





Sketching the Deep Sky

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Take into consideration

A sketch allows you to look at the object with more than just a glance, so don't look and not see – practice sharpening your eye, which will become possible in time, and very rewarding.




What is needed

Have all the necessary tools at hand such as:

At the Telescope:

1. White paper (with circles drawn on it) clipped on to a writing board.
2. A few pencils.
3. Red light.
4. Pencil erasers.
5. Magnifying glass.
6. Sharpener.



Important Data Information accompany your sketch

To start off, indicate the correct data on you work paper with all the necessary info, such as:

1. Indicated Object Number, or other names and numbers, type, magnitude, size and coordinates.

2. Telescope information, various eyepieces, magnification, field of view and filters. Sky conditions, such as seeing, transparency, magnitude of faintest star seen with the unaided eye.

3. Date and Time, local and UK Time. Refer to the Deep Sky Director - Auke Slotegraaf 's workbook "Discover" for information.

Tips

Practice before observing during the day with soft and harder strokes of the pencil on paper, and get used to the eraser feeling.

Use only a red light at night for sketching, reading and taking notes.

A tape recorder is a good tool to record your impressions.

Use a grid under paper if necessary.

Printed maps which show indicated labeled objects.

Wait for periods of best seeing, and when the object is highest in the sky.

Breathe through your nose to prevent condensing on a cold eyepiece.

Use an eye-patch to prevent stray light, if preferred.

To be seated comfortably and to be warm is important.

Have some munchies to eat and something cold and hot to drink.

Reduction work as soon as possible

1. Good quality white paper.
2. Copies created by you with drawn circles and indicated lines for object info.
3. HD or similar good quality pencils and sharpener.
4. Soft and Harder grey color pencils for shading.
5. Soft and Harder erasers/rubbers, and a blade to shape them.
6. White tissue paper and ear buds.
7. A bottle of fixative spray.



The way to go: Sketching deep Sky Objects

Brighter stars at there indicated positions, which serve as guideposts.

Map work afterwards will enable you to identify north, south, east, and west, as well as the size of the field of view, according to telescope and eyepiece sizes.

Do not worry if stars are not perfectly round in shape, as long as the orientation is correct.

Decide on the size of the deep sky object, small, medium or large. Multiply the object size into the eyepiece field of view for perspective.

Use higher power to bring the object slowly into view, in order to let your mind capture the object in full.

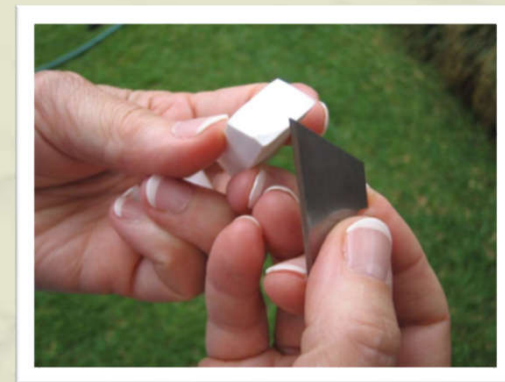
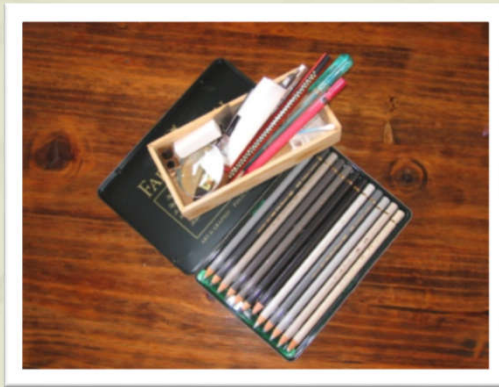
Make use of a magnifying glass if necessary.

Go slowly, take your time, and remember: It is important to study the object all the time.

Averted vision is a wonderful tool to complete the picture in your mind.

Basic Tools:

Pencil, tissue, soft erasers and hard rubber, magnifying glass



Open Clusters

In the case of clusters, study the object in depth. Take note of the visual size in comparison to the field of view. Allow the image to impress itself in your mind.

If clusters are well resolved, try to pin down the brighter stars first and then the bulk of the stars as accurately as possible.

What's also important is to create the cluster shape, which could vary in a hundred and one different ways.

Various magnitude stars will give depth in a three dimension impression.

Break down the different parts of the object into steps to make sense of it.

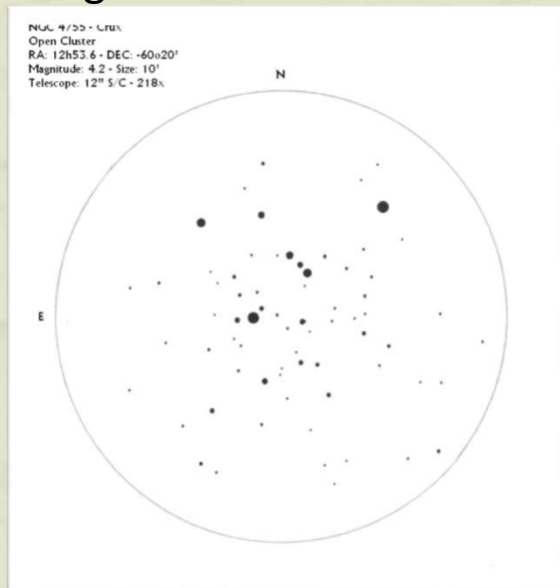
A soft fine tip pencil is needed for adding the very faint stars to create the finishing impression.

Sketching – Open Cluster

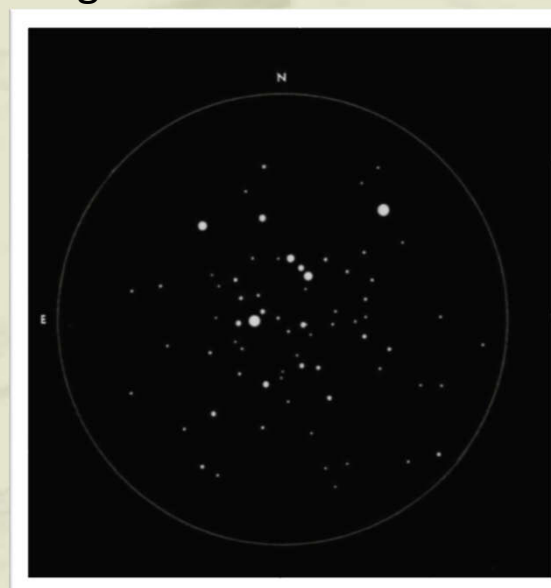


The Finishing Sketch of NGC 4755

Original Sketch



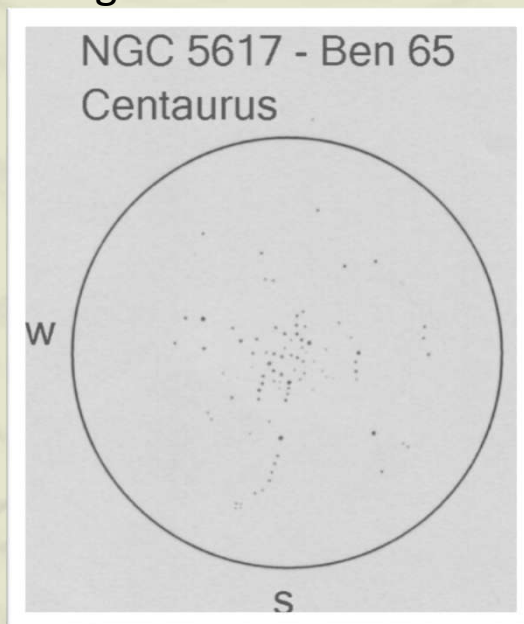
Negative Sketch



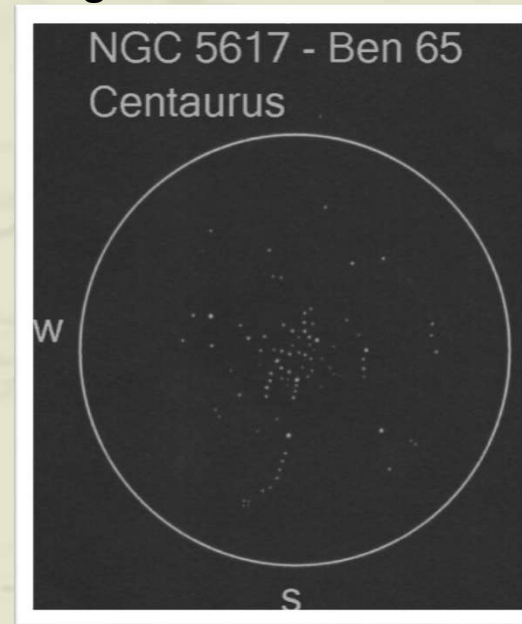
Photo

Additional Example of NGC 5617

Original Sketch



Negative Sketch



Globular Clusters

Globular cluster core should be created by using a soft grey pencil in a small, roundish central smudge barely seen, correctly placed between the indicated brighter field stars.

Blend the central core of un-resolvable stars with great care, by using a tissue around the finger or around a pencil point to slowly give a spraying out impression.

Work outward from the core with faint pin-point light specks created by a steady hand.

Darken the core some more, if a very dense core impression is needed.

Any resolvable stars from bright to faint must now be added, first around the core, working your way out to the rim area to give depth to your object.

Use a soft peppering technique to finish the star-crowded impression, and please don't get carried away.

Keep sharp pencil just above the paper and gently just touch it with a steady hand to produce the very faint stars.

Finish off by wrapping a tissue around your finger and just lightly brushing over the whole object to give it a soft, nebulosity-glow.

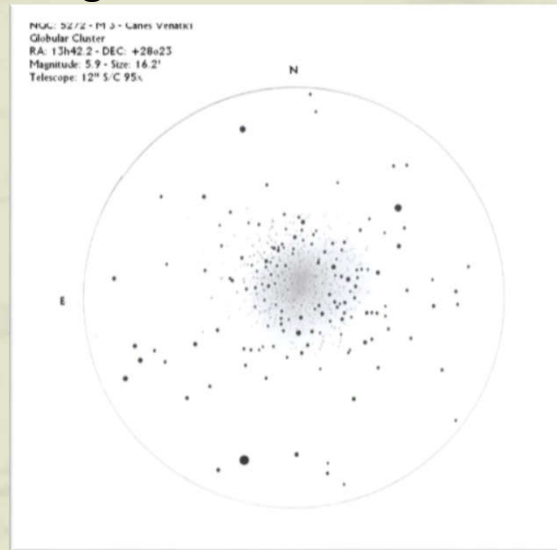


Sketching – Globular Cluster

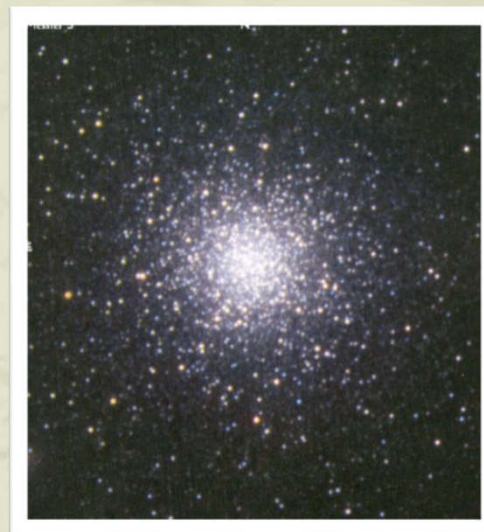
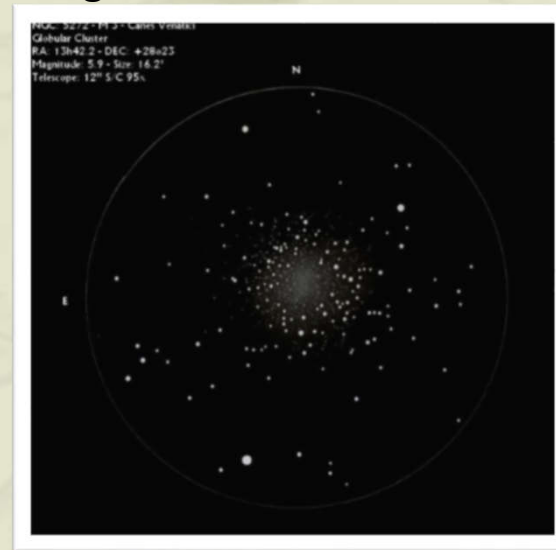


The Finishing Sketch of M 3

Original Sketch



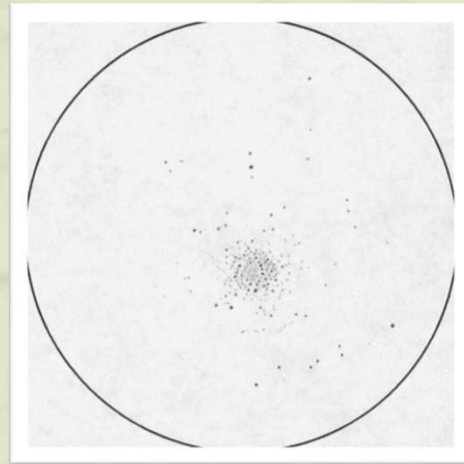
Negative Sketch



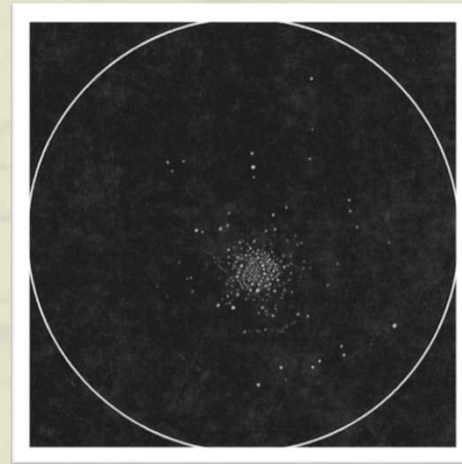
Photo

Additional Example of M 4

Original Sketch



Negative Sketch





Planetary Nebulae

A planetary nebula usually needs only a very small grey patch accurately positioned between the stars and correctly placed in your sketch circle.

Use soft, grey shaded pencils to sketch planetary nebulae or novae to represent a floating away impression and a soft glow of nebulosity.

If a central star is visible, take the uttermost care just to pin it down.

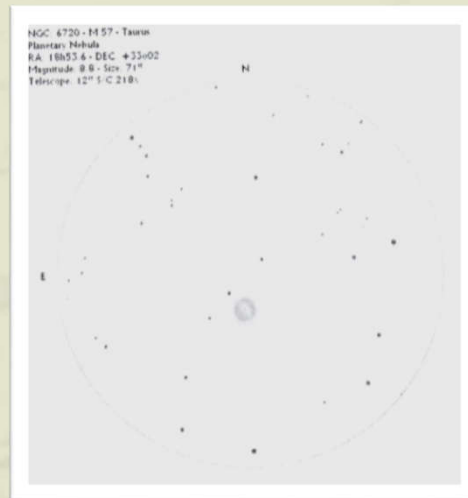
Again the soft putty eraser/rubber shaped into a point can be used to define the planetary edge.

Sketching – Planetary Nebula

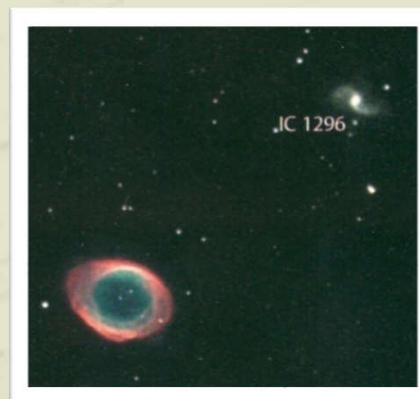
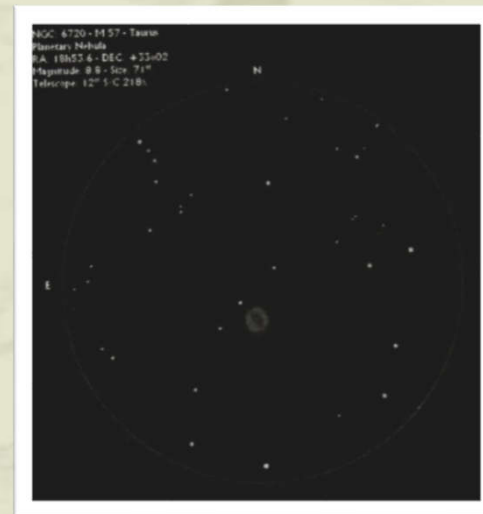


The Finishing Sketch of M 57

Original Sketch



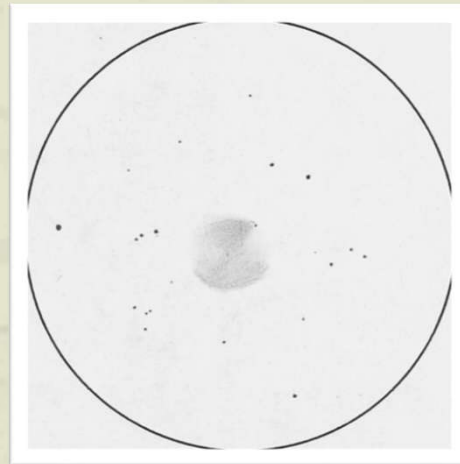
Negative Sketch



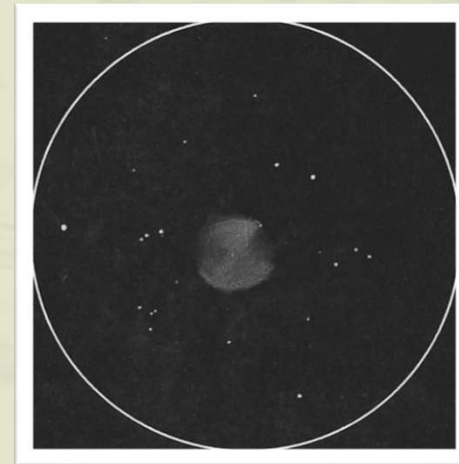
Photo

Additional Example of M 27

Original Sketch



Negative Sketch





Bright & Dark Nebulae

In the case of dust Nebulae a good idea is to use an extra small piece of paper which is been randomly strokes made on with a soft pencil. Fold it over your finger and with soft strokes projected the pencil dust on to the sketching area.

Now create the glow of the nebulosity by using a tissue around your finger to shade the reflecting nebula and create a realistic impression, with no sharp marks.

First shade the soft, lighter areas and then add the brighter parts with layers to darken the indicated zones required.

Hold your pencil to an angle and gently shade the area.

A soft, pointy-shaped eraser/rubber can also be used to correct mistakes and to shade flimsy nebulosity streaks.

Now, with a very steady hand, bring into your sketch all the stars you can see, from the brightest to the faintest on the surface of your nebula feature.

You will be surprised at how little smudging is needed for a good sketch.

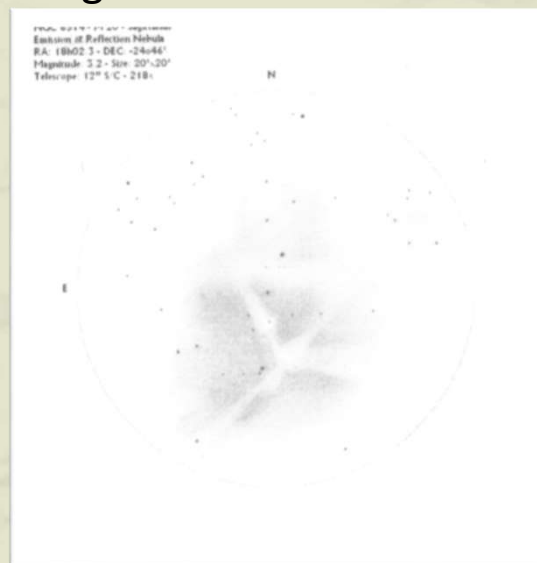
Clean up the area around the object with a soft eraser, but be sure not to ruin your sketch.

Sketching – Bright & Dark Nebula



The Finishing Sketch of M 20

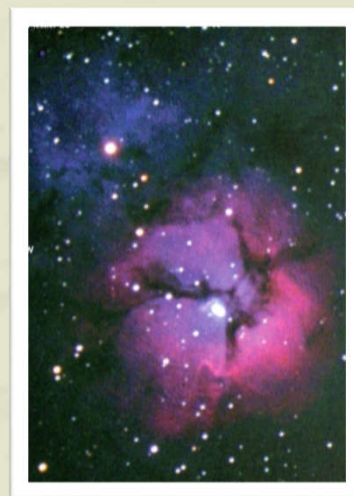
Original Sketch



Negative Sketch

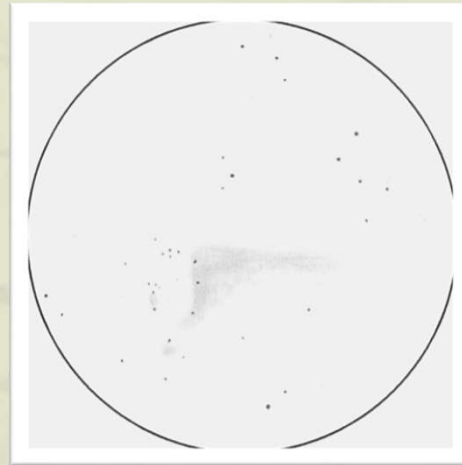


Photo



Additional Example of M 17

Original Sketch



Negative Sketch



Galaxies

The brightness of the galaxy is the key to how bright or faint your soft shaded circle or elongated smudge will be, accurately placed between the brighter field stars.

The size you create now should be slightly smaller than the indicated size of the object because it will become larger with shading.

Take tissue paper, wrap it around a blunt pencil and softly move around the indicated fuzzy mark to add the soft galaxy impression.

With your middle or ring finger, sort of shade it into the paper until it blends in, with no sharp marks.

Shading along the terminator is essential to project a deep sky object impression.

Work from the inside out. A gentle touch is the secret.





Galaxies

Use the soft shaped putty eraser/rubber, shaped into a point to correct mistakes and to add character to your sketch.

Use a blade to sharpen the harder eraser into a sharp edge to create dust lanes in galaxies. Now use a very thin, sharp pencil just to touch the line edge to bring out such dust lanes more clearly.

Bring into your sketch all the stars you can see, from the brightest to the faintest.

Remember to keep your sharp, thin pencil just above the paper and just gently touch it with a steady hand to produce the very faint stars around and on the object surface, which should be left for last.

Add dark features with a careful, steady hand.

A good idea for adding the finishing touches is to make use of a magnifying glass, clean hands to shape and shade the object into place, as close as possible to the correct size as seen through your telescope or binoculars.

Tips to remember

Using a tissue around the pencil,
give the galaxy of soft hazy appearance,
and bring the galaxy to its correct size



Using a soft rubber, shape to a
sharp point to define the dust lane



Finish with tissue paper to
give a softened overall image





Shape the galaxies outer edge and remove any unwanted pencil marks using hard and soft rubbers



Add faint stars on the surface and around the galaxy to finish

Galaxies

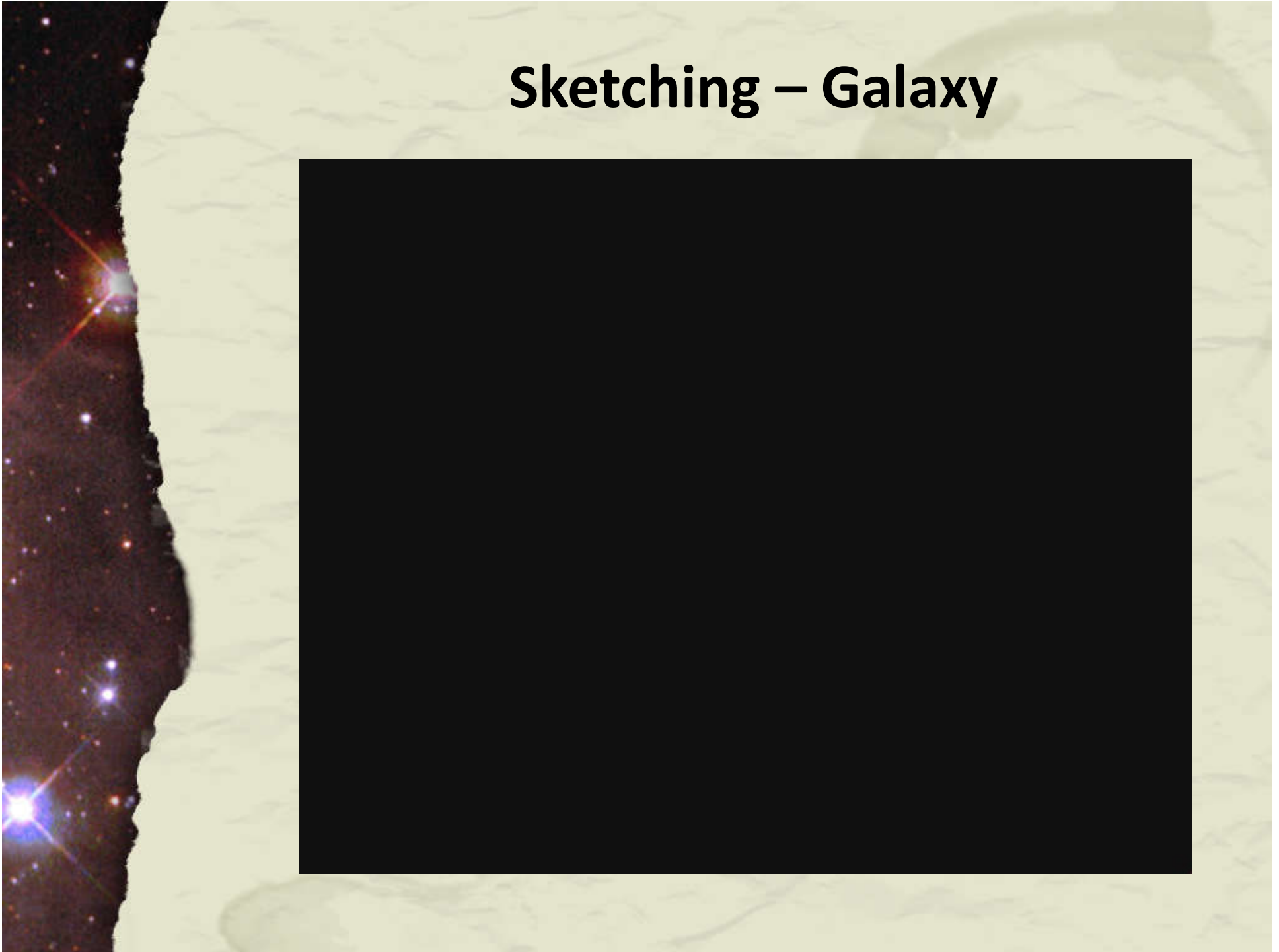
Clean up the area around the object with a soft eraser, but be sure not to ruin your sketch.

It is very important to write down every little important note while you are sketching. Example: "an extension towards the star on my right, about a third of the length of the object". Or, "the object is somewhat brighter towards the middle, with a slight outer envelope a third the size of the core. A faint star estimated 13-magnitude on the tip of the left spiral arm ext."

Once you are satisfied with your sketch, spray it with a fixative to protect it.

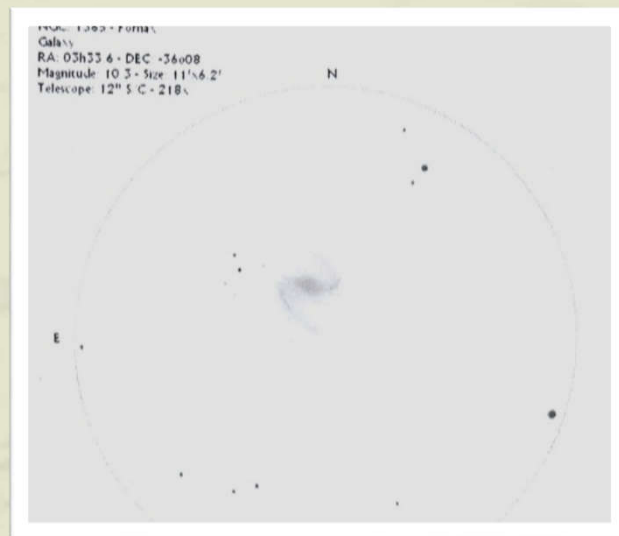


Sketching – Galaxy



The Finishing Sketch of NGC 1365

Original Sketch



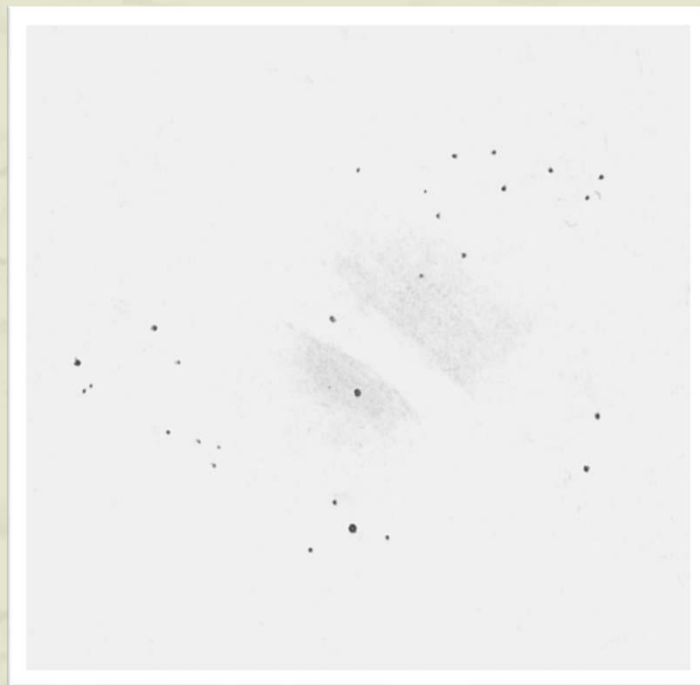
Negative Sketch



Photo

Additional Example of NGC 5128

Original Sketch



Negative Sketch



Valuable Thoughts

Map work can now be done the next day to identify direction, and maybe identify a new discovery.

Try to do your permanent sketch the next day while you can still remember the details.

Field sketches are your rough sketches and not finished works, so saving every sketch is the critical bottom line, and among amateurs it's the law. In the long run your sketches will be priceless.

Once you are satisfied with your sketch, spray it with a fixative to protect it.

Scan or take a digital picture. Well document and file the complete sketch.

Photos can sometimes be overexposed, and detail lost in the glare, but not your sketch.

Conclusion

Your logbook is your best friend and will provide you with years of memorable self-expression and history.

If you need advice or any deep sky sketching information, then I want to be your best friend, let me know at 0832768128, magda@pixie.co.za. / magdalena@mweb.co.za.