Pressure Release
and
Human Gait Study

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This article will hopefully be an endless source of questions, research, experimentation, and self-discovery. Learning the basic information provided on the next few pages should help your tracking to come alive and the stories written on the ground to become clear. The study of pressure releases and human gaits complement each other perfectly. Your primary reference for this material should be a copy of Tom Brown, Jr's book *The Science and Art of Tracking.*

Before we get into the chapter, I want to review a few things in this first section which are vital to understanding the information that will be covered later.

Foundational Study

Soil

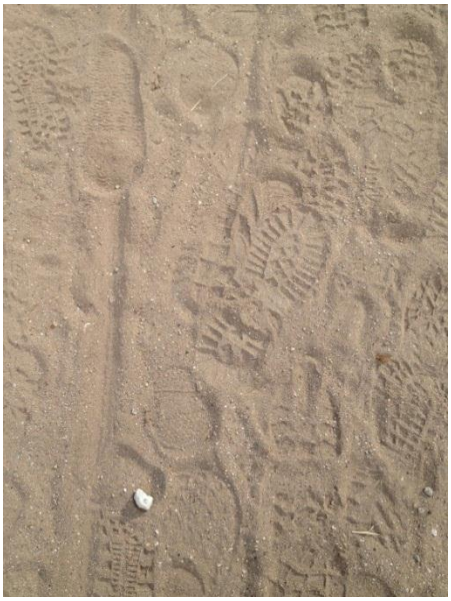
Soil, substrate, or the tracking medium, as it is sometime referred to, is the earth's surface, where we find tracks. Learning pressure releases is like learning aging; it's all about dirt time, time spent literally studying dirt. It takes time and experience to learn to pressure releases and gaits, but it will give you so much insight into who you're tracking.

Soil consists of four main elements and varies in percentages of the mixture. The four elements are air, water, organic material, and minerals. These elements give us two things that affect the tracking. One is *cohesion,* or the ability of the soils to stick together; and the other is *adhesion,* or the ability to stick to other stuff. Careful study of different soils and how mechanical forces affect your tracks will give you more insight into reading pressure releases.

Not all soil is the same. I encourage you to study the different soil types in your area. Concentrate on the extremes, and then start to refine your study. Start with moist sand, then move on to dry, wet, loose and hard packed sand, and then finally move on to more common soils found in your tracking area.

With all this said, I will tell you it helps to start thinking of soil as a liquid. The impact of the foot hitting the soil throws out a wave of energy effecting the soil, the same way as throwing a rock into a pond does. A good friend of mine told me about this concept when he had returned from an advanced tracking class at the Tracker School. I was able to observe this one day after some heavy rains and the soil was water soaked. I watched as my foot impacted the ground and the wave of energy moved the soil. I was able to repeat this with sand in my tracking box.

"All dirt moves the same way."
-Grandfather Stalking Wolf



Human tracks in dry sand.

A bobcat track in moist, hard packed sand.

A wolf track in rain saturated soil.

As you can see in the pictures above, not all soil is the same. In the two picture below, you can see the soil cracked from lack of moisture. The pictures were taken during the Texas summer. What else is different about the soils in the two pictures below?

Track Dynamics

Let's look closely at how tracks are made. There are three types of walkers recognized by science. They are Plantigrade, Digitagrade, and Ungulade.

The ungulade walkers are referred to as hoofed mammals. Because of the structure of their legs and feet, they walk on what we would consider to be their nails. Mammals like deer, horses, cattle, and bison are all examples of ungulades.

Digitagrade walkers walk on their toes with the toes and heel pad showing in the track. These mammals are dogs, cats, coyotes, foxes, bobcat, and cougars. In human terms, I think of women in very high heels with much of the body weight disturbed in the toes and the upper ball of the foot.

Last are the plantigrade walkers. We humans fall into this category. Bipedals (two legged walkers) and quadrupeds (four legged walkers) make up this category. Plantigrade walkers are commonly called "heel strikers" because the heel of the foot is what first impacts the ground. Humans are bipedal plantigrade walkers. Skunks, bear, and raccoons are examples of quadruped plantigrade walkers.

Let's look at how human heel strikers walk and impact the ground. The track is made in three phases. The thing that happens is that we lean out with our upper bodies to get the motion going. Then the leg is lifted and moved forward until the heel strikes the ground, slowing our forward motion. As our body weight and momentum continues forward, our second leg is lifted, placing the body weight on the now flat foot of the first leg. This is the support phase of the track. The second leg's foot hit the ground heel first, slowing the motion and shifting weight off the support foot of the first leg. This allows the first leg's foot to drive forward pushing off the toe to create momentum. This shows up as a toe dig and the acceleration phase of the track. Because of the way we walk and the ground's reaction to it, we can see disturbances inside and outside the track which tell the story of what happened, and that also leave behind tracks for us to follow and study.

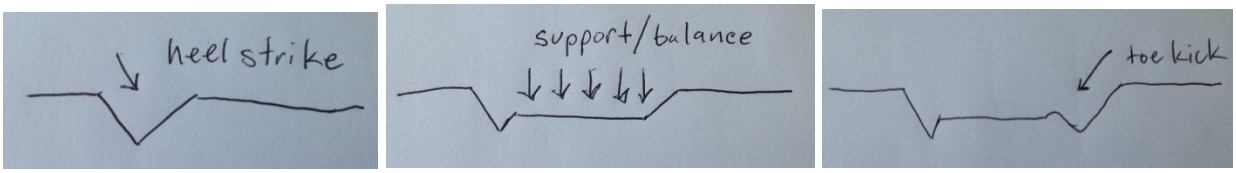
heel strike / support / toe push

breaking phase / balance phase / acceleration phase

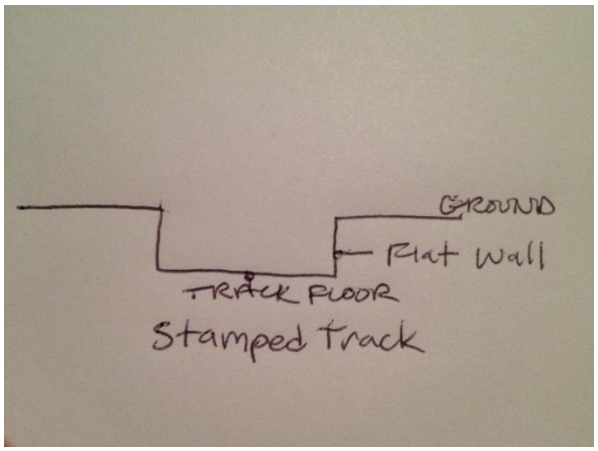
heel strike / support / toe push

breaking phase / balance phase / acceleration phase

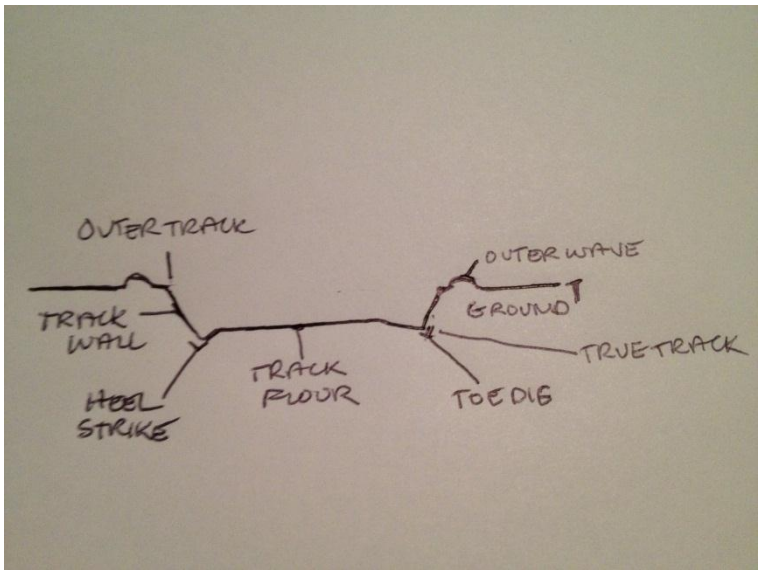
The above is the same, only barefoot.



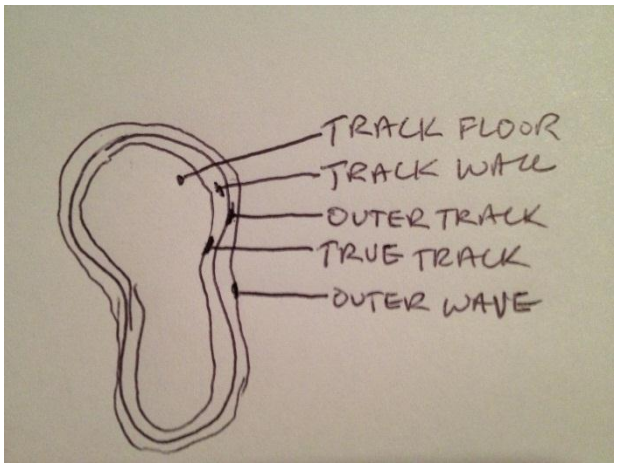
heel strike / support / toe push



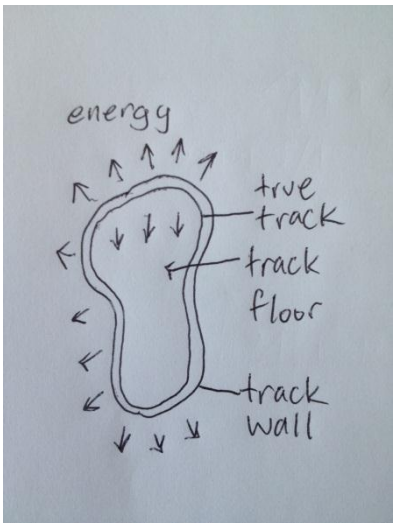
Example of a stamped track. Lacks energy and angles.



Examples of a dynamic track.

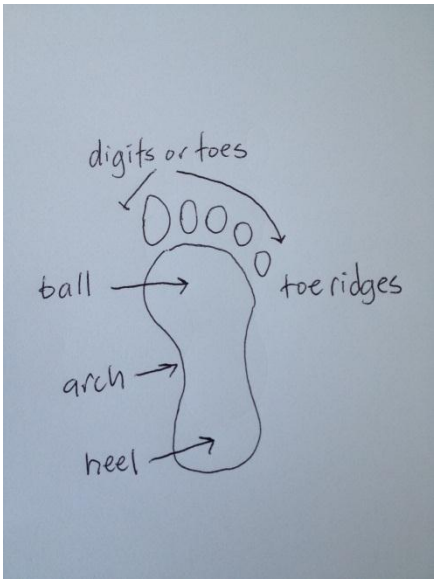


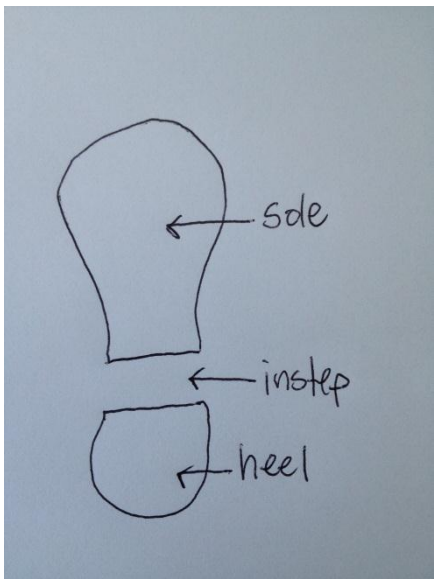
Looking down on a track.
Note the outer wave created by the energy of the foot hitting the ground.



Track Morphology

Track Morphology is the labeling of parts of a track so observations can be recorded and common terms can be used in talking about tracks. Common terms are heel, arch, and ball of the foot, and in shoes, the sole and instep. Understanding track morphology it is important to know how humans move and how the foot strikes the earth. Humans are Plantigrade walkers, and are commonly called “heel strikers” because the heel of the foot is what first impacts the ground.





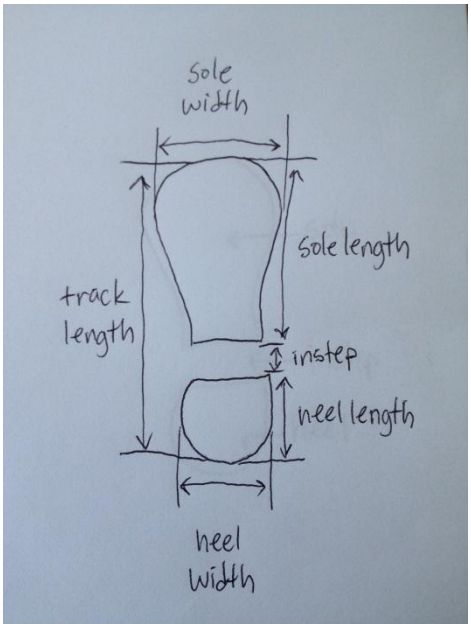
The above on the left shows the morphology of the foot. The different parts are the heel, arch, ball, and toes. In between the toes and the ball of the foot are the toe ridges.
The picture above and to the right shows the basic parts of a shoe: the heel, instep, and sole. Boots and dress shoes and will show a separation from the sole and heel. Tennis shoes and flip-flops will show a solid sole. Shoes will show and arch.
The soles and heel of different shoes and footwear will have patterns. Describing these patterns is can vary. Some standardization has been created: waffle pattern, diamond, etc. I prefer to focus in on key features and use measurements. It is important to record measurements and description of the track as accurately as possible. So take your time on a good clear track and really get to know it.

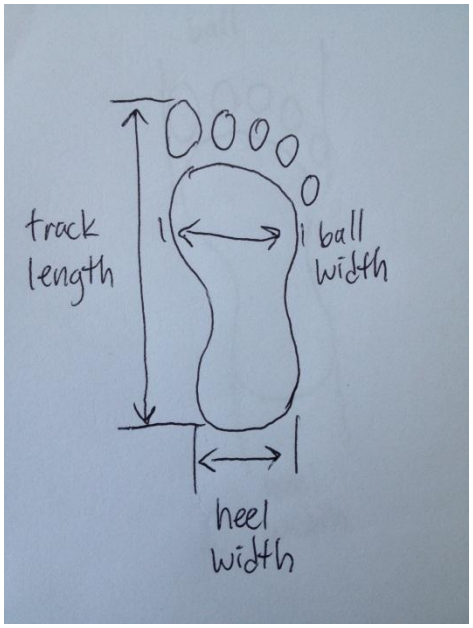
Here is an exercise that Stanley Liston had our class do, and that I have all my students do too. Have the student follow a set of tracks, at least 24 hours old, down a heavily used trail. This means that the tracks you will follow will be destroyed either partially or completely. This forces you to identify just partial tracks which means noticing details.

Track Measurement

Learning to take and record accurate measures takes practice. You should avoid taking measurements of tracks that are distorted from either movement or the environment. For example, tracks made in soft mud will tend to spread out as will tracks that explode into movement.

The two basics measurements for recording tracks are the width and length. To measure the width, simply measure across the widest part of the track. To measure the length, measure the longest part of the track.





In the shoe track, it is important to take the overall track length. The next two most important measurements are the ball width, and heel width. If you have a detached heel, you can take an instep (distance between the heel and sole) and the heel length. Again I'll also record the pattern and make measurements to key features, like circles, the logo, or wear patterns. A wear pattern is created over time by the person wearing the shoe, as it is used. Looking at a wear

pattern can tell you how a person walks. The displaced pressure of walking impacts the shoes and creates unglue patterns that can help in identifying individuals.

In the barefoot illustration, I keep it simple. Measure the length, heel width, and ball width. If there are distinctive marks in the foot, record that also. Nice clear prints may even allow you to measure individual toes, which can be helpful. I don't think personally I have every tracked anybody that was barefoot, but this is possible.

In Tom Brown's book, *The Art and Science of Tracking,* he covers his method of foot mapping. Foot mapping is a method of gridding the track into quadrants and then subdividing that. What you get is a very accurate way of documenting the track. This will really push your ability to fine tune details.

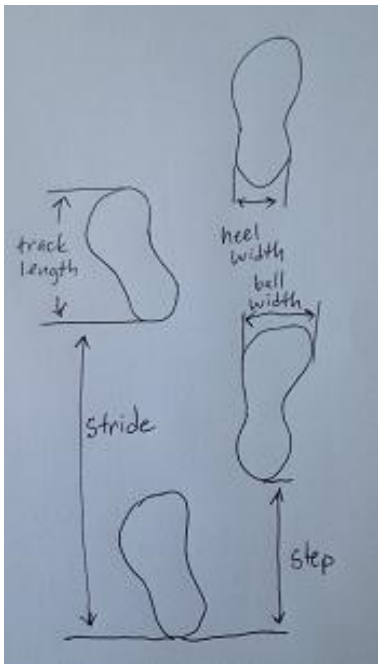
Measurements of Patterns

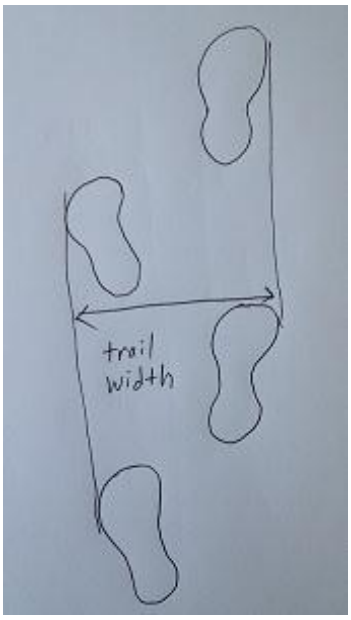
Step- The step measurement is taken from the heel of one foot to the heel of the opposite foot.

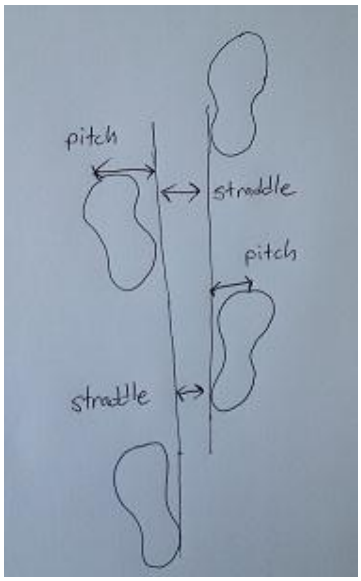
Stride- This measurement is taken from the heel of a foot to the heel of the same foot as it hits the ground again.

Trail Width- This measurement is taken from the widest part of the track from the outside of the left track to the outside of the right track.

The illustrations below shows the track measurements as well as the step and stride measurements and the trail width.







Two measurements that are specific to human tracking are the straddle measurement and the foot pitch. The straddle is the inside measurement from the left track to the right track. I will use a string line on the left and right so I need at least four tracks two on each side. Always use the closest part of the track to measure the distance. It is not uncommon to have a negative straddle in some people. The string line will also help me measure the pitch. This measurement is taken from the string to the front center of the track. Those individuals that toe up dramatically will have a larger number. Some people that toe in may have a zero or even negative pitch to the foot.

Four Principles Types of Ground Level Sign

Identifying clear print tracks in perfect substrate doesn't happen very often. This is why many beginner Trackers are limited to areas that leave clear tracks and rarely move beyond the sandy road, beach, or track trap. To trail the subject we must be able to find evidence in different substrate. The four principle types of ground sign are compression, transfer, patterning, and displacement. If you understand how to use these principles, you'll be able to find track and sign and start trailing.

Compression

Transfer

Patterning

Displacement

Types of Tracks

There are basically three types of tracks you'll see in ground level sign. These are clear print, partial print, and compression tracks. A clear print track will allow you to gather information on the subject you are following, and let you verify that you are following the same subject. Clear prints should be carefully documented, measured, photographed, and sketched.

Clear Print

Partial Print

Compression Print

DISTORTIONS

Distortions are common to see in tracking. Finding clear, full print tracks is not very common, and finding all four prints is even harder. I have often thought of putting Distortions in with the Three Types of Tracks making a fourth, or in with the Four Types of Ground Sign making a fifth type of ground sign, for now I'll keep them in the Pressure Release Study. Tom Brown places all distortions into four categories. They are as follows:

1. Landscape Imposed

This is a false distortion caused by the land (earth) or soil. If you were walking down a hill, or on mud, your tracks would leave a bigger disturbance than normal. This would be a landscape imposed distortion.

2, Weather Imposed

The effects of weather can create a distorted pressure releases. Rain, wind, sun, and the effects of weather can effect tracks after they were made as well as during, and before.

3. Self-Imposed

A self-imposed distortion is caused by another foot coming down into a track already made. Layering two tracks into one track causing it to be distorted. This is more common in four legged mammals than in humans, however you will see humans do this.

4. Mechanical/Foot Imposed

This is a more common distortion for humans to create. The mechanical or foot imposed distortion happens when the same foot creating the track, creates the disturbance. This distortion can also be tricky to spot sometimes.

When studying pressure releases, it is important to take these four factors into consideration, or false meanings will be read. When you are tracking, you will encounter many distortions, so keep this in mind. Create distortions in your tracking box when learning pressure releases. Watch the effects of weather and aging, and uneven terrain. Your tracking box should begin with simple baseline studies and advance into problem solving. Creating distortions will help you recognize them. Be sure to add them into your journals. This is something I failed to do for a long time. I wanted to only document nice full tracks, when in reality it is the partial, tracks, the distortions, compressions, and sign that make you a better Tracker.

Distortion created by slipping in mud.

Introduction to Pressure Releases

“Grandfather said of pressure releases that it was the way the earth feels about how you walk.”
- Tom Brown Jr.

Pressure releases are a fascinating study; however they have always been an area of question for me. When actively trailing an animal or human and moving quickly to close the distance, how much time am I going spend reading each track, looking for details of the pressure releases. Well, in a way I’ve answered my own question. In Search and Rescue tracking, three things are extremely important:

Locating the correct tracks and sign to follow.
Establishing the direction of travel (helps searchers to focus resources into a specific area).
Locating the lost person: completing the mission.

Reading pressure releases will take a lifetime of study and practice. Pressure releases are key to interpreting the trail. They allow you to understand your quarry and get into the mind of the person you are following. Just like identifying track and sign while walking takes practice and work, pressure releases need to be read at the same speed. Picking up information quickly and continuing to move takes practice. There is NO substitute for dirt time. Just like when learning to trail, I encourage you to take time for detail study, drawing, and journaling. This will help you to train your eyes to quickly see the details. The other part of this is learning to see the pressure releases as you are looking out ahead of you, moving at a walk, and trailing.

Small picture-Big picture

Don’t get discouraged. Tracking is a journey, not a destination. I personally feel you can never master the art and science of tracking because there is always something to learn. Every track and every trail are different. This is what drives me.

What creates pressure releases?

To really get into the study of pressure releases, I encourage you to read Tom Brown Jr.’s book, *The Art and Science of Tracking.* It is a valuable resource. Tom Brown is the only one I know of that is teaching pressure releases. This is where I was introduced to them and started my own study.

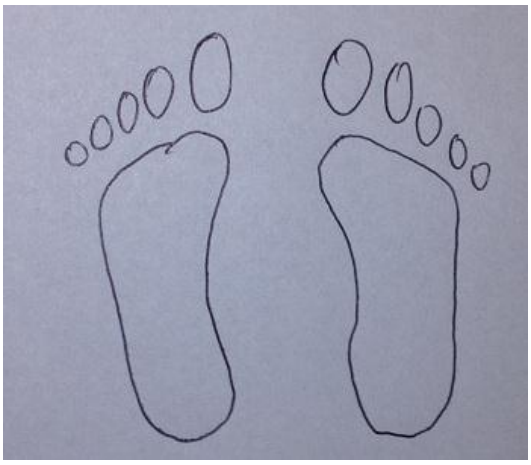
Pressure releases are found in every track. If they are not present, then it is a dead track, which means it was stamped into the ground. They are created in the soil by your body weight, the shifting of weight, and through motion generating pressure and the soil reacting to the pressure. Weight and movement creates the pressure that is released by the soil. Pressure releases are the same in humans as they are in animals. Two legged and four legged walkers are

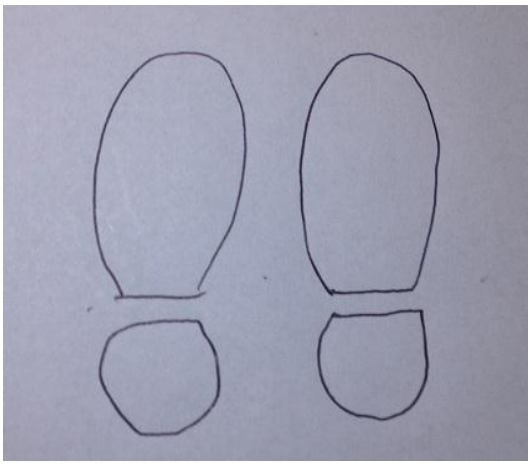
different, but the pressure releases are there, even in different types of soils, pine needles, gravels, leaves, hard packed clay, and soft sand. A galloping mouse is creating the same pressure releases as a galloping bear.

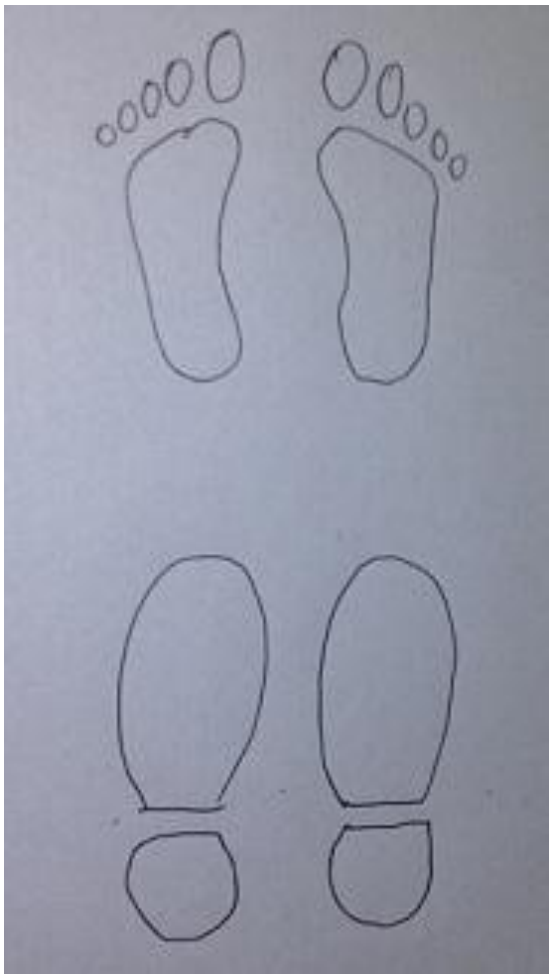
The concept of pressure releases has taken me years to wrap my head around.
Start identifying pressure releases in a tracking box with nice moist sand, then create an advanced box following Tom's instructions in his book. Continue to learn until you can identify pressure releases at a glance while trailing. For many years, I kept a small 4x4 tracking box in my apartment and would constantly play in my sand box and force others to walk through it when they visited. I know what you're thinking, and you're right; I didn't have a girlfriend.

Experimenting in my track box, I used some dowel rods about an inch to inch and a half round. The dowe,l when pressed into the ground, creates a stamped track. However if I leaned forward the front part of the dowel track in lower in the ground. If I looked up the back part of the dowel track was lower than the front. This is created by weight.

Let's establish a baseline. For this exercise, I recommend a number 2 pencil and copies of the following foot maps.

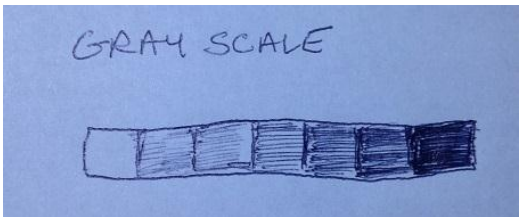


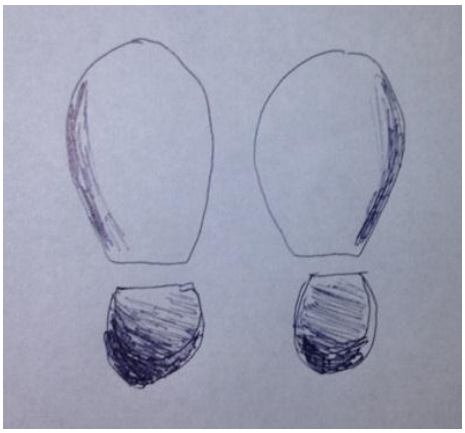




Exercise: Baseline

Stand with your feet together, arms at your side, your head level, and look straight ahead. This will be your baseline. It may help to do this both barefooted and with shoes, and actually I recommend it. Take a few deep breathes and relax. Tune into your body. Pay attention to where you feel the largest and smallest amounts of pressure in your feet. Now, using your number two pencil, shade in the foot maps. Use the gray scale from art class, shade in the area of most pressure the darkest and the least pressure lighter. This is your baseline. My baseline will be different from yours because of the structure of our bodies.





Now that you've established a baseline with two legs, hop down on all fours using your hands and knees (keep your feet off the ground). This will give you some experience as a four legged animal. When working pressure releases, remember to do this.

Exercise: Pressure from Weight

Here is an exercise that really helped me to start to understand things like head position and where someone is looking. Once you understand this concept, you can use it to help understand and recreate different pressure releases. You can also use your hand or even thumb. I started off using wooden dowels.

Tom Brown refers to the legs as pedestals connected to the ground by feet. Take a wooden dowel, at least an inch round, and a foot long. Use these dowel rods to simulate your legs, or pedestals. Using the information you received doing the mapping of foot pressure recreate that using the wooden dowels.

When looking down, where is the most pressure?
Where is the least amount of pressure?
When looking up where is the most pressure?

Continue to experiment looking right, left, and more. The dowels will help you understand that the areas with the most pressure will be slightly deeper than the area of least pressure. Work on as many variables as you can think of like feet together, same side foot, opposite foot pressure. Use your imagination. Be sure to record and document what you are learning.

Exercise: Pressure from Weight

For this exercise, use the foot and shoe maps to shade in the areas of pressure. The darker areas will represent the areas of most pressure. Try this exercise with your shoes on and off. Being

barefoot helped me to feel the pressure better. It may or may not help you. Just experiment. It also helped me to be aware of what my body was experiencing to close my eyes. So you may or may not find it helpful your close your eyes. Try everything a couple of different ways. First try this with your feet together paying close attention to the one with greatest pressure, but also note what the opposite foot is reacting. Then try this with you feet in a simulated walk. Even though it is stationary, with the feet being placed in a simulated walk you will notice the difference. The next step is to put it in motion.

Look left over your shoulder
Look down at your feet
Look up as high as you can

Use a 20, 30, or 50 pound weight in one hand and hold it out to the side
Use a 20, 30, or 50 pound weight in one hand and hold it out to the front
Hold your arm out to the side without weight
Hold your arm to the front without weight

What did you experience? Be sure to map the pressure and recheck your results. What are other things you can do to understand the effects of weight created by movement to the pressure felt in the feet? When you become aware of where pressure is, you'll start to see it in the track as well as be able to visualize and recreate it. It then becomes a powerful tool to interpreting the story.

Determining head position and were an animal is looking will start you learning about the pressure releases that Tom Brown teaches at the tracker school. Pressure is released by the substrate as it reacts to the pressure being applied by the animal or human. Let's start learning these first two releases as it applies to two legged walkers. In most four legged animals, the front feet are about 30% larger than the hind feet. The front feet carry the extra weight of the neck and head. The hind feet are like a rear wheel drive car. It's important to feel what the animals' body is doing to create the pressure release.

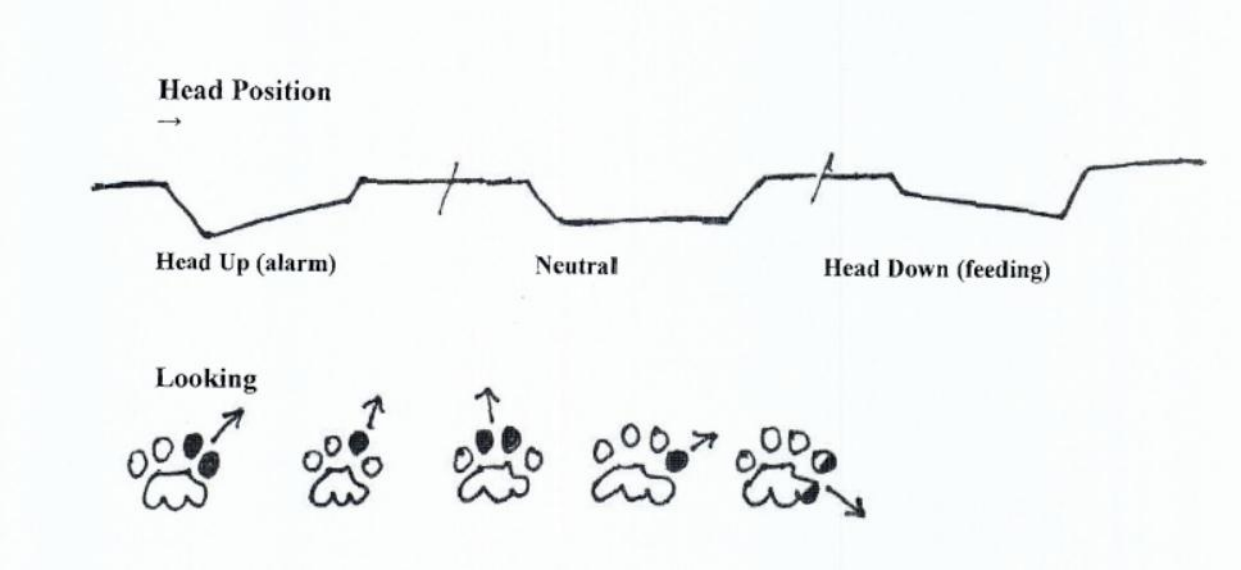
Try this exercise. Get down on the ground on all fours like a dog. Make sure your feet aren't touching the ground, just your knees. Now close your eyes and concentrate on your body. Move your head up and down. Then back to neutral, now look left and look right. Look over your shoulder. Did you feel your body shift?

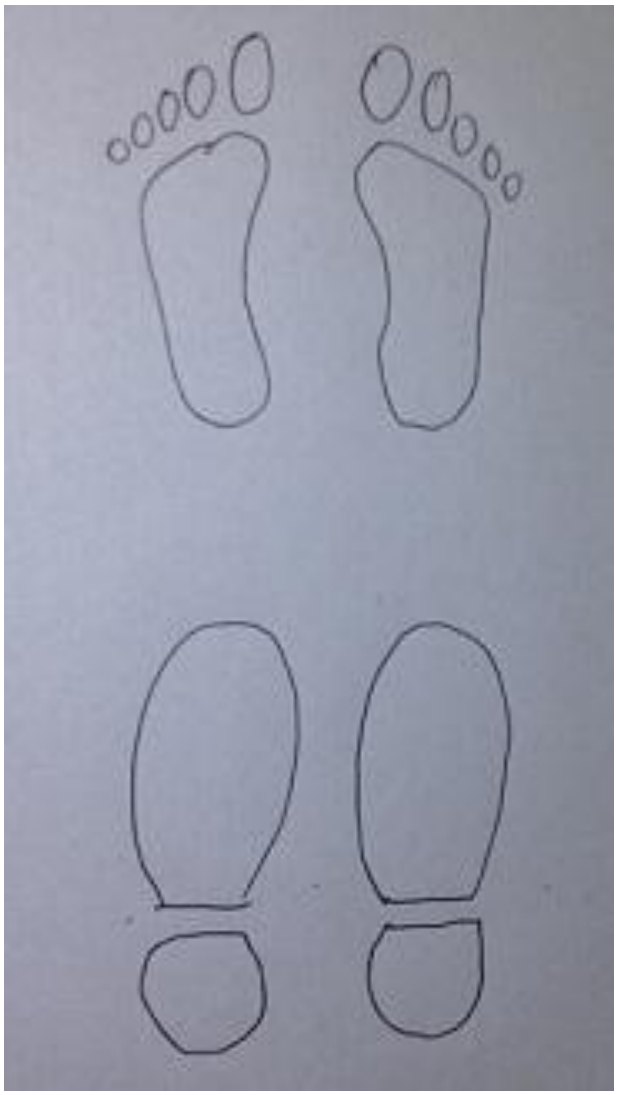
Head Position

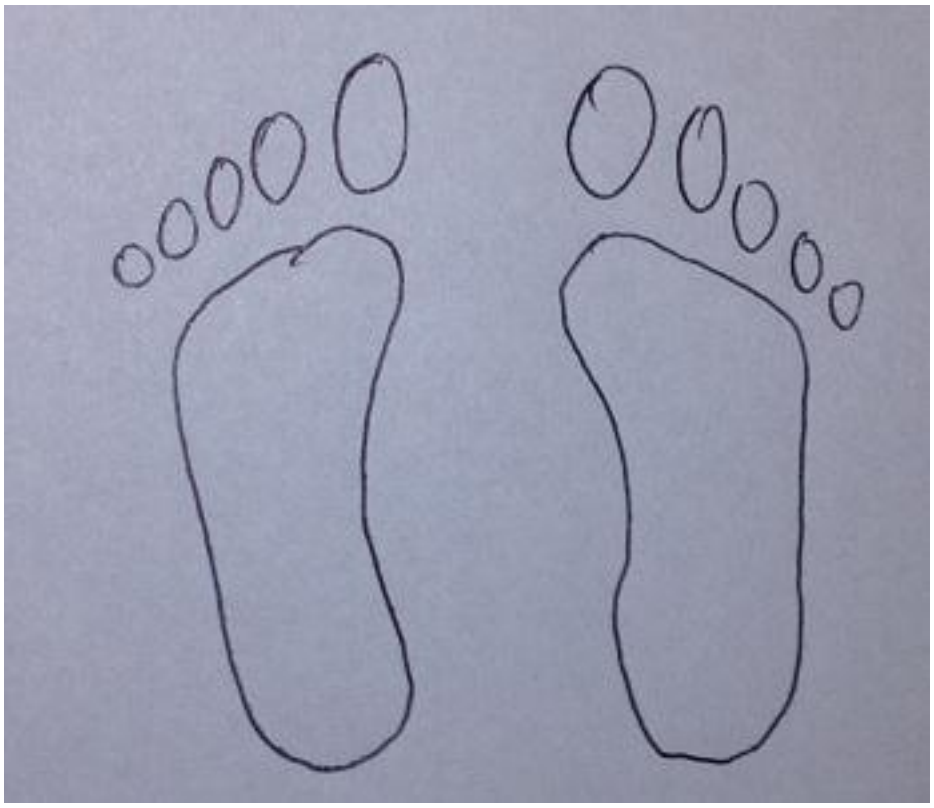
This is about looking into the track, at the angles of the track floor and track walls running down the length of the compression. Be sure to account for environmental and substrate distortions. Head up position is the alarm state, Neutral is relaxed and Head down is feeding position. Start by studying deer tracks to understand head position.

Looking

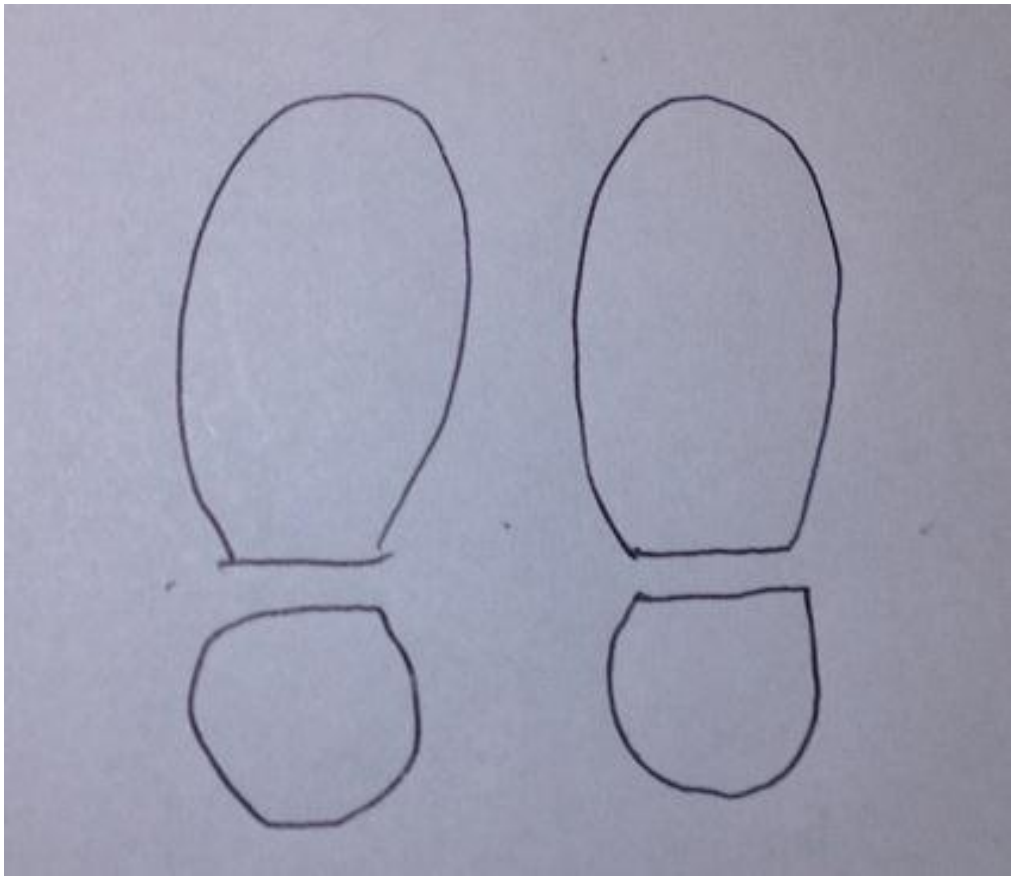
A good place to start studying were an animal is looking is with dogs. The weight and movement of the head when the animal is turning and looking will show in the depth of the toes. Looking left or right on over the should which is common to see in coyote tracks. Take your time learning this release.



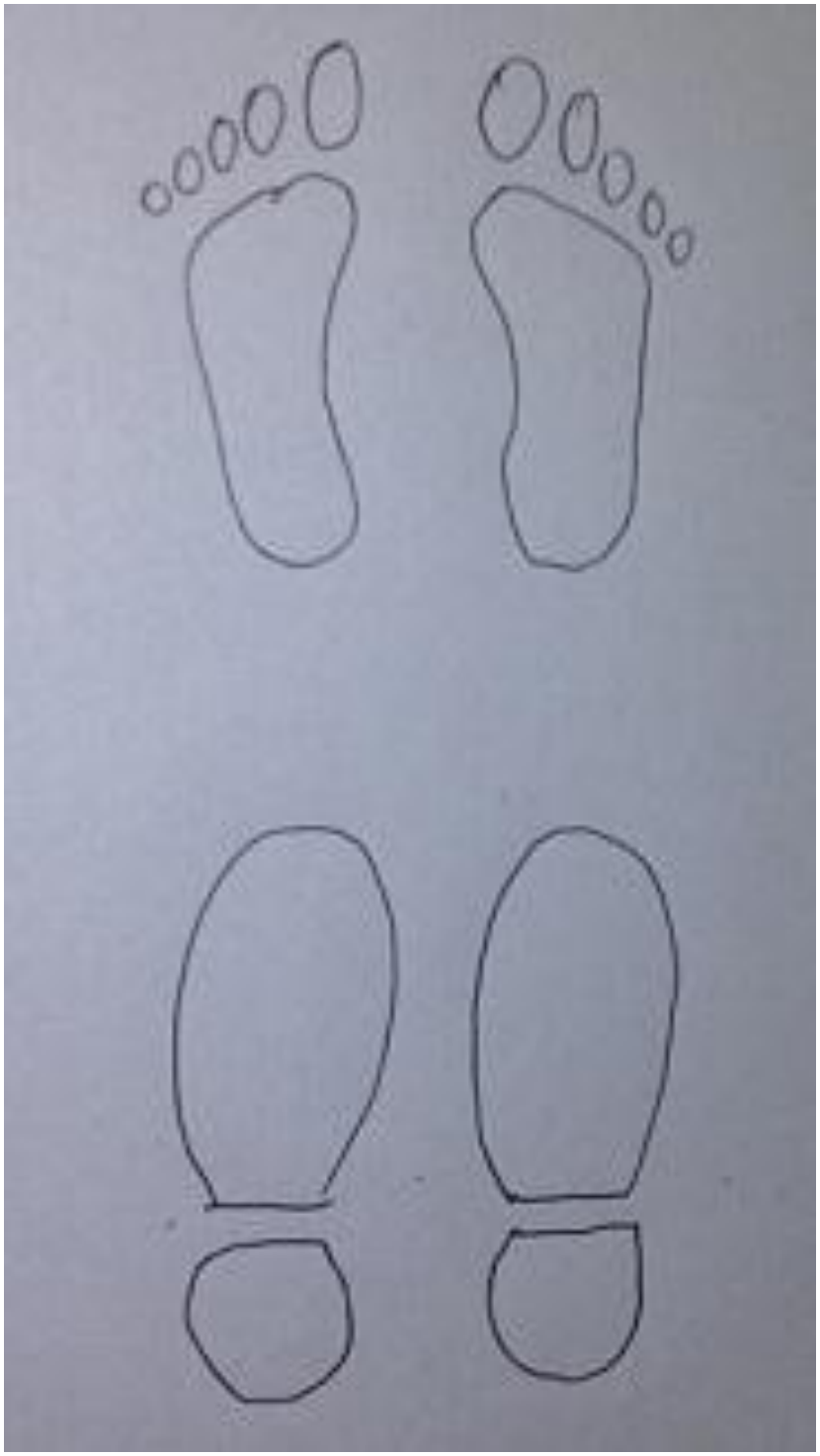




Foot Pressure map



Shoe Pressure map



Foot and Shoe Pressure Map

The next two pressure release studies are not only affected by weight and shifting weight, but by motion. The energy and force of the body moving forward, backward, and turning are creating pressure that is being released through the soil either in the wall or the floor of the track and or both. In the diagrams, you will find the common terms used by Tom Brown. I won't go into too much detail about pressure releases. That would take an entire book, and Tom Brown has already written it. Again, grab a copy of *The Art and Sciences of Tracking* by Tom Brown Jr.

The following two diagrams show the basics of pressure against the wall and pressure against the floor. They are in order from the least pressure to the explosion which would be the greatest pressure. It is important to note when dealing with crumbles. One is pressure caused, the other is weather or age imposed.

Pressure Against the Floor: Motion

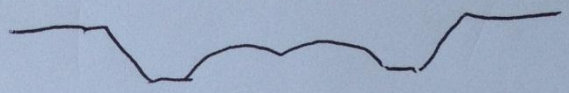
Pressure against the floor of the track; deals with changing or maintaining forward motion

1. Wave – Slow walk or stalk
2. Double Wave – Walk with a purpose
3. Disc – Fast walk
4. Disc-Fissure – Slow jog
    - Disc fissure – weather imposed
    - Disc fissure – foot imposed
5. Disc-Crumble – Jog
    - Disc Crumble – weather imposed
    - Disc crumble - foot imposed
6. Dish – Fast jog
7. Dish-Fissure – run
8. Dish-Crumble – Fast run
9. Explosion - Sprint

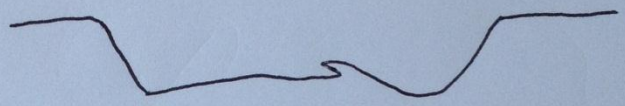
PRESSURE AGAINST THE FLOOR

1. WAVE

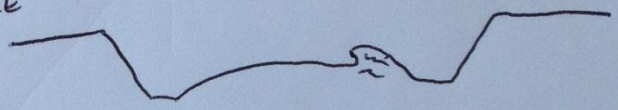
2. DOUBLE WAVE



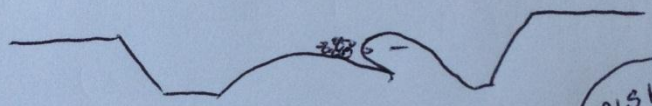
3. DISK



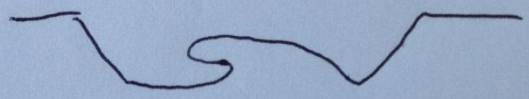
4. DISK-FISSURE

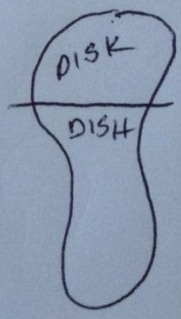


5. DISK-CRUMBLE

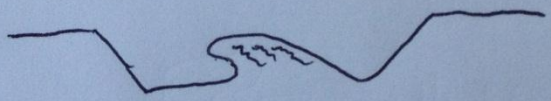


6. DISH

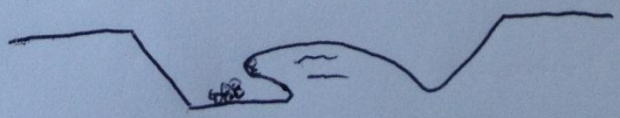




7. DISH-FISSURE



8. DISH-CRUMBLE



9. EXPLOSION

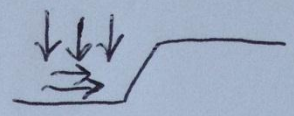
Pressure Against the Wall: Motion

Pressure against the wall deals with the slowing, stopping and turning, or changing directions.

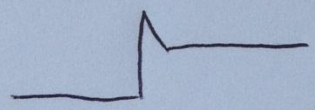
1. Cliff – Baseline
2. Ridge – Very slight turn
3. Peak – This is a ridge qualifier. It is the point of most interbase pressure.
4. Crest – Increased pressure in turn: ridge, peak, crest.
5. Crest-Crumble – The crest becomes so large it crumbles into the track.
    - If the break is fresher than the track, it is weather imposed.
    - Crest Crumble – weather imposed
    - Crest crumble – foot imposed
6. Cave – More of a turn, increased pressure
7. Cave-In – Caused by more intense pressure than in crumbles
    - Cave In – foot imposed
    - Cave In – weather imposed
8. Plate – More intense turning pressure
9. Plate-Fissure – High pressure against the wall
    - Plate Fissure – weather imposed
    - Plate Fissure – foot imposed
10. Plate-Crumble – Increased turning pressure
11. Wall Explosion – Sudden stop or very severe turn

PRESSURE AGAINST THE WALL

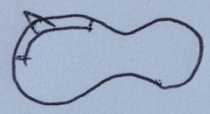
1. CLIFF



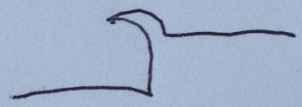
2. RIDGE



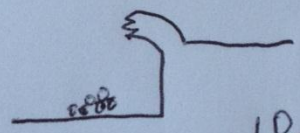
3. PEAK



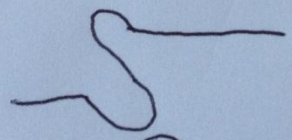
4. CREST



5. CREST-CRUMBLE

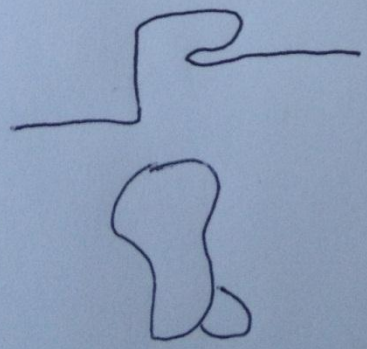


6. CAVE

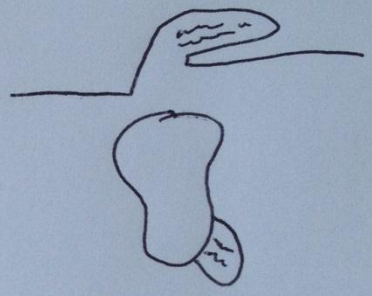


7. CAVE-IN

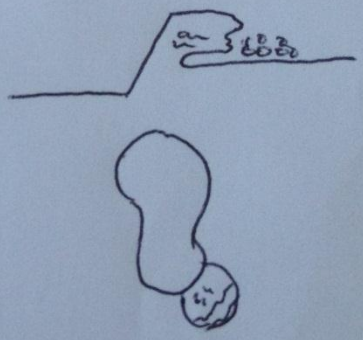
8. PLATE



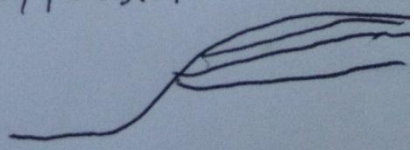
9. PLATE-FISSURE



10. PLATE-CRUMBLE



11. EXPLOSION



This is only the beginning. Once you understand these basics, you can refine your study of pressure releases. By now, you probably realize there are secondary releases. Digital, toe ridge, and lobular pressure releases, and measures of eighths. You can further study indicator releases. Like I said, this is a journey that can take you a lifetime of study. I highly encourage you to take a class from the tracker school with Tom Brown, read his book, *The Art and Science of Tracking*, or attend a pressure release workshop with myself or another tracker. Get yourself a tracking box, or use the beach or a sand volleyball court, but get out there and study, journal, experiment and have fun!

In the following photographs, look for the pressure releases. There are several in each photo. Take your time. Have fun. Then go make some tracks yourself to study.

Introduction to Human Gaits

Charles Worsham really advanced my study of gaits with a book called *Animals in Motion* by Eadweard Muybridge. Most trackers just deal with patterns left on the ground. The study of gaits consists of three elements: coupling, sequence, and patterning. I'll give you some simple definitions for these three elements. We'll keep this simple; human animals are bipedal plantigrade walkers. Over the years what I've found interesting is in studying the gaits of quadruped plantigrade walkers has helped me to understand where humans have their hands when moving through various gaits. Understanding gaits will help you in your ability to trail and interpret the story. It will also help you verify what you are seeing in the pressure releases. Just like pressure release, will help you find the next track and interpret the story. Gaits and pressure releases will complement each other.

Pattern- This is what most trackers are familiar with. This is the tracks left behind on the ground.
Sequence- This is the order in which the feet hit the ground to leave behind the pattern.
Coupling- This is the sound that was made as the feet hit the ground in sequence to create the pattern.

The more you study the four legged gaits, the more you'll understand the two legged gaits and where the hands are during the walk or using a cane when walking. It's an interesting study that we'll get into deeper into.

According to Charles Worsham, the Cherokee recognized three gaits of common movement. They are the walk, run, and jump. Understanding the baseline movement of a person, you should be able to quickly recognize the gait. Additional study will allow you to become more accurate with understanding and interpreting changes off baseline and how gaits and pressure releases or action indicators work together. Start simple and build from there. Begin with walk, run, and jump. I would also add crawl to that list. What do these look like?

Measurements and Journaling

To start your study of gaits, I really encourage you to take accurate measurements and journal everything. This will help you to identify and build your tracking vocabulary, especially during training and when starting a search. Identifying and establishing a baseline for the person you are tracking is important. The baseline measurements of step, stride, trail width, straddle, and foot pitch will help you identify specific individuals. Anything that is different than the baseline is an event. Documenting events is also important and will help you to understand what happened. For example, if I understand that the average human stride is 30 inches and the person I am tracking has an average stride of 32 inches and the pressure releases confirm that

this person is walking, that tells me the person I am tracking is taller than average. It can also tell me something about their level of fitness.

"You want to become a really good Tracker? Journal." - Jon Young

So what information can you get from studying a person's gait? I guess the first one that comes to minds is speed. How fast is the person moving? This is without a doubt the number one question. If I can age the track and know when the track was made and how fast they are moving I may get an idea of where they are. Direction of travel is another big thing that gaits reveal to the tracker. Establishing the line of travel is so important. What else can a gait tell you?

A subject's baseline gait can really help you identify the individual. Tom Brown has always said, "There are no two things in nature that are perfectly alike." This is so true. I spent a lot of time tracking white-tailed deer in a particular area of east Texas. Eventually, I got to where I could tell each individual deer just by their track and gait. It depends are the level of detail you want to see. But there really are no two things that are completely identical in nature. This really fascinates me.

Let me put out another question before we get into some really cool stuff. What would you consider some gaits that humans would use? The basics are going to be Walk-Run-Jump.
Let's add this to the list:

Crawl
Slow Walk
Walk with purpose
Tired Walk
Jog
Run
Sprint

Once you understand these gaits what else is it possible to tell in a person's gait?

How about injury? Would a foot injury look different than a knee injury?
How about a back or shoulder injury?

What about carrying weight? How would that affect the gait? What if a hunter was carrying a shotgun in his right hand how would that effect the gait?

What if someone was walking but looking to the left or right for an extended period of time, would the line of travel and gait be affected? I know if I stare at something when I'm driving my car has a tendency to drift. Does the same happen when I walk?

If someone is carrying heavy weight, look for a very obvious heel strike, shorter steps, feet which may angle out more, and check for signs at rest breaks.

If the average step is 30 inches, what is the height of your subject? Compare this to your body. Also compare this information to those you know and are familiar with.

From the gaits can you tell the age or sex of the person? What about their physical condition?

If you are tracking a group of people consider the following:

How many are in the group? How are they traveling? Are they single file or in a tactical formation? Are they showing signs of being security conscious? (leaving no trash, staying to cover and concealment, setting security when taking a rest break) Are they armed? Or is this a group of lost and confused hikers? Did they move during the day or night?

There are so many variables. It takes passion and determination to keep learning. I didn't want to just give you information in this chapter. I really wanted to give you some questions and send you on your way to learn. I can't tell you how much money I've made being able to ask question, and set up experiments. Get out there and experiment, observe, and you'll figure it out. There is a saying, "Observe one, do one, teach one." What this means is that you can learn through observation, but you must do it to understand it, and if you can teach it, you have it. Once you have it, nobody can take it away from you. There is no shortcut to learning. I like the saying, "Most people miss the reward, because it's dressed as work."

Question, Observe, Experiment, Learn

Speed

With the increase in speed, you will see an increase in the pressure releases, primarily against the floor of the track. You will also be able to measure and notice that the step distance will increase as well as stride, and meanwhile, the trail width will narrow.

Dominance

Determining dominance in humans is relatively easy; however there are always exceptions to every rule. It should be noted this is about leg dominance. I know several people that are right leg dominant but write left handed and vice versa.

One test you can do is close your eyes and have a friend push you. Which leg did you step with to maintain balance? That's your dominate leg.

Leg dominance is also why people tend to drift and eventually circle when trying to walk in a straight line over distance. There are two ways to start to determine dominance. The first one to simply measure the right foot and left foot, one should be slightly larger than the other. (sometimes an 1/8” to ¼ difference or more). That is your dominant leg. The second method is to carefully measure the right stride and left stride. The stride that is longer means the opposite foot is dominant. For example if my left stride is ½” larger than the right my right foot is dominant. The reason for this is that the foot that is larger, and stronger can balance longer, creating a longer stride.

Sexing

One method is based on track analysis. The tracks of most males tend to be larger and more robust than females within the species. Toes will also tend to be bolder in male tracks. This is a very effective way of determining the sex of an animal track. The same rules also can be applied to humans.