

My Thoughts On Camouflage

I see articles on various types of camouflage on-line from time to time. They are almost always about the correct pattern of camouflage clothing to wear in a given area. There are several other types and ways to 'camouflage' a person and gear.

The first, and most important for me, is role camouflage. This is because under most circumstances it is not easy at best, and can be almost impossible at worst, to camouflage oneself effectively to not actually be seen. Role camouflage gets around this by 'camouflaging yourself in plain sight' so to speak.

For the above reasons, as well as others, I do more role camouflage than using pattern camouflage. I stick with khakis in the field, and blend in fairly well in most landscapes without needing specialized camo for each one. In the city I look like any other workman when I add hard hat, clipboard, safety glasses, and hearing protection. Sometimes it is even a suit and tie so I do not stand out in certain circles, groups, or areas. The function of camouflage is to not stand out. To blend in. I think I can do that more effectively in more places with khaki than anything else.

If you are wearing camouflage shirt and pants, of any pattern and any color combination, you are going to stick out like a beacon flashing amongst a group of people wearing business suits in a downtown area. However, if you are dressed in a business suit, very similar in look to all the rest of those around you, you can certainly be seen by anyone that looks at you, but will you be seen as you, or just another person in a business suit?

A leopard can be very hard to see in the wild, as the spots help it blend in with the foliage. Great camouflage. Try to pick out and track one specific plain tan antelope in a herd of antelope on the move on the open plain. That antelope is pretty well hidden, as well, if you ask me. And it is basically all one solid color. One among hundreds of others of the same color.

Another type of role camouflage is not to look like the others you are grouped with, but to look like you belong in the area, when there are people of many different looks around. Or, even not that many people. If you look like a person that can be expected by most people to be in a given location, they will not pay

all that much attention to you specifically, but simply relegate your presence into the background of the area, just like the street light poles, fire hydrants, trash cans, sculpture, kiosks, or whatever else is often seen in the area.

If you wear a tool belt, a reflective vest, have on work boots, hard hat, and safety glasses, carry a tool box, and look like you are headed to or from something that needs repairs or construction, you are part of the background of the place, not someone out of the ordinary a person would not expect to see there if dressed differently.

Another form of camouflage that does not hide you, but does help hide your identity, so you can again hide in plain sight, is to change your appearance. Not just your hair color and/or length, eye color, and clothing style, but other physical attributes, and even more importantly, your stance when standing and sitting, and gait when walking. Mannerisms are just as important to carry off the deception.

Every person has signature elements to their personality, look, and general actions. Make a point to learn what yours are, and figure out ways to change them when you need to, in private, so you can do it in public without it being noticeable.

Another thing that really is not camouflage, but goes along with it, is the use of misdirection. If you can keep anyone from looking in your direction, they are not likely to see you, or take note of you. So, use anything and everything you can that will have people looking any direction except the one toward you. Some of these can be active actions on your part, such as diversions like fireworks or even a tossed rock. Others can be the use of actions, sounds, lighting, and such that tend to draw peoples' attention, whereupon you do what you need to do while they are distracted with those things.

There are lots of other options, too.

One place a person might want to start using camouflage is to 'camouflage' the entrance to their property. In the city, there is not much that can be done to camouflage the actual driveway. Do consider using camouflage and misdirection elements to conceal or confuse (for the bad guys) just whose driveway it is. During normal times, though, it is critical that Emergency Services can find you.

So, follow the regular rules of marking your place with the address, clearly visible, and the edges of any entrance restrictions there may be. Only in the event of a PAW (Post Apocalyptic World) would concealing that information be acceptable or wise.

In more rural areas, especially those properties where the buildings on the property are not easily visible or identifiable from the public roads, a person has more options.

There can be a few ways to go about disguising property access. The following ways are very similar, but with minor differences. And in my mind, they do fall under the label of camouflage.

One is to physically camouflage the opening so there does not appear to be a driveway or a gate.

Another is misdirection, rather than pattern camouflage, more like role camouflage. That the driveway and gate, if any, do not look like a driveway and gate.

A third way is to block the access in a way that discourages encroachment, or presents things in a manner to make people believe there would be nothing worth their time even if they can enter.

The first method is the traditional gate that looks like the rest of the wall. Concrete façade gate if it is a concrete wall, brick/brick, block/block, ornamental iron/ornamental iron. One of the problems with this is if there is an obvious driveway section between the main road and the camouflaged gate. Unless it is a situation where some new construction takes place and there are several inactive road access points cut off by obviously recent fencing.

If using more of a misdirection approach (so to speak) rather than out and out camouflage, the actual access might be visible and even accessible, but it is not obvious that there is access to the area of interest. A narrow open area that leads to a concealing parallel tree line hidden drive for instance.

By having an appropriate underlayment on the grass area between the road and the driveway behind the tree line, it would not be obvious of much traffic, especially if the area was broad. Here is a product that protects grass areas for even pretty heavy vehicular traffic: Grass Pave 2

<http://www.invisiblestructures.com/grasspave2.html>

Some ideas about the third method are making the area or road to appear to lead nowhere, or to an obvious dead end, a major physical barrier, and such.

One method that combines the physical pattern camouflage and misdirection is to have very little or no approach to the gate, which is camouflaged. However, the approach is not at right angle to the road. It is more or less parallel to the road and instead of the gate swinging open wide, or sliding to one or both sides, only one end of the gate is hinged to the wall and the other end is pushed away from the wall, leaving an entry along the face of the wall, rather than at right angles to it. With the road right next to the outer wall, there would be little indication of a pull out for a driveway.

Another way to misdirect people from a driveway access is to have a loop off the road that goes behind some trees. Except the loop essentially goes parallel to the road and fence and back to the road. The actual gate can be hidden by one of the other methods. With the far side of the loop hidden from the road, ingress and exit can be hidden to reduce the risk of the hidden gate being discovered.

Having a physical barrier, usually a ditch of some sort, with a hidden or camouflaged way to cross is a possibility in some locations. If the way does not look passable, and a possible solution is not in sight, then it is not likely for anyone to attempt the crossing.

If some type of building can be constructed along the line of the wall or barrier fence, a false door can be installed that can be opened quickly and the vehicle driven through to the actual driveway.

If a living barrier fence is used, especially if it is planted to look somewhat irregular, a trench with a concrete trough on a track system can be installed as the gate. The same type of plants in the barrier fence can be grown in the concrete trough. The trench would allow the trough gate to be pushed sideways to open

for access. If there are plenty of bramble type plants right at ground level, covering the edge of the trench in which the trough travels, it would not be too obvious. Especially if using the GrassPave2 grass protection system to hide any tracks.

If the need for concealment is only needed for a PAW situation, and not during regular times, then there are quite a few more options that involve temporary and semi-permanent barriers and camouflage techniques.

It if is for everyday use it becomes harder, since people will have many more chances to discover the truth, when dealing with them is legally limited.

Lastly, a combination of the methods would probably work best.

Remember that if much of the rest of the driveway is in view, the human brain is very capable of taking visual information and completing a pattern. If somewhere in the distance it looks like a road or driveway should be there, people will make the connection and wonder why there is not one. And then start looking, if there is any interest at all.

Another place where camouflage can play a major role is the hiding of a shelter. If the shelter is underground, a basement or part of a basement, or other structure that is, due to the construction and location, hidden, then only the entrance and any penetrations to the shelter from outside will need to be dealt with using techniques that would include camouflage. Others, of course, include sound, light, and odor signatures.

Here are some ideas on hiding the intakes (and exhausts) for the shelter ventilation system. They are one of the absolute necessities for a shelter, but can be a dead giveaway that there is a shelter, if they are left easily visible and identifiable. (There is some additional information included, as well, as it is all part and parcel to the vent installations.)

- 1) Try to arrange things so natural air flow patterns can be used to keep air moving when any mechanical assist system goes down.
- 2) Remember that while a certain amount of flow is necessary for a given situation, there is nothing that says it all has to come in one pipe and out one

pipe. Multiple smaller pipes can be run to a plenum and from the plenum to the shelter. This allows the intake air and exhaust air to be distributed in several places. This can make it much easier to hide or camouflage intakes and exhausts, as well as helping to disperse heat and odor signatures from exhausts. Do be aware that say, two 2" pipes does not equal one 4" pipe. It actually takes 5.7 2" pipes (or 6, of course, rounded up) to equal the flow of a 4" pipe at the same velocity and flow rate. There are tables on-line that can be printed out to tell you how many of a given size pipe it takes to equal one larger pipe.

- 3) Hiding and camouflaging air handling pipes and ducts is necessary for a couple of reasons. One is so it is not obvious that you have a shelter at all, and another is to avoid them being compromised by someone intending to do you harm or drive you out of the shelter.
- 4) There are literally dozens of ways to hide or camouflage the pipes, inlets, and outlets. Just a little bit of creativity and some thinking outside of the box go a very long way toward coming up with enough effective means to hide all the working systems, as well as a few of the dummy and/or decoy systems. A list is provided below.
- 5) To make filtering the air much easier, the slower the air flow, the better. This also reduces sound signatures, and tends to be easier on the equipment. It does require proportionally larger systems.
- 6) The 'pipes' do not have to be pipes at all. Some of them probably will need to be, but many will work just as well, if not better, if they are HVAC duct work, or square tubing and such.
- 7) In some instances, the camouflaging element can be the air handling element, as well. A case in point is gutter down spouts.
- 8) If the length or run of some of the intakes and exhausts is going to be rather long, definitely go to a larger size pipe or duct.
- 9) Some of the systems can incorporate natural cooling and/or heating methods.
- 10) I cannot stress how critical some elements of the installation of air intakes and exhausts can be. Just in case the hiding and camouflaging efforts do not prove sufficient for a given set of the vents, they need to be able to handle different types of attacks, and to be isolated if need be. Methods will be outlined below.
- 11) A key factor in having an effective shelter is the ability to totally isolate it at times, at least for a while. This includes both air intake and exhaust. Which

means consideration must be given to a CO2 collection system at the very least.

- 12) Besides the hiding and camouflaging aspect of a few things, several of them can be used as an actual part of the intake and exhaust system.
- 13) Never let anyone tell you 'it cannot be done'. It can (almost) always be done. It just might be expensive. It might not, though, with a bit of creativity.
- 14) Just like there should be more than one entrance/exit to the shelter, there should be multiple air inlets and outlets.
- 15) Do not forget to allow for any air using items in the shelter besides the people breathing it. Generators, cooking units, heating units, refrigerators/freezers, etc. either use air, or need it for cooling. Or both, in some instances. You need to provide for these needs, as well.
- 16) The air handling pipe does not have to be metallic. It can be either steel or aluminum (even copper if you have the money), but it can also be PVC. I personally do not like to use ABS for air handling, due to outgassing, but some do.
- 17) All the intakes and exhausts should be screened to prevent animals, birds, and bugs from entering.
- 18) All the intakes should be pulling air upwards from outside, if possible. 24" above any surface below them, the minimum distance.
- 19) All intakes and exhaust pipes should have both a diversion valve to direct anything entering to a sump rather than to the shelter, and a shut off valve to prevent anything from entering the shelter.

Following is a list of some ways to hide/camouflage shelter air entry/exit points:

- 1) Slot the underside of pipe railings so air can enter and go down the uprights.
- 2) Have every yard feature you can think of and incorporate air intakes. Water features, sand box, swing sets where the legs go into the ground slightly but actually the bottoms are connected to air piping, which carries the air from the open inside corners of the structure. Rock cribs as part of rock and sand features. Rock cribs as fence posts, especially corner posts, but also line posts.
- 3) Dog houses
- 4) Yard sheds
- 5) Pump houses
- 6) Fence posts
- 7) Gutters

- 8) A cupola on the house and/or any out buildings
- 9) Connected to a window AC unit
- 10) Connected to a whole house HVAC system, both the ductwork and the outside condenser box
- 11) A dummy septic drainage field
- 12) Piped inside building walls, up to the soffit vents
- 13) Foundation vents
- 14) Antenna towers
- 15) Windmill towers
- 16) As part of a solar PV panel array
- 17) Garden structures
- 18) Decorative features inside the home
- 19) Dummy pipes under the floor of the house or in the attic
- 20) Mail box post
- 21) In hedge rows and perimeter fences
- 22) If in rural areas, abandoned vehicles and equipment
- 23) There are many, many more, limited only by one's imagination, and the features of the place.

Now, there is one area of camouflage that is extremely difficult to accomplish. That of hiding from or fooling some of the high-tech sensor systems that are now in use.

There is long range optical surveillance equipment, long range audio surveillance equipment, laser 'microphones', and infrared and ultraviolet sensors, any of which can be stationary, mobile, airborne, and carried by drones. Add in high speed analytical analysis by AI (Artificial Intelligence) of those sensor readings and you have very difficult situations from which you might need to hide.

This call for a multi-spectral approach to camouflage and the attendant techniques of staying hidden at best, unidentified at the very least.

Knowing the possibilities and capabilities of the equipment that might be used, and setting up methods that can be used to protect yourself from them will be critical to being able to do it.

Having 'hides', spider holes, 'safe houses', and such prepared that, due to their construction and placement, prevent you from being detected is only the first step. That still leaves you vulnerable when out and about, as you will most likely have to be at times.

While a vehicle on the move is going to be impossible to hide, 'seeing' who is inside can be made difficult. And not being identified as you, is a major accomplishment, and increases the chances of a person not being actually 'found' to the point that those looking for you can take action.

The same is true if you are mobile, but not in a vehicle. Being on a bike or motorcycle, various animal mounts, or on foot can be easier to deal with than a hard to miss moving vehicle. Though those methods are without the ability for high-speed relocation which many vehicles can provide.

Without a prepared place a person can access quickly enough to avoid being spotted at all, before any of the sensors can be brought to bear, then either having on effective multi-spectral camouflage, or having it ready to use, are about the only options.

The only thing I have come up with that is not extremely expensive gear produced for the military, which is not even available to the public at the moment, as far as I know, is a sandwich arrangement of poncho liner, heavy duty space blanket, another poncho liner, and a poncho. Hot, a bit heavy, somewhat bulky, but still doable, the layering will help with most of sensors, if the other, normal, precautions are taken.

Donning the layered poncho and then moving is not going to be very effective. That black hole in their sensor monitor that is moving is going to be a dead giveaway. Possibly literally. So, until the sensor carrier is well beyond range, you have to go to ground.

If you simply spread the poncho assembly out over you, that big rectangular black hole image will also be obvious. To make it have any chance of working, suspend the poncho off the ground high enough to be under it. Have lifting stakes, as well as securing stakes. Make sure to arrange the edges of the poncho, if not already cut into shape, in an irregular shape. Try to make it seem as a part

of the terrain. This may mean having a camouflage net with appropriate ghillie suit type additions to go over the poncho assembly.

This will only go so far, as the body is producing heat and moisture that will eventually exit the edges of the poncho unless staked down tightly. And doing that will boil you in your skin, unless the temperature is extremely low. And if it is, chances are even the sandwich may not be enough to keep you hidden. And in this type of case, simply trying to be hidden will be reason enough for those that might be looking for you in particular, or for anyone in general, to investigate more closely.

Although I have not tested it, I do believe that a form of active multi-spectrum camouflage can be made by an experienced DIYer with appropriate skills.

A form of temperature compensating camouflage for hide cover/entrances/doors and for exhausts for breathing air, combustion air, engine exhaust air, and engine cooling air/water would require the following items:

- 1) Ambient temp sensor
- 2) Thermostat temp control
- 3) Peltier chips
- 4) Blowers
- 5) Ducting layer
- 6) Ducting for opposite temp removal
- 7) Supports
- 8) Adequate power supply for the electronics and blowers

Arranged properly, the system could maintain the appearance of an even temperature across the area that is the same as the surrounding area. There would be no hot spots or cold spots to give the locations away.

For use in the type of multi-spectrum sensor environment envisioned, hiding is going to be exceedingly difficult, as mentioned. Using multi-spectral decoys away from the locations, especially in specific shapes, can help reduce the chances of being picked out individually as the one that is wanted.

The following recommendations are going to sound very strange to most people that consider camouflage exclusively a pattern, color, and shape subject. Having

read and studied the following three books, I have learned that they contain extremely pertinent advice on camouflage. Some is, indeed, about pattern, color, and shape. However, the most important parts of the information are the human interaction elements.

How people see each other, interpret what they see, and make decisions based on what they are seeing, hearing, and in some cases smelling. The other two major senses can also be involved.

Almost everything is relative. Not just time. Most of the information in the three books (and some others that the authors have written) applies to role camouflage. Which in my mind is, unless you are exclusively in a field environment, every bit as important, if not more important, than classic clothing and equipment camouflage patterns and colors.

Here are the three books:

The "Miss Manner's" books on etiquette - Far more than just which fork to use, Judith Martin goes into the way people react to one another in social situations, many of which can be confrontational. Not getting into a gunfight over a situation is much better than getting into one and winning even, in my opinion.

Dress For Success by John T. Molloy – More than just clothing. How people see each other and react accordingly. While not 'camouflage' in the generally accepted belief, the principles outlined in the book are just as applicable in the field as on the street.

Breaking The Rules by Kurt Wright – A book as well as a seminar that gave me great insight into what people are really like behind their public face. Why they often react the way they do to various stimuli. How to have the best possible relationship with a person, even if it is not an ideal one. And when to walk away.

Another book that I have found to be of great help in dealing with people, especially in today's political, corporate, and group dynamic environments is: *Power* by Michael Korda.

This is all just a group of 'Just my opinions'.