COLOURING THE PAST

July 29, 2011 Kevin Smith Day of Archaeology 2011, Finds, Medieval, Viking Archaeology, Chert, colour, end-products, fever, Flint, France, Green, Iceland, Italy, Jasper, Jerusalem, lithics, Mineralogy, Minerals, National Museum, National Museum's collections storage center, Newfoundland, Norway, Obsidian, Reykholt, Sedimentary rocks, Snorri Sturluson, stone tools, strain, United Kingdom

It's a gray and rainy day in Reykjavík and I'm thinking of colour. Arrayed before me in the National Museum's collections storage center are an array of jasper fragments from an excavation at Reykholt, an important regional center in western Iceland. Founded in the late 10th century, Reykholt became the center of a polity forged by Snorri Sturluson, Iceland's wealthiest and most powerful chieftain of the early 13th century. I was involved in the first years of the Reykholt Project in the late 1980s and was there briefly in its last days, in 2007. Excavations that I undertook at a small, non-elite farm about 10 kilometers away and at the site of one of Snorri's rivals, a bit farther out, led me through a circuitous route to think about jasper, an iron-rich form of SiO2 that, like flint, chert and obsidian can be easily flaked into stone tools or used with steel to strike sparks for lighting fires. It's this latter use that attracted the Vikings and their Norse descendants to collect, use and discard jasper at most sites. A quotidian and visually boring class of material culture, jasper fire-starters were, nonetheless, the matches in the pockets of Norse men and women and their distribution, use wear and trace element chemistry can be used to monitor the movement of people over both short and long distances (we've used neutron activation analysis to trace Icelandic jasper to the site of L'Anse aux Meadows in Newfoundland, for example).

But arrayed before me today is a puzzle. Due to its high iron content, jasper is most commonly red or ochre-yellow. Far less common are black, blue, or green colours. And yet here, from the ruins of a medieval church built at the site around 1150 and demolished around 1550 is a sea of green and greenish-blue jasper. More to the point, the wear patterns on it indicate that hardly any of these green and blue-green fragments were used for striking fires, although the few red jasper fragments in the assemblage- and all of the obsidian pieces-were used to make sparks. The question is, why were these green pieces brought to the site and why were they treated this way? Or, better, what did it mean to be "thinking green" in medieval Iceland? So far, the answer is looking far more complex, and far more interesting, than I'd expected.

Of these green stones, roughly 10% form a coherent assemblage of desilicified, soft pieces, light blue-green in color, that have been scraped and faceted with files, knives, or abrading stones. The actions taken on them are deliberate but their forms are each different, random and seemingly accidental. Their most likely explanation is that the objects in my hand are end-products of actions taken to obtain blue-green powder, and that was most likely intended for the production of blue-green or green ink, as Reykholt was a center of literary production through the Middle Ages. These humble pieces may, therefore, be our best material evidence for the action of clerics and secular writers at Reykholt, whose products include those of Snorri Sturluson himself, among them *Heimskringla* (the earliest history of the kings of Norway), the *Poetic Edda* (a manual of skaldic poetry and one of the main sources on Nordic

pagan cosmography), and *Egills saga* (an important foundation of the Icelandic Family Sagas). Finding illuminated manuscripts in a collection of colored stones was the last thing I expected.

However, the majority of the other stones found in the fill and under the floors of this church are united simply by being green. Many are achingly beautiful jasper, like Song dynasty porcelain in color and texture, but were simply smashed into fragments to reveal the green interior and then discarded without any other traces of use. Another large group consists of small green pebbles, some of jasper and others of white chalcedony with a green surface rind formed from contact with iron-rich basalt in a reducing environment. From their surface contours, it is clear that some of these were collected from river or stream beds, others were obtained from eroded landscapes where they were faceted and worn by Iceland's strong winds, still others were plucked directly from the roots of ancient volcanoes with basalt still adhering to their outer surfaces. An extensive survey of the region around Reykholt has shown that jasper of any kind is extremely rare there and nearly impossible to find in riverine, terrestrial or bedrock contexts. At Hestfjall, the nearest well-known jasper source, 30 km from Reykholt, red jasper is abundant. Although blue, green, and blue-green are present, obtaining it may require long searches, scrambles up vertical cliffs, or dangerous transects across steep and loose scree slopes. Bringing these simple objects to Reykholt, then, represents a considerable number of separate actions, undertaken in different places and variable settings, over a prolonged period of time, and potentially through a series of dangerous or at least difficult actions. Why? What was important about being green?

The answer may lie in the symbolic meanings of green and of jasper itself within medieval thought. Jasper was one of the twelve stones on the breastplate of Aaron, described in the Old Testament, and was among the foundation stones of the Celestial Jerusalem described in John of Patmos' Revelation, and formed that metaphysical city's walls. Numerous sources, from the Venerable Bede in 8th century England to Richard of St. Victor and Bruno of Segni, writing in 12th century France and Italy, make it clear that the term "jasper" itself was used to describe an opaque green or blue-green stone, not the more common red color that we associate with jasper today. Jasper was the symbol of faith and belief during this life, that, like green plants, grows and returns to life after hardship, never truly dying despite the troubles of earthly existence. Jasper was used, at times, as a symbol of Christ and, more frequently, as one of the symbols of Saint Peter...and the church at Reykholt was dedicated to Saint Peter.

An hypothesis starts to form. Are these green and blue-green pieces of jasper, gathered with difficulty from a potentially wide-spread landscape and deposited here in greater numbers than known anywhere else in Iceland, accumulated symbols of personal devotion? Are they materialized prayers to St. Peter, tokens of belief...or perhaps supports for belief under strain and supplication for his believed ability to turn away fever, to cure foot problems, to provide longevity, to aid harvests and harvesters, to provide support for fishermen, or to guide the souls of the deceased into heaven?

Two classes of stone objects, one used for pigment production and the other unused except for its acquisition, intentional destruction and sequestration within a church, are both joined primarily by color. Together, they suggest new approaches for understanding the pragmatics of religious practice in

medieval Iceland, on the one hand, and the practice of illumination, on the other, in ways that could not have been expected from such humble remains.

Well, back to it! The rest of the assemblage awaits and with it opportunities to refute this emerging hypothesis or to find additional examples that may support it. Some days archaeology takes place in the field, others in the lab. This is one of those days. This weekend may have me scouring the landscape in search of new jasper sources...