# University of Texas High-Resolution X-ray CT Facility Archive

# Lyson:

# DMNH95284\_: Scan of a mammalian skull encased in a concretion (DMNH 95284; Denver Fm.; Early Paleogene; El Paso Co., CO) for Tyler Lyson of the Denver Museum of Nature and Science. Specimen scanned by Matthew Colbert on 7 October 2016.

# 16bitTIFF: Scan parameters: NSI scanner. Fein Focus High Power source, 200 kV, 0.13 mA, aluminum filter, Perkin Elmer detector, 0.25 pF gain, 1 fps, 1x1 binning, no flip, source to object 492.0 mm, source to detector 1316.851 mm, non-continuous CT scan, 3 frames averaged, 0 skip frames, 2420 projections, 5 gain calibrations, 15 mm calibration phantom, data range [-5.0, 22.0] (grayscales adjusted from NSI defaults), beam-hardening correction = 0.4. Voxel size = 90.9 μm. Total slices = 1927.

# 8bitJPG: 8bit jpg version of the above images.

# Specimen photos: jpg photos of the specimen.

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# Lyson:

# DMNH95284: Scan of the skull of a fossil mammal (DMNH 95284; Denver Fm.; Early Paleogene; El Paso Co., CO) for Tyler Lyson of the Denver Museum of Nature and Science. Specimen originally scanned encased in a concretion in October, 2016. Specimen re-scanned by Matthew Colbert on 27 September 2017 after preparation.

# 16bitTIFF: Scan parameters: NSI scanner. Fein Focus High Power source, 180 kV, 0.15 mA, aluminum filter, Perkin Elmer detector, 0.25 pF gain, 1 fps, 1x1 binning, no flip, source to object 465.0 mm, source to detector 1317.262 mm, continuous CT scan, 2 frames averaged, 0 skip frames, 2650 projections, 6 gain calibrations, 15 mm calibration phantom, data range [-5.0, 35.0] (grayscale adjusted from NSI defaults), beam-hardening correction = 0.4. Post-reconstruction ring correction applied by Jessie Maisano using parameters oversample = 2, radial bin width = 21, sectors = 32, minimum arc length = 8, angular bin width = 9, angular screening factor = 1. Voxel size = 82.7 μm. Total slices = 1925.

# 8bitJPG: 8bit jpg version of the above images.

# Specimen Photos: jpg photos of the specimen.