Daniel Morehouse and the Comet's Tale

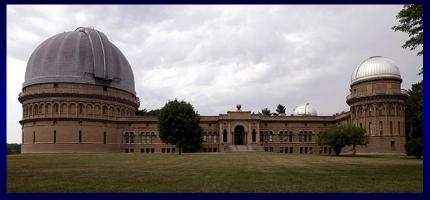
Charles Nelson Drake University

October 23, 2008

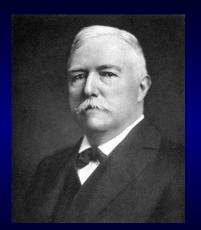
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Daniel Morehouse (from the online exhibit)



Yerkes Observatory — www.saveyerkes.org





E. E. Barnard and the Bruce Photographic Telescope at Yerkes Observatory



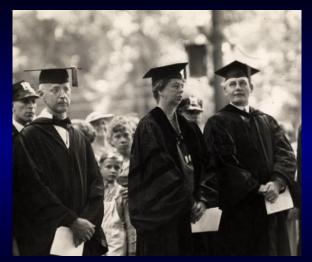
An early picture of Comet Morehouse



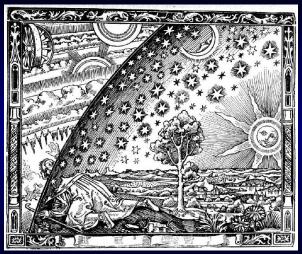
Lick Observatory — www.ucolick.org, photo credit Laurie Hatch



Drake University Municipal Observatory (from the online exhibit)



With Chemistry Professor Rider and Eleanor Roosevelt, Drake University Commencement 1936 (from the online exhibit)



Flammarion Woodcut — Camille Flammarion's L'Atmosphère: Météorologie Populaire (Paris, 1888)



Dr. Morehouse joking with poet Louis Untermeyer in 1940 (from the online exhibit)



Donati's Comet — Camille Flammarion, Populär Astronomi (1897)

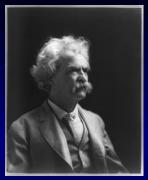


Bayeux Tapestry depicting the Battle of Hastings including Halley's Comet in 1066



The great comet of 1577 over Prague on November 12, engraving by Jiri Daschitzky. (Photo from the collection of Don Yeomans, NASA/JPL.)



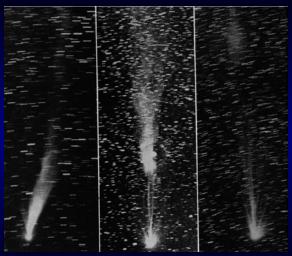


I came in with Halley's Comet ... It is coming again ... and I expect to go out with it ... The Almighty has said, no doubt: 'Now here are these two unaccountable freaks; they came in together, they must go out together.'

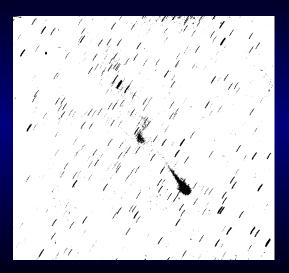
Halley's Comet 1910 in the New York Times and Mark Twain (www.cmgww.com/historic/twain/)



Comet Morehouse Nov. 16 1908 — Sky and Telescope, Dec. 1959

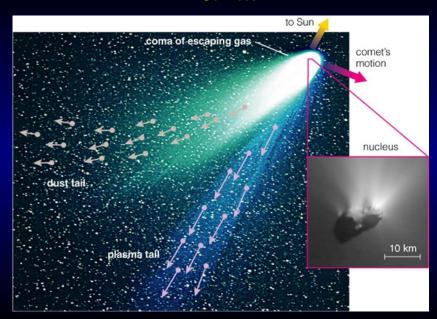


Evolution of the tail of Comet Morehouse 9/30, 10/1, 10/2 1908 E.E. Barnard Yerkes Observatory

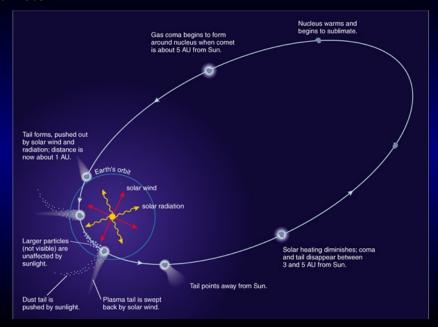


Disconnection event Oct. 15, 1908 — Indiana University

Comets



Comets



Comets

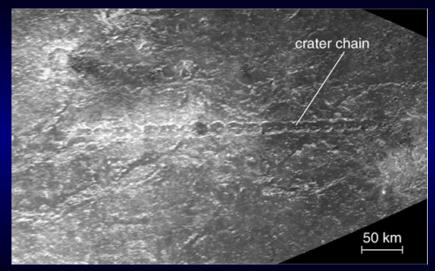




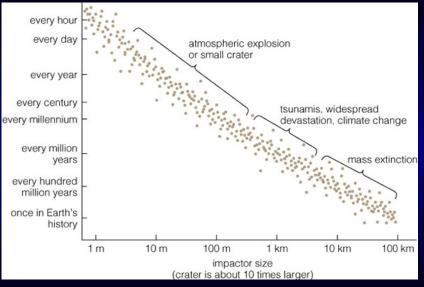
Comet Shoemaker-Levy 9 — Hubble Space Telescope



Impacts of Comet SL 9 on Jupiter — Hubble Space Telescope

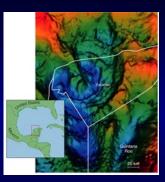


Crater Chain on Callisto — NASA



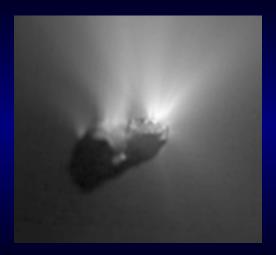
Taken from The Cosmic Perspective, Bennett et al. 2004





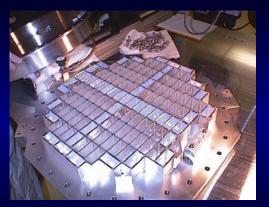
The K-T Boundary and the Chixulub Crater — *The Cosmic Perspective*Bennett et al. 2004

Space Science



Nucleus of Halley's Comet from the Giotto, ESA

Space Science





Aerogel array and particles from the tail of Comet Wild 2, Stardust Mission ESA/NASA

► Seyfert and starburst galaxies, quasars:

- collaboration with current students Jordan Mirocha, Julie Leifeld, Kory Kreimeyer.
- $-\mathcal{M}_{\bullet}-\sigma$ relation.
- Hubble Space Telescope spectra of NGC 1068, NGC 4151.
- Star formation in interacting galaxies.
- Quasar imaging and spectroscopy.

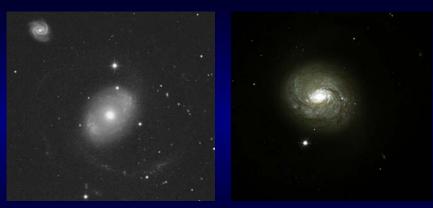
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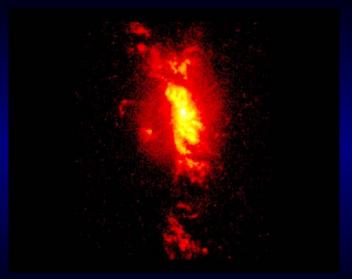
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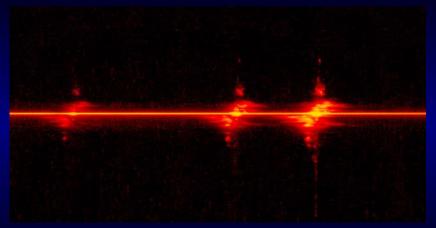
NGC 4151 and NGC 1068

Current Astronomical Work at Drake



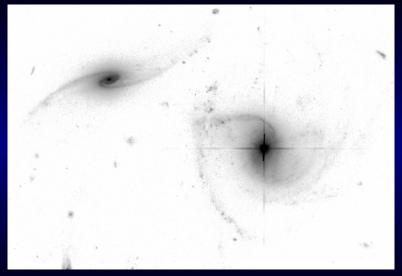
 $\left[\text{OIII} \right]$ image of NGC 4151 with Hubble Space Telescope

Current Astronomical Work at Drake



Longslit spectrum of NGC 4151 with Hubble Space Telescope

Current Astronomical Work at Drake



Quasar PG 0804 and companion galaxy — Hubble Space Telescope

- ► Renovation: 1998 2002.
 - new dome shutters.
 - dome reshaped back to round.
 - carpeting and central air.
- Efforts of community to save observatory.
 - Madelyn Levitt: over \$200,000 toward renovation.
 - Special acknowledgment to Dr. Tony Marston, Waveland Neighborhood Assoc., Des Moines Astronomical Society.
 - Many others!!!

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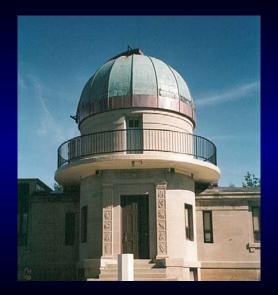
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Recent Comets



Comet Hale-Bopp over Boulder Colorado

Recent Comets



Comet McNaught 1/19/2007; Siding Spring; photo credit Robert McNaught

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Comet Hale-Bopp Over Val Parola Pass , Dolomite Mountains, Italy Credit: A. Dimai (Col Druscie Obs.), AAC