

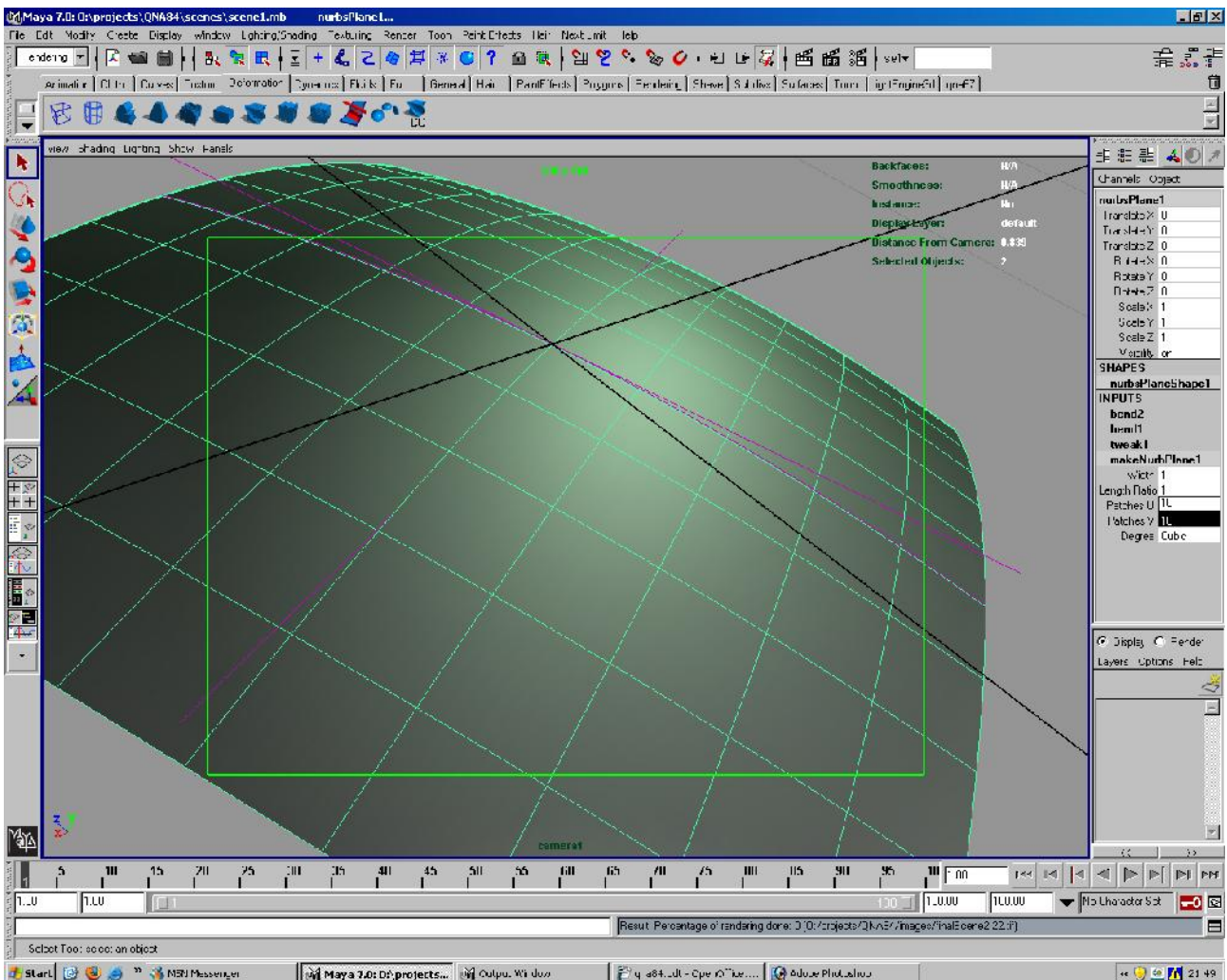
Maya
QNA_86

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Question:

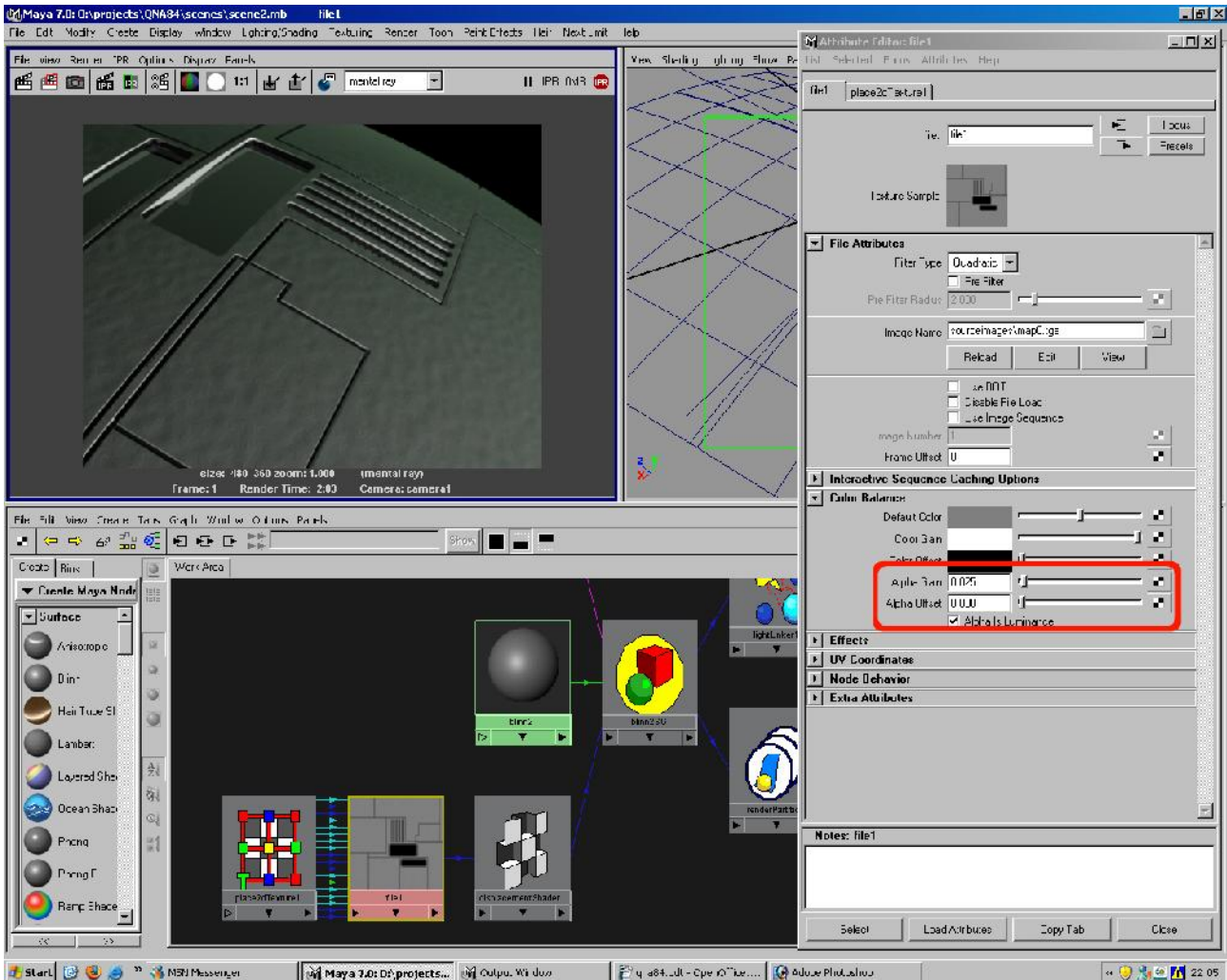
How do you animate displacement maps in Maya? Southern Boy – the forums

Why We Displace



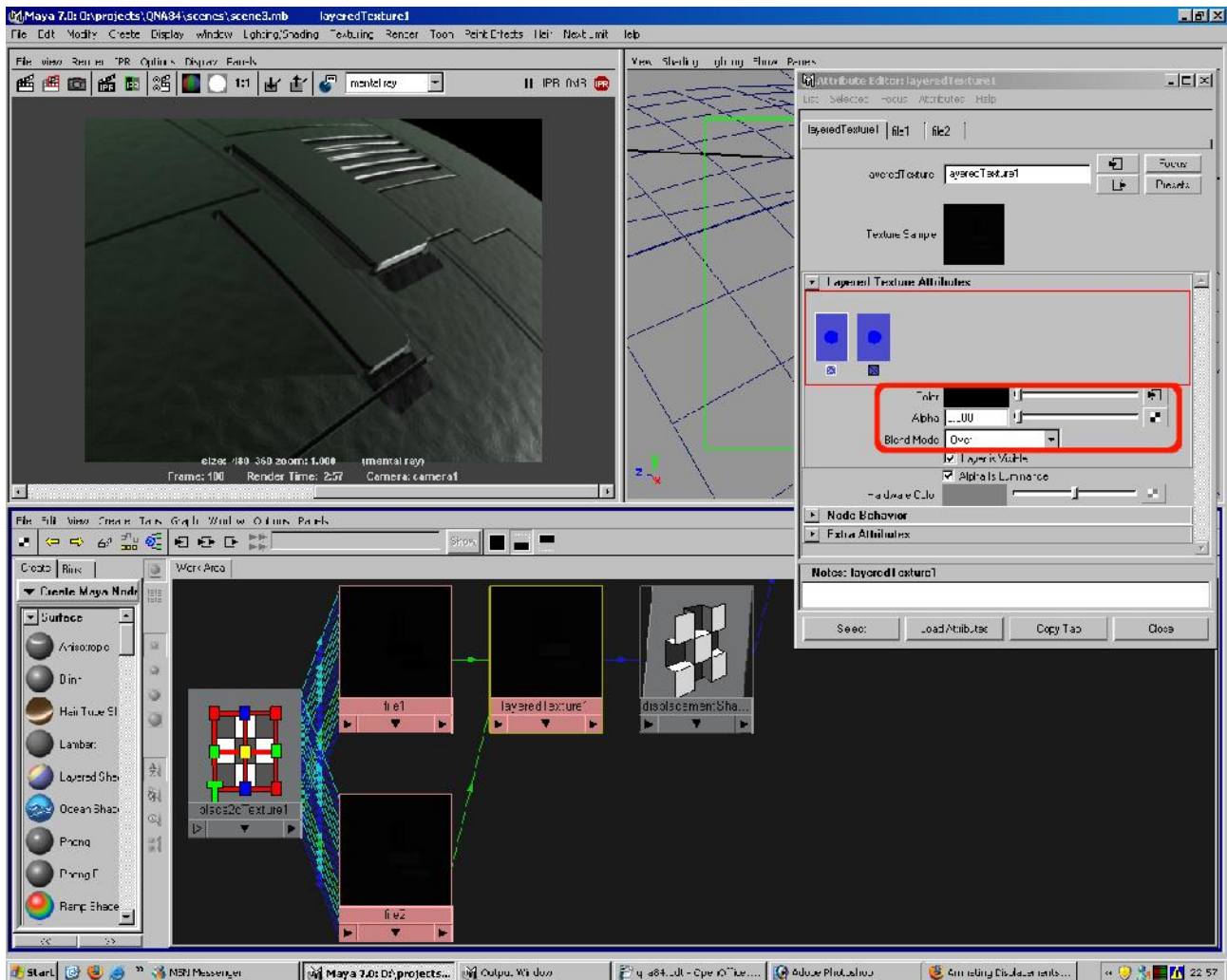
Displacements are used in 3D to add surface detail where there is none. And sometimes you want them to change from one map to another in conjunction with, say, an animating deformer. This method is used very intensely in facial animation requiring multiplyDivides nodes by the sack load. Here we will lay down a basic principle using two different maps and my favourite node, blendColors to connect them and animate between them. Open scene1.mb

Adding One Displacement



You can see a bent surface with no detail. Let's put some on it. In the hypershade, select the blinn2SG and in the Attribute Editor connect a file node to its displacement using map0.tga as the displacement. This connects the image's luminance or alpha into the shading node. Using Mental Ray, render camera 1. Note the displacement is too high. In the Color Balance Roll-down set the Alpha Gain to .025.

Combining two displacements



In the hypershade duplicate file1 using **Edit > Duplicate > With Connections to Network** changing file2 to map1.tga. Create a layered texture. Connect its outAlpha to the displacementShader1.displacement. Connect file1 and file2 to the layered texture in that order. The layeredTexture.outAlpha comes from your maps' colour and it's too high. Setting each maps Color Gain to .025 fixes this. Animating file1's Alpha in the layered texture gives the required result.

TIP: Maya's feature Displacement, don't use it, ever! If you have to render with Maya, use nurbs and increase their render time tessellation for faster results