

Wagon Wheels

In Laramie, Wyoming, over a round of blackberry Margarites, I met a man who confessed to me that he didn't go to the movies. Now this isn't so strange of itself. What was strange was the reason he gave for it.

"Yup. I don't go to the movies because of the wagon wheels. Whenever I used to see a Western, the spokes on the wagon wheels would go backwards. I figured this was a lie; and if in this day and age when there is so much wonderful technology around, they can't make the spokes go forward they way they ought, then all the movies are a pack of lies and there'd be no reason for me to go to them."

Well, this was a new one for me. I figured that the man was a Westerner with a deep and abiding love for the wagon wheels of his youth. I was wrong. He was from Pennsylvania. He had been the County Chair-

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man of the Republican Party and was eccentric only in so far as he put the lie to my stereotype of Republicans as always espousing the backward movement of wagon wheels.

I told the man that the backward movement of wagon wheels was a well known phenomenon in signal processing engineering known as "aliasing". It was due to the relative frequencies of the camera frame speed compared to the spoke frequency. He didn't understand my explanation.

"Of course it's well known. Any damn fool can see that the wheels are going backwards. And I don't care what it's due to. All I want is for them to clear it up. "

I didn't care one hoot about wheels in movies,
so I tried again:

"It's the strobe effect. Suppose you shine a stroboscope on a fan. If the flashes are just a bit in advance of the fan, each flash lights up a blade at a slightly earlier position and so you get the illusion of the fan moving backward very slowly."

Still no luck. I tried once more in desperation.

"You know, it's easy to make time appear to go backward. For example, when I came to Laramie from

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Salt Lake, I came from Spring into Winter, which is not the normal progression of the seasons, and I had a momentary feeling of time going backwards."

This seemed to strike a resonance in him:

"I had the same feeling myself."

"You know, if you followed the seasons around the world in the wrong sense, you would be under the constant illusion that time was going backwards."

"How is that?"

"It's a cinch. The seasons in Australia are opposite to what they are here. If you were in the U.S. on September 21st, it would be fall. Travel gradually to Australia and arrive there on December 21st. It will be summer. Travel slowly back to the U.S. By March 21st, it will be spring. Return to Australia by June 21st and it will be winter. The seasons are moving backward."

"Well, I'll be."

"Therefore, the order in which cyclic events are observed depends very much on how the observer observes them. So what's real and what's illusion?"

"You've restored my faith in the Westerns. Who came after Tim McCoy?"

"Tom Mix, I think. There are limits. As you fly

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back and forth nonchalantly from the U.S. to Australia in reversed order, your hair gets greyer and greyer."

"Then I don't see a Fountain of Youth in your scheme."

"I'm afraid not. You can't regenerate a linear time scale. You need something circular. That's the Indian theory of constant rebirth."

"Didn't I read that Einstein predicted that if you could travel around the universe at very high speeds you would really be younger than if you stayed at home?"

"So he said. But you don't really need to take a fast snowmobile through the cosmos in order to make it happen. If you come to Salt Lake, time will slow down for you. One day will equal three months."

"You're right. I've been there. Say, isn't that time speeding up? Three months in one day?"

"Comes to the same thing. You can get the same effect with Wagner's operas. Mark Twain noticed it. He said that the curtain rose on Parsifal at 8:00 PM. Three hours later he looked at his pocket watch and it was only 8:10."

"My wife's relatives in Cleveland are just like Parsifal. That's why she's there and I'm here. I'm taking me a white water trip down the Snake River in Idaho."

"Time is tricky. Any juice left, John?"