Gray Substance and Reflecting Glasses —

A sighting picture from the camera: Nikon F 2, 200mm, 2.8 film HP 4, 400 ASA. The enlargements are from the same photo. This series is remarkable, because it illustrates the function of our eyes while you recognize a bull’s eye, round and black, in the picture below, the target changes with the enlargement. The uppermost sector simply shows more gray squares of different gridding. This series hardly deserves to be called “round” and “black”. Outside of the reference area, you would not “see” any bull’s eye. In the “white area” between the front sight and bull’s eye, various gray tones are dispersed and actually become less clear with increasing enlargement. Compared with a photo camera, the optical quality of our eye is considerably worse, so that we can expect an even poorer contrast on the fundus of our retina. After all, the bull’s eye in your sighting picture is only a product of your imagination. The basis for this is the halfway orderly gray tones.

Your sighting picture contains a wealth of information. While only the symmetry of the front sight and bull’s eye is of importance in the triggering phase, other tactical conditions should be registered before this phase:

- Is the contrast correct?
- Am I looking through the center of the iris aperture?
- Is the canting correct?
- How strong and from which direction is the wind blowing?
- Am I shooting the right course?
- Have I raised the right target?
- How are my neighbor’s shots?

Each violation of the first six of these rules will have bitter consequences. A larger picture sector is of advantage, because a wider visual field offers more information. When shooting under windy conditions, this factor can be of major importance. In the course of shooting, make a habit of first glancing to the areas next to you before narrowing your vision down to the tunnel. In this way, you will avoid irritating crossfire and shots in the wind or at a target that is stuck askew in its case. There is no need to concentrate much on your neighbor’s target, since you will not be hitting it anyway.

Heinz Reinkemeier

Sighting Picture, Sighting Cross, Spot Illumination

Figure 1:
Syrja Meidlschitter tinted the front filter of her iris white. This is to improve her sighting picture.

Figure 2:
Trevor Coffman, USA, and Michel Bury, FRA, third place winners in prone shooting at the WCH in Milan. They are both equipped with sunglasses to avoid the glaring light. The Frenchman, one of the older, more experienced and cunning shooters, has cut an aperture in the right lens of his glasses in order to see the sighting picture without a filter. Michel, by the way, has his own legendary series in prone shooting. He has entered the final at ten consecutive world cups.

Figure 3:
Variable aiming of the rifle leads to shifts in the point of impact. To avoid this sighting mistake, your eye must be offered a horizontal line, for example, which makes estimation easier.

The sighting cross strengthens the perception of the vertical dimension but is felt to be a disturbing accessory by many. In the past, a sighting bar that projected out beyond the front sight tunnel was commonly used. The longer line improves estimation.

A “bubble” or split level is probably the most accurate means of measuring an angle, although it demands greater attention and contributes to the thing of the eye. A common characteristic of all instruments used to measure angles is that they are only useful when practically adjusted on the horizontal line in the aiming position. And you have to do this on every single shot to profit from it in the end. Many old veterans such as Hubert Bichler or Michel Bury prefer this method alone, even in the prone position.

Figure 4a:
The lines in the sight picture, supportive bar and front sight ring can be firer or clearer. For bright light, somewhat thicker lines should be given preference, and for dimmer illumination, finer lines are more pleasant. In the end, you will pursue your own taste and own habit. Keep an eye on the front sight tunnel of your opponent, so you will not miss out on any revolutionary innovations.

Figure 4b:
Plastic, pinhole front sights in various colors and gray tones. With these, the space between the front sight and tunnel is darkened in various stages. The control white between the front sight and bull’s eye is relatively brighter. Whereas the filter on the diaphragm list or darkens the entire picture, the critical slit is more or less illuminated here. An interesting variation which naturally leads to completely different effects under all possible lighting conditions. Some swear by this “sport”, while others remain skeptical. Try it yourself, if you are having sighting problems or are suffering from boredom.