What Did It Take (Labor Investment) To Build The Fort Sage Drift Fence?

This is one of the questions that our antelope trap team is asking. Some background: The Fort Sage Drift Fence was described by Lorann Pendleton and David Hurst Thomas in 1983 in a publication entitled "The Fort Sage Drift Fence, Washoe County, Nevada". Since 1983, additional sections of the fence, or rock wall, have been discovered. Recent mapping of the rock walls by GPS now place the total fence at approximately 1,026 meters (3,386 feet). That means that somebody built a rock wall 3 feet tall by 3 feet wide by 3 feet thick and 2/3 of a mile in length. In order to answer the question of the labor investment necessary to build such a rock walled structure, 11 volunteers gathered about 1 mile from the Fort Sage Drift Fence during the Fall of 2011 to construct an experimental drift fence similar to Fort Sage. The results of our experimental research will be presented at the Society for American Archaeology meetings in Memphis in April, 2012. Some of the results will be posted here following the meetings.

Like many rock walled features and antelope corrals or traps in the Great Basin, broken Middle Archaic-aged projectile points such as Gatecliff and Elko points (ca. 5,500 – 2,000 years ago) were found lying alongside sections of the Fort Sage Drift Fence. This suggests that the fence was initially built thousands of years ago before the bow-and-arrow was invented in North America. The bow-and-arrow entered the Great Basin about 2,000 years ago, and arrow points are also found along the Fence. This suggests a continuity in the use of these large-scale trapping features in the Great Basin, despite the migrations of new peoples and the development of new technologies through time.

Part of this research is also to help answer the question "Why"? Why build the Fort Sage Drift Fence? Based on current archaeological models, at least three scenarios could explain large-scale trapping features like Fort Sage: (1) optimal foraging theory, in which it could be argued that building these structures were designed to optimize the capture of calories from the environment relative to work effort; (2) "prestige hunting", or "showing off", or "costly-signaling theory", which all essentially argue that men hunt in order to show their prowess at capturing big game, which in turn provides benefits in terms of better mating partners for the better hunters, which then in turn fosters the production of more children who live into adulthood (a classic Darwinian feedback system involving culture behavior and genes); and (3) communal, largely egalitarian get-togethers, or fandangos, in which groups of families come together at specific times of the year to take advantage of short-term abundances of resources in order to exchange information, strengthen alliances, and form match-making pairs of men and women. We hope our research can help address which one of these three models was more likely to have served as the impetus behind building these large-scale trapping features like Fort Sage. Or, perhaps it is also more complicated than that, e.g., perhaps the reasons why these features were used through time changed along with the peoples who used them and the technologies deployed over time.

In the meantime, below are some photographs of the Drift Fence and our experimental drift fence building.

A section of the Fort Sage Drift Fence. Note the “missing” rocks on either side of the rock wall. Gaps appear in various sections of the walled feature.

Another picture of the Drift Fence with a clearly visible gap.

A section of the Drift Fence built within a narrow, steep drainage. We found antelope hoof prints alongside the wall, indicating that the walled feature continues to “drift” antelope to this day.

Another section of the drift fence. This picture shows another gap in the wall, and it also shows the wall snaking its way to the top of the hillside.

The upper section of the Drift Fence with a circular feature built into it. This could have served as a look out spot, or a shooting blind.

The early stages of building an experimental Drift Fence.

The experimental fence takes shape.

11 people built this rock wall in 2 hours. It was difficult work, even for those in the best of shape.

Kevin Hockett, left (age 20 years) and Bryan Hockett, right (age 50 years) pause after 2 hours of fence building.