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News: Archaeology

Golden Fleece myth was based on real events, geologists contend

Villagers who collected gold in sheepskins inspired legend of Jason's voyage

By Bruce Bower 11:10am, November 25, 2014



JASON'S DESTINATION The myth of Jason and the Argonauts' quest for the Golden Fleece was based on an actual voyage to a region near the Black Sea where villagers used sheepskins to catch stream-borne gold grains, new evidence suggests. Villages such as the one here still dot the region, and locals continue to use the sheepskin method.

Jason and the Argonauts' mythic quest for the Golden Fleece took inspiration from an actual voyage sometime between 3,300 and 3,500 years ago, scientists say. Jason went from Greece to a kingdom near the Black Sea renowned for using sheepskins to collect gold grains and flakes from mountain streams.

Mountain streams in the Svaneti region of Georgia carry bits of gold and gold-specked gravel that erode out of bordering rock formations, say geologist Avtandil Okrostsvardize of Ilia State University in Tbilisi, Georgia, and his colleagues. Local villagers put sheepskins in these streams to catch floating gold, a technique that goes back thousands of years — suggesting that the region is the province of the ancient Colchis Kingdom, the Argonauts' destination in Greek mythology, the researchers conclude November 20 in *Quaternary International*.

“Our results show that the geological situation in the Svaneti region is the same now as it was 3,300 to 3,500 years ago, when the Argonauts traveled to the kingdom of Colchis,” Okrostsvaridze says.

Present-day miners place entire sheepskins in streambeds within 100 to 500 meters of gold deposits, Okrostsvaridze says. Rocks and ropes hold down each sheepskin. Pieces of gold erode out of rocky deposits, wash downstream and get trapped in the animals’ coats.

Further downstream, miners strain gold through oval, perforated wooden vessels. Historical descriptions of both techniques for mining Colchis’ “gold sands” go back about 2,000 years.

Archaeologists have found no remnants of ancient Colchis, leading some to conclude that it was a mythical invention. Earthquakes and landslides destroyed physical evidence of the kingdom, the researchers suspect.

It’s not surprising that Svaneti contains rich gold sources, remarks Robert Blair, a consulting economic geologist in Denver. But the new findings “make a strong case for abundant gold in an area connected to the legend of Jason.”

Previous discoveries, including two shipwrecks, documented trading for gold and other exotic materials between the Mycenaean civilization of ancient Greece — the source of the Golden Fleece myth — and societies around the Black Sea, says archaeologist Robert Tykot of the University of South Florida in Tampa. The new study supports the view that many myths from ancient Greece and other civilizations drew on actual events, he says.

An epic Greek poem about Jason’s voyage to Colchis, written roughly 2,300 years ago, contains many factual nuggets, says Stanford University historian of science and classical folklorist Adrienne Mayor. For instance, archaeologists have discovered graves of warrior women near Tbilisi and a goddess worship site on a Black Sea island supporting the poem’s description of Colchis as a stronghold of the Amazons, she says.

Okrostsvaridze’s team used remote sensing to pinpoint areas in the Svaneti region where gold deposits had eroded into adjacent streams during ancient and modern times. The researchers analyzed the gold content and other trace metals in more than 1,000 samples collected from stream beds and nearby bedrock.

Bedrock in an area located near the Svaneti region’s primary river system contains 65 to 70 metric tons of gold, they estimate.

Okrostsvaridze and his colleagues also collected wooden vessels and sheepskins currently used by Svaneti gold miners. Bronze sculptures in many Svaneti villages depict a ram’s head on a



Present-day villagers in Georgia’s Svaneti region used wooden vessels and sheepskins to collect these gold grains and flakes from streambeds. The precious metal shown covers an area about 20 millimeters across.

A. Okrostsvaridze

bird's body, a design influenced by the Golden Fleece legend, Okrostsvaridze suspects.

But Mayor contends that those sculptures probably show a ram's head and hide, making them direct representations of the mythical Golden Fleece.

Citations

A. Okrostsvaridze et al. A modern field investigation of the mythical "gold sands" of the ancient Colchis Kingdom and "Golden Fleece" phenomenon. *Quaternary International*. Published November 20, 2014. Doi:10.1016/j.quaint.2014.07.064.

Further Reading

B. Bower. Little Red Riding Hood gets an evolutionary makeover. *Science News Online*, November 22, 2013.

A. Mayor. The Amazons: Lives and Legends of Warrior Women across the Ancient World. Princeton University Press, 2014.

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