13:10:57 OK then I've got something wrong with my [Project 3] lighting

For everyone else, the correct way to do the P3 lighting is:

Normal = RotateNormal( angx, angy, Normal );
Normal = normalize( gl_NormalMatrix * Normal );

That is, after perturbing the normal vector, be sure to transform it and normalize it.

13:32:37 So the second sphere is to show the difference in sampling in s and t vs sampling in x y z?

That's correct. Good way to say it.

13:36:29 This is the video for the avatar attraction in Disneyworld. Spoiler Alert if you don't want to see it before hand:

https://www.youtube.com/watch?app=desktop&v=WEd5UonWJQ8

OMG, what an amazing use of dome projection! Thanks, Franchesca!
Disney California Adventure has Soarin’ Over California: https://disneyland.disney.go.com/attractions/disney-california-adventure/soarin-over-california/
Seattle has Wings Over Washington: https://www.wingsoverwa.com/
One of these just opened up in New York City, RiseNY: https://www.riseny.co/tickets