Tracking allows a searcher to use visible clues (sign) and combined with keen mind to locate someone or something.
Tracking and sign cutting are used to detect the direction of movement of someone or something. Sign is any evidence of change from the natural state that is inflicted on an environment by a persons' or animals' passage. Tracking is following signs of track left by someone or something.
A story has been printed on the ground and We as "Track Aware" searches must discover its' existence and learn to read it.
Tracking and Sign Cutting takes a long time to acquire skills, and continual practice to maintain abilities. This is Not something to jump into overnight.

Introduction to Man Tracking

Detecting Sign

Whenever a person walks through an area, whether it be at home or in the wilderness, evidence is left of that passage. Humans must contact their environment in order to travel by foot, the most common type of travel. A person requires contact approximately every 18-20 inches when they are walking, (the stride will vary with the height of the person). Some disturbance (sign) is made through this contact and this is the first phase of tracking, incorporating detecting sign. The next phase of tracking includes following track after finding initial sign.

Vision

Before jumping right into what sign looks like, the acts of "looking" and "seeing" need to be addressed.
Everyday we all participate in the act of looking. We look at each other, we look at traffic signs, we look around, we look forward to going home after work, and we also occasionally look funny. But what do we actually see when we look? Most people in an urban environment, frankly, don't see much at all. They simply look. The signs they view are stark and consistent, usually full of color, rarely require close scrutiny, and are easily discernable from their surroundings. Let's face it, most folks in today's world are passive viewers, seeing only what they need to see to get by. In tracking, as in most natural settings, this type of vision - passive, non-aggressive, unconscious - will not work.
When tracking, a tracker must not only know what to look for, they must know how to look, subsequently, "see." In the natural or wilderness setting, colors are not stark and bold as they are in the urban environment. Nature has a way of using milder tones with uneven boundaries, rougher textures that tend to blend objects into each other, and the weaker contrasts that make delineating one object from another more difficult. An unconscious, urban approach to looking will not lead to a successful tracking career. In the natural environment, what we see is not always what we are

tracking career. In the natural environment, what we see is not always what we are looking for. Therefore, we must adjust our viewing skill to interpret more clearly what nature has to offer, and to learn to see what once we only sought.
If a tracker looks for certain signals or visual cues (cue: a stimulus that guides behavior) that catch the eye, rather than track or prints, then, in the end, far more will be seen. When a tracker has a preconceived notion of what he or she is looking for, much of what could be of help is disregarded. A tracker must keep an open mind and look at everything that might possibly be of assistance. From there, bits of information can be objectively disposed of, rather the unintentionally ignored.

Common Visual Cues

To see track or a print, a tracker first needs to be able to discern one or more of certain common visual cues. These cues no only offer specific attraction to seek, they also serve well as general categories of sign. These items are what a tracker should be seeking:

- Outline - A boundary or perimeter line around an area, delineating it from surroundings. May be a small line or a complete track perimeter.

- Shape - Large enough to be human; i.e. usually involves flattening, unusual for the environment.

- Contrast - Difference in color, texture, or shape fro surroundings. The greater the difference, the more compelling and attractive the cue.

- Color - Wavelength of light as seen by the eye and interpreted by the brain. In nature, usually mild tones, but differences can be detected. Not nearly as important in natural environments as man-made ones.

- Texture - Rough or Smooth. The consistency or smoothness of a surface.

If the tracker looks for these cues rather than just tracks or prints, much more is seen, and much more information is available to the tracker for interpretation. Don't look for the whole look for the parts. When the parts are found, the whole can be compiled.
Note that most of the visual cues described are simply different ways of saying, "look for something that doesn't belong." When something out of the ordinary is seen, there is a good chance that it can be valuable to a tracker. Thus, all of the cues listed are essentially different types of contrast in that they all have the tracker looking for abnormalities, (i.e., difference in shape; in color; in texture.)
The last consideration regarding vision that should be mentioned is certain guidelines must be followed if any longevity and effectiveness is expected for trackers. To see more completely and for longer periods of time, trackers need to exercise their vision so that they do not become numb and regress back to looking rather than seeing.

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"Looking" Guidelines

These guidelines can help the searcher get the most out of his or her sight when needed:

- Change views from the big, overall picture to the small minute objects regularly. Varying he focus can simulate the eyes as well as the mind and help prevent unconscious, passive viewing and promote active, aggressive vision. The point of a tracking can quickly tire from examining small evidence intensely over long periods of time. Looking up and away from the microenvironment can bring back perspective and allow the tracker to see what was invisible just a moment ago.

- Look for visual cues, not for preconceived shapes or objects. Move in and inspect more closely anything that seems out of the ordinary or falls into the category of sign. (i.e., outline, shape, contrast, color, texture.)

- Avoid any preconceptions and look at everything. Take Your Time. There will usually be a lot to see.

- Don't look for the whole, look for the parts of the whole. There are more of them and they can lead directly to a desired object.

Sign - The Specifics

Before going into the subtle details of sign, lets consider what can be learned from one single footprint. The following is a list of some of the information available from a single print.

- Length and width can help identify the print and distinguish it from others that may be similar. Size of a print can also give a rough idea of a persons' size.

- The general type of sole (if discernable) can help distinguish it from others that as well as offer an aid in describing the print to searchers.

- Measurements of specific parts of a sole pattern can help positively identify a print. That is, lug sizes, areas of wear, or pattern dimensions can help distinguish one print from others.

- Several prints in a row can help determine direction of travel and stride, which can aid in finding subsequent prints.

Even though it is rare to find complete, clear print, fragments of prints and sign will be common inmost terrain. Because of this, as much information as possible must be learned from each piece of sign. Tracking is not race to see who finishes first: it

be learned from each piece of sign. Tracking is not race to see who finishes first: it is an exercise in accuracy and efficiency. Getting there quickly is worthless if you end up at the wrong place.
Drawing a print, particularly a complete and identifiable one can help others know what print to seek. The drawing can be copied and handed out to searchers so that one specific print can be sought, thus lessening the possibilities. When time allows, drawing a print, or part thereof, is always a good idea. A standard track report that offers an area to draw and describe is a good for this purpose. Track Identification Form
It would be impossible to mention all the different types of sign that exist because sign varies so much with terrain, weather, time of day, vegetation, and more. Therefore, only the most common types of sign and their general categories will be addressed.
Sign depends greatly on the environment in which it is produced. A marsh may produce completely different sign than a desert, for instance, but some similarities do exist. These similarities must be understood by all trackers, but it's still important for a tracker be familiar with the sign most common to their region.

Sign and Search

A track or a print is an impression left from the passage of a person that positively identified as being human. Further, a track may be complete, meaning that the entire impression is visible; partial, meaning that it is not visible entirely; and/or identifiable, meaning that, complete or partial, it has at least one characteristic that differentiates it from others similar to it. Tracking is simply defined as following someone, or something by stringing together a continuous chain of sign. Sign is any evidence of change from a natural state that is inflicted on an environment by a person's passage. A track, whether complete or partial, is many individual pieces of sign combined in such a way as to form a print. The technique is to find some sign, then interpret it, and ultimately act on it. Simply put, tracking is the ability to put sign together, after investigation, in chronological order over a large area.
In order to be of any use, sign must be discovered. Seeing it is usually fairly easy because there is so much of it. A walking person leaves sign approximately every 18-20 inches, or over 3000 times per mile, so catching even a small percentage of it should be a problem. The trouble lies not in finding the sign, but determining what is relevant and which is not. The novice tracker, for example often sees plenty of relevant sign, yet disregards it because they felt it to be insignificant. The experienced tracker see the same information but has learned to glean its meaning. So, we start with a missing person or lost person, we then try to find out more about the missing person through field interviews with the reporting party, from there we can then start with Point Last Seen (PLS) and from there we can begin a search. All sound so simple so far.

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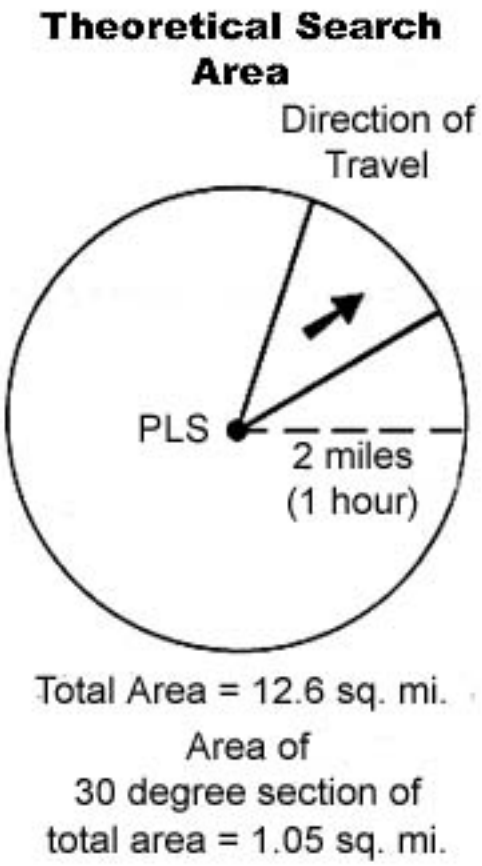
Searches start with search patterns, all of which start with the point the victim was last seen. From there, we draw a 360 degree circle, this is called our search perimeter, depending on the length of time in which the person was last seen and the time we show up, will dictate just how big that circle will be.

So why the importance of tracking? The answer is a mathematical equation. It also is deductive reasoning.
Here is a word problem, Lets say your victim is able to travel 2 miles an hour, He was last seen about an hour ago. Not knowing where he was going, he left in an unknown direction. So, if he could travel at 2 miles an hour the search area for him would be about 12.6 square miles, but if you where able to reduce that area down to just 1.05 square miles, wouldn't it make life easier? So if we can establish a Direction of Travel, thus eliminating 85% of the search area.



Persons inside the search perimeter should be contacted as potential sources of information, advising them to take the victim to base camp or to a search team if the location is known to the informant.
While out searching, Teams will periodically callout the victim's name.
Detail Teams (Hasty Teams) will check attractive hazards first.
Steams, lakeshores, ponds, construction areas, comfort stations, cabins, service building, caves, gullies, and densely forested areas adjacent to any of the above.

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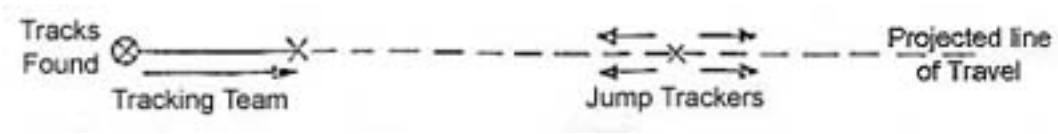
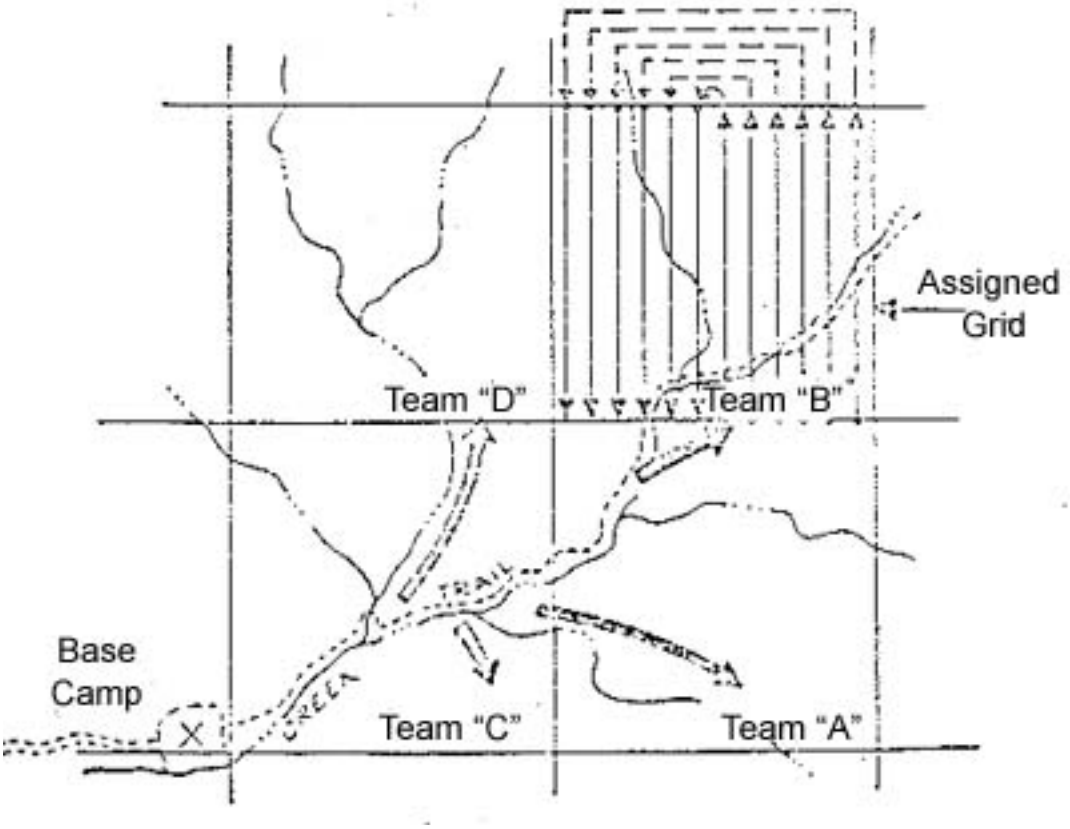
One or more searchers from each team should be detailed to check the steep slopes where tracks are more pronounced in the event the victim tried to climb out.
Set up a search pattern: Either Jump tracking, Grid, Line or Circular Sweep method.
Jump Tracking - If tracks are found that are identified as belonging to the victim, we will dispatch a team to follow that trail. This Team will no be used for no other purpose.
Direction of travel will be established if possible. Base camp will be advised of the magnetic azimuth.
The Trackers will plot the tracks and their coarse onto their topographical map.
Two teams are dispatched to a point along the projected line of travel, following the azimuth given by the tracking team.
When the teams arrive at a predestinated position, the two teams will face away from each other and search in the line along the given azimuth.



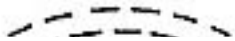
Progress is communicated back to base camp, and to other search teams. If new tracks are found along the projected path, The team can "Jump Ahead" and repeat the process.

Grid and Straight Line Search - These methods may be utilized if the victims' tracks wander without apparent direction, or if no evidence or sign is found. Manpower must be available to cover large areas.
Each search team is given a grid(s) to covering specific areas. The team will travel to that portion of the grid closest to the victims' last known location. they will form a parallel ling along one side of the grid.
The Line searchers will sweep to the far end of the grid. the inside man will keep his position while the other team members form a parallel line on the opposite side of him and then track back along the azimuth of the direction they just searched.



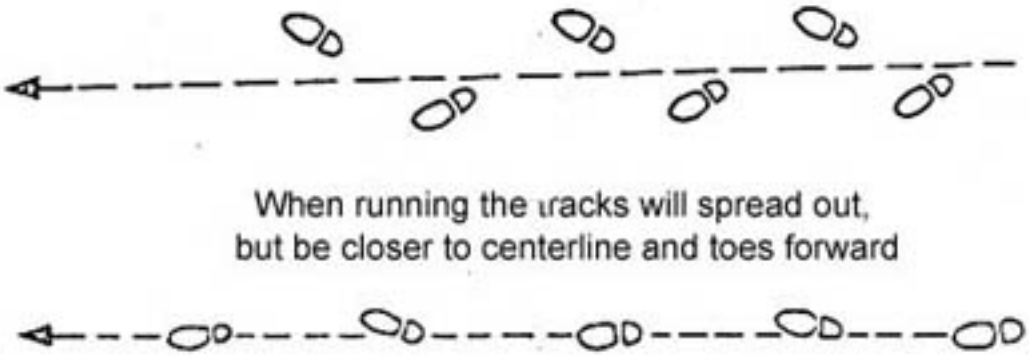
When coming across an entrance to a canyon, the team may sweep one half mile up canyon for tracks or other evidence. If the results are negative this tentatively eliminates that canyon from the search area.

Circular Sweep - This search is used at the last known position of the victim, or when your search is looking for small pieces of evidence. It starts by using the last known point as an anchor point or axis, then the Team forms a parallel line radiating from that point.
A circular sweep is made around that point until tracks or other evidence is found, or until the sweep has been completed.



If tracks or evidence are not found after a 360 degree sweep, the team member on the outside will remain in place (following the same path as the first sweep) while other members form up on the outside of their position to expand the search area. This method may be continued several times or until another search method is given.

Stride - When walking, the tracks will be closer spaced and the toes will be pointing out. Measure the stride (back of heel to back of heel) to aid in step - to - step tracking.
When running the tracks will be spread out, but closer to centerline, and toes pointing forward.



Deep wavering tracks indicate that the missing person is caring a heavy weight. If the heels are abnormally deep, the person tracked is walking backwards. (applies to

the heels are abnormally deep, the person tracked is walking backwards. (applies to criminal situations)

The Imprint and Effects of Different Terrains

Loose dirt trails provide the best terrain for track detection. However trackers need to be able to compensate for other elements such as gravel, grass, sand, snow, and mud. Gravel will not accept a fine depression the way dirt does. One should look for heel depressions which are areas of flattened rocks and toe dig areas. If the subject is passing through a gravel section after a muddy or grassy section, mud or green scuffmarks may be visible on the gravel. In grass the only indication that the subject had passed through, might be a slight discoloration where the subject had stepped. A track made through deep grass will leave a streak lighter than the surrounding area.

When searching for sign along a trail covered in old vegetation and hard packed soil, indirect sign should be sought. Twigs that have been stepped on by the subject will leave an indentation in the soil beneath the twig. The depression would normally fill with time, so the fact that the depression is present is evidence that something has recently depressed the twig.

Snow may or may not accept a boot print depending on the water content of the snow. It may be necessary to dig a foot down in the snow to see the actual boot print if the subject is "punching through" the layers of snow. Skies and snowshoes also leave characteristic tracks that may be followed by the tracker. Prints made late in the day in soft snow will usually freeze in a clear fashion as night time temperatures drop. Prints made early in the day may be more unclear as the day time sun warms and melts the top layers. Tracks made on ice may dull the normal shinny finish of the ice.

Dry tracks appear slightly larger than wet tracks. Tracks are easier to read in wet soil although the age of the track is difficult to determine. This difficulty is due to capillary action, which draws moisture from the soil keeping the track perfect for several days.

Determining the Age of the Track

Close observation of several tracks may reveal whether animal or insect life has crossed, indicating the passage of at least one night since most animals feed and hunt during the hours of darkness. Wind action is observable, which will round off the edges of the track and pile debris on one side as is depicted below.

By noting the coloration of freshly broken twigs to those broken by the subject may give some qualitative indication of the time that has past since the subject made the track. This coloration will also be dependent on the local weather.

Tracks made in mud can last for weeks with extreme clarity. This could cause

Tracks made in mud can last for weeks with extreme clarity. This could cause problems if the subject is lost in an area that they frequent often. Muddy puddles that contain tracks of the subject can be assumed to be greater than two hours old if all the mud and silt has completely settled. Pockmarks created by rain or morning dew is an indication as to whether the track was made before or after the rainfall or dew.