

# PHOTOREALIST PAINTING TECHNIQUES



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This is an example of a drawing of one of my photorealist paintings.

I'll take you through the process of creating a photoreal painting, in this case one of Osaka City as well as using other works to explain the techniques of photorealist painting.

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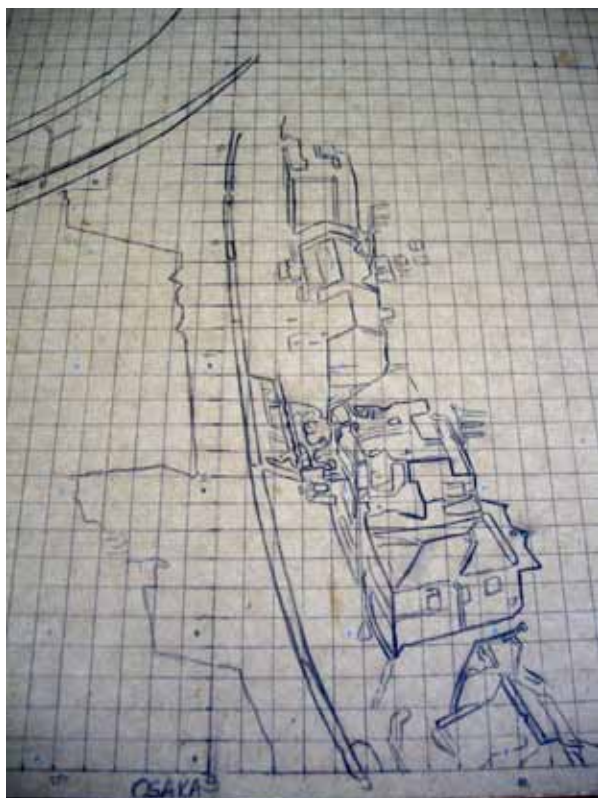
# TOOLS YOU WILL NEED

- MDF Board
- A mechanical pencil with a 0.5mm lead and some replacement leads
- A few HB pencils
- A good pencil sharpener
- An eraser
- A bowl (to put those messy pencil sharpening's in)
- A large steel ruler (preferably at least a metre long)
- Some high quality acrylic paint. (See later article on paint colors and mediums)
- A minimum of two ice cube trays (for your paint palettes)
- Taklon haired brushes - 000, 00, 0 sizes are essential and a few larger ones come in handy
- A paint rag
- Several sheets of wet and dry sandpaper - 800, 600, 400, 320 and 240 grit
- A jar of water for cleaning brushes
- Cotton buds
- A water sprayer for keeping the acrylic paint at the right viscosity
- A desk capable of holding the board you will work on as well as the computer monitor
- A comfortable chair
- A computer with reasonable performance
- A scanner
- An image editing program like Photoshop or Gimp



## MDF BOARD

MDF board is the perfect support for painting photorealist paintings. Why? Because it is smooth, strong, inexpensive, takes well to being drawn on with pencil and when you need to use an eraser it allows it to be corrected with minimal problems. It also is apparently long lasting and if prepared well stable; which when you have poured your heart and soul into a work, not to mention hundreds of hours, is very important. It comes in a great variety of sizes and is available from just about every good hardware store. When buying it be careful to check the boards because sometimes they can have damaged edges or surfaces that have been scratched, banged into or walked on. I generally use 3 mm thick board for small work (up to 60 cm), 6 mm for medium sized work (up to 90 cm) and 12 mm for anything larger.



## PENCILS AND RELATED ITEMS

A good mechanical pencil (I use a Rotring brand) is absolutely essential because they make the drawing of fine objects so much easier due to their even and consistent line width. A normal HB pencil can yield, if sharpened to a very fine point, a hairs width line and when dull, a thick line. Having to maintain an even line width is impossible so I use a 0.5 mm mechanical pencil 95% of the time. The rest of the time I use good quality Staedler HB pencils and a high quality eraser and pencil sharpener. These are best obtained from an artist supplies shop or equivalent mail order company. I also find a common cereal bowl or dish comes in handy to put pencil sharpening's in.

## RULERS

You will have to draw a grid, so at least a one metre stainless steel ruler will be required, it will have to have at least one edge divided into a usable set of units. I live in a country that uses the metric system so I use a base system of either 10, 15, 20, or 25 millimetre squares when constructing my grid. I use three sizes because some situations don't require the use of a large, unwieldy ruler, they are 300 mm, 600 mm and 1000 mm.

## ACRYLIC PAINT

Buy the best paint you can afford, and if you are new to painting keep it very simple with color selection. I could mix every color with just 9 colors if they were the right colors! The difficult part is finding out where the paints

hue lie on the color wheel in order to make the right choice. Paint manufacturers aren't always the most helpful but I will use Chromacolor, for the paintings in this tutorial. I would recommend as a minimum 8 colors - they are; Chroma White, Chroma Black, Chroma Violet, Chroma Blue, Chroma Green, Chroma Yellow, Chroma Orange, Chroma Red. I would also advise buying their brush cleaners.

I would highly recommend using the Chromacolor brand because it is far superior in its opacity and covering power which are important when painting in very thin layers and it also changes very little from wet to dry (normally acrylic paints will dry about 5% darker). The paint dries to a smooth matt finish and performs very much like any other acrylic - just better!

In the past I have primarily used the Luiqitex brand and a little bit of others like Windsor & Newton. I can certainly recommend these two brand's if you can't get the Chromacolor acrylic paint.

## ICE CUBE TRAYS

Ice cube trays make the best acrylic paint palettes, they are cheap and can be obtained in a wide variety of sizes.

## BRUSHES

I buy taklon brushes, usually Roymac brand, and lots of them because they can get 'splayed' after use. No matter how well you clean them this will happen and they will be difficult to use for fine work, but hang on to them, they can be then used for mixing or sometimes you'll need a brush to be used in a manner that deliberately gives a 'textured' mark. I would recommend you purchase a minimum of three each of 000, 00 and 0 round sizes in a good quality brand. Cheap brushes will cause endless frustration. It is also handy to have several flats up to about 30 mm wide. Also some sort of acrylic brush cleaner comes in handy to maintain them.

## PAINT RAG

I use a variety of paint rags to clean brushes and occasionally I need to wipe up an accidental paint drop or smudge and the best type is a 'cheesecloth' type because it doesn't tend to leave much 'lint'.

## WET AND DRY SANDPAPER

Buy several sheets each of good quality wet and dry sandpaper in 240, 320, 400, 600 and 800 grit. These are used for maintaining a very flat and smooth paint surface as you progress in building up layers of paint.



## WATER JAR

An old jam jar will do perfectly well for the job, it needs to be clean and kept clean with a good wipe every time you change the water.

## COTTON BUDS

I buy a box of 200 cotton buds from the supermarket and use them a lot, they are handy for blending and creating 'effects'.

## WATER SPRAYER

A general purpose water sprayer comes in handy for adding a mist of water to the ice cube tray paint palette.

## DESK AND CHAIR

A good setup of chair and desk is essential because you will spend a lot of time working on painting photorealist work. The desk needs to be quite big, preferably with a few draws to put your paints and equipment away when not used. Mine is around 1400 mm x 550 mm and when I work on large board I have to use something to prop up the overhanging board. I use a plain old kitchen chair at the moment, but if I could afford it I'd certainly look at getting something that would ease the back strain!

## COMPUTER, SCANNER AND SOFTWARE

You will need a reasonable computer to view the image that you will create. It also needs a good monitor which is set up reasonably accurately in order to show colors as truthfully to the original as possible. I adjust mine by eye and with some

experience but I notice many people have horrible settings on their computers so it is worth getting a second opinion and sometimes I also use the original print source next to the monitor to compare. Photoshop is great software and is what I use but there are many others available that will do the job - freeware like Gimp is more than capable. I use an old 600 dpi Canon scanner to bring in a magazine page into the digital realm. Many of these items are quite common and as long as you can do basic image manipulation, show a grid, use a set of layers and zoom in and out on your computer you'll do just fine.



## SELECTING AN IMAGE

I select images to paint with two main questions in mind. One - is it a visually complex and interesting image? Two - what does the image say? Most photoreal painters are only concerned with the visual aspects when considering their work, but I believe that it is most important to say something other than 'here is something nice and complex to look at'. I would strongly encourage aspiring photorealist painters to look at Dutch art of the seventeenth century and its relationship with the community. It was capable of conveying almost every facet of the society from wealthiest down to the poorest. We should strive to do the same by bringing the good, bad and the ugly of our contemporary world to our work. One of the best ways to do this is to use other peoples work by appropriating images from books, magazines, newspapers, and the internet. I have painted my own photography and I encourage this in others but the sheer wealth of images is hard to ignore.

I believe that the first consideration should concern the technical merits of the image, specifically the sharpness and amount of detail, followed then by the composition and narrative. Many a time I have been asked to copy an image that just isn't suited to photorealism - it's been blurred by a shaky hand, or poorly composed by the center of interest being cropped awkwardly. I just say no and explain that it simply isn't good enough.

The second consideration should be the images 'message' that the average person would read. I have produced work that takes

This image is simply not suitable for a photorealistic painting due to the motion blur and all that refracted light of the water. The text would also present an incredibly difficult challenge to realistically 'clone-stamp' out.

this factor as my prime consideration. However this is a very personal subject and I can't 'teach' the answers to this.

There are other considerations however; is the image within the artists ability?, and if the image is not your own photography then the legality of copying it. The first question is something the artist must consider seriously because it can be incredibly frustrating to find some way into producing the work that you are way out of your depth and you have wasted a lot of hours with the only solution to abandon the work. If you aren't a professional artist and don't intend to sell the work then the legal question shouldn't stop you - go ahead and make art!



While the main cast is unlikely to return in future *High School Musical* films, "We'll all remain friends," says Efron (with Hudgens in a Bollywood-inspired number).



Peter Robinson posing beside this gorgeous Ferrari would be an interesting painting, it also is as sharp as a tack and removing the words and little graphic in the upper left wouldn't be too hard. It also has, I believe, a strong conceptual value because it talks about both wealth and beauty at the same time

I consider copying the photographic image to be making work 'after' the original photographer and a huge complement. They almost always have been

paid well for their work and if the work matches very closely the image they should be proud, if not I would question whether they were truly an artist or someone who does it purely for the money. I look to the Dutch art of the seventeenth century for a defence to this attitude - copying others work was the most important way for an apprentice to learn his trade. The rest of the history of art is full of copying others images, some extremely closely, some loosely.

When I was a young child my father had brought back this book simply titled 'Osaka' from his trip as a merchant seaman to this city. It was produced as a 'trade publication' for the 1970 Osaka World Fair. I spent

This is a stunningly beautiful image and would make an impressive work due to the sheer complexity of the composition. It would be difficult and time consuming to remove the text however.







One of the image's I will use to demonstrate photorealist painting techniques is the image of Osaka shown. I will go through, step by step, and explain as best as I can the process so you can see just how something so complex can be copied.

many hours looking at this book as a child. The images fascinated me, showing vast vistas of Japanese life and culture. This image in particular has lead me to appreciate the complexity of this type of photo and then to become a photorealist artist. I have had to wait until I thought my skills were at the level needed to give this important work in my oeuvre justice.

The image is so difficult that to do it accurately with less skill you must enlarge the scale of the work. I don't particularly like the really large, overblown proportions of much of contemporary art - it seems to be like a form of shouting. Now I will tackle this work with a certainty of purpose and immense confidence that will hopefully stand the test of many centuries to come. I also hope that others will appreciate this book on the painting of the image and maybe some can follow in my footsteps.

# COMPUTER WORK

For the Osaka painting, I scanned the image into my computer at 600 dpi. Unfortunately the paper it was printed on had a fine texture like canvas, so I had to use the dust and scratches filter (filter → noise → dust and scratches) at 2 pixels radius and a little gaussian blur at about 2 pixels radius to remove this first. It's quite common to have to use a similar process to remove the screen effect that modern day printing uses, so play around with these two handy tools first. Then when I am happy with the image and think it has that smooth

photographic look I save the original .bmp file as a .psd. Then I duplicate the original background layer, and using this layer (I'll give it a name like edge) apply the find edges filter (filter → stylize → find edges). Then still on the edge layer I then play with the brightness and contrast (image → adjustments → brightness/contrast) a little to remove the very fine 'textured detail' that is unnecessary. I then will need to decide on a scale to produce the work, so I spend quite a bit of time looking at the most complex passages of the photo in the drawing version, zooming in and out with one question in mind - can I draw and paint this section at this scale?

If I make the work too big, which is easier, it will lose a great deal of visual appeal I believe. So my goal is to reproduce the work on a scale which is 'just on' that limit of tightly packed detail. I decided that the

Osaka painting was not going to be able to be done on anything less than 120 x 128 cm. That means it fits nicely on a board (you have to allow some edge space for framing) which comes in 123 x 200 x 1.2 cm thick. With some of the smaller paintings like 'Carolyn Francis' I have painted on a smaller scale than I would have preferred. This is because a smaller size is faster to finish but more difficult to do well, and I like to challenge myself. If I were asked to do it to the most realistic scale I would have done it at 60 x 78 cm, instead of 20 x 26 cm.

I then set the image size to suit this (image → image size). I don't want to resample the image so I de-check the box and change the size to suit in the document size box. I then set my grid preferences (edit → preferences → guides, grids, slices & count) to use a 1 cm grid. This is a 'variable' but after many years of experience I almost always use this scale of grid because it makes for a more accurate drawing. Now I have one more thing left to do - drawing a blue colored dot on the centre of every fifth grid square. This is to make 'getting around' a little easier and helps reduce timely drawing mistakes. It's useful mostly in the drawing stage but it also gets used in the painting stage, although mostly this layer will be off.

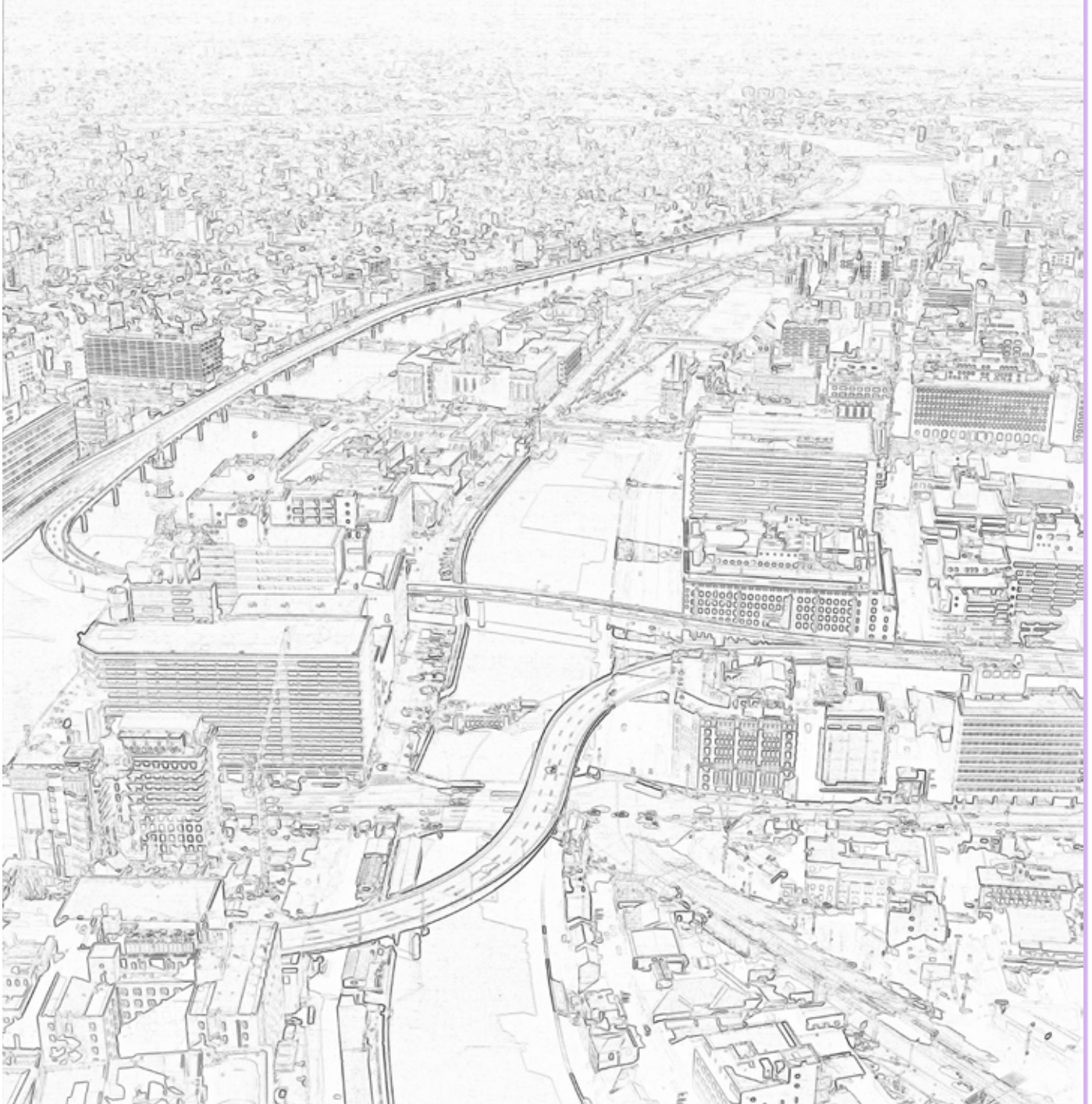


The find edges filter will provide you with a line drawing. It might not look 'right' but copying this somewhat abstract looking view of the image is the key to my technique. I can't stress enough how important it is to get the preparatory stages right. So make sure you always have a backup of the original image file before you go making adjustments. You should end up with a psd file with three layers, the original image as the background layer, the edge layer and the dots layer.

# DRAWING

## DRAWING A GRID

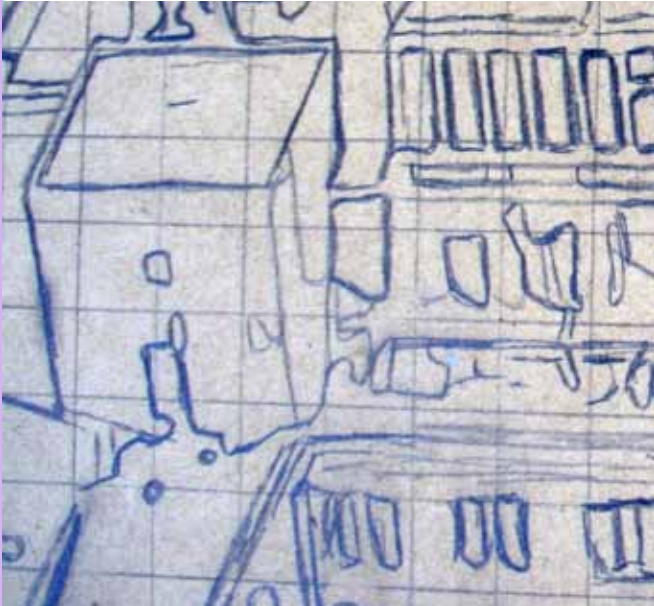
Now I get the MDF board, measuring it up and marking the basic outside dimensions of the image. There is a planned offset all around of around 12 mm which add's to the size and then I cut this with a circular saw. In all cases of my painting I only had to trim one side because I planned the size to fit the board. In all of the other cases I would make the image fit a store bought size.



The next step is to mark the grid up and if it is a smallish work (60 cm x 90 cm or less) then it is relatively easy as a 1 metre rule will cover edge to edge. However large boards are more difficult because you need to establish a smaller set of grids within the larger grid. This process requires a lot of measuring and checking because drawing the grid out by as little as 1 mm means you will face problems in the drawing of the image later. So getting this stage right is very important, so do as I do and measure and check and check again and if you make a mistake, rub the line out carefully with an eraser and redo it. It will take several

hours. Osaka took me eight hours. A smaller work like 'Carolyn Francis' or the 'old Yarra Glen railway station' should less than an hour including the time I would take in marking up the board to be cut and then trimming it from the larger sheet (I use 60 x 90 x 0.3 cm for small paintings).

I number every fifth square around my edges when marking out my grid and to aid in locating a particular square (there are 15,360 in Osaka) I carry this methodology into the internal squares by placing a small blue pencil mark in the centre of every fifth square. If you look closely you can see these.



## THE DRAWING

I usually start in the bottom left hand corner in a large work like Osaka, otherwise I will start with the most prominent or easy segment of the edge drawing layer. On a large work like Osaka I have to set the board up on my desk so that it sits flush with the front edge and the overhang on the rest of the board is supported with a couple of milk crates and an appropriate sized book.

The next step involves looking for long lines that form the edges of the major structural components in the small area that you will work on. You then start to mark those lines in. The basic methodology of photorealism (well my way at least) involves breaking the image down into these smaller versions by using a grid. So when you draw you measure by eye where a line fits in relation to its singular square.

Take the example above. I say to myself when analyzing the image on the computer (which is zoomed in to make the detail easy to read); that line begins a little below the halfway point of that square, slightly to the right of the centre of the square and rises ever so slightly across two squares and a bit, then it angles up to the right a bit and leaves that square slightly to the left of the centre of the square. Then with that in mind I draw the line, checking it against the computer image. I proceed to lay in most of the important, straight lines like this first, in my area of work (which often is only 5 x 5 cm). I also look for marks that are somewhat like a known figure, things like a letter or a numeral are the most common that I can recognise. This makes it easier to get their 'shape' right. In the example above I have noticed a stretched letter five and a letter J that form part of other forms. Marks that are easiest to place are drawn first, then the rest is drawn in. You don't have to finish one square before finishing another, sometimes it pays to 'take a line for a walk.'

One of the most annoying things about this process is it's easy to draw the small area of work in the wrong area. That's what the dots are for but even then you must check often that you indeed are drawing in the right location. So I often double check and even triple check by

counting the blue squares on the computer (say fourth square from the left, seventh square from the bottom) and then doing the corresponding to the board. There's nothing worse than drawing for an hour or so and then when you take a break and look at the full view of your work and realise - 'hey



that doesn't look quite right'. If this happens then rub it out and do it all again. I never said it was going to be easy. Much of what you see in the computer generated drawing is rather abstract and it is going to be quite difficult to draw. It pays to constantly look at the photographic version in order to understand just what it is you are drawing. However you should always attempt to copy as faithfully as possible the drawing image, and not draw what you think it should be.

The process of drawing a complex image such as Osaka is often best broken down into a simple square by square process as



I have outlined above, and when this is done very accurately you will have an easier time of the painting. However there are going to be times when the drawing is extremely abstract or detailed that it seems worthwhile to skip on the quality aspect. It can take me several hours to reproduce five squares wide by five squares high of such a chaotic tangle of lines and marks, but it makes painting the image so much easier. In my earlier work I would get disheartened at some of the more difficult drawing passages and when I came to painting found it was easier to do the drawing than try and paint it in. They were hard learnt lessons.

If I have to paint an image like the Carolyn Francis one where there are extremely abstract areas like the grass and trees I don't put anything more than a few 'markers' in the drawing. These markers will be large outlines of highly contrasting areas. The chaotic abstract areas would have been impossible to reproduce and I have to paint a 'likeness' in. These areas that are not drawn in are almost universally things like gravel, leaves, grass etc. I will spend a bit of time to explain the painting process for these areas in the painting chapters.

You have to discriminate however, not every mark gets put down because the 'find edges' filter finds even the slightest changes in tonality within the image and shows a line. So switch between the two views and decide for yourself whether it needs to be drawn in, a lot of it chaotic 'noise'. Which goes back to the question you will have to ask yourself when doing the first computer



work. (brightness & contrast adjusting after the find edges) - do I move the slider a little this way or a little that way? You need some experience to make these decisions but I believe it's best to leave a little noise in because you can always ignore it later. Even though I said that it's best to draw 'square by square', it's not always necessary and is easy to make 'wrong location' mistakes like this so I recommend drawing the long unbroken lines that may dominate a small or large portion of the image are that you are working on. Then you can return to fill in the small details, square by square. If you look at some of the photo's you can see many long lines that cross many squares. They are almost always drawn first when I move to a new section of the work.

With the Carolyn drawing (which is only 20 x 27 cm.) you can see that details like the tree and it's complex branches weren't even given an outline. When it came to work on these areas a simple dark wash of color was used to position the basic shape. From there I could still see the square's so I could still place the various features of the tree accurately. I still had to draw the important elements like Carolyn, the seat and the basic outlines of some of the graves. This particular work took 23 hours all up and only about two of them were needed for the drawing. This early stage of painting shows how in a photorealistic painting a simple few basic washes over a good drawing can make a painting begin to work very early in the process. Elements like the dress only required a few 'internal lines to position the elements which are then finished with more detail by the painting process.

When I drew the Vanquish painting I knew that the abstract textured areas of the gravel was impossible to draw so it needed was just the basic lines that denoted the cracks in the ground. As you can see this work uses a larger grid square and there are no blue dots in every fifth square. That's because this was done many years ago and was not part of my work practice. It pays to keep an open mind about techniques and to always consider any extra steps, or different approaches, in order to improve ones abilities. With the sheer number of windows in the buildings I had to make written notes about these - something brief like

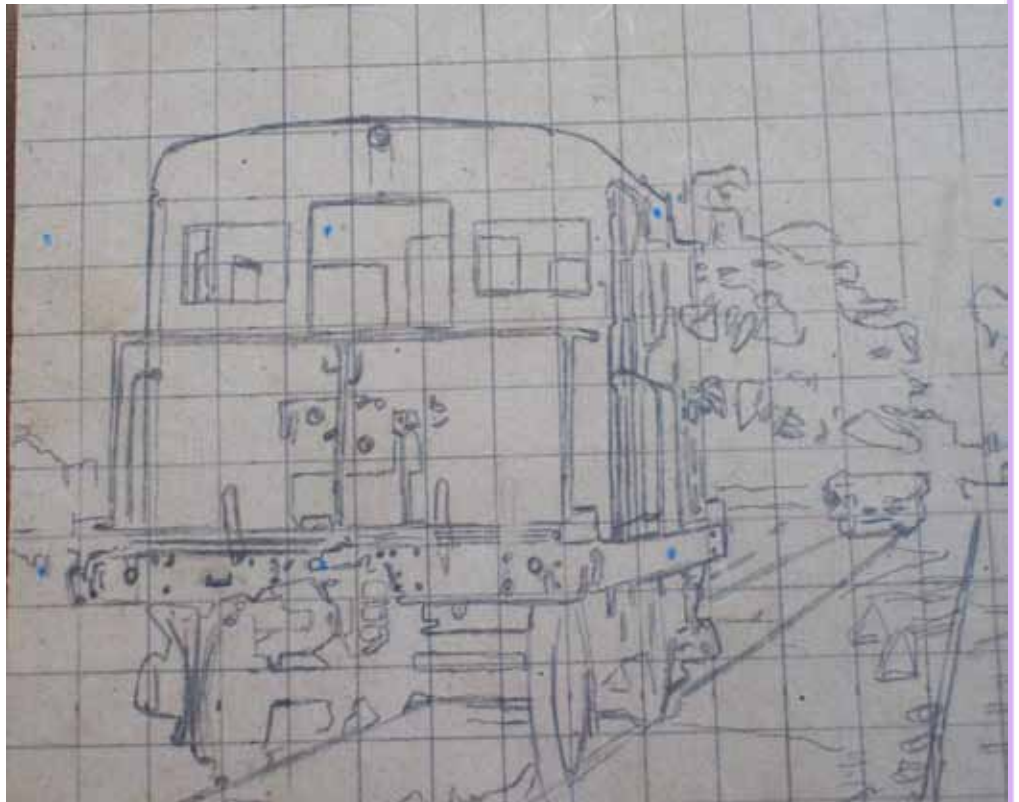


'32 x 54 for right building' so I could count them and check that I'd got it right.

Every new work will present new problems so sometimes you have to be flexible with your process.

With another small work like the Old Yarra Glen railway station piece I decided to take a little more time with some of the abstract elements like the trees in the background. Some of the detail was ignored but the basic outlines were drawn in. The grass in the picture was treated in a similar manner because it's only important to get the general

location of these sort of things as the painting process itself is where you'll refine and pick up the detail. That's a general rule I have - if it's highly detailed texture then just mark some basic, high contrast, elements in the position they'll take up.



A good photorealist painter knows that he is actually painting (and drawing) abstraction and then sets out to duplicate the close up abstract elements as accurately possible in the position of the picture that they occupy.

A work like Osaka doesn't really have much of this except at the top of the painting where the detail's in the distance become a blur the further they are from the camera. There are a few elements that stand out so they'll get drawn. The rest will be put in with the painting process.

The old railway station had a great deal of detail and it was necessary to choose where to apply it. The old locomotive was full of rust stains and patchy paint so many years of experience tells me that they too can forgo the drawing stage. However

elements like the basic outlines, windows and all the long lines that make up the handrails were deemed to be important to be drawn as well as the myriad of 'dots' and small circles. I find that because these have an ability to make the basic underpainting stages easier they are important and get drawn in with some accuracy. What happens is when you go to lay in a wash of color you can just paint around them and they'll still be there as you work on getting the color right and when that's done a little dab of color is all that's needed to bring them back up to the fore.

## BASIC COLOR THEORY

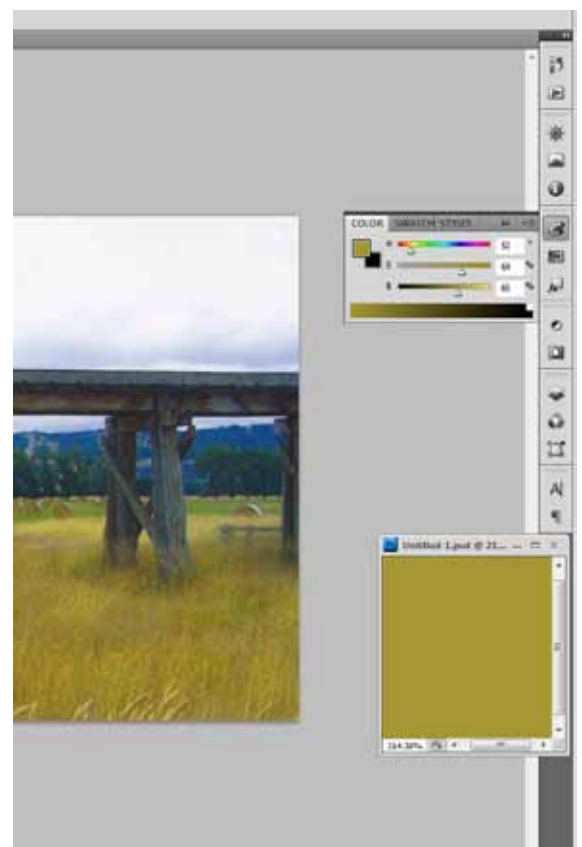
First I need to explain that 'color' in the terms I will use throughout the book has three properties. If you are familiar with an image editing program like Photoshop then you will know that a color can be measured and can be described numerically. You can change the method of displaying this information in several ways. They are RGB, CYMK, Lab and HSB. We will use the same concept as the HSB system of describing color. Any other ideas of primary, secondary or tertiary are also unhelpful.

HSB stands for Hue, Saturation, Brightness. They are the three separate properties that make up every color. Hue is the proper term that most people use to describe the family of color. When we are talking about color we should say it's a red hue or green hue, or even more accurately we should refine this to a red - orange hue in order to communicate its 'color'. Please do not call colors silly names like Irish moss green - that's what paint manufacturers call their products and it's not very helpful. Brightness (or value) is simply a scale of black to white values or lightness and darkness of a particular hue. Saturation (or chroma) is the scale of intensity or dullness of the hue, or it's sometimes referred to as a color's key. These concepts are difficult to explain in words and the best way of learning this is to use an image editing program and use the color picker, set to HSV and do just that, pick a 'color' in the big square box and then proceed to adjust the three sliders and observe the effect it has on the final 'color'.

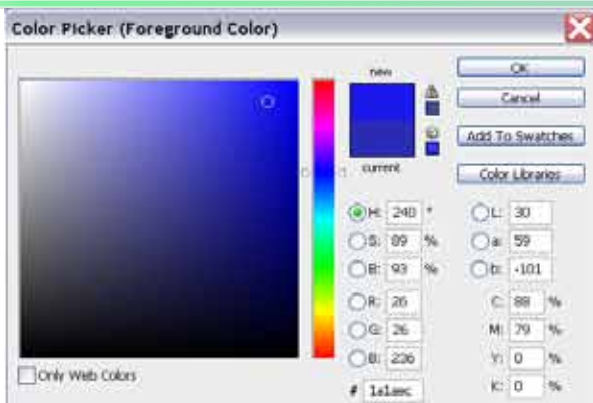
When I paint I mix a range of expected colors but this often grows considerably, so I utilise many palettes and organise them in groups of hue. I will refer to twelve hues - they are red, red/orange, orange, orange/yellow, yellow, yellow/green, green, green/blue, blue, blue/purple, purple, and purple/red. Most paintings will have three or four of these hues dominating the image and a few smaller areas will need the rest. The lesser needed hues can go in their own palette but it is important to keep a separate green palette, green/yellow palette and green/blue palette for a painting like Osaka which is primarily made of these three hue family's.

I'll analyze the image before making up my palettes up. I'll usually have one row of lower key of the expected range of brightness for a hue and one of more intense saturation. It pays to have many 'wells' in the ice cube trays as you soon find that you'll be modifying a color to suit a particular passage of paint then when you need that original color - it's gone. That's Ok - you'll get plenty of practice in color matching when painting photorealism.

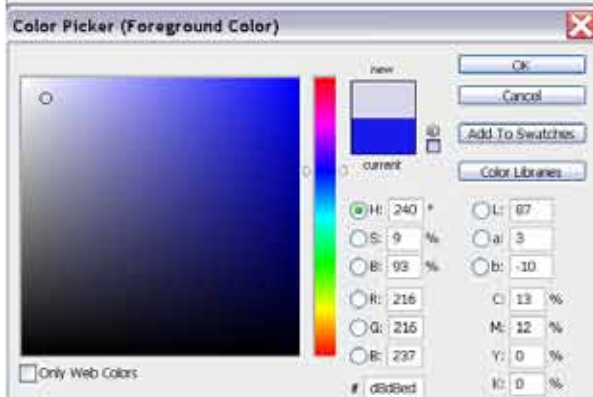
When I paint I use a small halogen desk lamp to illuminate my workspace, and when I go to mix or adjust a color I'll often hold the palette up under the light and compare it to the small image file that I use to display a currently picked color (I find photoshop's small square box in the color palette to be too small). I have the color picker always open and use the paint bucket to pour the sampled color into a small untitled file. The color palette tells me exactly what I need to know - just where the hue lies on the color wheel, its chroma and its brightness. - HSB - hue, saturation, brightness. It's very important to match your color's to what photoshop tells you, even when you think it's wrong.



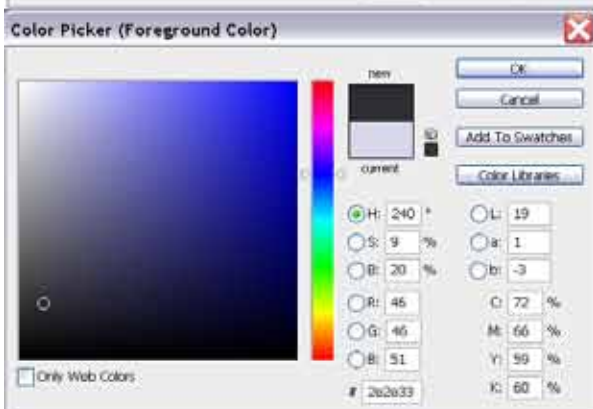




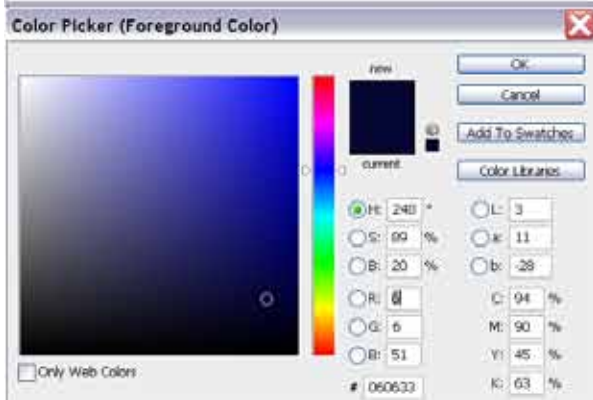
I picked a random, relatively high key blue to begin this demonstration of my approach to color. Notice that it is a blue that is ever so slightly biased towards blue/purple and it's 240 degrees around the Photoshop Color Wheel. It also has a saturation value of 89% and a brightness of 93%.



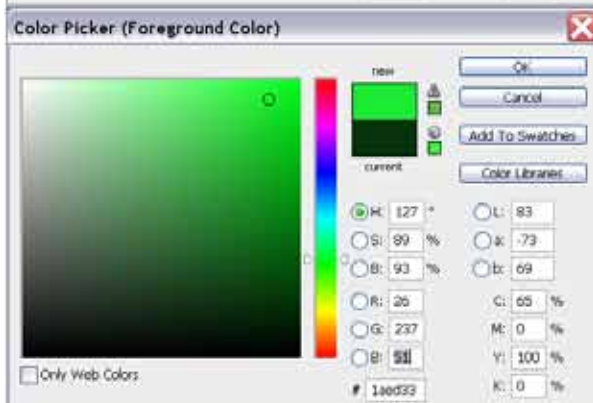
I have typed 9 into the Saturation box and this reduces the intensity of our 240 degree blue making it a dull blue, a very greyed out light blue. Note the brightness still remains at 93%.



Now I have altered the brightness to 20% which makes a very greyed out dark blue.



Adjusting the saturation to 89% makes a very dark blue. Note that each time I only adjust one of the three properties that makes up 'color'.



Finally I enter the same values as the first example used but now the 240 degrees is 127 degrees which gives us a green hue of the same saturation and brightness.

# PAINTING

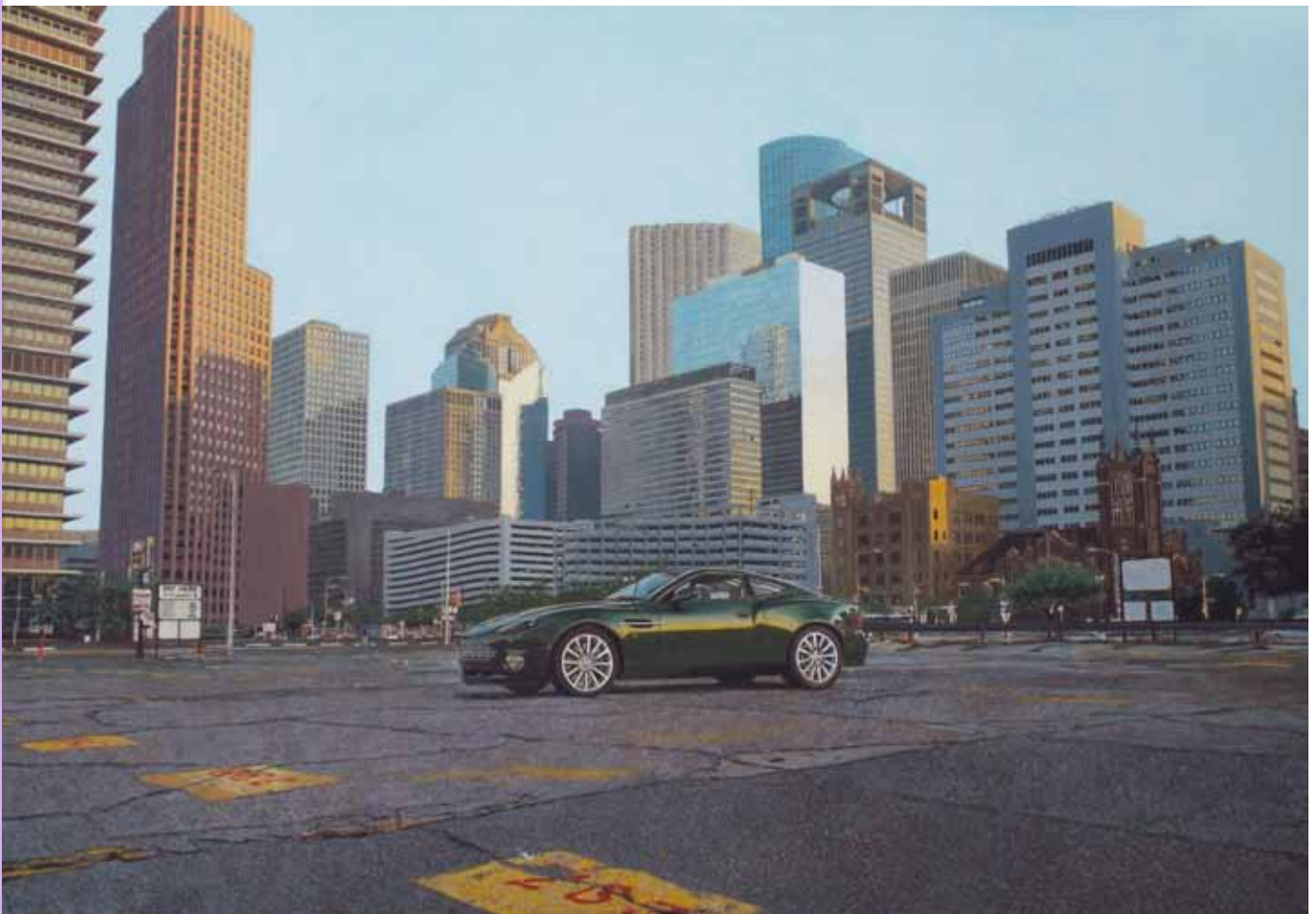
## GETTING READY

You need to think and plan ahead with your plan of attack. Analyze the image - are there broad areas of relatively unchanging color, are there any strong geometric shapes in the image or are there very abstract areas full of 'noise and chaos'. What, if any, colors dominate? These questions when answered will inform your plan of attack. You should paint large areas of relative unchanging color first, followed by strong geometric shapes, and then everything that's left can be painted in. So with these in mind you should place your drawn up board on a desk (or any horizontal surface really) and the computer monitor nearby with all your brushes, paints, palettes etc. at hand. This can be a challenge with large works. I have managed to do with what I have and if you are dedicated you'll find some arrangement. One word of advice - be very careful with paint, keep a towel underneath palettes if they are to sit on the board you are working on and be very careful not to knock them over! There's nothing worse than spending countless hours only for a moment of clumsiness to ruin it all.

## MIXING THE FIRST FEW PALETTES

With everything in place begin to mix those first few palettes of paint. I'll use one of my paintings - Vanquish as an example. First remember to organize your palettes according to hue. One each (sometimes I'll even have two) for a particular hue. In the case of Vanquish the sky was a blue purple, so I used ultramarine at one end of the tray and added a little black (to take the chroma out a little) and then used a brush to place a small amount of this base hue in the following wells. The sky was almost uniform but got paler towards the horizon. I would then add white in slightly differing quantities to give me a gradation of the same hue but different values.

I would then 'try them out' on the board in a somewhat thin wash of paint, not too thin but thin enough so it still leaves the grid easily visible. The problem with acrylic paint colors is they tend to dry a little darker than when wet so this is a test of your color mixing accuracy, but it is okay if you don't get it right first up, because there are many more layers going to be applied.



Lay broad flat areas down first and where they come up against detailed passages, take your time and use a smaller brush, being careful to paint up to but not to paint over the edge (don't fret when you do just use a cotton bud to clean it up). Painting the first layer or two of the sky in the Vanquish painting would have taken many hours so don't rush it. Once your happy with that first layer you can start to mix up the other palettes for the next most prominent or easy areas. I would have needed several for the buildings - red, red/orange, orange, orange/yellow, etc. - actually I would of needed to start mixing a lot of paint.

I have a word of advice don't be confident that a particular color is spot on in any of the three measurements - hue, chroma or value until your just about finished. Why? Because it's very difficult for the eye to judge or compare with the original until all the surrounding colors are painted in. So the process is one of gradually 'bringing up the paint' over the drawing. My paintings are on average made up of four or more thin layers of paint.

Take the example on the right this is taken at the halfway stage after maybe ten hours of work, the basic colors are laid in but not that accurate yet, you can still see the grid, (better in real life than with the camera) and from here on in you just use the view on the computer monitor to inform - 'what color, in what shape, and where'. Now that might seem a little weird but in this tutorial I can't foresee the many different challenges and problems that viewers of this work will come up against but I would always want to keep that previous statement in mind.



## WHAT COLOR, IN WHAT SHAPE, AND WHERE

The best photorealistic paintings have a certain abstractness to their quality. Zoom right into a photo and you should see what I mean, there is a somewhat chaotic bunch of different colored shapes essentially that when you take a more distant view coalesce into the real. This is the true key to my photoreal painting. I try very hard to paint those exact same qualities that my computer shows me. If you can see the passage you are working on as being what it is then a good solution would be to rotate the image 180 degrees in photoshop and work upside down or maybe just turn the work 90 degrees. I had to paint most of my larger paintings using this technique because I simply couldn't easily reach the far end of the board.

For chaotic areas like the gravelly asphalt in Vanquish I would have painted in the yellow parts, the red parts and the cracks etc. with a thin layer of paint and gradually layer by layer painted in an approximation of the type of chaos that I would see on the monitor. I would look back every few minutes or so at the monitor and see just the sorts of colors and 'motifs' that went into making the gravel look just like gravel. For areas like trees with leaves, if there is a basic drawing to follow - of say a prominent branch here and there, then you can quite satisfactorily replicate the original in the photo. Take your time and remember to follow the golden rule, - what color, in what shape, and where.

There are many techniques I use that are commonplace, hard edge, painting, wet in wet, blending, dabbing, dragging and wiping with my fingers, a rag or cotton bud. This tutorial isn't about these things (there are plenty of other books covering this) but explains the things what I do, that aren't common knowledge in the art world. And that's where I had to create my own techniques along the way. I have endeavoured to cover as much as I can but for many of you that take up the challenge of photorealist painting you'll encounter the same problems or new ones. I am quite happy to answer any questions you put to me but I would urge you to reread this and see if there are any hints already provided that you might of missed.