

the ground. Various meanings are attached to these fire-arrow signals. Thus, one arrow meant, among the Santees, 'The enemy are about'; two arrows from the same point, 'Danger'; three, 'Great danger'; many, 'They are too strong, or we are falling back'; two arrows sent up at the same moment, 'We will attack'; three, 'Soon'; four, 'Now'; if shot diagonally, 'In that direction.' These signals are constantly changed, and are always agreed upon when the party goes out or before it separates. The Indians send their signals very intelligently, and seldom make mistakes in telegraphing each other by these silent monitors. The amount of information they can communicate by fires and burning arrows is perfectly wonderful. Every war party carries with it bundles of signal arrows." (*Belden, The White Chief; or Twelve Years among the Wild Indians of the Plains*, pp. 106, 107. Cincinnati and New York, 1871.)

With regard to the above, it is possible that white influence has been felt in the mode of signaling as well as in the use of gunpowder, but it would be interesting to learn if any Indians adopted a similar expedient before gunpowder was known to them.

DUST SIGNALS.

When any game or an enemy is discovered, and should the sentinel be without a blanket, he throws a handful of dust up into the air. When the Brulés attacked the Ponkas, in 1872, they stood on the bluff and threw up dust. (*Omaha I; Ponka I.*)

There appears to be among the Bushmen a custom of throwing up sand or earth into the air when at a distance from home and in need of help of some kind from those who were there. (Miss L. C. Lloyd, *MS. Letter*, dated July 10, 1880, from Charlton House, Mowbray, near Cape Town, Africa.)

NOTES ON CHEYENNE AND ARAPAHO SIGNALS.

The following information was obtained from WÁ:Uⁿ (*Bobtail*), MO-HÍ-NUK-MA-HÁ-IT (*Big Horse*), Cheyennes, and Ó-CHÓ-HIS-A (*The Mare*, better known as "Little Raven"), and NÁ-UATSH (*Left Hand*), Arapahos, chiefs and members of a delegation who visited Washington, D. C., in September, 1880, in the interest of their tribes located in Indian Territory:

A party of Indians going on the war-path leave camp, announcing their project to the remaining individuals and informing neighboring friends by sending runners. A party is only systematically organized when several days away from their headquarters, unless circumstances should require immediate action. The pipe-bearers are appointed, who precede the party while on the march, carrying the pipes, and no one is allowed to cross ahead of these individuals, or to join the party by riding up before the head of the column, as it would endanger the success of the expedition. All new arrivals fall in from either side or the rear. Upon coming in sight of any elevations of land likely to afford a good view of the surrounding country the party come to a halt and secrete