

Topic: Human Head Modeling for Facial Animation

Name: Qiao Yang

Unit: MA 3D Animation

Reference

This tutorial shows how to model female head, but the topology is really good for male too.

Antti, L., 2007. *3D Modeling a Human Head*. Second Picture. Available from: http://www.secondpicture.com/tutorials/3d/3d_modeling_an_eye_socket_in_3ds_max.html [Accessed 5 May 2010].

From this PDF I learnt how to do modeling from drawing the profile.

Future Publishing, 2008. *Model The Perfect 3D Face*. England: Future Publishing. Available from: http://www.computerarts.co.uk/__data/arts_pdfs/cap56_3dface.pdf [Accessed 5 May 2010].

This character was done by MAYA by extruding polygons piece by piece, and I learnt another way to do modeling from it.

Hatice, B., 2009. *Head Modeling in 3ds max*. 3d2dizayn Team. Available from: <http://www.cgarena.com/freestuff/tutorials/max/headmodeling/index.html> [Accessed 20 Apr 2010].

This tutorial has a lot of details and is quite helpful for modeling.

James, M., 2005. *Modeling a Female Head tutorial*. Free 3D Tutorials. Available from: <http://www.free3dtutorials.com/modeling/maya/modeling-a-female-head-tutorial.php> [Accessed 5 May 2010].

This is one very old tutorial. It used curves to do modeling. From this one I found how modeling method has changed during the past years.

Jeremy, B., 1996. *Nurbs Head Modeling*. 3D Render. Available from: <http://www.3drender.com/jbirm/ea/HeadModel.html> [Accessed 1 May 2010].

From this page I found some information about how emotion affects facial expressions.

Joseph, C., 2003. *Theories of Emotion And Emotional Expression*. Corel Corp. Available from: <http://www.face-and-emotion.com/dataface/emotion/theories.jsp> [Accessed 12 May 2010].

This is one medical site from where I found some useful images of facial muscles.

Nucleus Medical Media, 1999. *Adult Skull 3D*. Georgia: Nucleus Medical Media. Available from: <http://catalog.nucleusinc.com/generateexhibit.php?ID=2436&ExhibitKeywordsRaw=&TL=&A=2> [Accessed 20 Apr 2010].

In this article, the writer told us how to do modeling by comparing good and bad examples.

Phung Dinh, D., 2008. *Realistic Human Face Modeling*. Available from: http://www.phungdinhdung.org/Studies_paper/Realistic_face_modeling.shtm [Accessed 10 May 2010].

This is another site for facial muscle reference.

Smart Imagebase, 1999. *Muscles of the Face*. Ipswich: EBSCO Publishing. Available from: <http://ebSCO.smartimagebase.com/muscles-of-the-face-facial-muscles/view-item?ItemID=9300> [Accessed 20 Apr 2010].

From this PDF I found how muscle connects to bones and skin.

Steven, S., 2005. *Character Modeling*. Australia: Balistic Publishing.
University of Colorado, 2005. *Muscles of Facial Expression*. Colorado: University of Colorado. Available from: <http://www.colorado.edu/intphys/iphy3415/oia3e.pdf> [Accessed 10 May 2010].

From this page I found some basic information of facial muscle.

Volker, b., 2008. *Facial Animation and Modeling*. Germany: Mzx-Planck-Institut. Available from: <http://www.mpi-inf.mpg.de/resources/FAM/> [Accessed 5 May 2010].
Wikipedia, 2009. *Facial Muscles*. England: Wikipedia. Available from: http://en.wikipedia.org/wiki/Facial_muscles [Accessed 2 May 2010].