

PLUTO AND CERES—ILLUSTRATED. J. T. Keane¹; ¹Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, CA 91125, USA (jkeane@caltech.edu, @jtuttlekeane).

Summary: As scientists and engineers have explored the solar system, artists have remained in lockstep, illustrating both new discoveries and envisioning the yet unseen strange new worlds further out [1]. While hand-drawn illustrations used to be part of the scientific process, we now live in the age of PowerPoint, Paint, and Illustrator. Hand-drawn illustrations have generally fallen by the wayside in scientific works. In this work, I will present a collection of original sketches and illustrations detailing new results from the *Dawn* mission to Ceres, and the *New Horizons* mission to Pluto, Charon, and beyond. Figures 1-3 show examples of these sketches. I posit that hand-

drawn illustrations still have a place in scientific work, and are a powerful tool for public outreach, education, and engagement.

While I have illustrated a variety of different solar system objects, Ceres and Pluto are particularly interesting for a variety of reasons. Over the past three years (since *Dawn*'s orbital insertion at Ceres, and *New Horizons*'s flyby of Pluto), both Ceres and Pluto have transformed from distant pinpoints of light—only a few pixels across—into fully-fledged, dynamic worlds, replete with their own unique histories. These two dwarf planets are past (Ceres) and present (Pluto) ocean

Figure 1: Three years of sketches of Pluto, as revealed by New Horizons. Artwork by the author.



