THE RAINBOW

Box Art Group Newsletter   -   Friday 28th April

2023

Written by and for the members of Box Art Group (No. 85)

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Didn't Quite Make the Exhibition…
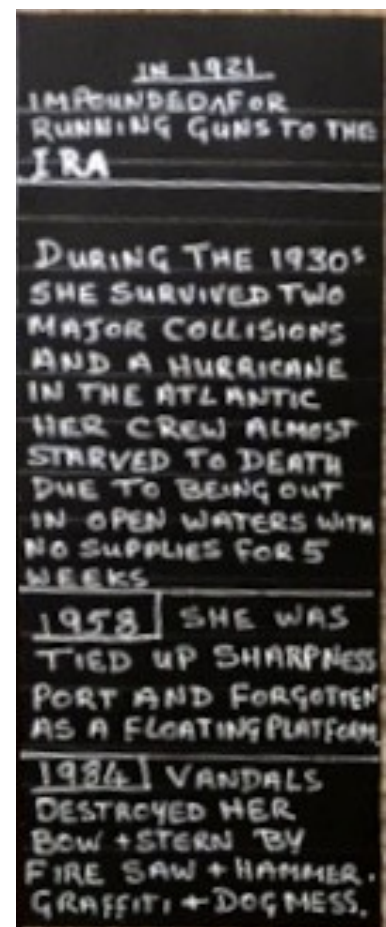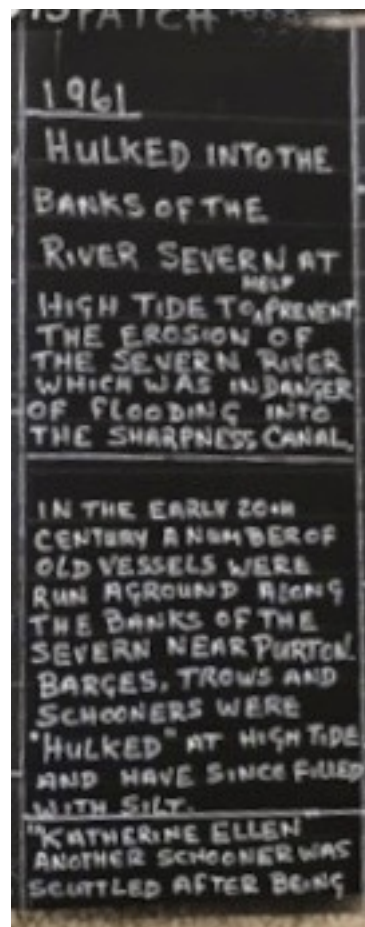
"Grenada Forest" watercolour by Richard Baker

Unfortunately not completed in time for the Travel competition, this is a study of the fabulous Traveller's Palms we saw on a recent holiday to the island. The leaves fan out in a very attractive way; the newer, fresher leaves at the centre push the older leaves aside which get darker and progressively more tattered. The sheaths of the stems store water which could be beneficial to thirsty travellers. Being south-facing they orientate on an east-west axis, which could also aid travellers' navigation.

Purton Hulks Remembered

Many of us have visited the Purton Hulks and I am sure wondered what they might have been like when seaworthy. Mary Smith has researched the history of th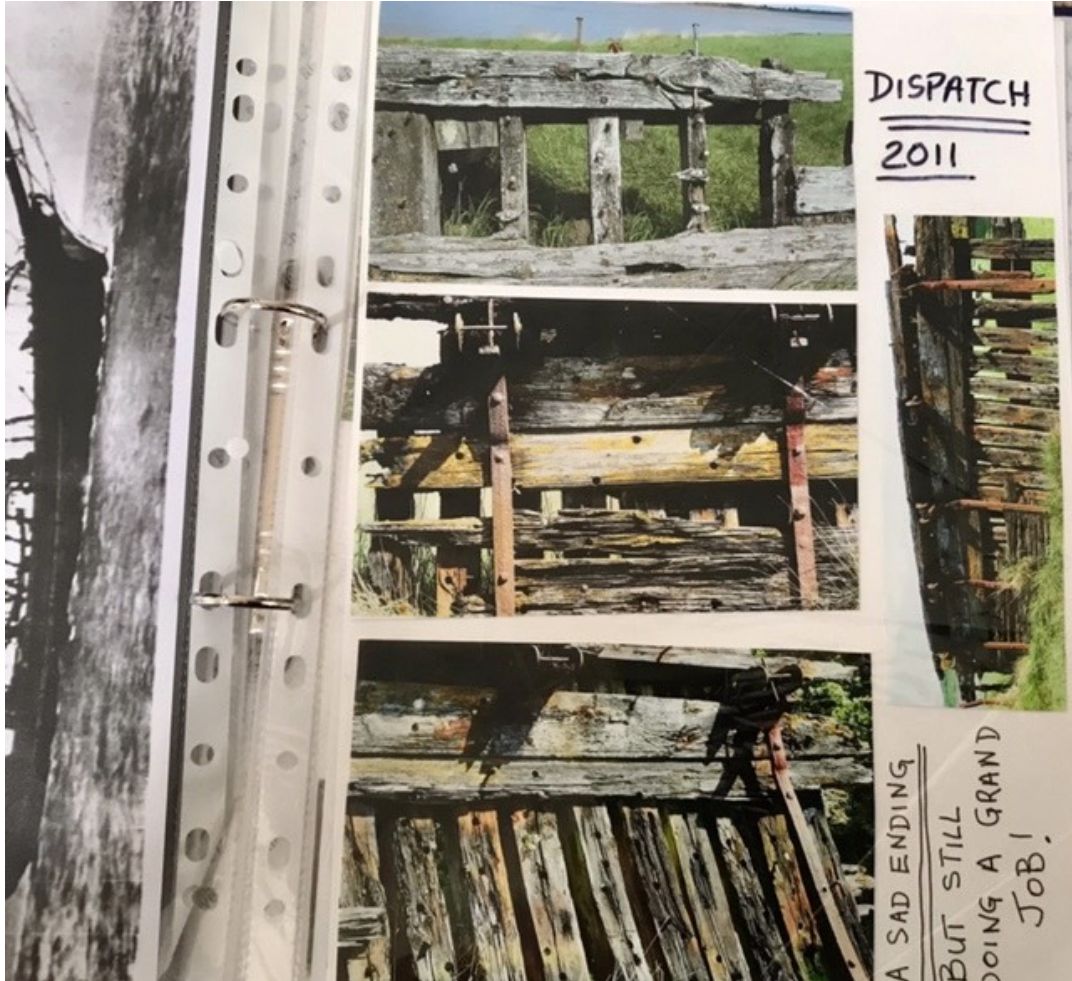e schooner "The Dispatch" from its launch in 1888 to the time it was used to reinforce the banks of the River Severn in 1961. Her study was completed with a representation of The Dispatch in full sail

Mary has produce her own painting of The Dispatch using an interesting technique. The whole was submitted has her entry to the "Travel" competition.

WATERCOLOUR
WAX FINISH. ON WATERCOLOUR PAPER ON WOODEN PANEL.
THE DISPATCH 1888—2023

TIMELINE

1888 BUILT IN SCOTLAND. LAST SHIP TO BE LAUNCHED FROM GEDDIES SHIPYARD.

TRANSPORTED FISH FROM NEWFOUNDLAND TO MOROCCO.

1918 LEFT INVERNESS WELSH OWNER - TO TRANSPORT COAL + SLATE AROUND THE COUNTRY.

1919 TRANSPORTED Coal + LIMESTONE FROM LYDNEY + CHEPSTOW

1930s LEAN TIMES GLOUCESTER DOCK LOADING 190 TONS OF SALT BOUND FOR AN IRISH PORT. 1932 (DOCUMENTS SHOW)

4th MARCH 1932 TIMES NEWSPAPER DISPATCH PICKED UP 100 miles WEST OF FASTNET BY TRAWLER HELPLESS IN GALE - TOWED TO CASTLETOWN BEREHAVEN.

AUGUST 1933 DISPATCH RAN FROM GLOUCESTER TO CORK IN 13 DAYS.

1934 SURVIVED HURRICANE

1935 McLEMAN FAMILY - OWNERS UNTIL END OF WWII COMMISSIONED AN OIL PAINTING OF DISPATCH.

1936 REMOVED FIGUREHEAD, WHICH WAS CARVED BY A GLOUCESTER MAN JOHN LEATHERTON WHO ALSO HELPED CARVE THE FIGUREHEAD FOR THE CUTTY (1922) SARK.

July 1940 DISPATCH WAS RE-NAMED AS THE NEW DISPATCH.

HER SAILS HAD BEEN CUT DOWN AS SHE WAS MADE INTO A FLOATING BARGE.

DURING WW II SHE CARRIED MUNITIONS FROM BRISTOL TO GLOUCESTER

1961 HULKED INTO THE BANKS OF THE RIVER SEVERN AT HIGH TIDE TO help PREVENT THE EROSION OF THE SEVERN RIVER WHICH WAS IN DANGER OF FLOODING INTO THE SHARPNESS CANAL.

IN THE EARLY 20th CENTURY A NUMBER OF OLD VESSELS WERE RUN AGROUND ALONG THE BANKS OF THE SEVERN NEAR PURTON. BARGES, TROWS AND SCHOONERS WERE "HULKED" AT HIGH TIDE AND HAVE SINCE FILLED WITH SILT.

"KATHERINE ELLEN" ANOTHER SCHOONER WAS SCUTTLED AFTER BEING

IN 1921 IMPOUNDED FOR RUNNING GUNS TO THE IRA

DURING THE 1930s SHE SURVIVED TWO MAJOR COLLISIONS AND A HURRICANE IN THE ATLANTIC. HER CREW ALMOST STARVED TO DEATH DUE TO BEING OUT IN OPEN WATERS WITH NO SUPPLIES FOR 5 WEEKS

1958 SHE WAS TIED UP SHARPNESS PORT AND FORGOTTEN AS A FLOATING PLATFORM

1984 VANDALS DESTROYED HER BOW + STERN BY FIRE SAW + HAMMER. GRAFFITI + DOG MESS.

Mary's final painting

Mary's photographic reference images for the study.

Switching to "Professional" Paints - Michael gives some recent experience

I have mostly worked with "Student" quality watercolours (e.g. Windsor and Newton "Cotman" series). These have been hanging around in my drawers for some time because I was doing very little painting until joining the Box Art Group. Having now been with the Group for more than a year, I have recently been finding myself with a fair number of tubes coming to the end of life and so looked round for some "On offer" deals for paint sets. (Keep your eyes open and buy at the right time and you can get significant discounts compared with the normal full price for individual tubes. It may of course not be worth it if you end up with too many duplicates of colours that you do not use very much. For me, however, at that moment, after the enhanced painting activities of last year, I seemed to be sufficiently well down on most of those colours in the set on offer to make this seem like a good option.) Well, I was tempted to look at Jackson's own "Professional" series. These are normally positioned in price somewhere between Windsor and Newton's Cotman and Professional ranges. (They are normally about 50% more expensive than Cotman but less than 2/3 the price of W&N Professionals. The offer discount on a set of twelve 21ml tubes was, however, putting them at a very similar price to the Cotmans, per millilitre of paint.)

Slater Bridge, Little Langdale, Lake District (Jackson's Professional range on Bockingford)

Jackson's claim is that they have the pigment quality and load that you would expect from professional paints, just at a lower price. (It is the pigment that costs money. Student quality paint tend to use less concentrated and/or cheaper pigments. Sometimes student colours are "hues", which may consist of a mixture of relatively cheaper pigments that apparently has the same colour as the genuine single pigment. The tube may not tell you the components of the mixture and indeed it could be different the next time you buy that product. Professional artist thoroughly familiar with a certain line of products will tell you that such mixtures do not blend with other pigments in the same way as single pigment paints.)

The Jackson paints are indeed a cut above the Cotman range but may still employ slightly cheaper pigments than W&N professional paints with similar names. For example, "Lemon Yellow" in W&N is one of their more expensive (Series 4) inorganic pigments, but Jackson's Lemon Yellow is an organic compound similar to W&N cheaper (Series 1) yellows such as "Windsor Yellow". This does not necessarily mean they are less useful pigments, e.g. in terms of tint strength, transparency and permanence. The products of modern chemistry may indeed be easier to use than traditional pigments of similar colour. It does, however, mean that the mixing properties may well be different. The experience with paints from one supplier may therefore not necessarily carry across to those from a different supplier - even if the names on the paint tubes look familiar. Jackson's Cerulean Blue is, however, still mainly the rather expensive Cobalt Tin Oxide (PB35) of most professional ranges such as the W&N. (The Cotman "Cerulean Hue" is entirely made from a much cheaper Phthalocyanine organic pigment, PB15. Still a good colour, but not quite the same and one that mixes differently.) Of course, it is not even the case that Cobalt Tin Oxide produces the same colour when used by different suppliers: there are subtle variations that depend on the exact manufacturing process and the size to which individual pigment particles are ground, so even professional colours may have small additions of other pigments in order to achieve a consistent result in the product.

Climbing out of Great Langdale, Lake District, on a cloudy March day

Do I notice the difference? I am not really sure yet, because I have only completed a couple of paintings, which I show above, but initial impressions are favourable. The paint seems to produce fairly intense colours compared to the Cotman tubes, so I do not seem to be squeezing as much onto the pallet. (Hence, the higher price of the paint may not translate directly into more cost over the long term.) It mixes easily (and feels more "creamy" than the Cotman) and I seem to be finding the colour result that I want more easily (with less tendency to "mud"). Of course, it may just be the case that the result of the additional regular practice over the last year means that my skill level is increasing and I do not faff around so much when finding the right pigment mix, or maybe I am being more careful with my more expensive paints.

I will still be using up the remains in my Cotman tubes, though probably mostly for studies rather than the stuff I hope to put in next October's exhibition. The switching back and forth may give me a more reliable

assessment of the differences in the future. The bottom line is that I am currently enjoying using these materials.

Reviews by professional artists on the Jackson website suggest that they are not switching from their usual professional materials, but would be mentioning them favourably to their own students as a step up from student ranges. That feels about right. The mixing properties of paints depends on the precise properties of the pigments employed. Once you have gained experience with those from one supplier you will take some time to reproduce the same results with a different set of pigments - even thought they apparently look the same in pure colour. For any professional one of the major costs of doing business is the *time* invested and you need to be as productive as possible. Saving money by using materials that make your job more difficult is usually a false economy.

Jill Harwood Writes…

"I recently heard a talk by Andrew Dugean, a trustee of the Elsa Conservation Trust. You may remember Joy Adamson and Elsa, the lion. He worked with Joy for many years in Kenya and remains a trustee of the charity. The trust was established in 1963 by Joy and her husband George, and is dedicated to sharing the beauty of Kenya, its wildlife and people, preserving it for the future generations of every species. Andrew told us that Joy was a very colourful character, although completely dedicated to the animals. She had 5 husbands in all, discarding them frequently for a newer model. Another fact he told us was that Virginia McKenna, who starred in the film "Born Free', copyrighted the title for her own charity, so it could not be used by Joy.

Joy was a talented and prolific artist and produced many sketchbooks. Some time ago, one was taken to BBC's Antique Road Show and it was valued at £3,000. Andrew said he was very fortunate to look after one of the sketchbooks which he brought along to show us. He very kindly agreed to allow me to photo several of the drawings so I could share with you."

Separating an object from its background using the photo editor application GIMP

You do not need the most sophisticated photo apps to do things such as cropping an image, or adjusting exposure and so on. There are, however, a few jobs that require a more complicated tool, ones that works in a different way. One of these jobs is separating foreground objects away from their background (for example, in order to place that part of the image in a different context - say in card making).

If you need to do this, but are reluctant to pay Photoshop licence fees, *GIMP* (**gimp.org**) is your best alternative. Do not expect the same experience offered by Photoshop. Adobe can afford to invest more in their software design and furthermore GIMP is *intended* to be different, giving the potential for somewhat finer degrees of control, but at the expense of needing to understand a little more about what you are doing. There is, however, an up-side to taking the GIMP multi-step route to perform foreground separations: you learn to employ a selection of tools from the GIMP toolbox that can also be applied in different combinations for different purposes. so understanding this common process gives you a springboard into more creative use of GIMP, such as producing carefully blended collages from a number of different component images.

I know that some of you have GIMP and some of you, indeed, have asked me how to do this particular task. Hence, I produced this note, which is intended to sketch out the basic process, and provide a simple step by step guide for one way to get results. Take note, however, that, just as there are often several routes to get from A to B across a town, there are often several different ways to get to the same end-point with GIMP, and there is no universal "best" way since this will depend on the type of image you start with, the kind of area you wish to separate and how you want the final result to look. Ultimately, there is no substitute for understanding the task you need to perform and how selecting the right tool from those available gets you to the result you desire. I would certainly also recommend that you follow some of the *Beginner Tutorials* (**https://www.gimp.org/tutorials/**) which take you through a number of exercises. In any case, I am not going to give you introductory instruction in GIMP use: I will assume that you have installed and played with GIMP at some basic level and have it available while reading to try out my recipes.

It may help, at this point, to remember that applications such Photoshop and GIMP were originally designed to reproduce in software the type work stream used by graphic designers before cheap computing power with high resolution graphics became available. The designer would work from a physical base image as a bottom layer, and would add things like text by overlaying it on plastic transparencies (which made it convenient to move the text around and judge different placements). Additional photographic elements cut from other photographs could also be overlain on the base and the whole thing re-photographed to make a composite image. One could also use *masks,* which were transparencies painted to block parts of images from the lower layers.

With Photoshop and GIMP, Instead of physical transparency layers you have software L*ayers*. Just as a plastic layer can be opaque or partly transparent, the software layers can block or partly allow through parts of the image from the lower layers. Keep this conceptual model in your mind when using these applications. Each layer holds an image, but if we want to see some parts of an image from a lower layer, combined with some parts of an image from a higher layer we also need ways to selectively mask-out parts of the lower images and a mechanism to make selected parts of the upper layer transparent.

The most basic photo apps just have one layer that consists of (in most cases) at each point of the image three numbers representing the brightness of the red, green, blue primary colours which control the brightness of red, green and blue (the "RGB") pixels at each point on a computer screen. If they are all at their maximum values you get a white pixel, if they are all at their minimum values you get black. Manipulations such as changing colour balance, contrast and overall brightness act directly on this layer, adjusting the RGB values up or down. These arrays of red, green and blue values across the image are known in Photoshop-speak as *channels*. The most common format for storing photos in your camera and on computers is JPEG, which includes just these three channels plus some additional "meta" data applying to the image as a whole (such as the date and type of camera employed and perhaps a GPS location).

For the present purposes we do not need to know very much about the colour channels, but we do need to know about the so-called *alpha channel* (one of those terms you just have to remember because the name has only historic logic - it ought to have been called, I think, the *transparency channel)*. The alpha channel is in fact just another array of numbers (one for each pixel) containing a grey-scale value. Although it is essentially just like a monochrome image (and to some extent can be manipulated like that with GIMP - you "paint" it if you wish) while it carried the "alpha channel' label the software interprets it as the degree of transparency of the RGB image, with white meaning fully opaque and black completely transparent.

When you load your initial photograph into GIMP from a JPEG image you create a base layer, which does indeed consist of just the red, green and blue channels. we, want to end up with is a final result that has an opaque foreground object with the rest of the layer transparent so we do need an alpha channel. What we are currently concerned with is how we create and modify the contents of this alpha channel so that the parts of the base image we want to retain are opaque and the rest is transparent.

The essential process is always the same, as shown in the box at the right: firstly we need to select the area we wish to separate, and for foreground objects with complex boundaries the initial selection tools rarely do a perfect job so this may require adjusting the area selected to get the best effect. Once we are happy with the separate boundary, we turn the selection into an alpha channel.

It helps at this point to understand that since selections, masks and alpha channels are *all* essentially just monochrome image layers they are therefore easy to convert into each other. The only difference is the *interpretation* of the grey-scale value by GIMP. Many of the "virtuoso" image manipulations with tools like Photoshop and GIMP involve sequences of step-by-step operations involving inter-conversions between selections, masks and alpha-channels (and sometimes conversions from the images' colour channels). What you will learn here is in fact generically useful for a much wider range of image manipulation tasks.

| Import Base Image to GIMP |
| ↓ |
| *Select* your foreground object |
| ↓ |
| Convert to a *Layer Mask* |
| ↓ |
| Adjust the mask for better boundary separation |
| ↓ |
| "Apply" the layer mask (to create an *Alpha Channel* |
| ↓ |
| Save to a file in PNG format |

When working with selections in GIMP the "marching-ants" boundary that we see defining a selected region is just the point where the value in the selection mask has the value 50% and it does not have to be a sharp transition. Hence if the selection boundary in the mask has a more gradual transition, the edges of our selection can be "feathered" - when we convert it to a layer mask, the opacity of the mask varies gradually across the boundary and the eventual transparency in the final alpha channel gradually changes from 0 to 100%. These techniques can be useful if your object has a complicated boundary (such as hair). It is virtually impossible to run the selection boundary along and around the length of individual hairs, but one can often get an adequate effect if the boundary is slightly fuzzy at such points. They are also useful if you wish to produce complicated image collages, where the separate component blend into each other.

There are various ways of creating selections in GIMP. (I count seven options on my version of GIMP (2.10), under the menu *Tools-> Selection Tools (*where the top-level menu is obtained by right clicking on the image)*. They
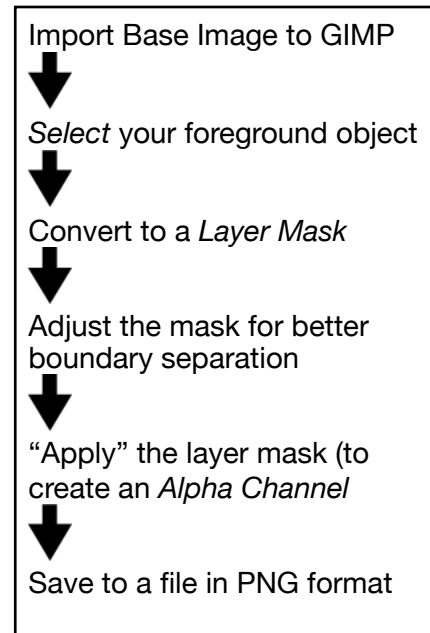
Our demonstration image

range from drawing rectangles, eclipses or just freehand boundaries with the mouse. You can also point to a particular colour and direct that everything with that colour (with a small range around the nominal colour) is selected. I find that one of the most useful selection methods is the "*Intelligent Scissors*" tool. You click at various points around the visible boundary of the foreground object and between the points you indicate with mouse clicks the software will automatically adjust the selection boundary to lie along the visible boundary. If your foreground object has a clear boundary (for example, a different colour or difference of light and dark) this often works quite well - though you might need to adjust the selection in a few awkward places. It works much less well if the object has a fuzzy boundary or a particularly complex boundary. If, for example, you are wishing to separate a tree from the sky you are in for a lot of work with *Intelligent scissors*, and are probably better off, for example if the tree is outlined against a blue sky, using *Select by Colour,* to define everything blue as "not tree".
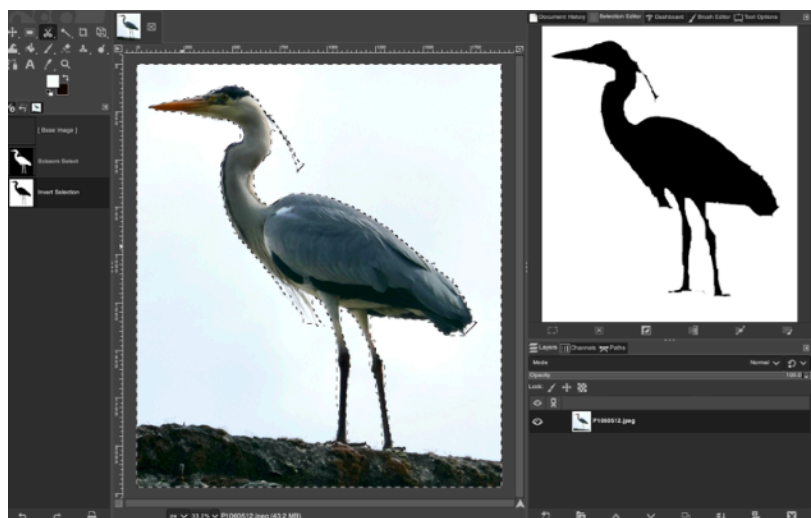
For illustration I have chosen an image of a heron, which is a fairly complicated shape, but on the other hand has a fairly clear boundary between the bird and the sky. Intelligent Scissors tends to work well on this type of subject, but as is often the case there are a few places where things get more difficult, and in this case the narrow crest feathers and breast feathers will need to be dealt with.

STEP 1: In the first stage of processing I have selected "Intelligent Scissors" in the toolbox on the left and worked with the mouse to click all the way around the boundary. With this tool it is best to click just outside the boundary of the bird and it will automatically make the boundary move inwards until it sees a change in contrast. (Remember to click "Return" once you have completed the loop - the bottom line of the window does remind you with a prompt. This is what actually creates a "selection".) For illustrations purposes I have perhaps not take as much care as I might normally use, and in particular the crest and breast feathers have just been roughly outlined. Note the black-and-white panel at the top right which shows what you have selected. White means selected and black un-selected.

The heron is roughly selected using "Scissors"

STEP 2: We now need to "invert" the selection, using the right-mouse-click menu *Select->Invert*. We will see why in a moment. Here everything *except* the heron is selected.

STEP 3: Now we must use the menu item *Layer->Mask->Add Layer Mask* to turn the selection into a Layer Mask. Note the pop-up window normally already has the option ticked to create the Mask from the Selection. Just click on the "Add" if this is the case, or select this option otherwise.
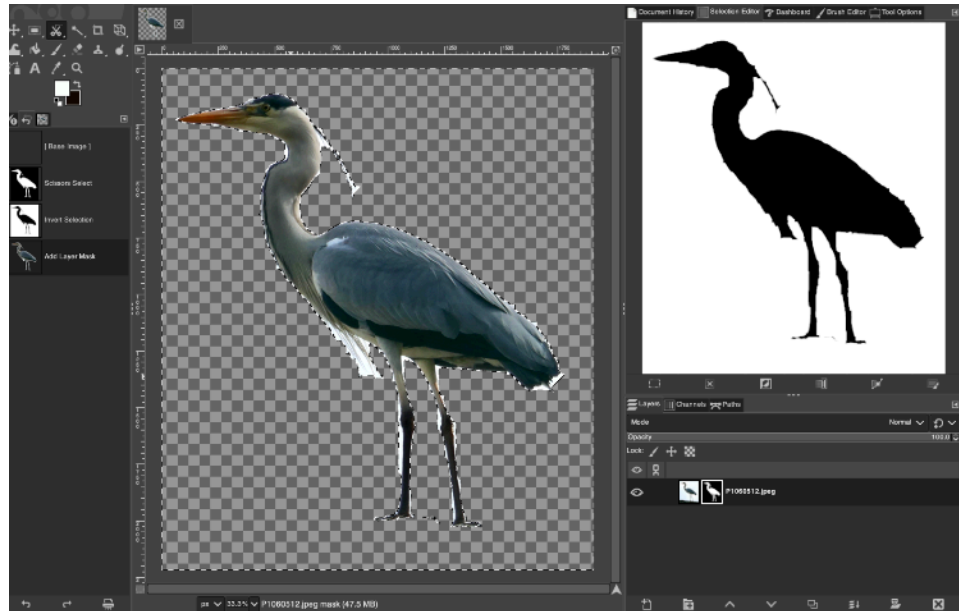

The selected region is now outside the heron

You should now see the heron surrounded by a chequerboard area. The chequerboard is the part that is masked out. Note now also that there is white boundary around the Layer Mask in the Layers window (at the bottom right). This means that this layer is active.

STEP 4: A small but important step: cancel the selection currently active with *Select->None*. If you do not, it will interfere with what you need to do next.

STEP 5: we can paint into it the modify the mask. If we paint into the mask with white (e.g. around the boundary of the heron) then we are adding to the masked area. In contrast, we could paint black in the unmasked area and increase the masking. After a little careful panting with a small "brush" the boundary of the heron is better defined, and the crest feathers more closely outlined. I have compromised on the hanging breast feathers, because they are so fine, by painting with a grey and fuzzy brush, so that they are partly defined. Although not perfectly outlined they will tend to blend with an underlying image in a reasonably satisfactory way.

After STEP 4. The layer mask is active and we can paint into it to refine the mask boundary

STEP 6: After the adjustments have been completed, I can use the menu item *Layers->Masks->Apply Layer Mask* to convert the mask into an Alpha Channel. (Don't ask me why this is not called "*Create Alpha Channel from Mask*" or "*Create transparency layer from mask*" - it just isn't!).

After STEP 5: the refined mask boundary.

The final result, when saved to a **PNG** file, just shows the heron against a white background. (We need to use a PNG file, not a JPEG file, because PNG files let you include an alpha channel)

The final result is shown on the right, where I have imported the heron image and placed it on top of another imported image.

Yes, it is indeed a somewhat complicated, multi-step process. There are, indeed, some short-cuts that can work in simpler cases, but the route I have outlined tends to work consistently nearly all the time and soon becomes familiar. (It only breaks down with "Intelligent Scissors" when the area you wish to separate is not well defined against its background by clear variations in colour or contrast. In those cases you use an alternative selection method. You can even, if you wish, for example, just select a simple rectangle around your subject and adjust the selection area with the paint brush as outlined above. That always works, but is often more time consuming.)

Michael

Portrait Sitters (Please!)

Despite the best efforts of Richard, we are still struggling to find sitters, ideally members, for the portrait group for the Thursday sessions. I should be grateful if members would consider volunteering to sit for a half session, and put their name on the list, and also ask friends and neighbours who might be interested to sit. (We offer a £10 fee for the full afternoon, or £5 for each half, to non-members who sit for us, not forgetting the tea and biscuits and the excellent company.)

Summer Term - Reminder of Programme

The summer term started on Thursday 20th April and ends with the last indoor session of the year on Thursday 1st June.
April 20th Beth - Sketching outdoors chat
April 27th Beth
May 4th Roxy - Still life
May 11th Roxy Travel kit/materials chat.
May 18th Beth
May 25th Roxy
June 1st No tutor
+ Outdoor events TBA

Could members please remember to wear their name badges during our Thursday afternoon sessions.

A final composite image

Hilary says that the combination of Cotswold stone wall, wild flowers and a butterfly is a favourite subject (gouache)