

# Wing Tips

A regular feature by members -- to pass along techniques & expertise

## Shadows - The supporting cast

Love those puns. Maybe that's why so few people understand the titles of my paintings? However, I know this intelligent readership is with me on this one, which introduces a few ideas about ways and means of rendering shadows effectively in paintings and drawings. Strange isn't it, that so many artists who have mastered the techniques of creating luscious and striking highlights often seem at a loss to produce equally credible shadows? Too often they have merely subscribed to a photo-like portrayal and blocked in shadows that are too opaque, or boringly monochromatic, or even black; this, when a closer look at the real thing would reveal something far more colourful and interesting. While space prevents a deeper treatment of the entire subject, here are a few tips that you might find helpful in helping you 'see', analyse, and render shadows better.

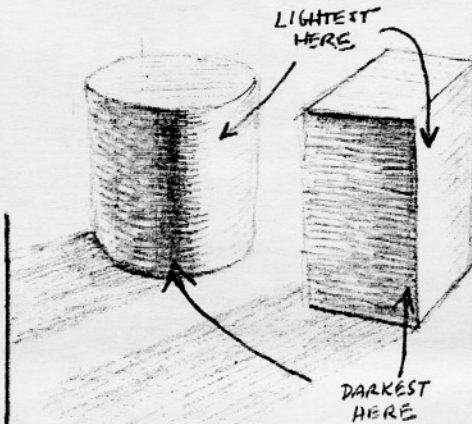
Consider first the following sketch, and note:

-Direct shadows are usually darker than cast shadows, primarily because secondary sources and reflected light tend to brighten the latter more - especially outdoors.

-Shadows tend to appear darker at the terminator: the line where light and shade are separated. This is an optical illusion caused by the brain's software, which is programmed to overreact to changes (and you can write a book on that alone).

Further to the last point, a careful observer may also note a corresponding lightening of tone on the lighted surface adjacent to the terminator. Same cause: the hyper brain. Notwithstanding the falsity of this phenomenon, it must be

made to reappear in 'realistic' paintings. In fact, a little exaggeration might even convince viewers that you are a very acute observer of reality indeed!



Now, consider the colours within shadows. Are they just a deeper tone of the basic colour of the object, or something more complex? The answer of course is (b); and again the subject may deserve a book, but here is a useful rule of thumb:

-The basic components of colour within a shadow usually consist of:

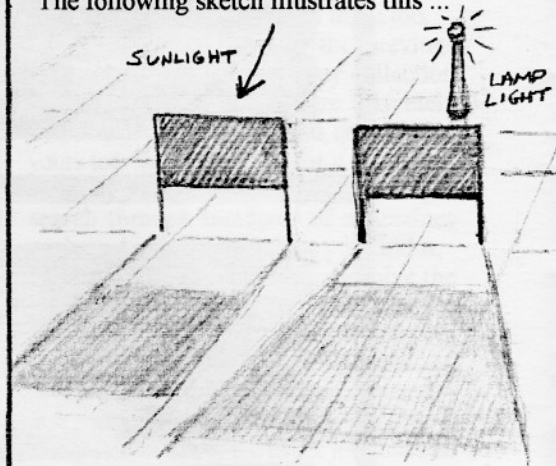
- a darker shade of the surface's basic colour;
- an element of that colour's complimentary;
- a touch of 'cooling' colour, usually blue.

Mixed together vigorously this combination should produce a pleasant mud colour, so don't do that.

Instead, experiment with using either transparent washes, or a form of pointillism wherein dots, patches, smudges, or cross-hatching are employed to enable each of the colour components to stand beside or leak through the others. Then, the eye will do the blending, and the shadow will be transparent and alive.

Train your eye to look also for the reflected lights that appear more clearly in shadowed areas than in strongly lighted ones. They too can be employed to enliven your shadows. A particular master of capturing this effect is the American aviation painter Keith Ferris, who interprets brilliantly the powerful secondary illumination that comes from indirect skylight.

While tone and colour are the most important characteristics of shadows to capture, give careful thought also to their shape, particularly the way they are influenced by the proximity of the primary light source. The sun, for example, casts a shadow much different in shape than does a spotlight. It is so far away that its light rays arrive in parallel lines, as opposed to the divergent ones emanating from nearby sources. The net result is that shadows cast by a sunlit object remain essentially the same width regardless of the distance of the object from the surface receiving its shadow. Which explains why the width of the shadow an aircraft casts on the ground is always its own actual size. The height of the shadow will, of course be dictated by the obliquity of the sun's rays; but then again, it will not be as exaggerated as if it were created by a closer light source. The following sketch illustrates this ...



Well, I lied to you: the sun's rays are parallel all right, but since it has a nominal measurable width (unlike a star), there is a very slight divergent effect which produces a narrow half-shadow or penumbra around the perimeter of the major one. So, you can fuzz the edges a bit if you wish. Some artists define this narrow zone with a slightly darker tone of the colour of the basic unshadowed surface to create a more interesting effect.

I hope this very brief primer on shadows has convinced you of at least one thing: they deserve more than just casual attention or second hand treatment. And, as always, it's mainly a matter of sharpening your powers of observation and of developing further understanding of why things look as they do. — DJC