Astronomical Sketching

by Erika Rix
Contemplating Sketching?

Benefits of sketching at the eyepiece
- Improving visual observing skills, really studying and then remembering object
- Visual record of observation
- Connection, Peacefulness, Relaxation

What’s important to you?

Interested?
What’s holding you back?
Targets

- Sketching Media
- DSOs, Comets, Asteroids
- The Moon
- Planetary
- The Sun
Sketch Media... they’re not all the same

- Various paper
- Pencils, chalks, charcoal, pens....
- Erasers
- Stumps, tortillons, and smudgers
- Sharpeners
- Digital pads and photo-editing software
- Lighting
- Templates
- Supply stores

Comfort is top priority
Various Media
Make use of Templates

Saves Time
Accuracy
Tidiness
Star Fields and Smudges

- Anchors
- Study object
- Lay target foundation
- Finish star field
- Study again
- Add finishing details
- Take notes

Erika Rix
Prepare template

Open fields
verses
templates

Template by Jeremy Perez
Perez Media
Collinder-399
20070929

Anchor stars
Triangulate

White copy paper
Fine point black felt pen
# 2 pencil

Remember to think in the negative.
Main pattern

.5 mm mechanical pencil
# 2 pencil
Collinder-399
20070929

Work in wedges

.5 mm mechanical pencil
.3 mm mechanical pencil
Collinder-399
20070929

Work in wedges

.5 mm mechanical pencil
.3 mm mechanical pencil
Collinder-399
20070929

Work in wedges

.5 mm mechanical pencil
.3 mm mechanical pencil
Collinder-399
20070929

Scan and clean up
Collinder-399
20070929  0100-0146 UT

Invert

Orion ED80, LXD 75, 40mm Pro Optic eyepiece, moonlight ended session.
Faint Fuzzies

You can easily add soft celestial bodies with a loaded blended stump.
4 Vesta tracking
by Michael Rosolina

4 Vesta 4 Jupiter Conjunction

Notes: Vesta passing less than 30 arcminutes north of Jupiter. Estimated magnitude about 7.4-7.5 using star comparison. Galilean moons appear much brighter than Vesta. Callisto east of Jupiter--Io closest to Jupiter's west limb preceded by Ganymede and Europa respectively.
NGC1404 & S 634/ADS 8444
by Eric Graff

NGC 1404
Elliptical Galaxy in Fornax

Right Ascension (2000.0): 03h 38.9m
Declination (2000.0): -35° 36' 36"
Dimensions: 4.0' x 3.3'
Magnitude: 9.7
Surface Brightness: 12.6
Position Angle: 170°
Hubble Classification: E1
Distance: 77 million light years

Observer: Eric C. Graff
Date/Time: 23 December 2006, 5:00 UT
Transparency: NELM 6.5
Seeing: Pickering 8
Location: Oakzanita Springs (4,000 ft.)
Telescope: 6-inch f/6 Reflector
Magnification(s): 30x, 60x, 120x
Filter(s): None

S 634 (ADS 8444)
Double Star in Corvus
Parks Astrolight EQ6 + 6" f/6 Newtonian Reflector
7.5mm Parks Gold Series Pössl + 2x Barlow + 240x, 13' FoV
No Filter
14 April 2007, 05:00 UT
Sketch by Eric Graff
The Moon

- Choose your target
- Easier to sketch away from terminator
- Lay anchor
- Add shadows
- Lay background foundation
- Work in layers
- Retouches
- Take notes

May 17, 2005
ETX70 AT

November 12, 2005
10” LX200

Erika Rix
Complex Crater near Terminator

Anchor

White Rite in the Rain paper
8x11.5”
Charcoal stick with holder
Add shadows

Stick of charcoal

*The terminator moves quickly, so add the shadows near the beginning stages of your observations.*
Blend shadows

Small blending stump

*Most shadows have a smooth appearance.*
Additional shadows added

Charcoal stick with holder
Additional shadows added and blended

All with a blending stump.

*Loaded blending stumps are very useful in adding softer features such as nebulae and features on Mars and crater floors.*
Lay background foundation

Loaded finger

Loaded fingers add soft backgrounds in layers. With the correct paper, this can also be useful for rendering grainy textures. Blending stumps produce a smoother texture.
Additional detail layers

Stick of charcoal
Additional detail layers

Stick of charcoal
Soften detail layers

Blending stump and fingertips
Add finishing touches

LX200, 12mm Burgess, WO Binoviewers
Copernicus
by Rich Handy

Copernicus, Reinhold and the Montes Carpatus at lunar sunset.

Date: 8-28-05
Start- 4:15 am End: 5:40am PDT
Scope: 12" Meade SCT
Eyepiece: 40mm Plossl
Barlow: 2X Televue
Magnification: 152X
Seeing: 7-9 of 10
Transparency: 9 of 10
Medium: White Conte' Crayon on black textured Strathmore paper.
Size: 17.5" x 23.5"
Copernicus by Thomas McCague

Black Strathmore 400 Artagain paper, 9"x 12", white and black Conte'pastel pencils and a blending stump. Brightness was slightly decreased and contrast increased after scanning using Microsoft Office Picture Manager.

Telescope: 10 inch f/5.7 Dobsonian and 6mm eyepiece
Date: 2-16-2008 8:45 - 10:50 UT (actual sketching time was 60min.)
Temperature: -10°C (14°F) clear, calm
Seeing: Antoniadi III
Co longitude: 24°
Lunation: 9 days
Illumination: 71.9 %
Phase: 64°
Copernicus
by Eric Graff

Lunar Impact Crater
Parks Astrolight EQ6 •
6" f/6 Newtonian
Reflector
7.5mm Parks Gold
Series Plössl + 2x
Barlow • 240x
Field of View Not to
Scale
21 September 2007 •
03:05-04:15 UT
Copernicus
by Kris Smet

Belgium

2007 04 26

8" dob-tube on a
Meade 10" Starfinder
mount
Full phase

by Erika Rix

2007 01 03
0215-0420UT
Orion ED80, LXD75
20mm Kellner w/diagonal
Lunar Filter

Lunation 1039
Lunar day 13.51
Lumination 99.7
AZ +94deg3’
Alt +52deg28’
T: 3/6, S: A III
Temp: 30f/-1C
Humidity: 75%
W: 4mph SSE

Black Strathmore Artagain
White Conte’
Moon & Venus
18 June 2007
by Sally Russell

White pastel, white watercolour pencil & white acrylic on blue 'Daler-Rowney' Ingres paper

Sketch size 8" x 11"
Naked eye eclipse
by Carlos Hernandez

2008-02-21

Computer generated sketch based on observation
Moon – Saturn

by Sally Russell

England

Pastel, pastel pencil and watercolour pencil on black Canford paper, sketch size 6" x 11"
Purbach, Regiomontanus, Blanchinus, Werner & Aliacensis
_by Sally Russell_

England

12 Dec 2006

White Conte pencil plus white pastel on black 'Canford' paper, sketch size 11" x 8"
Schiller composite

Sally Russell 28 Apr 07  11.36 days
Michael Rosalina 29 Jun 04  11.21 days
Rich Handy 31 Dec 06  11.3 days

Eric Graff 2 Dec 06  11.22 days
Jeremy Perez 4 Sep 06  11.39 days
Erika Rix 18 Jun 05  12.21 days
Eclipse Animation

Sketch sequence by Rich Handy

Animation by Erika Rix
Planets

- Templates helpful
- Study first
- Sketch quickly
- Layers
- Take notes

Sol Robbins
Jupiter
20060528

Choose a template or create your elliptical planet outline

Rite in the Rain paper
Bands added as anchors

Eraser shield
#2 pencil
Add slower moving polar regions

#2 pencil
Blend with fingertip
Add equatorial belt details

#2 pencil

Sketch quickly, these areas move fast. You could start with preceding limb before it disappears if pressed for time.
Europa’s shadow added

#2 pencil
Europa transit added

White vinyl eraser
Eraser shield

The satellites themselves can be difficult to see. If spotted, you can erase them into the sketch.
Highlights

White vinyl eraser

Clean up any stray markings.
Jupiter
20060528  0145-0230 UT

LX200, 8mm TV
Plossl, 18mm
Meade W, blue filter
Jupiter by Sol Robbins (left) and Eric Graff (right)
Jupiter
by Rich Handy

5:57 UT until 6:35 UT Date: 7-12-07    Seeing: Antoniadi II Weather: clear

Telescope: Meade 12 SCT, f/10, Binoviewer: W.O. Bino-P with 1.6X nosepiece,W.O.
45 degree Erector Diagonal
Eyepieces 18 mm W.O. Plossl, Magnification: 271X

Medium: Colored Conte’ pencils and colored chalks on 9” x 12” Strathmore Artagain
black paper, Sketch size: 9” x12” Jupiter's disk is about 5” in diameter
Mars by Eric Graff

San Diego, CA

30 September 2007
12:30-13:00 UT

Parks Astrolight EQ6
6" f/6 Newtonian Reflector
7.5mm Parks Gold Series
Plössl + 2x Barlow • 240x
Field of View Not to Scale
Mars by Sol Robbins

Observe Mars...

- Filter
- Seeing conditions
- Aperture
- Magnification
- Date

[Images of Mars observations with details on filter, seeing conditions, aperture, magnification, and date]
Mars by Erika Rix

- aperture
- dates
- charcoal
- paper
- lack of template
- lack of experience
Mars sketch by Sol Robbins, labeled by Carlos Hernandez
Mars by Carlos Hernandez

Date (U.T.): January 27, 2008
Time (U.T.): 02:30 (left image) and 03:00 (right image)
CM: 322.8 (left image) and 330.2 (right image)
Ls: 023.0° (Early Northern Spring/Southern Autumn)
De: -2.5°, Diameter 12.6", phase 96%
Instrument: 9-inch (23-cm) F/13.5 Maksutov-Cassegrain
Magnification: 248x and 359x
Filters (Wratten): 30 (magenta) and 38A (blue)
Seeing (1-10): 5, Antoniadi (I-V): III
Transparency (1-6): 5
Mars map 07082
by Kris Smet

A4 printer paper
Saturn by Sol Robbins
Saturn
by Carlos Hernandez

Florida

March 3, 2008 (03:45 U.T.)
9-inch F/13.5 Maksutov-Cassegrain (163x)

Digital rendering produced in Photoshop CS3 based on observation
Saturn
by Michael Rosolina

Saturn 1130 - 1200 UT 11.25.06

8" SCT f/10 Mag: 338x, 400x, 200x  Filters: W#11, #56, & IL
Seeing: 7-8/10  Transparency: 5/6  Alt: ~65°  Dia: 18.4"
Notes: EZ bright. SEB broad with northern edge dark. South Tropical Zone (STRZ) dull. Hint of detail in S Temperate belts and zones. South Polar Region (SPR) dusky. Northern hemisphere light blue and dusky. Dull zone north of rings that disappears preceding the central meridian. Crepe (C) Ring detected at ansae and in front of globe. Inner edge of B Ring dull at ansae. Cassini Division visible all the way around rings.

Sketch by M Rosolina
The Sun

- Study first
- Quick Schematic
- Close up targets
- Work quickly
- Keep in perspective!
- Concentrate on shapes and sizes
- Take notes
Close up Proms

The Sun
20080123

White Conte’ crayon
Black Strathmore Artagain paper

Create limb arc
Close up Proms

The Sun
20080123

Fingertip

Blend roughly
Close up Proms

The Sun
20080123

White Conte’ pencil

Brightest areas first
Close up Proms

The Sun
20080123

White Prang pencil

Add fainter details
Close up Proms

The Sun
20080123

Thumb

Smudge gently
Close up Proms

The Sun
20080123

White Conte’ pencil

Touch up
Close up Proms

The Sun
20080123

Charcoal pencil

Add surface detail
The Sun
20080123  1737 UT

Internally double-stacked Maxscope
60mm, <0.5A LXD75, 21-7mm
Zhummell, PCW Memorial Observatory
Sun by Erika Rix

20070610

20070611
Sun by Erika Rix
Tracking Active Region by Michael Rosolina
AR960 03 June 2007, 10.50-11.28 UT
by Sally Russell

Graphite pencil on white cartridge paper.
Sketch size 4" x 3"
CaK full disc 7 July 2007
by Sally Russell

Watercolor pencil & chalk pastel on black paper

Sketch size 4" x 4"

12:35-12:48 UT, 07/07/07
CaK PST, TV zoom E/P @16mm (mag, 25x)
Sally Russell, Berkshire, England
13 Day Animation of Sun by Erika Rix

July 7th - July 19th, 2007

Featuring NOAA 10963

Erika Rix

Having Fun in the Sun at PCW Memorial Observatory
Resources

- Other visual observers/sketchers
- “Astronomical Sketching, a Step by Step Introduction”
- Cloudy Nights’ sketching and observation forums [www.cloudynights.com](http://www.cloudynights.com)
- Astronomical League

Get feedback so you can improve!
Summary

- Basics – Explore further
- Practice makes perfect

And most importantly…..
Have fun and strive for accuracy!