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DIGM 620 - Digital Media Workshop - October 05 2013

For my workshop project, I would like to generate preliminary digital assets that will serve my thesis project as it develops. The thesis project will revolve around a digital interpretive visualization of an extinct organism, the Devonian placoderm fish *Bothriolepis*. I have permission to scan a collection of these fossilized fish currently held at the Academy of the Natural Sciences. This collection will play an important role in my eventual thesis project and having digital models of them will be a useful asset.

To generate reference material, I would like to explore the possibilities of digital photogrammetry. Digital photogrammetry software sifts through a series of photographs of an object, picks out overlapping regions, and generates a 3D point cloud which then can be transformed into 3D geometry. I will be using Autodesk's 123D Catch primarily, though I might explore other open source alternatives. I would like to spend some time not only generating photogrammetric models, but processing and cleaning up for use in a 3D software package.

In addition, I will generate storyboards and or animatics in order to assess the length, shot sequence, and scope of the animation. Having the storyboards will also inform a secondary task of generating environmental props for animation. These will include Devonian plants, submerged stones, caustic lighting effects, and water effects. These will be based on current research of the Devonian environment.

Main Deliverables:

- (Main priority) Generate a series (3-4) of digitized 3D fossils presented either through an animated turntable or embedded on a website.
- (Main priority) Generate storyboards and or an animatic for the animation
- (Secondary priority) Extraction of forms from the fossils to generate 3D organism models (Adult & Juvenile)
- (Secondary priority) Develop 3d environment props (4-5)

Goals:

- Become better acquainted with the digital photogrammetry workflow
- Generate assets and reference material to support thesis project
- Establish length, shot sequence, and scope of final animation

Brief timeline:

- **Week 3 - Oct. 7th**
    - Gather reference material for environmental assets
    - Generate storyboards
- **Week 4 - Oct. 14th**
    - Carry out first photoshoot @ ANS/ import into 123D Catch
    - Prop concepts
    - Generate storyboards
- **Week 5 - Oct. 21st**
    - Process & Clean up scans

    - Arrange second photoshoot if necessary
    - Prop modeling
    - Generate storyboards
- **Week 6 - Oct. 28th**
    - Process & Clean up scans
    - Arrange second photoshoot if necessary
    - Prop modeling
    - Generate animatic
- **Week 7 - Nov. 4th**
    - Retopologize scans
    - Prop UV wrapping
    - Generate animatic
- **Week 8 - Nov. 11th**
    - Extract forms
    - Prop texturing
    - Generate animatic
- **Week 9 - Nov. 18th**
    - Extract forms
    - Prop texturing
- **Week 10 - Nov. 25th**
    - Generate presentation turn-tables
- **Week 11 - Dec. 2nd**
    - Generate presentation turn-tables