

Reflection *when and why to show reflections in your design*

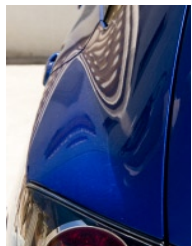
reflections you are showing the form of the surface.

This leads on to different forms requiring different treatments. If your design consists of flatter surfaces and sharp intersections, the form can be communicated more easily using gradients than by hard reflections. In this case if you want the surface to appear reflective you can apply mirror images of the environment. Flatter surfaces don't distort their reflections as much so a mirror image is appropriate. A good example of this is the difference between windscreen and side windows. The much flatter side glass acts more like a normal mirror whereas on a curved windscreen you need to show much more distortion.

You only need to suggest an effect for the rest to be filled in by the viewer. If you show reflection on part of the surface then the rest of the surface will be perceived as reflective also, unless there is an obvious material change.

Being able to depict reflections in your sketches is a very useful skill because it allows you to combine reality with description in all of your illustrations. These two things both communicate and sell your idea because they allow the viewer to believe and understand your proposal.

Whether or not you use reflections in your design has a lot to do with the level of description you are aiming for. Usually the bodywork of a car is very reflective and shiny so if you want a realistic looking rendering you should show at least some reflection.



A lot of reflected detail can be time consuming and unnecessary

The reasons for making your sketch or rendering look realistic have a lot to do with your purpose for the sketch. Let's assume you've decided you want to depict what your car would look like in real life so that non-designers can appreciate it. If you want your car to have dull matt paintwork and want to avoid reflections for that reason, then you will have an easier time showing how it will look. In this case you can make a realistic

rendering just using tonal variations to show light and shadow.

For efficiency's sake you may want to avoid adding unnecessary reflections. Having a horizontal ground reflection line running along the body-side of your car is useful and helps illustrate the form. It is something that you almost always

see, in some degree, on a real car. Putting trees or buildings on this horizon can be a convincing effect if executed well, but is unnecessary because in reality this doesn't happen all the time.

Another thing you often see reflected in car bodywork is point lighting - points of light which are direct reflections of either the sun or artificial lighting. This heightens the impression of a high gloss finish because it's an effect you don't get otherwise.



A simpler environment will be easier to render and describes the surface just as well

Before getting too involved in tricks however, you should be able to show a reflective surface simply by using the difference between two imaginary tones in the car's environment. A normal scenario is ground and sky, light and dark. Showing a reflective surface is simply a case of showing how these highlights and lowlights would be reflected by it. You need to look at real reflective surfaces and see where there are sharp blocks of colour and where there are gradients. If there isn't a sharp line in your environment between the two tones, there won't be any sharp edges to the reflections on the surface. The contours of the surface create the shape of the blocks of colour and the gradients between them so by showing



In this example of a quickly rendered sketch, only basic reflections are used to communicate the design. The car shows it is in an environment with a sharp horizon line and a dark background which reflects in the far side of the bodywork. Hints of reflected blue sky and beige ground tone are added because it is a quick, easy and effective. There are no trees, buildings or mirrored details as they are not necessary. The small reflection above the front wheel-arch is useful because it is communicating a tight radius in that area.