

Roller Perspective

by Fred Truck

Copyright © 2016 by Fred Truck

When I was a child, riding in our fast-moving 1948 Chevrolet Fleetmaster sedan seemed to be an amazing event.

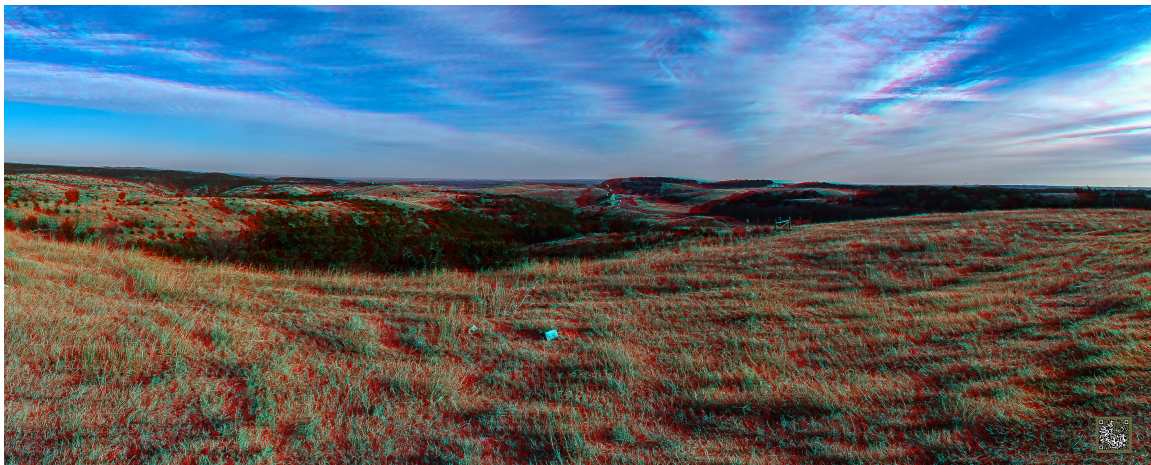
As I looked at the horizon, the sky actually moved forward towards toward a vanishing point and then somehow it pivoted as if on a roller, and came roaring back at us in the form of the road, slipping under the car and disappearing behind us.

In other cases, when the sky was vast and blue without a cloud, it seemed to stand still, while the road continued to pass under the car on to the past.

I call this “roller perspective.” You can experience this yourself by driving down a long, straight road.

I've looked at scientific papers on perspective and motion, but it is the experience of roller perspective that interests me. Not the mathematics.

I found a way to communicate roller perspective through a panorama I recently made in Kansas, which I processed with my own 3D methods. To see this image correctly, you'll need red/cyan glasses used for seeing anaglyph images. Though this image is a still picture, the sky seems to disappear at a point of convergence on the horizon, transform into the land, which comes off the picture plane towards you.



You can verify this for yourself by moving your cursor to the top of the picture. Notice how there is no difference, depth-wise, between the blue of the sky and the white of the paper space?

Now, move the cursor to the bottom of the picture and notice the huge difference in depth between the land and the paper space.

Another way to experience this effect, but with motion, is to watch the in-car camera during a NASCAR stock car race, particularly on the Daytona or Talladega tracks. Roller perspective isn't available all the time during races, but sometimes, as a single car roars down the back straightaway, the in-car camera will catch the sky converging on the horizon as the track surface is eaten up under the car. Or sometimes, the field of blue sky will stand still as the car hums along at 200mph.

Fred Truck—3-6-16