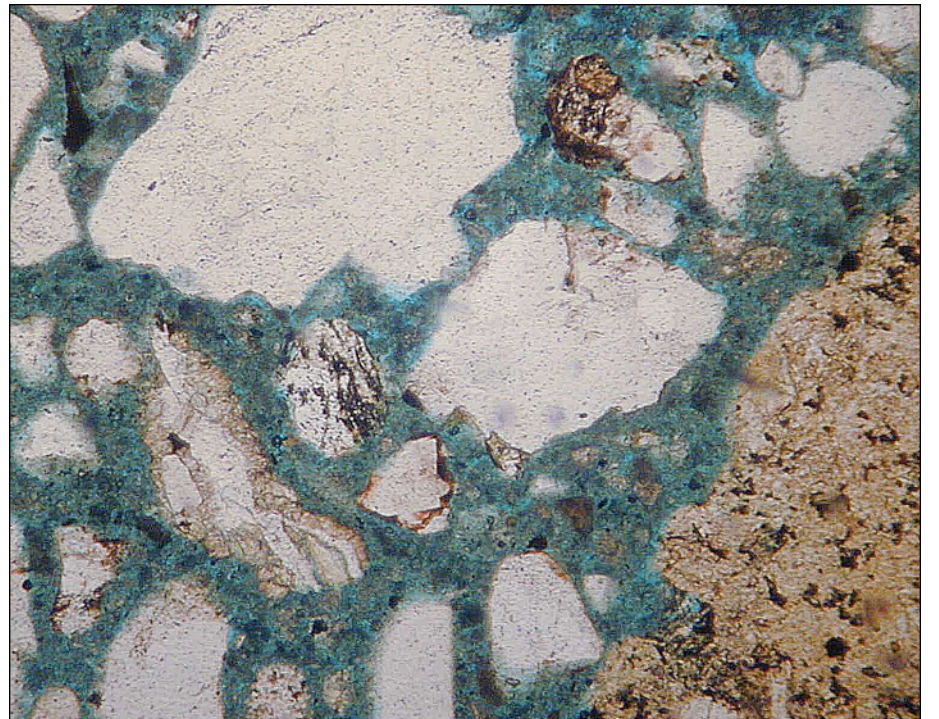


Mortar Breathability



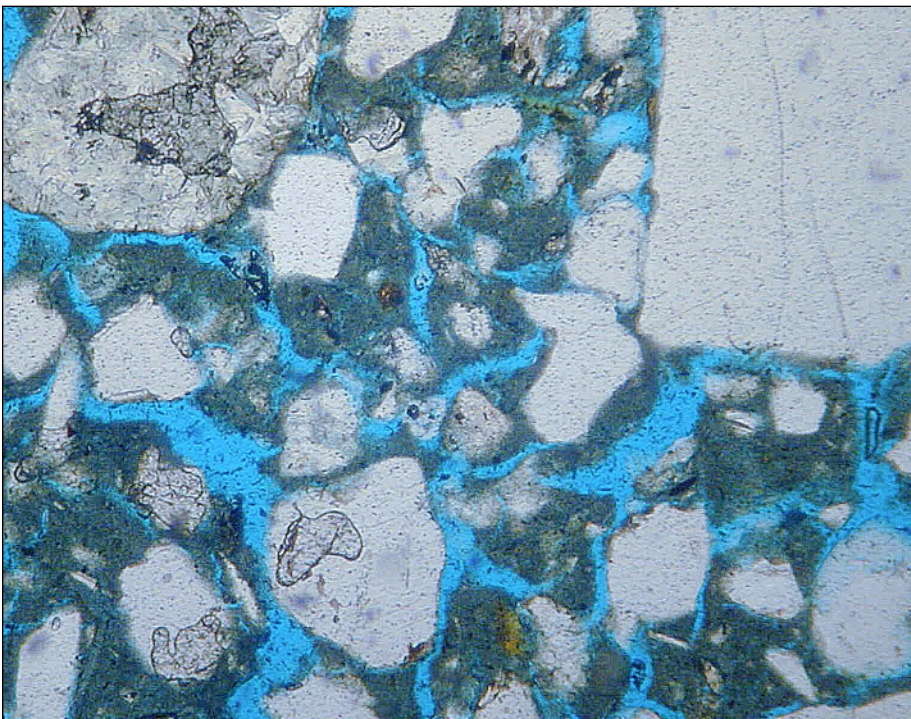
1 PART NHL 3.5 TO 3 PARTS SHARP SAND

Note the high porosity in this mortar fabric. The wall can breathe by allowing moisture to enter and deliver the carbon dioxide needed for carbonation during curing and to usefully encourage the crystalline bridging phenomenon (also known as the autogenous or self-healing properties of lime mortar), moving about the free lime in the mix to close larger fissures. Excess moisture then quickly evaporates back into the atmosphere.



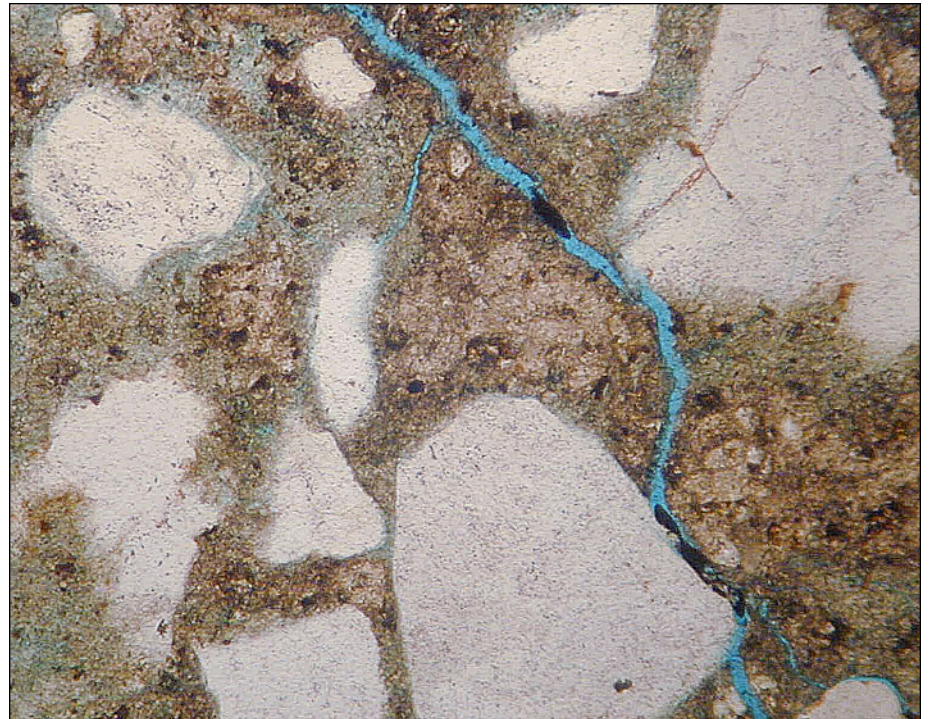
1 PART NHL 5 TO 3 PARTS SHARP SAND

Note that the pore structure is still open but finer and denser than the Natural Hydraulic Lime 3.5. This mortar is suitable for copings, parging and pointing in extremely wet conditions including sea driven rain with high salt content.



1 PART LIME PUTTY TO 3 PARTS OF SHARP SAND

This cross section cut away of a traditional lime putty mortar demonstrates, via the blue dyed epoxy which fills the open pore structure, that mortar based solely on lime and sand has a tremendously high **liquid** and vapor permeability.



1 PART PORTLAND CEMENT TO 3 PARTS SHARP SAND

Note the dense fabric and the greatly reduced porosity with only the presence of shrinkage cracks. The shrinkage cracks are a portal for moisture to get into the absorptive bedding. Because of this, moisture can be driven much further into the building and then to rooms when heat inside draws moisture, or out through the brick or stone accelerating its deterioration.