

Documentary and Discovery

Geological References, Lewisville and Muddy Creek Corundum Forsyth County, N.C.

By: Ron Carswell

I have seen no reports of the mineral corundum being found or presented geologically in Forsyth County, N.C. except for the discoveries and reports I have made of this mineral being associated with the local geology (Forsyth County, North Carolina). This information has been offered and may be of some importance and interest.

Local geological events in relation with this corundum source also represents the occurrence of siliceous breccia vents or pipes with multiple minerals, various igneous rock formed intrusions including limestone, metamorphic activities, quartz crystals, microcrystalline and cryptocrystalline quartz in various forms (many colors), siliceous breccia and geologic values. A complex geology to be understood! Rocks being formed from multiple chemical fluids, oxidized elements, minerals and associated concretionary debris of former presentations through hydrothermal events.

The corundum that I have seen from other places in North Carolina looks different from the Lewisville corundum samples. The corundum forming chemistries and geological events were presented locally and the environment represents prehistoric mining efforts. I am thinking that the associates in minerals that I have found presented here at the Lewisville site (Q/ M1) and the amount of related material in corundum that I have found at this site will rule out any other origin for these particular substances. With a little understanding of the geology that has been presented here, it is obvious this corundum is local.

To add to my discovery and study in a GEO-ARCHEAOLOGICAL nature, there are host rock materials in chunks here that the corundum evolved with and I can't see why anyone would bring these substances to the location. I can't rule out a gem seeking environment to be at this location along with other rocks and minerals presented here would have been valuable to the early prehistoric people and early European mineral seekers. Corundum has been found with the alluvial deposits from nearby creek drainages and a Muddy Creek site. I am sure the corundum is still in situ here, maybe more below. It would depend on the amount of early mining and erosion that has taken place at these sites. When you are looking at thousands of years of disturbance to the geological presentations, what is left is what I have been investigating. Gems found in this area of Piedmont North Carolina may have been taken to Europe and other places long ago.

The sought after rocks and minerals were extracted from this area for thousands of years. I am looking at what was left behind at the quarries and around the reduction sites where early stone tools were carved from the local siliceous rock materials. The geology is here to offer an opportunity to see results of unique geological formations that have been disturbed. This place is where local archaeology and geology have merged to references of prehistoric activities and an understanding of what these local rocks had to offer. Materials for stone tools were at the top of the list as a survival need for these local people and it is obvious that they lived at or very close to these rock resources. There was no shortage of rock materials in prehistoric times for tools, in this area of now Piedmont North Carolina.

The importance of the corundum finds are that they can be clues, as associate substances, used to identify the type of geology that also presents many forms of sedimentary siliceous concretions, silicates

(Quartz, microcrystalline quartz and cryptocrystalline quartz) used for stone tool manufacturing performed by local prehistoric tool makers. Many tons of the siliceous rock materials in stone tools and discarded flaking debris cover Forsyth County. The early tool makers must have been finding nice gems in these environments. The evidence is still here. Many various silicates occurred in an environment where iron, magnesium, aluminum, silicon and other elements are oxidized and compounded. Metamorphic rocks are formed through chemical reaction processes, heat and pressures through hydrothermal activities. Metamorphic clay sediments and marble are also associates. This is what I find in the mineralized environments I have investigated. Olivine and serpentine generated forms of siliceous concretions are also formed in the localized geological environments in certain areas where mafic rocks have been presented with crystalized limestone (marble).



Merger One, Prehistoric Quarry (QM1)

Alluvial deposits, multi-minerals

Lewisville, N.C.

I think that mining operations happen here on location by prehistoric people who were looking for gems, siliceous rock materials, soapstone (talc) and other minerals. Knowledge of these locations may

have been passed along to the early European mineral seekers. A merger site may have been at this location in now Lewisville, N.C., in my book. As an avenue, the Yadkin River was an easy way out to the Atlantic Ocean for the early explorers and traders.

Creek drainages that originate near this geological event(s) and the Yadkin River are associated with multiple mineral deposits. The drainages that I have become interested in are Blanket Bottom Creek, Hauser Creek, Ellison Creek, Panther Creek, Reynolds Creek, drainages falling from the high ground that is now where Lewisville is and drainages around the Big Bend of the Yadkin River (Forsyth and Yadkin Counties) to the Idols Dam area, Carter creek, Davie Co, Breccia Creek in Forsyth, Co. and Muddy Creek. These drainages have been channels for dislodged minerals to travel through. The host rock intrusions and remains of rocks and minerals associated with the hydrothermal events have been subjected to erosion, prehistoric quarry activities by the ancient Natives and gravity for many thousands of years and have exposed various minerals along with the corundum. The hydrothermal events may have evolved in time sequences and can be associated with siliceous breccia found in these environments.



Cut and polished siliceous breccia, Q/BCI Sedimentary Rock Forsyth County, N.C.
The chemistries responsible for the formation of these breccia substances are also responsible for other various forms of microcrystalline and cryptocrystalline quartz in flow bands of many thicknesses.



Muddy Creek Prehistoric Rock Quarry (Q/MC)
Associates, Geological environment, (Q/MC)
Discovery and image by Ron Carswell

Alluvial Deposits

Forsyth County, N.C.
Forsyth County Archeology



Muddy Creek Corundum (sapphires)

Alluvial Deposits

Forsyth Co., N.C.

Prehistoric Quarry Associate (Q/MC)

Forsyth County Archeology

Discovery and Images by Ron Carswell

I am also looking at the Muddy Creek drainage in association with the same type or related geological events and a corundum find also. These geological events may be associated with and may follow in a general direction that traverses Forsyth County in an East, very slightly Northern direction. By connecting these Forsyth County corundum out crops, an orientation of the Breccia vents and other evidence of hydrothermal events can be traced through Forsyth County. This information can be used to hypothesize the locations of other mineralized areas in or near these geological event areas. Ancient indigenous people held reference to these geological environments. The Yadkin River was directed by results of this geological event or events to have created the Big Bend. The general direction of this geological presentation extends westward through areas of Hiddenite, near Taylorsville, N.C. and beyond, there may be a connection geologically. These geological events have also presented various mineral bearing igneous rock intrusions and folds in certain areas where associated oxidized elements, hydrothermal activities and metamorphic rocks formed. The areas may be involved with different types of igneous rock presented in the same area. The Lewisville site is one of these certain areas and one of

many in the now Forsyth County and surrounding areas. The geology represented at this location may not be fully understood. It is hard to stereotype geological events and how various oxides have compounded and present metamorphic rocks. Each environment represents its own presentations of elements and rock forming events.



Lewisville corundum in matrix (altered corundum margarite mica, muscovite)

Prehistoric quarry associate (Q/M1), 1992

Forsyth County Archeology

Discovery and image by Ron Carswell



Lewisville, N.C.

Corundum and other multi-mineral Inclusions in Margarite

Samples like this discarded cruddy rock stuff (a mica embedded corundum matrix with other mineral inclusions) kept the corundum in situ until early mining and a later plowing history impacted the site causing dislodgement of these host chunks containing the corundum in matrix and crystal forms. I have to also look at the amount of time and erosion that has taken place in this environment as a factor that would put the corundum materials in the position or state the materials are in today, localized in a breakdown at the surface and below a plow zone and pulled from a host medium is what I have discovered. Margarite is an alteration of corundum presented by hydrothermal solutions and this site represents the associated geology in a rock forming, multiple-mineral environment.

Prehistoric Quarry Associate, (Q/M1), 1992

Forsyth County Archeology

Discovery and image by Ron Carswell



Lewisville corundum, Q/M1 Margarite encrusted corundum substances and cut crystal forms

Prehistoric quarry associates

Forsyth County Archeology



Lewisville, N.C.

Corundum crystal (Large, broken)

1992

Prehistoric quarry associate, Q/M1

Forsyth County Archeology

Discovery and Image by Ron Carswell



LEWISVILLE, N.C.

CORUNDUM sapphires in margarite

Colors and inclusions are associated with the Lewisville corundum.

Prehistoric Quarry Associate (Q/M1) 1992

Forsyth County Archeology

Discovery and images by Ron Carswell



Lewisville site, Q/M1

manganese oxide associates

Forsyth Co., N.C.

Could be an important element responsible for the various shades of purples and pinks found in the corundum at the Lewisville site.

Various colors are associated with the Lewisville corundum, also white. This indicates a multiple-element and multiple-mineral presentation at this site.

It is believed that manganese oxides or dioxides were associated with early human's fire starting efforts thousands of years ago.



Lewisville corundum, White Sapphire in margarite

The Lewisville, N.C. corundum has unusual crystal structures and a presentation that gives this substance a signature to its origin.

Minerals were most likely mined from this area in prehistoric and very early colonial times. Artifacts found in this site are prehistoric stone tools, primitive construction clay components, possibly from a crude early bloomery furnace for iron production or chinking for some other structure. A hearth evidence of layered stone and charcoal was uncovered under the plow zone. Some of the early colonial artifacts found here may have Spanish influence, late sixteenth and early seventeenth centuries possibly.

The Yadkin River was a trade route for these early explorers. Artifacts that I have found in other areas along the Yadkin River in now Forsyth and Yadkin Counties may indicate the early Spaniards were here and most likely interested in the local rocks and minerals, including quartz crystals. Iron oxides found to be associated with the local geology could indicate early iron ore explorations that ended up at this site, in Lewisville. Other colonial artifacts found here represent a late 1700's to 1820's influence. A lot of history associated with one small environment.



Lewisville site, Q/M1

Quartz with titanium oxide inclusions (rutile)

Forsyth County, N.C.

The corundum found at this same location also contains titanium oxide.

Discovery and image by Ron Carswell

Forsyth County Archeology

What was the attraction in early times?

Why are the prehistoric artifacts and early colonial artifacts found in these geological environments?

My answer is the local geology.