

Lessons Learned & Confirmed
(In random order and with commentary)
Mississippi May 16-20, 2003
Indian Mounds & Pauper Graves

1. Stray dogs didn't dig up the pauper graves (plenty of stray dogs in that area watching us work but the graves hadn't been disturbed like you would expect. Why?)
2. Probing didn't make a difference when there is so much 'recent' scent leached into soil in a small area (range of burials: 6 months to 40 years. Only the few recent bodies in the bottom row were embalmed.)
 - a. Total saturation. It seems the scent was just too strong all over - that the soil had absorbed as much scent as the actual bodies.
 - b. Was the scent actually stronger where it leached than where we humans assume should be the strongest - the body location? Often we see that in training, the dogs say the strongest scent is not at the aid's physical location.
3. The vegetation was not as expected at the pauper graves. The area had much more dead/burnt areas even though enough time had passed that you would expect lush growth instead since the bodies should be fertilizer. The graves area had a distinct difference in appearance even though the graveyard had not been maintained - so you would expect lush grass all over. [*Update: the grave yard had been sprayed with weed killer*]. Immediately outside the graveyard footprint on all sides is lush grass. There also wasn't a real difference between the vegetation on the embalmed graves vs the not embalmed graves.
4. As expected, the stones & markers acted as scent breaks releasing the scent for the dogs to pinpoint or at least attracted them to stop and get a strong sniff. This is similar to lines in water searching where the line breaks the thermoclines and the dogs hit there even though the body isn't below that exact spot.
5. Time of day and weather make huge differences (sun/shade and cool vs hot) (We always say this but often search at the worst times anyways. What could we have missed because of something so simple to control as time of day?)
 - a. When the dogs worked in the warm (80's) sunshine in the afternoon, they were not as successful
 - i. To the point of missing the source if it was a large open area with short grass (no areas for the scent to trap in shade/moisture). They did check the source areas at times but it was not as committed or for as long as during the cooler search periods.
 - ii. Or they alerted farther from the scent (in cooler/vegetation areas)
 - b. The dogs during the warmer, sunnier period alerted in trees nearby the source or along the vegetation when the scent clung even though the source had been buried for hundreds of years.
 - i. For example, Alley originally on Mound G alerted along the vegetation between that mound and Mound H, especially in this 'cave' that was formed by the taller vegetation. She even hit on

the sunny side of that vegetation 'cave' - bushwhacking to smell the backside. *[Update: 2 years later that mound was cleared and an Indian child's remains were found near Alley's indication spot].* All the alerts were up high as well in that vegetation area. She could be seen 'bunny hopping' inside and outside that vegetation. In the cool morning, she stayed up high on the mound and was able to pinpoint the former dig spot (where historical grave was found). Same was true for searching Mound F. She alerted in the tree cover and up a tree close to the source area during sunshine even though she did slow down, shorten up and methodically search the source area - she went to the trees to indicate stronger scent. All the dogs seemed to go to the tree clumps by these mounds. Was it the cool temps and moisture trapping it there or did it also have to do with runoff to that lower area and leaching? Because the sunshine/warm temps made the strongest difference, I think that is what was confirmed the best - that we should search in early mornings before it heats up and the scent 'evaporates' or travels to shade areas making pinpointing difficult or impossible.

- c. When they worked in the cooler, moisture early morning or shade, they were able to pinpoint the sources well.
6. Trees can wick but not sure why some do more than others
 - a. A single tree at Mound D wicked scent strongly as did a tree at Hollywood.
 - b. However the single tree at the pauper graves did catch some dogs' minor attention but they stayed focused on the actual graves area.
 - i. Mound D & the pauper tree were a lone tree in a field but Hollywood was woods
 - ii. There was also a clump of trees just outside the pauper graves that the dogs paid little attention to.
 - iii. Mound D's tree is a high point, as was the pauper grave's lone tree.
 - iv. At Hollywood, there were several trees, even ones closely downhill from the known source but all the dogs picked a single tree (where the body was closet to)
 - c. Does this depend on type of tree and root system?
 - d. Do vines outside the tree aid in wicking/retaining scent? (I seem to find on other searches this to be the case)
 - i. Most of Mound F's trees had vines yet only 1-2 trees held the scent...including one tree that was farthest away from the source but it was also the last tree before the field began so could the scent be travelling into that cooler area then escaping to the sunny fields and hence trapping at that last tree? The other tree where the indications occurred was the closest tree to the source.
 - e. Also, during heat/sun, the dogs hit on the trees and vegetation nearby in the shade or where it was cooler -- even after all these years current conditions affected scent pooling.

7. Seems when it is at least 100 years old the scent that is leached and absorbed by the surrounding soil, seems to dissipate so the dogs can pinpoint easier (as long as worked when cool/moist).
8. Don't always get trained indications.
 - a. Dogs mostly slowed down, intensely sniffed, change in tail, collected gait, quick/snappy turns, snorted, tasted vegetation, etc but usually didn't indicate. Again, the odds to get the indication increased when working the cool morning temps.
9. I personally still strongly feel dogs check out what is out of place/new in a given training area. So if you place an aid out to train, the dog quickly goes to it and if it is an aid vs a distraction will do its indication. I feel that is partially why disarticulate is so hard in real life vs in training. The source hasn't absorbed the general scent of the area (soil makeup, bacteria, etc that gives the area a distinct smell that is unnoticeable to humans usually).
 - a. Not only is this seen with training aids, watch dogs check out something dropped by a teammate. Cats are famous for knowing when something is new in their house. I know my dogs immediately seek out something new I've brought into the house. Even during the MS trip, Alley went to investigate a dropped water bottle in the mound's field. It was out of place, having more of the scent from where it came from (including the human who carried it), than it did the search area's scent.
 - b. The difference in scent picture is the attractor especially for weak scent sources. If it is a strong source then the intensity & strength of the source outweighs the difference in the scent picture of that given area, so the dog would be quickly going to source based on detecting decomp.
 - i. That is why we should work long-term problems when possible. Dogs have a much harder time working aids placed out for months (the first time, after that it becomes a 'memory find'). But that is what most searches are - relatively longer scent placement as well as larger scent pools that have developed under the heating & cooling processes plus the wind patterns in that area.

Comments about future scenarios to try based on discussions during the working weekend as well as questions I often ponder about scent

1. Scent association - make sure the dogs not only are reinforced for the age of the bones belonging in the decomp scent continuum/range/spectrum, but make sure it isn't the just recently placed aid that stands out to the dog. (leave some out long term to absorb the area's general scent picture)
2. Bleached bones vs dark bones. I have bones that are bleached (Bone Room bones) that my dogs hit on. I do not see the dark areas that we talked about that contain the compound believed to be the scent's source for dogs. I also have dark bones from them that my dogs have difficulty locating. More testing needs to be done with both types of bones.
 - a. Also, cut bleached bones in half to see if they retain that dark area out of view? How do they compare open to the darker bones inside?
3. I need to understand more about decomp fluids, blood, and teeth etc and how that compound you referred to is part of those sources.
4. How come fresh blood is hard for the dogs to work/understand as decomp but as soon as it decays it is no problem for them to recognize?
 - a. Why does Alley work the area with fresh blood hard but even if she puts her nose on the blood drop, keep searching to find the decomp source she thinks she is smelling instead?
5. I know from past searches that the source may develop the strongest scent pool far away at the same level on a steep ridge due to predominant winds rather than directly below it where the runoff would go as well as the evening temps should bring it to settle/pool.
6. I also know from a past search that the dogs can have interest in a larger area for bleached/surface bones and even step right over them until someone bumps one and then it's like bees to honey. The air exchange 'releases' that scent picture for them to hone in on. Change in air scents/air exchange can be seen when you lift a lid off a culvert/well. Dogs will be very interested at first because the general scent picture is different once that exchange occurs.
7. Vegetation absorption - how come the vegetation around Mound G caught the scent so much vs all the vegetation around the Hollywood grave? Is that purely a matter of the sunshine factor?
8. Find single graves in similar climate areas (easier said than done I know) to see at what time period does the leaching dissipate so the dogs can pinpoint buried easier? Is it 10/20/50/100 years? At what point does probing help the dogs pinpoint?
9. Go back to the pauper graves and start from the far end of that field to see if the dogs immediately go to the graves since we started them already in the greater scent pool. Also, does working such a graveyard repeatedly acclimate the dogs more than the usual acclimate period of about 10-30 minutes to multiple source areas to help the dog pinpoint?
10. We all saw our dogs depend on us more the second round at the pauper graves. Why? Is it because nothing had changed enough for them to solve the puzzle and they had nothing else to try so looked to us to help solve the source problem?

(We had probed but that didn't do squat). Were they frustrated? Was it their way of saying "uncle"?

a. This also didn't occur reworking the mounds.

11. But we know dogs can pinpoint in disaster situations when scent is everywhere yet they can pinpoint tangible sources. Is this because the sources are above ground and they are able to work to the true stronger scent? Is it because while it was up to 3 weeks later, the sources still were actively decaying so they stood out stronger to the dogs than the general fluids that covered the area? Plus the dogs were getting constantly rewarded for pinpointing tangible sources vs general decomp. In hindsight I should have rewarded faster and more often at the mounds & pauper graves.
12. What is scent even? We talk about the raft theory for live subjects, and I guess even recent deceased out in the elements so wind carries the skin rafts the theory applies. But how come a cadaver aid sealed up so no 'skin' can be rafting still stinks up the place and gets on the clothes of the handler - even if that source stays in the same location and not subject to significant winds? (Like when you open up a stinky ammo can then close it without touching any sources. Your clothes at times will even be stinky for an hour later.)
13. Why is decomp scent 'heavier' and 'more clingy' than live scent? Technically live scent is skin rafts that are already decomposing.
14. Have the mounds been probed recently or ever searched after being recently probed? Did it make any difference?
15. Dips/depressions often were checked out by the dogs. Is this because decomp scent pooled there or because the general scent picture is different there due to moisture differences? Or both? I would try to be more conscious of dips/depressions when working known blank areas to see how much interest my dogs have there.