



## Better course inspections: part 2

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In my opinion the second layer of obstacle construction to consider is the degree of fill on any such obstacle. Granted this doesn't much pertain to the open water, or most walls, but for verticals, oxers, and triple bars, the obstacle type and the degree of fill are married. This may seem like an obvious statement as you can't have one without the other, but additionally, together, they are used to both modify the difficulty of each fence, and to modify the difficulty of the track of the course. Consider for example a 'filled in' oxe: For sporting levels, I can use it to enhance the difficulty of a forward line, by using either coming in to a line, leaving a line, or both, whereas for developmental levels, it can be used in the same manner to help educate young horses when introducing them to compression. To fully illustrate the affects of the degree of fill, I like to consider it on a scale. On one end we have what we refer to as 'airy', a term used to describe obstacles with limited amounts of fill, usually only poles, inside the jumping plane. In general an 'airy' fence offers very little spook factor and does not in itself affect rideability.

However, it is important to realize that this is caused by a lack of respect for the obstacle on the horse's part, and that same lack of respect makes it not only more likely to hit the ground, but can take away from the quality and shape of the horse's jump. Furthermore, less fill means less for the horse to use as a reference for depth perception and to back itself off. This again adds to the likeliness of the obstacle being lowered. This also tells us that 'airy' at the end of the course is much harder than 'airy' at the beginning and therefore needs to be paid more respect by the rider. This effect is more accentuated with a vertical, as the back rail of an oxe helps give it some depth. At the other end of the scale is what I consider to be 'solid'. For me, 'solid' is different from 'filled in' mainly in that for me 'solid', like 'airy', begins to add difficulty to the obstacle, though be it in a different manner. For me, the difference between 'solid' and 'filled in' is the massiveness or bulk of the fill. Take for example large pillars with heavy walls, similar to ones used at Spruce Meadows in the International divisions. These are perfect examples of the effect of solid fences: that they are hit less often, but can have an adverse effect on rhythm and pace. In addition, when a jump is 'solid' or 'spooky' it can adversely affect a sensitive horse's jump, as it may over jump vertically to avoid contact, and as a result lands in a heap on the back side. This adds particular difficulty to the back rails of oxers. In the middle of this scale is what I referred to before as 'filled in'. For me this is a jump that has at least four elements for its fill and usually something in addition to only poles. For example: a vertical with a top rail, two planks in the middle, and a rail on the bottom grabs the horse's attention, but without anything bulky and heavy that may back the horse off and disrupt your rhythm and/or pace. Moreover, it offers the horse more to look at in establishing its depth perception, and this, coupled with a little extra respect afforded by the horse usually results in a higher quality and more consistent jump.

As mentioned before, obstacle construction encompasses a variety of factors that allow course designers to refine the difficulty of the course. However, the basic principles of the jump over the varied obstacle types, paired with the degree of fill are, in my opinion, the most important and influential factors in obstacles affect on your round. Recognizing varying influences of these basics



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of jump constructions, will allow the rider to generally improve the accuracy of his or hers inspection and preparation.

To this point we've discussed the fundamental points of construction and how they affect the horse's rhythm, pace, stride length and take-off and landing distances. Those points are the meat and potatoes of jump construction as they have a heavy influence, when coupled with the track and distances, on the overall difficulty of the course. Moving on the next layers of construction, I am going to look at the various 'spices' we, as course designers, can add to the course to make sure we have the perfect flavor. I am speaking of color and the physical design of the obstacle. These allow us to refine the difficulty of the course, often in ways that don't disrupt the horse's rhythm or manner of going. They are simply used to increase or decrease the inherent difficulty of the individual obstacles, allowing the course designers to achieve the desired result with less severe distances and reducing the number of enormous obstacles on course. The result of this is a few 'unlucky' or 'cheap' rails here and there, but ultimately it does not lead to any issues with confidence or ride ability, which lead to long term issues. I believe colour is the first thing to discuss on this topic, as it plays a role in jump design as well. I am often asked by younger colleagues about which colours horses see, but for me, what colours they see is inconsequential. It doesn't matter if what they see when they look at red is the same as what I see. What are important are the other colours that are used with it, the footing, and the background, along with numerous other factors.

The first thing to consider is the horse's eyesight. We know that their vision is largely monocular, which is important because it greatly hampers their depth perception. This is important because colour can either help, or further hinder depth perception by increasing or decreasing colour contrast, not only within the obstacle itself but in relation everything around it. To clarify, by contrast, I mean from light to dark. Consider for example regular striped poles, as are seen at every event. When we paint a rail a solid bold colour such blue, red, or black and couple it with white, we've maximized the visual aid the horse can receive from the usage of colour. If we take either color away, either the dark or the light, we've taken a large degree of the contrast away. If we're left with solid white poles on sand, or dark poles on grass, not only have we taken away any help we may have offered, but we've taken away all the contrast and have essentially 'hidden' the rails from the horse. Furthermore, the same effect can happen when the crowd or signage is directly behind the horse's view of the top rail.

Another question I am often asked about is the increased inherent difficulty of certain colours, namely yellow. I think to label any one colour more difficult can be misleading, but to a certain degree, it is true. If you think of colour contrast, again on a scale, you have white on one end, and dark bold colours on the other. As you move to the lighter end of the colour spectrum, the contrast with white begins to reduce. By the time you get to lighter yellows and pastel colours there is very little contrast with white. Consequently, a yellow and white pole, jumps very much like a solid white pole. Similarly, if there are two dark colours together, they jump much like a solid dark pole.



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Worth noting is that in attempting to add contrast, it is possible to overdo the effect. Referring back to the example of rails, we know that generally adding colour will increase the ease of the obstacle. However, this can be over done to the point that it becomes confusing to look at for the horse. This will increase odds of the obstacle being lowered, as well as causing some horses to 'back off' on approach.

The last thing to consider when it comes to colours is the use of white to draw the horse's attention. One of two ways this is primarily used is with gates and planks. The closer to the ground one is placed, the more attention is drawn away from the top rail, which often leads to a deeper takeoff spot than desired, and as such, again increasing the likeliness that the obstacle will be lowered. Alternatively, I can use a plank closer to the top rail to draw their eye up for educational purposes; a very useful tool for young horses, especially in combinations. For me, this effect pertains primarily to the use of solid white planks more than anything, particularly when used close to the ground. Indeed gates are often used on first fences to offer a ground line.

The second way white is used to draw attention is perhaps more subtle, but equally if not more effective. I'm speaking of what are referred to as 'mafia' rails. Many of our readers from here in Alberta are familiar with them, but if not, the term refers to rails painted with horizontal pinstripes, typically a bold colour with white. What happens here is horses see the bold white stripe on the front side of the pole and tend to jump the height of the stripe, as opposed to the top of the pole.

Unfortunately there is not a lot riders can do to train for these tricks of the trade, but being aware of them will allow the rider to plan to be a little more careful at these spots on course.