

## CADAVER DOGS IN CEMETERIES – WHAT IS THE SCIENCE?

While the use of scent detection dogs (commonly known as cadaver dogs) is common, especially in search and recovery operations, their use involves considerable ambiguity since the approach has NEVER been rigorously tested and found to have scientific validity.

- The reputation of scent detection dogs was dealt a significant blow when one of the best known handlers, Sandra Anderson, was sentenced in 2004 for planting evidence and making false statements to authorities. For a number of years she had planted human remains, fibers, and items stained with her own blood, representing the items as evidence.
- The Institute for Canine Forensics (ICF) certifies dogs, called Historical Human Remains Detection (HHRD) dogs, specifically trained to find only "old" remains. Their website, however, provides no information on the training protocols, testing, or blind test results.

What scientific tests are available to help evaluate the usefulness of scent detection dogs?

- ❖ In 1999 Debra Komar published a study in the prestigious *Journal of Forensic Sciences* that analyzed and interpreted the effectiveness of eight dog and handler teams using "blind searches." These are trials in which the handlers did not know how many items to search for or where they were hidden. This eliminates any possibility that the handlers were intentionally or unintentionally influencing their dogs. The study revealed considerable variation, with success rates ranging from 55% to 95%.
- ❖ In 2003 A.E. Lasseter and his colleagues at the University of Alabama used four teams to identify 10 fresh and skeltonized remains buried from 1 to 2 feet below ground. They found overall poor results. Only two of the alerts correctly signaled the location of remains. In contrast there were six false alerts and 22 no alerts, revealing significant problems in detection.
- Re-examining all of the scientific data and tests available, Debra Komar and renowned bioanthropologists Jane E. Buikstra comment, "the level of training and accuracy of both the dog and the handler fluctuates dramatically, and excessive claims of ability or success should be viewed with caution . . . . For example, the ability of dogs to differentiate human from animal bone has likely been untested, and so remains must be examined by the consulting anthropologist."

## **BOTTOM LINE**

While it is possible that some dog and handler teams may be successful at identifying "old" burials, there are no peer reviewed, published tests that document this ability.

The studies that are available reveal considerable variation. These studies clearly reveal that weather, soil conditions, training, and dog-handler communication all affect accuracy and reliability.

## OTHER, MORE RELIABLE CHOICES

There are other, far more reliable techniques to determine if burials are present, including ground penetrating radar, the use of a penetrometer, and archaeological examination.

Each of these techniques is based on firm science. Limitations are firmly established, as are appropriate protocols.

## WHY DOES THIS MATTER?

How you go about determining if burials are present matters because the effort itself or actions afterward (such as placing new burials) may result in legal action and require those who identified graves – or failed to identify graves – to serve as expert witnesses in court. The court will expect the science of the technique to be clearly established and widely recognized by the professional community. The court will expect a clear statement of the process and clearly defined protocols. Otherwise, the approach may be branded "junk science" and disallowed – leaving you with no legal legs to stand on.